

Taking your first steps into higher education



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Introduction and guidance

Introduction and guidance

Taking your first steps into higher education is a free badged course which lasts 8 weeks, with approximately 3 hours' study time each week. You can work through the course at your own pace, so if you have more time one week there is no problem with pushing on to complete another week's study.

This free badged course is always available on OpenLearn. You can study whenever you wish and at a pace that suits you. At the end of each week a short quiz provides an opportunity for you to check your understanding. These short quizzes also prepare you for the longer quizzes at the end of Weeks 5 and 8. If you score over 50% on both these quizzes you can claim the Open University badge for *Taking your first steps into higher education*.

Week 1 provides an overview of the course and gets you to think about what you might get out of it.

Weeks 2 and 3 introduce what it's like to study arts and humanities subjects at university.

Weeks 4 and 5 introduce what it's like to study social science subjects at university.

Weeks 6 and 7 introduce what it's like to study science, technology and maths at university.

Week 8 looks back over the course and encourages you to think about your next steps.

After completing this course you will be able to:

- demonstrate a basic understanding of what is meant by higher education and the nature of study at this level
- demonstrate an understanding of a range of basic facts, ideas and theories associated with the arts and humanities, social sciences and science, technology and maths
- recognise and use some of the basic terms and concepts associated with these subjects
- use and apply routine skills associated with these subjects
- recognise your own personal skills, interests and preferences relating to higher education study
- plan and review your study pathways to link your learning with your own personal or career goals.

Moving around the course

The easiest way to navigate around the course is through the 'My course progress' page, you can get back there at any time by clicking on 'Go to course progress' in the menu bar. From the quizzes click on 'Return to Taking your first steps into higher education'.

It's also good practice, if you access a link from within a course page, including links to the quizzes, to open it in new window or tab. That way you can easily return to where you've come from without having to use the back button on your browser.

What is a badged course?

While studying *Taking your first steps into higher education* you have the option to work towards gaining a digital badge.

Badged courses are a key part of The Open University's mission *to promote the educational well-being of the community*. The courses also provide another way of helping you to progress from informal to formal learning.

To complete a course you need to be able to find about 24 hours of study time, over a period of about 8 weeks. However, it is possible to study them at any time, and at a pace to suit you.

Badged courses are all available on The Open University's [OpenLearn](#) website and do not cost anything to study. They differ from Open University courses because you do not receive support from a tutor. But you do get useful feedback from the interactive quizzes.

What is a badge?

Digital badges are a new way of demonstrating online that you have gained a skill. Schools, colleges and universities are working with employers and other organisations to develop open badges that help learners gain recognition for their skills, and support employers to identify the right candidate for a job.

Badges demonstrate your work and achievement on the course. You can share your achievement with friends, family and employers, and on social media. Badges are a great motivation, helping you to reach the end of the course. Gaining a badge often boosts confidence in the skills and abilities that underpin successful study. So, completing this course should encourage you to think about taking other courses.



How to get a badge

Getting a badge is straightforward! Here's what you have to do:

- read each week of the course
- score 50% or more in the two badge quizzes in Week 5 and Week 8.

For all the quizzes, you can have three attempts at most of the questions (for true or false type questions you usually only get one attempt). If you get the answer right first time you will get more marks than for a correct answer the second or third time. Therefore, please be aware that for the two badge quizzes it is possible to get all the questions right but not score 50% and be eligible for the badge on that attempt. If one of your answers is incorrect you will often receive helpful feedback and suggestions about how to work out the correct answer.

For the badge quizzes, if you're not successful in getting 50% the first time, after 24 hours you can attempt the whole quiz, and come back as many times as you like.

We hope that as many people as possible will gain an Open University badge – so you should see getting a badge as an opportunity to reflect on what you have learned rather than as a test.

If you need more guidance on getting a badge and what you can do with it, take a look at the [OpenLearn FAQs](#). When you gain your badge you will receive an email to notify you and you will be able to view and manage all your badges in [My OpenLearn](#) !Warning! **Tahoma not supported** within 24 hours of completing the criteria to gain a badge..

Get started with Week 1.

Week 1: First steps

Introduction

!Warning! Tahoma not supported Welcome to Week 1 of *Taking your first steps into higher education*. This week introduces you to the course and encourages you to think about what you might get out of it.

!Warning! Tahoma not supported Watch the introductory video from the lead author Jonathan Hughes as he introduces the course and this week.

Jonathan also gives a brief introduction to the two social science weeks. You will need to return to this part of the video clip, or you could make a note of any thoughts you have about social science. You will use these in the first activity in Section 4.

Video content is not available in this format.



In this first week you will:

- learn about the assumptions this course is based on
- gain an understanding of the importance of personal expectations about university
- consider some important questions you should ask
- start to recognise some differences between broad subject areas.

The course draws on carefully selected material from The Open University's [Access modules](#). Access modules and other Open University courses are different from this course in some important ways:

- they have to be paid for (but there are fee waivers for the 30-credit Access modules, so the majority of students receive support to study Access modules for free)
- once you have progressed beyond the 30-credit Access module, the credits can be counted towards a degree or other qualification
- they start and finish at set times
- study is supported by a tutor who marks your assignments.

The Open University would really appreciate a few minutes of your time to tell us about yourself and your expectations for the course before you begin, in our optional [start-of-course survey](#). Participation will be completely confidential and we will not pass on your details to others.

1 Some assumptions



Figure 1 Assumptions often act as starting points

This course makes a number of important assumptions about the people who will be studying it:

First assumption

You are already thinking about higher, or university level, education. This seems a reasonable assumption – why else would you be looking at this course?

Second assumption

You may be open minded (to put it positively) or undecided about what sort of subject you think would suit you best or that you would most enjoy.

Third assumption

You are hoping to have a better career if you hold a degree qualification. It is a widely shared assumption and may be why you are thinking about higher education (HE). It is a perfectly respectable reason for thinking about studying a degree course. Universities have always had a link with employment since the Middle Ages when they were set up to train priests.



Figure 2 Universities have always prepared students for work

Fourth assumption

You have not thought about university until now for a particular reason. You might have been thinking that somehow university was 'not for the likes of me'. Perhaps you had the idea that you were 'not up to HE' because you missed out when you were at school or perhaps other aspects of life have got in the way.

Two further assumptions played a part in how the course was designed:

- Informed choice plays a big part in determining success, not least success in higher education.

This course aims to make your choices well informed by giving you a taste of what university study in the twenty-first century is like. You may not have been in

education for a while – in which case it is important to be aware of some of the key changes that have been taking place. Perhaps you remember your school days very well and how you were taught then. It is important to appreciate that today there is now a strong emphasis on developing study skills to help you understand the world rather than on just filling you up with knowledge.

- Learning needs to be active – so there are lots of activities in this course.

I'm going to stop making assumptions about you and share a couple about the course:

An assumption about this course

Our main assumption is that informed choice plays a big part in determining success, not least success in higher education.

The course aims to make your choices more informed by giving you a taste of what university study in the twenty-first century is like. You may not have been in education for a while – in which case it's important to be aware of some of the key changes that have been going on.

Perhaps you may remember your school days very well. In which case, it's important to appreciate that there is now a strong emphasis on developing study skills that help you understand the world rather than just being filled up with knowledge.

Another assumption about the course

The final assumption is that learning needs to be active – so there are lots of activities in this course.

2 Active learning

Taking your first steps in higher education will encourage you to question things, just like you are expected to at university – to take everyday knowledge and look at things in a new light. This includes real-world problems and issues (such as who we are and how do we get on with other people).

Studying at university can provide unparalleled opportunities to:

- see the world through fresh and different eyes
- experience the excitement of learning
- open up new vistas to explore
- experience the challenge of new ideas
- begin to develop a critical stance about events.

As mentioned earlier, we believe that learning needs to be active. To enable you to be an active learner, we have provided a number of activities. The activities are central to what you will get out of this course, as they are opportunities for you to think about your own learning rather than just being told what you should know. It will be helpful if you have a notebook you can use so that all your activity answers are in one place. The activities differ from the quizzes, which act as a check on your understanding of the course materials. You don't need a notebook for the quizzes.



Figure 3 Not what university study should be

2.1 Higher education – some options

The following activity aims to get you to start thinking about the sheer variety of places that provide higher education. Be aware of this variety, it is an important starting point to enable you to take your first steps into university.

Activity 1 Expectations about university

Allow approximately 15 minutes.

Have a look at the five pictures of English universities and colleges. Then answer the questions that follow in your notebook.



Figure 4 The dreaming spires of University of Oxford – a university that dates back to the Middle Ages



Figure 5 University of Birmingham – a 'civic' or 'red brick' university



Figure 7 University of Wolverhampton – has been a university since 1992



Figure 8 Open University Graduation Ceremony – celebrating success and hard work

Figure 6 Furness College – a further education college which also offers higher education

1. Which pictures do you most associate with the word 'university'?
2. Which pictures can you imagine yourself in most easily?
3. Which of these settings can you see yourself fitting?
4. Why was a picture of a further education college included?
5. Have you ever considered The Open University as an option?

Discussion

This activity aimed to get you thinking about two important aspects of your first steps into higher education. The first focuses on the fact that there are many different types of university and that you may find it easier to imagine yourself in some rather than in others.

The second is that it's important that you work out what is important to you. Only you know what your needs and circumstances are.

3 What's right for you?

The activity you have just completed highlighted that there are lots of different types of universities. This variation has come about over the last few decades as more and more people have been encouraged to go into higher education. The best-known statement about this was the aim of the Labour government elected in 1997 that 50 per cent of 18–30 year olds should go to university. Although this pledge no longer underpins policy, it is the case that about half of school leavers now go to university.

Knowing that there are different sorts of university is a good basis for making your decisions about HE.

This leads on to the next activity. It's important to be clear what's right for you. For example, the reasons why you might imagine yourself at Wolverhampton University rather than the University of Oxford might be that you want to go somewhere local because you have work or caring responsibilities that would make it difficult to move to another area.

Activity 2 What are the important questions for you?

Allow approximately 20 minutes

This activity builds on the previous one but here the focus is on working out what's important for you. Having a clear idea of this is vital in order to be able to take your first steps.

Listed below are questions you might find helpful when deciding what sort of university would suit you best. Note some answers in your notebook.

1. Are you able (or do you want) to travel? If so, how far?
2. Do you need to balance study with work?
3. Do you need to balance study with other responsibilities (e.g. family)?
4. Would studying at a local college suit you best?

Discussion

You should see these questions as just a starting point. It would be really useful if you came up with a list of questions that address all the things you need to think through in order to answer the basic question of '**where** should I go to university?'

4 What should I study?

!Warning! Tahoma not supported So far in this first week of *Taking your first steps into higher education*, the focus has been on why you might be thinking about HE and the range of places that now provide university level opportunities. These are aspects that you should explore in more detail for yourself.

The focus of *Taking your first steps into higher education* is to help you make a well-informed choice about what to study. To get you thinking about this, watch the [introduction video](#) again, but this time pay particular attention to the part that introduces Weeks 4 and 5. Then come back here and watch the following short videos which include the other two authors of this course: John Butcher and Laura Hills. These videos outline some of the key features of the broad subject areas.

Video content is not available in this format.



Video content is not available in this format.



A key aim of this course is to introduce the important differences, and to reflect on the overlaps, between learning in the arts, the social sciences and the sciences. So, this course will help you consider what fits best to your interests and aspirations.

Jonathan and John and Laura each outline what they see as the key features of the broad subject areas:

John Butcher	Arts and humanities
Jonathan Hughes	Social sciences
Laura Hills	Science, technology and maths

John, Jonathan and Laura talk about their subject areas in order to encourage you to see this as an area of study that you might be interested in. This means each subject area is presented really positively.

Once you have watched the video clips please do the following activity.

Activity 3 Which subject area?

Allow approximately 30 minutes.

This activity aims to get you thinking about what subjects you might prefer to study.

1. For each broad subject area note down one thing that you remember and if that thing is a 'plus point' as far as you are concerned.

For example you might write:

Arts: gives me a chance to understand my responses to works of art

2. Which subject area most connected with your current interests?
3. Which subject area tends to provide definite answers?
4. Which subject area tends to raise questions you find most interesting?
5. Is creativity important to you?

Discussion

This activity has given you a very brief overview of the three broad subject areas. These overviews have been deliberately biased in order to stimulate their thinking. The rest of this course looks at each of the three broad areas in a little more detail and gives a range of opportunities to engage with the sort of study that you can expect to come across at university.

5 This week's quiz

Well done, you've just completed the last of the activities in this week's study before the weekly quiz.

Go to:

[**Week 1 practice quiz.**](#)

Open the quiz in a new tab or window (by holding ctrl [or cmd on a Mac] when you click the link).

6 Summary

This first week of the course has opened up a lot of important issues that are inextricably linked with going to university. It has briefly looked at the reasons why people choose to go to university and the range of places that now provide higher education. It has also asked you to start thinking about which broad subject discipline areas you might prefer. It has also provided a context and understanding that is vital in university level study. It has highlighted that there has been a large increase in the number of people going to university and that there is a debate about whether university is just about getting a better job.

In addition, the three videos from the authors should have alerted you to the need to keep an open mind as well as to the importance of being critical about what is presented to you. These are both key aspects of study at university.

Another important aspect is reflecting on what you are learning. The course aims to offer opportunities to reflect on both your learning and on where you want to go in the future. The Week 1 quiz provided an opportunity for you to reflect on your thoughts about higher education at this point. You will come back to this reflection when you reach the end of the course so that you can see what you have gained from it.

You can now go to Week 2.

Week 2: Introducing the arts and humanities through poetry

Introduction

In the following video, Weeks 2 and 3 author, John Butcher introduces this week's study. While watching, think about your experience of studying poetry at school, and of any preconceptions you may bring with you.

Video content is not available in this format.



You will now focus on what it's like to learn in academic subjects that might broadly fit under the description of arts and humanities. If you already think you know you might choose to study in a different area from the arts and humanities, these two weeks will provide an interesting insight into some of the key academic skills vital to success across the disciplines – and we believe, from experience, it is worth knowing what the prevailing approaches to study in the arts are: all students might learn something new.

This week you will:

- identify the higher education subjects grouped as arts/humanities
- use personal response and critical reading as learning approaches in the arts
- discover a range of poetic techniques – rhyme, repetition, surprising language (e.g. imagery using metaphors and similes)
- explore some of the elements found in the sonnet form
- apply the study diamond to analyse effects, techniques, context and meaning in poetry
- develop your study skills.

Remember that you will need your notebook to hand to record your response to the activities in this week of the course.

1 What is learning in the arts and humanities like?

So, what might learning in the arts and humanities in higher education (HE) involve?

The arts and humanities have proven popular and significant academic subjects over the centuries. Most UK universities currently offer degree studies in a wide range of arts and humanities subjects – although different universities will include their own combination of subjects. Within each subject the range of topics covered will vary, reflecting the interests of teachers. These subjects are likely to include:

- English Literature and Language (sometimes with Creative Writing)
- History (perhaps including History of Science/Technology)
- Music
- Art History
- Religious Studies
- Philosophy
- Classical Studies.

Some universities will also include creative disciplines like Fine Art or Dance, while others will include Modern Foreign Languages. For reasons of space we have not introduced the quite distinctive models of learning found in those subjects.

For students new to the arts in HE, some of these subjects may be quite familiar from school, while others may never have been encountered before. Years of research at The Open University tell us that students are likely to end up being excited and challenged by the new. Engaging with new ideas is, after all one of the key purposes of HE.

In HE two specific and important approaches can be found in the arts and humanities:

1. personal response
2. critical reading.

The following sections and activities will introduce the importance of reading critically, and of articulating a personal response to what you read. Because the course lasts only a few hours, I will focus on one subject this week – literature – and because I want to prompt you to think about learning in an area less familiar to most new students, you are going to look at poetry to see if you can get a feel of what it will be like to be a student in the arts.

2 What is poetry?

Are you one of the people who remembers enjoyment from learning a poem at primary school or perhaps the group reading of a nonsense poem? Or did you engage with a poem which really struck a chord emotionally during your teenage years?

Unfortunately, for too many, studying poetry for the purpose of passing exams puts people off for life. If this is you, it is worth remembering that the pleasure of poetic repetition in a Dr Seuss book for young children, or the evocative line about love or loss carried from a pop song heard in the teenage years, can provide insights into how poetry works. To take a first step into learning about poetry, let's start by bringing in some of your current thoughts and preconceptions.

Activity 1 How do you feel about poetry?

Allow approximately 10 minutes

I would like you to reflect for a few minutes on how you feel about poetry. In your notebook, jot down a few sentences, responding to the following prompts:

- How do you feel about studying poetry? Thinking back, did you enjoy poetry at school?
- Are you a reader of poetry?
- Do you approach poetry with trepidation because it appears 'difficult' or irrelevant?
- Do you have a favourite poem, or song lyric that you can remember? Is there a short piece, such as an advertising jingle, that sticks in your mind?

Discussion

Did you find that choosing a text and recording, whether you liked it or not, was easier than saying why the text is memorable?

If you thought immediately of a particular song lyric that is memorable for you, it is worth having a copy of the words in front of you as you work through week 2, and consider the extent to which lyrics might exhibit the kind of sophisticated language techniques which are worthy of study in HE.

It can sometimes be hard to say what makes you like or dislike something, and it can be harder still to spot what it is that makes you remember it. My favourite poems are probably from the 17th century, written by John Donne and Andrew Marvell, and the early 19th century, by John Keats. If I am honest, it is because they are so sensuous. By using words in startling juxtapositions they can evoke the headiest moments of romance (perhaps even desire) in a way that is utterly memorable. Other teachers will suggest markedly different favourites though – and for different reasons! Here are the answers that one student gave:

I remember the line, 'Water, water, everywhere, nor any drop to drink' – though I do not know where these words come from.

I like this line. It makes me think of being on a boat, in the middle of the sea.

It is harder to think about why this is memorable. It makes me think of a small boat in a vast sea, and this image has stuck in my mind. I learned it when I was very young. I do not really know why I remember it.

If you look at the sample answer above, you can see that it is the picture or image this student's chosen text has produced in their head that has helped them to remember the line 'Water, water, everywhere, nor any drop to drink'. (Incidentally, this line is from a poem called 'The Rime of the Ancient Mariner' by Samuel Taylor Coleridge.)

You may feel differently to other learners about this reflective activity. Your response might have included words like 'excited'. Or perhaps you used words like 'worried'; many students feel that poetry is the most difficult type of creative writing to understand, so do not be concerned if this is your initial response. It is good to make a record of your feelings at this stage as this will give you something to refer back to once you have begun to engage with the material that follows.

2.1 Feelings about poetry



Figure 1 The connection between love and poetry

Many adults claim to not be readers of poetry, but it is interesting that the web is awash with thriving poetry sites, and that at family or public moments of celebration (perhaps the father of the bride's speech at a wedding) or condolence (a funeral oration) a poem is often quoted.

It is certainly true that some poetry can appear difficult, but also true that learners can acquire the skills to unlock the most challenging text – and it is undoubtedly true that much poetry is accessible. The fact that some poetry is centuries old, and written in what can appear archaic language, need not be a barrier. Just as many great paintings are centuries old – we just, as learners, have to work a little harder to understand the context in which they were produced.

2.2 Poetry is powerful

The purpose of Activity 1 was to get you to start thinking about why you react to a specific text in a particular way. In doing so, you are considering the effects the text has on you and trying to think about why the text affects you in that way. Any text you have chosen here is memorable to you for some reason and has created a response in you. That response, be it positive or negative, is produced by the effects of techniques used in the text.

Of course, different people will like different texts; we will not all respond in the same way to the same poem, song or advertising jingle. The techniques used will affect us all in different ways, otherwise we would all have the same opinions. What you are encouraged to think about when studying poetry is *why* you like or dislike a text. With practice, you will be able to give answers to this question in relation to any poem you study. You will be able

to spot a particular poetic technique or a poetic use of language, whether or not you like the result it achieves. You will be analysing poetry.

Whatever your thoughts about poetry, there is no shortage of poetic writing around in everyday life. A glance inside many greetings cards will reveal a rhyming verse intended to capture feelings in a compressed way.

Often these can be funny or sentimental, but they are seeking to do what poetry aspires to – evoking an emotion through words organised into some kind of coherent structure. Take a look for yourself at some of the lyrics found in popular music.

Often simple images are being evoked, but the most memorable can capture a feeling which can stay with a listener for a lifetime. Poetry is powerful, often because it is concise, it can make us feel differently about something in a way in which a government report or even a piece of journalism cannot – which makes it an important topic of study in literature.

Activity 2 Impact of poetry

Allow approximately 10 minutes

Here's a short clip from YouTube.

Listen to the poet Robert Frost reading his own short poem *Fire and Ice* recorded in the 1920s.

View at: [youtube:zzU7_NiApvs](https://www.youtube.com/watch?v=zzU7_NiApvs)

(*'Fire and Ice' Recited by the Poet himself! Robert Frost Poem Taught in SFHS's Literature Classes*, 2013)

Having listened to the poem, what is your initial reaction? Jot down some thoughts addressing the following prompts:

- Consider the impact on you as a reader/listener – did you like it?
- What do you think the poem might mean?
- What effect did the poet's own readings have on you? Did it help you to understand the poem?
- Did you notice the tone change at any point?
- To what extent might the poet deliberately **not** be using language literally?

Discussion

My response to those prompts might be:

- I think I like the poem, but I am intrigued and need to consider it a few times. This seems to be a deceptively simple nine line poem, written in plain, everyday language.
- The first four lines appear to discuss the end of the world, whether through a return of a Great Ice Age, or a fiery holocaust.
- The speed at which the poem was delivered, and the different emphases put on certain words and phrases, does make me think slightly differently about the meaning. I find myself reflecting that the poet's reading helps me make more sense of the poem – perhaps because his voice grabs my attention.

- But there is a subtle 'turn' in the middle – the word desire seems to shift the discussion to human emotions, in which passion (hot) is potentially destructive, but indifference (coldness) has an even greater destructive quality.
- So the language is not as simple as it first appears.

Already, I hope you are starting to find it exciting, forming your own personal response to literature, in this case a poem. This is a key aspect of learning across the arts. You will now be able to understand the challenge of engaging in *critical* reading when studying poetry – providing detailed analysis to justify your response.

2.3 The effects of poetry

Poetry can appear deceptive to many learners. It is often quite brief (certainly compared to, say, a novel), and it uses everyday language, but in a way that is somehow different, and the effect on a reader is also different. Sometimes, the poem's brevity is the basis on which a poem's message is conveyed particularly powerfully. At times, the words become more memorable because of the 'shape' of the poem. And often, the words in a poem can provoke a reaction, in a way in which the 'everyday' language of prose would not.

I think there are three specific uses of language which a learner in HE might want to look for when reading a poem for the first time.

- **rhyme** – by which the final sounds on lines are alike, maybe in a consistent pattern
- **repetition** – of words or sounds
- playful or **surprising language** – puns, imagery as expressed through similes and metaphors.

It is important not to assume poetic language can be taken for granted. When studying literature, especially poetry, the use of puns, or of imagery expressed through similes and metaphors, is a bit like the 'elephant in the room', and it is important that you comment on such language, and not ignore any examples.



Figure 2 Sometimes studying poetry needs you to say 'there is an elephant in the room' and not take the poetic language for granted

3 Learning to engage with a poem

Here is a poem to illustrate how it is possible to engage with the poetic techniques of rhyme, repetition and imagery. Many of you may already know it. Read it through two or three times, with a degree of concentration and remember, in HE, sometimes you just have to jump and challenge yourself!

Sonnet 18

Shall I compare thee to a summer's day?
Thou art more lovely and more temperate.
Rough winds do shake the darling buds of May,
And summer's lease hath all too short a date:
Sometime too hot the eye of heaven shines,
And often is his golden complexion dimmed;
And every fair from fair some time declines,
By chance, or nature's changing course, untrimmed
But thy eternal summer shall not fade
Nor lose possession of that fair thou owest;
Nor shall Death brag thou wanderest in his shade,
When in eternal lines to time thou growest.
So long as men can breathe or eyes can see
So long lives this, and this gives life to thee.
(William Shakespeare, 1608 [2002])

Activity 3 Shall I compare thee ... ?

Allow approximately 10 minutes

Start by reading the poem out loud. Try it, and as you do so, think carefully about the punctuation and use it to help you with pauses/breaths as much as possible. Consider what your voice does at the question mark (line 1), and how to deal with the colon taking you from line 4 to 5. What is your voice doing in the final two lines? Now spend a couple of minutes concentrating on the written text – can you start to identify any poetic techniques such as rhyme, repetition, or use of language in which imaginative comparisons are made? Write some notes addressing these questions in this answer box (you don't need to include these in your notebook, they are just for the purpose of this activity).

Provide your answer...

Discussion

Rhyming is particularly noticeable if the rhymes occur at the ends of consecutive lines – termed a rhyming couplet (note the final two lines of the sonnet). In many poetic forms, the poem is divided into verses (also called stanzas) with a set number of lines. Often, the poem features the same rhyming pattern in each stanza, and when analysing poetry in degree study it is customary to ascribe a different letter for each new rhyme in a stanza to describe the pattern, or **rhyme scheme**. The first four lines of this sonnet could be described in a pattern of abab (a = ‘day’ at the end of the opening line, which rhymes with ‘May’ at the end of the third line. b = ‘temperate’ at the end of the second line, which rhymes with ‘date’ at the end of the fourth line).

Sometimes, you will spot a rhyme within a line – this is referred to as internal rhyme, and can be an effective way to draw attention to an image, particularly if there is not an end rhyme. Strong or obvious rhymes can draw attention to an idea, especially if the rhyming words oppose one another in meaning. Less obvious or ‘half-rhymes’ may be used sparingly by poets to suggest uncertainty (‘Sometime/shines’ line 4).

Repetition in poetry can be a powerful technique, because the repeating of words or sounds can draw attention to a specific section, and thus impact on the reader’s response and the meaning we ascribe to it. In this sonnet, the repetition of ‘fair’ within line 7, and again in line 10, emphasises the poet’s feelings about his beautiful lover. Analysing the deliberate repetitions can be part of interpreting the intended meaning.

Being alert to the deliberate use of **playful/surprising language** is an important element of engaging with poetry in HE. Sometimes this can be through **imagery**, by which the writer uses language to convey a visual picture or represent a sensory experience. It is a key element in poetry, as it can communicate in a vivid and innovative way, generating a precise picture rather than a vague suggestion. Imagery can be literal: describing through the senses; or figurative – calling to the reader’s mind real things representing an abstract idea. Poets use **metaphors** (associating two unlike things, one representing the other). In this poem, Shakespeare plays on the idea that the sun is ‘the eye of heaven’, bringing a ‘golden complexion’. The sun represents the perfect summer – but our emotional response is undermined because, unlike his lover, the sun can be excessively hot, and the impact of the sun fades with autumn. His lover is more lovely even than that perfect summer’s day. Poets also use **similes** (comparing two essentially unlike things using a comparative: *like* or *as*) to intensify significance and appeal to the readers’ senses or emotions.

Shortly, I will introduce a powerful tool through which to approach a poem (and indeed other works of art) – but first, a challenge.

Activity 4 A challenge

Allow approximately 5 minutes

Listen to an actor reading the same sonnet. (It is David Tennant and I would encourage you to listen to this more than once!)

Reflect on the extent to which your initial personal response changed the more you thought about how the poem worked. If it helps, it might be worth thinking about some specific uses of language which might be less familiar to us in the 21st century:

Line 2 ‘temperate’ = moderate/mild

Line 4 ‘date’ = period of a lease

Line 10 'that fair thou owest' = the beauty that you possess (own)
Line 12 'lines' = the lines of this poem. 'Growest' = become part of.

Activity 5 Reflecting on a poem

Allow approximately 20 minutes

Now, use your notebook to address the following prompts:

1. What is the poem about – how would you sum up what it is trying to say?
2. Does the rhyme scheme remain the same throughout? Write out the pattern (starting abab).
3. Can you find examples of the repetition of words or sounds?
4. What effect does the poem have on you?

Discussion

The first response is likely to be to reflect on what the poem is about. Equally and inevitably your interpretation will differ from others'. This is a feature of learning in the arts, where, unlike learning in the sciences, there is no single 'right way' to read a poem – it is a matter of justifying your personal response, alongside a 'critical' interpretation through careful reading.

Shakespeare's poem uses words in a more patterned way than prose, patterns which arise from rhyme, repetition and imagery. As readers, we are able to share in the experience described (which might be an event, or the poet's inner thoughts, or feelings). I think poets make words work harder – by suggesting, in a concise manner, different layers of meaning. And crucially, as we will see shortly, what is said cannot be separated from the way it is said – so attention needs to be paid to the different ways words are used to create meaning. It is important to be conscious that a poet draws on the full potential of words and how they are placed in relation to one another, known technically as in **juxtaposition**. Poetic language can speak or refer back to itself, and learners need to become alert to the way that highly concentrated language amplifies and intensifies the effect of the poem.

This poem, is a **lyric** poem (a short poem expressing a poet's feelings with particular intensity), written in the sonnet form. Sonnets almost always comprise of 14 lines, each line usually consisting of ten **syllables** (identifiable parts of pronunciation having a single vowel sound, for example 'golden' has two, 'complexion' has three) in a regular pattern of paired syllables termed **iambic pentameters**. The sonnet form originated in Italy in the 14th century, utilising a common rhyme scheme which we know as the **Petrarchan** (*abbaabba cdcddc*). Shakespeare adapted the form to his own preferred structure, one closer to speech patterns in English: three **quatrains** (groupings of four lines within the single stanza) and a **rhyming couplet** (this is described as a rhyme scheme of abab bcbc cdcd ee, the different letters signify each new rhyme ending in the poem).

As you embark on your studies in HE, you will be challenged by many new words and technical terms (in the comment box above, I have already mentioned quatrains, couplets, lyric, iambic pentameter). Even if unfamiliar to you, these words can extend understanding and aid communication with others. You can utilise a good dictionary, some are

available [online](#)(press ctrl and click on link to open in a new window), to build up a glossary of key terms in your journal.

Next I introduce an analytical framework which can be used across the arts. It enables learners to move from a position of personal response (I really like/don't like that ...) to a more structured critical engagement with the text. In so doing it allows well-argued conclusions to be reached when interpreting particular works of art. It is called the study diamond. If you go on to further study you will likely encounter it again, certainly if you take the Open University's [Y031 Arts and languages](#) Access module you will meet it again there.

4 The study diamond

I now introduce an approach that is useful for analysing and interpreting written texts (like poems) as well as the visual images we move on to next week. This is the study diamond (see Figure 2). Using the study diamond will help you strike a good balance between, on the one hand dismissing your own views too readily as 'unworthy', and, on the other hand, concentrating on them too much as the 'only' reading.

When used methodically, it provides a reliable and reusable formula for arriving at well-argued conclusions when interpreting a particular work.

There are four points to the study diamond:

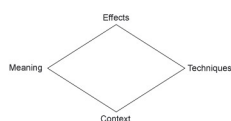


Figure 3 The study diamond

An excellent way of learning how to apply the study diamond is to first simply try it out.

Activity 6 Applying the study diamond

Allow approximately 15 minutes

The study diamond is a four-step approach. Try to apply it to the next sonnet in the following way:

1. What *effects* does the poem have on you? What does it make you feel or think about?
2. Which *techniques* are used by the poet? In this case, think about any rhyme and any imagery used.
3. Are there any aspects about the *context* that need to be considered? This could include who wrote the poem, where it was written, when and under what circumstances, as well as your relationship with its context (bearing in mind that you have been given hardly any contextual information at this stage).
4. Ask yourself about the *meaning* of the poem – what you think the poem is about, and whether it might be trying to convey any messages.

Read Elizabeth Barrett Browning's 'Sonnets from the Portuguese XLIII' (published 1850) two or three times and make notes for each of the concepts.

Sonnets from the Portuguese XLIII

How do I love thee? Let me count the ways.

I love thee to the depth and breadth and height

My soul can reach, when feeling out of sight

For the ends of Being and ideal Grace.

I love thee to the level of everyday's

Most quiet need, by sun and candlelight.

I love thee freely, as men strive for Right;
I love thee purely, as they turn from Praise.
I love thee with the passion put to use
In my old griefs, and with my childhood's faith.
I love thee with a love I seemed to lose
With my lost saints, – I love thee with the breath,
Smiles, tears, all of my life! – and if God choose,
I shall but love thee better after death.
(Browning, 1850)

Discussion

There are a number of valid responses to most of the questions posed by the study diamond, but hopefully you recognised first of all that the poem is about the speaker's total love for 'someone'. As the previous extract about the development of the sonnet suggests, this is one of the main themes commonly found in this form of poetry. The poem also conforms to one of the most common rhyme schemes: the **Petrarchan** (*abbaabba cdcdcd*). In these respects, then, it can be described as a conventional sonnet. You may have noted it differs in rhyme scheme from Shakespeare's Sonnet 18. There are some lines of iambic pentameter (ten syllables): the final line, for example, seems to be regular in this respect. Lines 3 and 6, too, read as pure iambic pentameter, and you may have spotted others.

There will be some further explanation of what is meant by 'effect', 'techniques', 'context' or 'meaning' in the next section.

The analysis also does not stop here. Once you have thought about these four aspects of the poem and made some notes, think about each aspect again. By repeating these stages, your analysis of the poem can continue to build, until you think you have enough information about all four points of the study diamond.

Note that you might not always want to start with the 'effects' point. Sometimes, for example, a potential meaning might be more obvious. In such cases, make a note of this, and then go on to consider the other three points of the diamond. Also, having applied the study diamond once to a text, you may then want to look at the points again in a different order. However, as a general rule, start by noting the effects of a text, and see where this leads you.

The four points of the study diamond each represent specific tasks, which together form a useful approach when interpreting a work of literature or art. Next you'll look at each of these in turn.

4.1 Effects

Most texts are intended to have some sort of effect on the reader, and the Barrett-Browning sonnet was intended to have a particular effect on you. Do not be tempted to concentrate only on what techniques are used in a text, or on what you think it might mean. Note, as accurately as you can, what your responses are. So, by looking carefully at how a text strikes you, you are trying to engage very directly with the author.

Here are three steps to help you to note as fully as possible the effects that a text has on you.

1. Your initial response

Note the points that strike you after your first reading. For example, you might simply say things like:

- a. **!Warning! Calibri not supported** 'I like some of it.'
- b. **!Warning! Calibri not supported** 'The language is old and so I find it difficult to understand.'
- c. **!Warning! Calibri not supported** 'The opening grabbed me.'

2. Your second response

Use this list of six questions to try to probe your responses a little more. Try to apply each of these questions to the texts you study.

- a. Do you like the text?
- b. Describe your reaction to the text as fully as possible. Are there any parts that strike you more than others?
- c. Is there anything in the text that you feel is too obvious to mention?
- d. Do you have any feelings about the text which you are not clear about – for example, mixed feelings about whether you like it or not?
- e. Did your responses change as you analysed this text?
- f. Have you had similar responses to other poems (for example, the Shakespeare or the Frost)? If you have, looking at these other texts again might help you.

3. Other responses

At this point, you might want to leave the poem for a little while, and then come back to it. Read it again, and consider for a moment, have any of your responses changed? Are there questions you find yourself asking without quite having a clear answer yet? Does the poem evoke a similar response to a lyric you know, or a film you have seen, or a scene in a novel you know?

In trying to consider as many aspects of the effects of a text as possible, one invaluable approach is to think how it might have different effects on other people. Think of three or four people whose feelings you could guess at, or who are likely to see things differently from you, in at least some ways. You could also ask people outright how they would respond to the text.

4.2 Techniques

You are encountering some of the specific techniques used in texts from poetry and the visual arts as you study this course. But the following general points should be considered:

It is important, as far as possible, to try to describe the effects that these techniques achieve as you identify them. For example, one technique commonly used in poetry is rhyme. In the sonnet, the rhyming of 'height' and 'sight' (line ends 2 and 3), seems significant – but why? In your study of poetry, other techniques will quickly become apparent to you. If you identify a technique such as rhyme, it may not be immediately clear what effects this technique can create. You can always come back to this point, so simply note the technique used and where in the text it is found, and move on. Can you see that

one effect of the rhyming words is to draw attention to these words and thus emphasise them? One might argue that this use of rhyme makes the poem as a whole more striking, and perhaps more memorable.

As you read and reread a text, stay on the lookout for the techniques used in it. It will probably take several readings of a longer text for all the techniques to become apparent.

4.3 Context

While it is possible to reach some initial conclusions about what a text means without considering the context in which it was produced, and to which it might refer, this can result in a limited interpretation. Poems, songs, historical accounts and artworks are not produced in a vacuum; they are influenced by the circumstances in which they are created. For example, the sequence of sonnets from which this one came were written in the period leading up to the poet's marriage to Robert Browning – a marriage which led to her disinheritance from her family's vast riches (derived from West Indian slave plantations, although she herself was a very public abolitionist). She also suffered from a debilitating spinal disease, and died aged 55 in 1861.

To examine the context of a text, you need to ask the following questions; while not all of these may be relevant, it is worth asking them just to be sure.

- Who produced the text and what do you know about this person?
- Where and when was this text produced and what was happening in the wider world at that time?
- Do you know anything about why the text was produced?

Take care to ensure that any contextual information is relevant to your interpretation.

In brief, consider all available contextual information and stay alert for additional information. Think about how the contextual information can be used in conjunction with your consideration of effects and techniques in your analysis of the text.

4.4 Meaning

You now turn to the question of what messages might be in the text – what it might mean. In doing this you are, in effect, forming an interpretation of the text.

It is important to try to distinguish between what a text is about, and any messages it carries, as often these will be different. For example, this poem is about the poet's reflection on the depth of her love. But the message of the poem could be said to lie in its comparison to aspects of a religious experience – the depth of expression that true love overcomes all, and is eternal. The word 'could' is used in both these instances, as commenting on the meaning of a text is a matter of interpretation. There can be many possible interpretations of a text, but do note that all your interpretations should always be supported using evidence from the text.

However much analysis you have done on a text, your first conclusions about its possible meaning are important. Nevertheless, you should also regard them as provisional. This is because it is possible that you will revise your interpretation in whole or in part a number of times. Be prepared, therefore, to change your mind regarding the meaning of a text. A good time to review the possible meaning of a text is after you have looked at some

contextual information relating to it, for example the circumstances in which it was produced.

Finally, try to think of as many possible interpretations of a text as you can. Again, one useful method here is to consider what others might make of it. You could even ask other people for their opinions.

4.5 Studying works of literature and art

As previously said, the points of the study diamond need not be considered in any particular order. However, it is recommended that you start with 'effects', and move round the diamond in a clockwise direction, considering each point as you go.

The meaning of some texts and the messages they contain will be immediately apparent. If this is obvious to you at the outset, it would be artificial to begin with the 'effects' point of the study diamond and then move round in a clockwise direction considering 'meaning' last, when it was the first thing that struck you. The sensible approach would be to make notes about the meaning first, and then look at the other points of the study diamond. The same would apply if the rhyme in the poem stood out to begin with. You would start by noting your observations about techniques and then move on.

The most important thing about this approach is to consider all four points of the study diamond. This should help you to reach a balanced and well-argued interpretation.

In working through the four points of the study diamond, there is plenty of opportunity to think about the text in a number of different ways. You will have also made notes, which are valuable when explaining your interpretations. It is imperative that you give reasons for what you say, both for your interpretations of texts, and for the viewpoints and opinions which you express. Using the study diamond helps to ensure that you are clear about what your views on a text are, and how your examination of a text has informed your interpretation of it.

Another virtue of the study diamond is that it is recyclable. Once you have worked round each point, write up your notes and then start again.

Activity 7 Key features of the study diamond

Allow approximately 5 minutes

Four 'points' are described in the study diamond: effects, techniques, context and meaning. Match each of these points to the correct definition.

Effects

Techniques

Context

Meaning

Match each of the items above to an item below.

Personal response by an individual reader to having read something

What elements of language use can be identified

In what circumstances was the text 'made'

What 'message' the reader is able to interpret from the text

Discussion

The study diamond is designed to help you do four things, namely to:

1. Look at the *effects* of the text
2. Identify the *techniques* used in creating these effects
3. Look for information about the *context* in which the text was produced
4. Use your findings from the three points above to examine *meaning*!Warning!
Calibri not supported.

In thinking about, and writing about, these four techniques of a poetic text, you are moving from what might be an overly personal and unstructured appreciation or dismissal, to the kind of critical engagement expected in HE. In addition, you might also have noted that the study diamond is designed to be used and re-used on the same or different subject matter.

5 This week's quiz

Well done, you've just completed the last of the activities in this week's study before the weekly quiz.

Go to:

[**Week 2 practice quiz.**](#)

Open the quiz in a new tab or window (by holding ctrl [or cmd on a Mac] when you click the link).

6 Summary

Congratulations for reaching the end of the second week of the course. This week has focused on how the study diamond can provide a way into reading a wide range of poetry. The week also has outlined how a focused and organised approach makes it possible to go beyond personal responses to poetry in humorous verses or in greetings cards.

In Week 2, you have learned about:

- identifying the HE subjects grouped as arts and humanities
- the use of personal response and critical reading as learning approaches in the arts
- a range of poetic techniques: rhyme, repetition, surprising language (e.g. imagery using metaphors and similes)
- some of the elements found in the sonnet form
- applying the study diamond to analyse effects, techniques, context and meaning in poetry
- developing your study skills.

For Week 3, you will further develop your understanding of learning in the arts and humanities by exploring some challenging contemporary art history, through the lens of the study diamond.

You can now go to Week 3.

Week 3: Art history

Introduction

You'll now focus on the discipline of art history. I will use contemporary visual art and culture to introduce you to skills and strategies that can help you gain a better understanding of the approach to learning in HE art history studies. As with poetry, I will start with initial reactions and move on to a more considered analysis.

As a first question, what do you think might be included in the term visual art?

For the art historian, visual art is a broad category of study, including traditional fine arts, such as drawing, painting and sculpture, together with communication and design arts (for example, film, television, graphics and product design), architecture and environmental arts (for example, interior and landscape design) and non-traditional art made from materials such as ceramics, wood, glass and everyday objects.

In the following film, John Butcher introduces the study of visual art:

Video content is not available in this format.



In introducing you to the study of visual art this week, rather than trying to squeeze a chronological overview of centuries of art history into three hours, your studies will involve the guided step-by-step analysis of works of art and build on the skills that you have already gained from studying the use of the study diamond. I will focus on the analysis of contemporary art from the 1980s onwards, from the perspective of the academic discipline of art history. You will apply the study diamond to the analysis of contemporary artworks while continuing to develop your study skills.

This week you will:

- extend your application of the study diamond to cover the visual arts
- develop your ability to identify the *effects* of artworks
- discover a range of artistic *techniques*, such as the use of colour and medium
- give you the opportunity to explore the relationship between *effects* and *techniques* in a small selection of contemporary artworks
- explore some of the factors involved in interpreting *meaning*
- explore some reactions to artworks shortlisted for the Turner Prize
- further develop your study skills.

1 What is art?

There would be too much to cover even from the 1980s, so I concentrate on looking at art produced by artists shortlisted for the Turner Prize. The Turner Prize is awarded each year to an artist who has made an outstanding contribution to art in Britain during the previous 12 months. I chose the Turner Prize because I believe that many of the artists nominated for it have important things to say about the times in which we are living. (The complete list of artists shortlisted for the Turner Prize from 1984 to 2012 can be found in the [Resource booklet](#))

The artworks that you will encounter here are visually diverse, ranging from pickled cows and ceramic pots to paintings made with elephant dung and glitter. Some are beautiful, some are shocking and many might appear on first sight to be very confusing. However, taking the time to look beyond the immediate appearance of an artwork to consider what the artist might be trying to say can be immensely rewarding, and can be an outcome of using the HE approaches introduced here. While I cannot predict whether you will like all (or, indeed, any) of the artworks you will encounter this week, I hope that by the end of it you will agree that learning about contemporary art can be extremely thought-provoking. It is also worth pointing out that while I am, for reasons of space, concentrating on art produced since the 1980s, you can apply the techniques you learn here to the study of any artwork, from any period.

Week 2 asked you to consider what might be meant by a term like 'poetry'. Your study of the visual arts will start in a similar way, asking you to offer a definition for the term 'art'. To begin with, let us look at two artworks, one from the Renaissance and one from a Turner Prize winner.

Activity 1 Looking at two artworks

Allow approximately 15 minutes

Look at Plates 1 and 2 (from the [Resource booklet](#)), and in your notebook make some notes for each one in response to the following questions. Do not spend more than a minute or two on each question.

- Do you like it?
- How does it make you feel?
- Is it art? Briefly explain the reasons for your answer.

Questions (a) and (c) require a simple 'yes' or 'no' answer, with some brief explanation for question (c). For question (b), you could record your immediate feelings about the works represented, using one-word answers (for example, 'happy' or 'confused') rather than complete sentences.

Comment

Your response to each question will depend largely on your taste and background. I am guessing, however, that Damien Hirst's *Mother and Child (Divided)* will prompt more people to answer 'no' to questions (a) and (c) than will Raphael's *Madonna of the Meadow*. The range of answers for the second part of question (c) is likely to be particularly wide. Personally, while I feel that *Madonna of the Meadow* is quite peaceful and seems to convey a feeling of warmth and tenderness, I find *Mother and Child (Divided)* to be pretty disturbing and I feel uncomfortable about looking at it closely.

I tested this activity on a colleague and she confessed that *Mother and Child (Divided)* summed up all her fears about not being able to understand contemporary art. She said, 'I don't know whether I'm supposed to like it or not but don't really like to say so.'

You may already have your own feelings about contemporary art; if you have, the next activity will encourage you to get them down on paper.

Activity 2 Thinking about studying contemporary art

Allow approximately 15 minutes

Now skim through these three examples of Tracey Emin's work (from Plates 3, 8 & 9 in the [Resource booklet](#)) and then make some notes in response to the following question:

- What are your feelings about the prospect of studying contemporary art?

Comment

Since this activity is about recording your own feelings, once again there is no right or recommended answer. Perhaps you are entirely comfortable about approaching contemporary art. If so, then hopefully this material will introduce some new ways of looking at artworks produced since the 1980s. If you are at all uneasy about studying contemporary art, then hopefully this unit will give you some pointers about how you might approach artworks that seem to offer no easily identifiable meaning at first glance.

1.1 Defining art

A common response to contemporary art is to query whether artworks such as those included in this course are actually art at all. This view is evident in the following comments, posted in the '[Have your say](#)' (press ctrl and click on link to open in a new window) section of the BBC News website (2004) following a fire in a London art handlers' warehouse in 2004, in which over 100 works were destroyed, including works by Tracey Emin (all three of the works you have looked at) and Damien Hirst (the piece I began with).

I can't imagine how anyone can call a tent or a shed art. I can only assume it's because they can't paint, sculpt or turn a clay pot. This fire is no great loss to the art world.

(Gareth Dunn, Edinburgh)

I've got a few unmade beds for sale to interested bidders. In fact for the right price I'll throw in the stropky teenage occupant. He can reduce any tidy room to the state of Tracey's bedroom if left to his own devices for a day or two.

(Karen Wood, Lincolnshire) (BBC News, 2004)

In Activity 1, you were asked to consider whether Damien Hirst's *Mother and Child (Divided)* is art. If you decided that it is not art, then you are not alone in thinking in this way. When Hirst won the Turner Prize in 1999, the prominent art critic Brian Sewell was unimpressed, commenting:

I don't think pickling something and putting it into a glass case makes it a work of art. It is no more interesting than a stuffed pike over a pub door.

(Sewell, 2005)

If you concluded that *Mother and Child (Divided)* is art, then again you are not alone. Hirst has many fans, one of whom acclaimed the work as having:

The integration of thought and feeling and the combination of complexity with visual and emotional power that is characteristic of major art.

(Molyneux, 1998, p. 1)

One reason for this difference in opinion is likely to be that, once again, the writers differ in what they think makes something art. It is interesting that the detractors tend to use quite 'down-to-earth' language, while the advocate (Molyneux) uses a more 'academic' language. The question 'What is art?' has been the subject of heated debate by art historians for many years and is notoriously difficult to answer. However, in the next activity, you will take on the challenge and attempt to answer the question yourself.

Activity 3 What is art?

Allow approximately 10 minutes

Rank the seven statements below according to how closely the characteristics align with your definition of an artwork.

- being displayed in galleries
- being produced by a recognised artist
- showing evidence of technical skill
- expressing an emotion or a point of view
- being the result of a creative process by an artist
- being unique
- being labelled as 'art' by the person who created it.

Based on this, try to write one sentence, in order to answer the question 'What is art?'

Comment

Did you find this activity difficult? If so, you are in good company as there is no universally agreed answer to the question, 'What is art?' In fact, there are as many different definitions as there are people providing those definitions. Whatever order you placed the statements in may say something about the importance you attach to certain elements in an artistic work, but all have been asserted at one time. Despite this, the study of art goes on, in spite of any uncertainty – much as the sciences continue to engage learners despite changes in scientific understanding over time.

The *Collins Paperback English Dictionary* (1999) defines art as: 'The creation of works of beauty or other special significance' and 'Human creativity as distinguished from

nature'. How far does this reflect your own views? If you want to amend your own definition in the light of this, do so now.

2 Artworks and their effects

The 'effects' point of the study diamond (Figure 1) seems especially relevant to an examination of art by Turner Prize-nominated artists: as you have seen, such art seems to provoke dramatic reactions. In this section, you will be looking in detail at two types of effect, namely:

1. the emotional impact of an artwork and how to record your feelings about this impact
2. the way in which the different elements of an artwork prompt you to 'read' it in a particular order, focusing on one aspect of it before others.

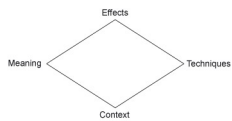


Figure 1 The study diamond

2.1 Emotional impact of an artwork

Artists strive for their artworks to have effects on the spectator, even though they cannot necessarily predict precisely what sort of effects these will be. Our immediate reactions to any artwork are therefore an essential consideration when analysing that work. However, it can be very difficult to recall how we felt when we experienced a particular artwork for the first time. The more we look at something and examine it in detail, the more distanced we become from its original impact on us. For this reason, as a student of visual art, it is important to record the immediate effects of any artwork that you encounter and to try to trust your own feelings and thoughts about what you see, rather than referring to other people's reactions to find out what you should be feeling and thinking. That way, you will have valuable first-hand evidence with which to build a more complete account of the artwork, including its immediate effects, if you are asked to discuss that work in more detail.

Activity 4 Recording the effects of some Turner Prize-related artworks

Allow approximately 10 minutes

Now take a careful look at these works of art (Plates 3, 5a, 5b, 6 and 7) in the [Resource booklet](#). For the moment, you should ignore the titles of these works.

For each artwork, note your first impressions. These could include the first word that comes into your head when looking at the artwork, or the way the artwork makes you feel. Try to avoid thinking in depth about the subject matter of the artwork, or about what it might mean. For the moment, just record the immediate effect the work has on you. Do not worry about writing complete sentences, just a word or two for each artwork will be fine.

Comment

How did you get on? I am sure that if all the students on this course compared their answers, it would soon be clear that there is no right answer and that the effects of an artwork can depend on many factors. In particular, such things as your background

and emotional state at the time of viewing the work can be quite important. I have recorded my own initial impressions in Table 1.

Table 1 My response to Activity 4

Artwork	Effects and comments
3	Messy. Intimate. Sordid.
6a–b	Gloomy. Run down. Drab yet decorative.
7	Delicate. Fragile. Sad.
11	Colourful and complex. Dizzy. Flowing. Psychedelic.

You will be revisiting these works later in order to think about whether your feelings change as you learn more about them.

Now, the main focus of your learning will be (plate numbers refer to the [Resource booklet](#)):

- Chris Ofili's *No Woman No Cry* (Plate 4)
- Grayson Perry's *Barbaric Splendour* (Plates 5a–b)
- Tracey Emin's *The Perfect Place to Grow* (Plate 9 and you will also be shown a video recording).

As you work through the week, you will use each point of the study diamond to help you to gather evidence about these artworks. This will allow you to gradually build a well-argued analysis of what you think these artworks mean.

2.2 The relationship between effects and techniques

Think back to Activity 4. Did you find yourself concluding that you liked or disliked any of the artworks? Or even that you loved or hated them? As with poetry, liking or disliking something is a common first reaction to an artwork and there is nothing wrong with having these views. As you know, an artwork is often created in order to appeal to your emotions, so it would be rather odd if you ignored them. The 2003 Turner Prize winner Grayson Perry agrees:

I think it's about time that people started to bring their senses into play more and trust their bodily reactions to work – become more willing to say, 'Wow! That is really lovely. I love that!', rather than looking for the meaning of it all the time.

(Berens, 2003)

(If you would like to hear more from Grayson Perry, try listening to his series of [Reith lectures](#)[press ctrl and click on link to open in a new window] for a wonderfully entertaining introduction to contemporary art – but this is not part of the course!)

Having said this, for academic purposes it is also helpful to allow some reaction time after your first impression, and to think about the techniques that have achieved these effects and what the artist might be trying to say. Then, rather than simply saying 'This painting is really gloomy, I just don't like it', you can say something like 'This painting makes me feel

gloomy and uneasy because of the dominant purple and green colours.’ Such a statement makes a connection between the ‘effects’ and ‘techniques’ points of the study diamond and can form the basis of an argument about the possible meaning of an artwork.

3 The form of art: looking at techniques

In the study of the visual arts, the word '**form**' is often used to describe the overall shape and structure of an artwork.

Various techniques will have been used to create this form. Learning about these techniques is an important basis for building an analysis of any type of art. I will concentrate on two techniques:

1. use of colour
2. use of medium.

Initially, you will focus on techniques used in paintings, and later you will extend your exploration of techniques to cover those used for a sculpture or an **installation**.

3.1 Colour

Colour can have a range of effects on us as spectators, for example, it can have an emotional impact, or it can encourage us to read an artwork in a particular way. You will now look at some questions that might be asked of the use of colour:

1. Has a wide or narrow palette of colours been used?
2. Have contrasting colours been placed next to each other?
3. Are there more warm colours than cool colours or vice versa?
4. In what way is dark and light colour used?

For each question, you will be encouraged to consider how the use of colour conveys a particular mood or emotional effect, and how the use of colour helps to determine the order in which we read the artwork.

Has a wide or narrow palette of colours been used?

The word **palette** is used when describing the number of different colours that are present in an artwork. A painting with many different colours – for example, Chris Ofili's *Afrodizzia* ([Resource booklet](#) Plate 7) – can be said to feature a wide palette of colours.

Having identified the variety of colours that have been used in an artwork, it is important to explore the effects of this. In *Afrodizzia*, for example, the wide colour palette might be seen to convey a sense of confusion, giving no clues about which part of the painting to focus on first. It might also be seen to contribute to a joyous or cheerful feel. In my response to Activity 4, I described *Afrodizzia* as being 'psychedelic' and 'colourful'. Clearly, the colours had an immediate impact on me. It is also worth mentioning, as a contextual element, the deliberate wordplay in the title – aphrodisia might signify some representation of the arousing of sexual desire.

Have contrasting colours been placed next to each other?

Contrasting colours are those that are opposite, or almost opposite, each other on the **colour wheel** (Figure 2). They can suggest drama, tension or perhaps vibrancy, as in *Afrodizzia*, where the contrasting colours seem to add to the lively, joyous feel of the

artwork. The effects of contrasting colours can cause the spectator to read a painting in a particular way by drawing their attention to areas of importance.

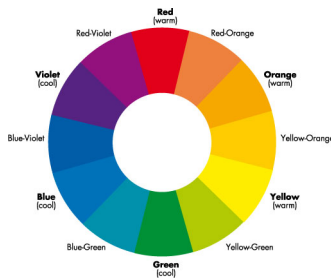


Figure 2 Colour wheel

Are there more warm colours than cool colours or vice versa?

Colours such as red, yellow and orange can be seen as 'warm', while blues, greens and purples can be described as 'cool'. Warm colours tend to convey a positive, cheerful mood while cool colours can suggest calmness and serenity or perhaps sadness and gloominess. The dominant reds, yellows and greens in *Afrodizzia* help to convey a positive, cheerful mood. Contrasting warm and cool colours in the same work can also help to convey mood.

In what way is dark and light colour used?

The darkness or lightness of a colour is termed its tone or its **colour value**. A colour's value is increased, or lightened, by adding white or another lighter colour to it. A colour's value is decreased, or darkened, by adding black or a darker colour to it.

Colour value is one of the most powerful aspects of form that can be used by an artist to create visual contrast in a painting. It can have considerable impact on the spectator, both by suggesting particular emotions and moods and by encouraging the spectator to read a painting in a certain way.

When exploring colour value in an artwork, the following general question can be asked: 'In what way is colour value used?' This question can be subdivided into several further questions, three of which are explored below:

How wide is the range of colour values featuring in the artwork? What is the effect of this?

The breadth of the value range in a painting can be effective in helping to convey mood. For example, the use of mostly dark colour values can make a painting appear gloomy and sombre, whereas the use of middle-range colour values can convey softness and harmony. The use of mostly light colour values in *Afrodizzia* (Plate 7) seems to give a cheerful feel.

Are contrasting colour values placed adjacent to

each other? What is the effect of this?

The greater the contrast between light and dark colour values in one area, the more attention that area will attract. Contrasts between light and dark values can also be used to convey drama and excitement in a painting.

How are the colour values distributed throughout the artwork? What is the effect of this?

Concentrating most of the light values in one area of the composition and most of the dark values in another can be effective in emphasising one area of an artwork over the rest. When light and dark values are placed adjacent and are distributed evenly throughout the artwork, this can give the composition a sense of 'movement', causing the eye to move from place to place rather than focusing on one particular area.

In *Afrodizzia* ([Resource booklet](#) Plate 7), while light and mid values tend to dominate much of the composition, helping to convey a positive energetic feel, the dark values that are present in the tiny faces that punctuate the composition add additional interest and cause the spectator to pay extra attention to these areas of the work.

3.2 Analysing colour

The previous section on colour contained a number of new technical terms. In the following activity, you will consolidate your understanding of these new terms by analysing the use of colour in Chris Ofili's *No Woman No Cry*.

Activity 5 Analysing the use of colour in *No Woman No Cry*

Allow approximately 10 minutes

Look at *No Woman No Cry* ([Resource booklet](#) Plate 4) and make notes on the way colour is used in the artwork.

Use the questions in Table 2 to help you with your answer. You could copy the table out if you like. Do not forget to consider the relationship between techniques and effects in terms of:

- the mood conveyed by the colour in the work
- the possible use of colour to control the way you read the work.

Table 2 Analysing the use of colour in *No Woman No Cry*

Question	Technique	Effect
1 Has a wide or narrow palette of colours been used?		

2 Have contrasting colours been placed next to each other?

3 Are there more warm colours than cool colours or vice versa?

4 In what way is dark and light colour used?

Discussion

How did you get on? My own response to this activity appears in Table 3. As you read my response, bear in mind that it is not the 'right' answer and that your own conclusions about the use of colour in *No Woman No Cry* are equally valid, as long as you have made links between techniques and effects.

Table 3 My analysis of the way colour is used in *No Woman No Cry*

Question	Technique	Effect
1 Has a wide or narrow palette of colours been used?	Quite a restricted palette.	Gives a natural feel to the artwork. Keeps the spectator focused on the central figure.
2 Have contrasting colours been placed next to each other?	Contrast between the blue eye and the yellow background.	Gives depth and moves the spectator's eye around the composition.
3 Are there more warm colours than cool colours or vice versa?	Mainly warm. The red and yellow around the woman's neck looks especially warm, even hot.	This gives a comforting, positive feel to the artwork.
4 In what way is dark and light colour used?	<p>!Warning! Calibri not supported Subtle colour value shading is used in depicting the woman's head, neck and body.</p> <p>!Warning! Calibri not supported- Mid to light colour values tend to dominate the painting, notably the bright reds, yellows and oranges.</p> <p>!Warning! Calibri not supported The main value contrast is between the depicted figure and the yellow background, and between the tears and the rest of the painting.</p>	<p>!Warning! Calibri not supported This helps to model the figure, giving it solidity and making it look realistic and natural.</p> <p>!Warning! Calibri not supported This gives the artwork a positive and warm feel. The bright red on the woman's chest and her red lips are focal points which draw the spectator's eye.</p> <p>!Warning! Calibri not supported Attention is drawn to the tears and the woman feels separate from the background. There is little or no drama or contrast.</p>

3.3 Medium

The word **medium** (plural 'media') refers to the materials used to make a particular artwork. The range of media used in the artworks featuring in this course is wide, including **oil paint**, animal carcasses, elephant dung, photographs and glitter. When analysing the relationship between techniques and effects in any artwork, you should note the medium from which it has been made. Ask yourself why the medium was chosen. Some helpful questions are discussed below.

Does the medium (or media) used impose any limitations on the way the artist works or allow any particular effects?

An artist might choose to work with a particular medium for practical reasons. Oil paint, for example, takes much longer to dry than **tempera** and **watercolour**, and results in a glossy finish rather than a matte one. As it is slow drying, oil paint can be carefully blended to make the soft, seamless shadows necessary when 'modelling' three-dimensional forms in a painting. Oil paint is also very flexible and can be applied in both thick textured brushstrokes and thin fine detail. The oil in oil paint makes pigments translucent, allowing artists to apply paint in thin layers or glazes, generating rich, glowing colours. All these properties make it especially good for depicting the textures of different surfaces.

Is the medium used unconventionally or is the medium itself unconventional? If so, does this contribute to the effects of the artwork?

Sometimes the medium used in an artwork can contribute to its emotional effect and its possible meaning: for example, when an artist uses an unconventional medium. The use of a familiar **found object**, such as sweet wrappers, newspaper cuttings and bus tickets, can make an artwork feel very accessible to the spectator, and relevant to their own life. However, this can also prompt the criticism that the artist has not demonstrated any artistic skill and has just borrowed existing objects rather than creating new ones.

An artist might also use a traditional medium in an unconventional way. Grayson Perry's **ceramics** work, his pots (see [Resource booklet](#) Plates 5a–b and 6) for example, feature a very traditional medium being used to depict contemporary issues such as child abuse, consumerism, class divisions and transvestitism.

Does the medium used suggest a particular mood?

The medium used in an artwork can also help to convey mood. For example, heavily applied oil or **acrylic** paint can suggest a more dramatic mood than the smooth finish of watercolour, which is often associated with the calm scenes of landscape painting

Does the medium used prompt the spectator to read the work in a particular way?

If an artwork features a mixture of media, the spectator is often drawn to look at the areas featuring less conventional media first. In Chris Ofili's *Afrodizzia* ([Resource booklet](#) Plate 7), for example, where the media used include paper collage, oil paint, glitter, polyester resin, map pins and elephant dung on linen, the eye tends to be drawn to the small photographs appearing throughout the composition and also to the blobs of elephant dung.

You will look more at the use of unconventional media later. For now, though, you should record in the appropriate section of your Notebook the medium-related details that are given in the captions for *No Woman No Cry* ([Resource booklet](#) Plate 4), and *Barbaric Splendour* ([Resource booklet](#) Plates 5a–b).

In the next activity, you will be given the chance to build an interpretation from scratch when you use a video recording to explore the relationship between techniques, effects and meaning in Tracey Emin's installation *The Perfect Place to Grow* ([Resource booklet](#) Plate 9).

4 Analysing sculpture and installations

In this section, you will broaden your use of the study diamond to cover the analysis of sculptures and installations. Some of the techniques that you have explored in the context of analysing painting – for example, the use of medium and colour – also apply to the analysis of sculpture and installations.

You will also learn about an additional technique – the use of viewpoint. A summary of all three techniques, as they apply to sculpture and installation, follows.

!Warning! Calibri not supportedMedium

Different media offer different possibilities for an artist to create an effect and express meaning. For example, stone is more difficult to carve than wood, and polished metal offers more potential to reflect light than stone does. Different media can also create differing effects: for instance, an artwork made of barbed wire will produce different effects and will suggest different meanings from one made using feathers.

Colour

When analysing the effects of colour in a sculpture or installation, it is worth considering whether any colour that is present in the work results from the natural colour of the material, or whether it has been applied later, and, as ever, what the effects of this are.

Viewpoint

The spectator's experience of viewing sculptures and installations can differ from their experience of viewing paintings as the former are often three-dimensional and displayed in very specific ways. When analysing sculptures and installations, consider whether the spectator is encouraged to look up, down or straight at the artwork (or a combination of these possible viewpoints), and what physical positions the viewing can take place from. The effects of all these should be taken into account.

In brief, there are three main types of viewpoint:

1. *High*: the spectator is looking down on the artwork, as with Tracey Emin's *My Bed* ([Resource booklet](#) Plate 3). This can give the spectator the feeling of being in control, or of having a complete overview of the work.
2. *Eye-level*: the spectator's eye is approximately level with the artwork. This can convey a feeling of equality or connectedness with the work (disturbingly so in Hirst's *Mother and Child Divided*).
3. *Low*: the spectator is looking up at an artwork (as with Tracey Emin's *In my family when someone dies they are cremated and their ashes are thrown across the sea* ([Resource booklet](#) Plate 8)). A low viewpoint can prevent the spectator from gaining an overview of the composition and instead might make them feel overwhelmed by, or in awe of, the viewed subject matter.

It is also important to consider whether the artist appears to be encouraging the spectator to stand close to the work, to view it from a distance, to view it from one side rather than

another, or to walk around (or even into) it. You might also like to consider whether an artwork is more effective from one position than another.

This introduction to some of the techniques that might be explored when analysing sculpture and installations, in addition to your earlier work on the techniques used in painting, gives you a good basis for beginning to interpret Tracey Emin's *The Perfect Place to Grow* ([Resource booklet](#) Plate 9), which is shown in a video clip.

Activity 6 Working towards an interpretation of *The Perfect Place to Grow*

Allow approximately 20 minutes

Video content is not available in this format.



- Watch the video 'The Perfect Place to Grow', which gives some footage of Tracey Emin's installation *The Perfect Place to Grow*. This artwork can also be seen in the [Resource booklet](#) Plate 9. Make a note of the artwork's initial effect on you, the spectator.
- Play the clip through again, as many times as you need, and make some notes about the relationship between techniques and effects in the artwork.
- Note any ideas that you have about the possible meanings of the work.

When responding to part (a) above, you only need to give single word answers, but your response to (b) will need to be more detailed, considering those techniques mentioned at the beginning of this section. Do not spend too long deliberating on (c), as it is likely that you will revisit and revise your interpretation later. Do not worry if you do not yet have a clear interpretation of this artwork. Be prepared to speculate about what it might mean, perhaps just noting a list of your thoughts and ideas about it.

Discussion

How did you get on? Did you find it easier or more difficult to analyse an installation rather than a painting? You might like to record your feelings about this in your notes.

Table 4 includes some of the notes that I made when first visiting *The Perfect Place to Grow*, when it was displayed in Tate Britain, London.

I did feel at times as if I was clutching at straws when attempting to guess the possible meaning of *The Perfect Place to Grow*. But, as I have suggested above, it is important to start to offer interpretations. If you do this, more ideas are likely to follow.

Table 4 The relationship between techniques, effects and meaning in *The Perfect Place to Grow*

Technique	Effect	Possible meaning
!Warning! Calibri not supported Medium: bare wood of the shed and live plants – everyday objects.	Gives a homely, natural feel.	Possible link with the title and either growing up or growing plants.
!Warning! Calibri not supported Medium: use of low-quality, grainy film showing inside the hut.	Again, gives a homely feel.	Again, might be connected with growing up/childhood.
!Warning! Calibri not supported Colour: natural colour of wood.	Makes the hut feel ordinary and unadorned.	Not sure. Might refer to an ordinary, no-frills childhood.
!Warning! Calibri not supported Viewpoint: the spectator initially looks up at the hut but needs to climb the ladder in order to see the film. At this point they are at eye level with the footage.	This makes the film feel inaccessible and private. We have to make an effort in order to see it and can only do so through a tiny hole.	Might be intended to suggest the privacy of family life.

Hopefully, you found these activities stimulating, and illustrative of the intellectual challenge of developing personal responses and critical readings when studying the Arts in HE. It is worth reflecting on possible changes to the understanding of art (and poetry, as an example of broader arts provision in HE) you had at the start of the course, and the extent to which an approach used in HE contributed to that.

5 This week's quiz

Well done, you've just completed the last of the activities in this week's study before the weekly quiz.

Go to:

[**Week 3 practice quiz.**](#)

Open the quiz in a new tab or window (by holding ctrl [or cmd on a Mac] when you click the link).

6 Summary

Well done for reaching the end of Week 3, the second week to focus on helping you to understand what study in arts and humanities subjects is like. This week the focus has been on contemporary or modern art.

We all have our ideas about art and most of people have pictures or photographs that are enjoyed, or perhaps have sentimental value like the treasured photograph of a relative. Often modern art is seen as being either impossible to understand or something 'even a child could do'. This week has attempted to offer an alternative perspective which enables you to go beyond accepting either your immediate responses or the, often strident, views of those who say such art is worthless. The week has offered the study diamond as a way to think about art in a structured and purposeful way.

In Week 3, you have learned about:

- extending your application of the study diamond to cover the visual arts
- identifying the *effects* of artworks
- a range of artistic *techniques*, such as, the use of colour, including four ways in which colour might be used in an artwork
- the use of medium, including some of the ways in which the medium used in an artwork might create an effect on the spectator and convey meaning
- some of the techniques used in sculptures and installations: colour, medium and viewpoint
- the relationship between *effects* and *techniques* in a small selection of contemporary artworks
- some of the factors involved in interpreting *meaning*
- some reactions to artworks shortlisted for the Turner Prize
- further developing your study skills.

Week 4: Introduction to social science

Introduction

Welcome to Week 4 of the course. The first week divided the range of subjects that it is possible to study at university into three broad areas:

- arts and humanities – these included the topic that this course explored in the last two weeks
- social science – your focus for this week and next
- science, technology, engineering and mathematics (STEM) subjects, which includes science and maths.

In the following video, Jonathan Hughes, the author of the social science parts of the course introduces Week 4:

Video content is not available in this format.



Social sciences until the early nineteenth century were really part of philosophy. However, as countries like the United States, France Germany and the UK moved from being agricultural to industrial societies there was a greater need to address the problems and issues that came about from this change. This led to a number of disciplines like sociology, economics and psychology separating out. To take sociology as an example, the *Penguin Dictionary of Sociology* (Abercrombie et al. 2000) points out that sociology literally means 'the study of the processes of companionship'. Although people have always been interested in how their society worked the actual term 'sociology' was first publicly used by Auguste Comte in 1838. According to Abercrombie et al. (2000),

Comte thought that sociology was a science employing observation, experimentation and comparison, which was specifically relevant to the new social order of Industrial Europe.

Many of these issues are very similar to those faced in the early twentieth century by countries like China and India as they become industrial nations.

This approach to social science is referred to as positivism and seeks to develop general laws to explain how societies work. This approach has been subject to different sorts of criticism. In particular there is a lot of debate within the social sciences as to whether it is possible to explain events or whether a more realistic goal is to try and arrive at a more rounded understanding. Another important criticism has been that positivism does not really take into account the intentions or motivations of individuals.

One really fascinating aspect of the social sciences is that we are all social scientists – we have to be to manage our everyday encounters with other people. Just walking down a busy street requires a high level of understanding of what people are likely to do.

This might sound like a rather grand claim. However, we all need to know how other people are likely to behave in different social situations if we want to get through each day without too many bumps and bruises.

We are also social scientists in everyday life because we have ways to deal with social encounters.

This week you will:

- start to identify the subjects grouped as social science
- begin to think about how social science can be used to think about everyday events
- understand and apply the concepts of identity and stereotyping
- explore aspects of cultural identity and group belonging
- understand how using a spider diagram can develop your study skills.

1 Social science and the everyday

I suggested in the introductory video that beginning to see the world as a social scientist adds another perspective – it makes the world an even more fascinating place. Please have a go at the activity that follows and which shows that social science thinking can even be applied to everyday encounters.

As you work through this week of *Taking your first steps into higher education* you will find that there is the same emphasis on doing activities as there was in the first three weeks of this course. All the authors share a conviction that learning at university level has to be active. The activities are a vital part of your work as they enable you to build on what you already know and to integrate new understanding.

Activity 1 Sometimes people do bump into each other

Allow approximately 10 minutes

This activity is an opportunity to see how much you already know about everyday social encounters. The activity is also a chance to see how a distinctive social science approach can build on this understanding.

Watch this very short (11 second) video.

View at: [youtube:CA6NeZayHrU](https://www.youtube.com/watch?v=CA6NeZayHrU)

Sometimes people run into each other

Then answer the following questions:

- Why do you think the two women bumped into each other?
- How do you think they felt about colliding?
- What did they do to 'repair' the situation?
- How else could they have reacted?

Discussion

My first thoughts *were about how a topic like this is approached at university:*

Did asking questions about this minor collision seem an odd thing to do? In some ways it probably is. Although there may often be times when we wonder about the meaning of things that happen, that's not necessarily the same as posing questions about everything. The simple act of asking questions about what might be going on is an essential starting point in most academic disciplines, not least social science.

However, to get back to my thoughts about the questions I asked you, I think the woman the camera was following was walking quite slowly and the woman who came in from the left carrying the bottle did not seem to see her.

Of course, if the camera had been following the other woman we might have a different perspective on this. I also found myself building up a story. The woman we followed still had her coat on. Perhaps she was thinking about a meeting she was going to and didn't spot the other woman until it was too late. It wasn't so clear about the other woman who we only saw at the last minute. Perhaps she was talking the bottle of water to a meeting and was thinking that she needed to get back into her meeting. If this was the case perhaps she was thinking about other things and did not notice the other woman.

I think both women were a little embarrassed. The woman carrying the cup was surprised.

I thought that they attempted to resolve the embarrassment through apologies and by making a little joke about it. They also reached out to touch each other.

They could have been annoyed rather than embarrassed and tried to blame each other.

The other thing that surprised me was that I had to keep looking back at the video. To begin with I thought the woman in the coat was walking really fast and that the other woman was carrying a cup of coffee. When I checked back, neither was true.

The video clip lasted just 11 seconds. But just think how much went on in this small fragment of time.

To deal with the encounter in the corridor the two women drew on a huge amount of knowledge about what to do to deal with the situation. We apply this knowledge (sometimes called 'implicit knowledge' to our interactions with other people. Social scientists are interested in studying these same interactions but they draw on other ways of understanding apart from implicit knowledge. You will come across these as you work through this course.

1.1 Identity

Within these interactions we tend to have a very strong sense of ourselves as separate, even fixed, individuals. In social science terms we are fairly sure of our own identities. The same applies to fictional characters. To be believable they have to have identities we can understand.

A good example of this is provided by Popeye's signature song. Popeye began life as a cartoon character in 1929. Popeye made his first animated appearance in *Betty Boop Meets Popeye the Sailor* in 1933. Popeye is clearly very sure of who he is, 'I yam what I yam'.

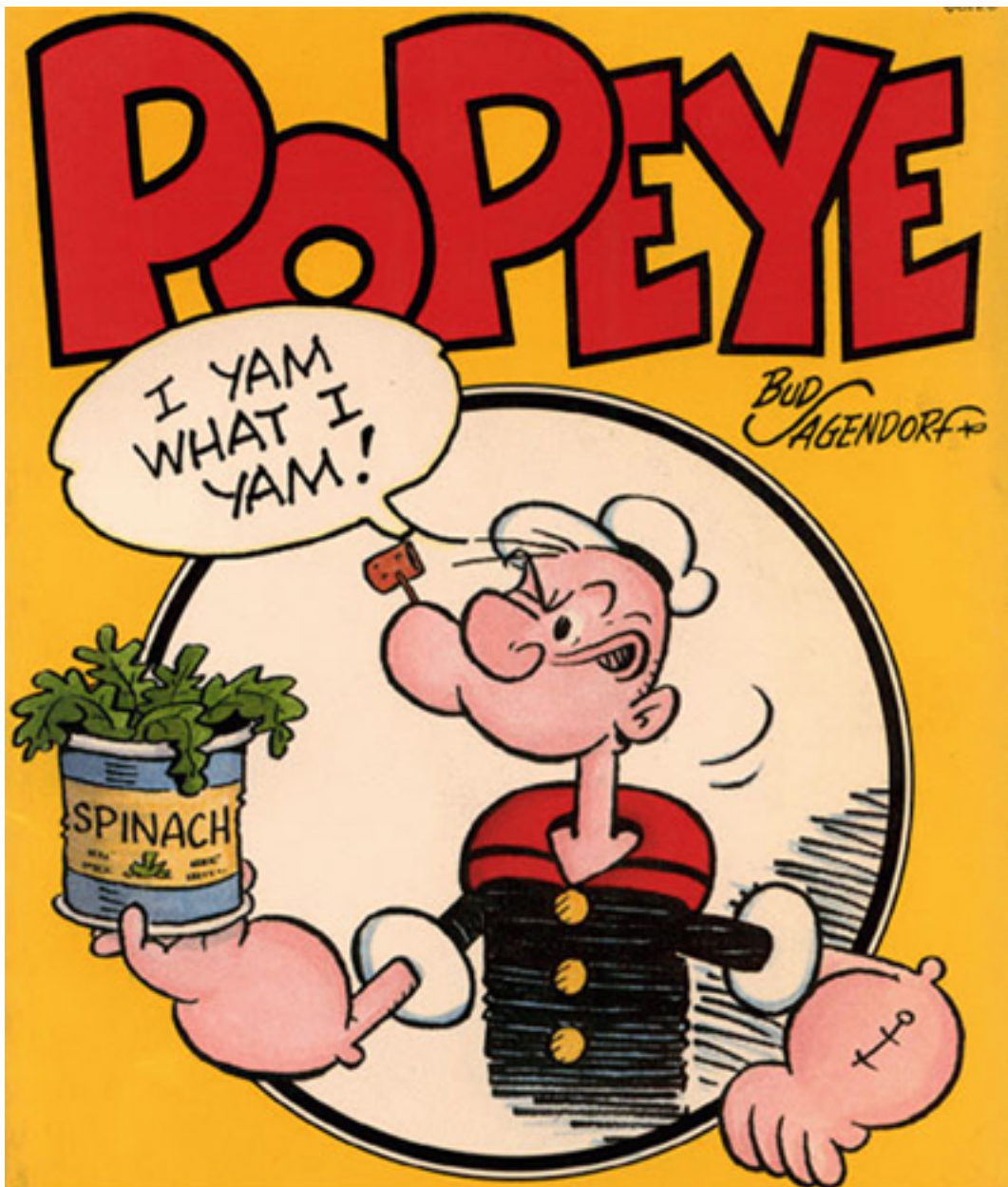


Figure 1 Popeye – I yam what I yam

Read the words of Popeye's song and then do the activity that follows.

Popeye's Signature Song

I'm Popeye the Sailor Man, I'm Popeye the Sailor Man, I yam what's I yam,
And that's all what's I am, I'm Popeye the Sailor Man
I'm Popeye the Sailor Man, I'm Popeye the Sailor Man, I yam what's I yam,
And that's all what's I am, I'm Popeye the Sailor Man
I'm Popeye the Sailor Man, I'm Popeye the Sailor Man, I'm strong to the finish,
'Cause I eats me spinach, I'm Popeye the Sailor Man
I'm one tough gazookus, Which hates all palookas, What ain'ts on the up and square,
I biffs 'em and buffs 'em, An' always out-roughs 'em,
An' none of 'em gets no-where
If anyone dares to risk my 'fisk', It's 'boff' an' it's 'wham', Un'erstan',
So keep 'good behavior', That's your one life saver,
With Popeye the Sailor Man
(Lerner, 1933)

Apparently 'gazookus' was an expression popular in the USA on the East Coast during the beginning of the 20th Century. Somebody could refer to another person as a lout or a fool by using it. During the 1920s, 'the real gazookus', could be translated as the real thing or the genuine article. 'Palooka' apparently means either an incompetent or easily defeated athlete, especially a prize-fighter or a stupid or clumsy person.

Activity 2 What makes up Popeye's identity?

Allow about 15 minutes

The activity is a fairly light-hearted way of helping you to think about the different things that can make up someone's identity.

Read back through the lyrics and make a list of the different things that seem to make up Popeye's identity as far as he is concerned.

Discussion

Again, starting with a focused question about aspects of identity has had the effect of getting me to think from a social science perspective. Once I started thinking in this way, I was surprised by how many different aspects there were. This is my list:

Popeye's identity seems to be linked to:

- job (sailor)
- gender (he's a sailor man)
- his body (which is strong) and how he uses it, particularly his 'fisk' (fist) to 'biff', 'buff' and 'boff'
- his accent and use of language suggest quite a lot about his nationality (American) and even his class.

Popeye also identifies himself as a 'real gazookus' which meant that Popeye felt able to identify someone else as a palooka and if this palooka didn't 'keep "good behaviour"' then his response would be 'boff' and 'wham'.

1.2 How social science thinking works

I've been using Popeye's song lyrics and the short video of the two women bumping into each other to provide useful pointers about how social science thinking works. Basically it's about starting with an observation about something and seeing if it's possible to arrive at a better understanding than that provided by everyday knowledge.

This means that social science often starts with a particular observation or individual example but then sets out to explore what is often taken for granted. The concept of identity is a great example because it is widely discussed and debated in social science and we all have our own ideas about our own identity and the identities of other people – about who we are and who other people are.

Social science recognises that we all have identities but then poses questions like:

- How are identities created?
- Are we completely responsible for creating our own identities?
- What other factors might play a part in shaping identity?

This course looks at some of these factors so you see how a social science approach can help develop your understanding

Social science thinking differs from everyday thinking in another important way – it is generally part of a cycle of enquiry:

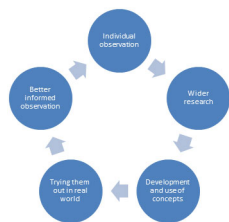


Figure 2 Cycle of enquiry

2 Social science: individuals and identity

We have already begun to make a start on exploring how social science approaches identity.

In social science, identity has two aspects:

1. the sense of self you have ('who I am')
2. the way that you are understood by others ('who she/he is').



Figure 3 Cat and mirror

The second of these highlights that social science does not treat individuals in isolation. It is more interested in how they belong to social groups, how these groups shape the identity of an individual, and how that identity is communicated between people. (This is, of course, why it is called 'social' science.)

So the next section is a chance to think about how individuals develop their identities through belonging to particular cultures and groups.

2.1 Cultural and group identities and belonging to groups

Society is made up of countless numbers of different social groups. The members of each social group share something that marks them out as a member of that group. This 'something' also highlights differences with other groups. 'Culture' is a frequently encountered word in social science and is used as a way to describing shared:

- behaviours
- attitudes
- values
- ways of understanding the world
- tastes in things such as food, entertainment and art.

Differences in 'culture' show themselves in all sorts of ways, including how people behave if they bump into each other.

It's worth noticing how the word culture is being used in a social science way here. Culture has a huge range of often quite vague everyday meanings. But when social scientists use the word they will try to make it clear what they mean.

A nice example of cultural differences is how people greet one another.

Watch this short video in which these cultural differences are approached from an American perspective:

View at: [youtube:wXIAHhbdeQw](https://www.youtube.com/watch?v=wXIAHhbdeQw)

The etiquette of social kissing

Getting the greeting culturally 'wrong' can cause embarrassment so people try to get them right and it is helpful to have some idea of what cultural norms are. These norms are sometimes formalised as etiquette which was originally a list of how people were supposed to behave in the French royal court of the eighteenth century.

From an American point of view when French (or even British) people meet, they often kiss acquaintances on the cheek. In contrast, Americans are more likely to shake hands. These different behaviours are considered appropriate depending on which group you belong to and the culture of that group. So some French person may not kiss anyone and some Americans may insist on hugging strangers, but you will probably agree that some behaviours are more common within a group or culture.

In social science terms this means that:

- belonging to a group will shape how we act, and even how we think
- but not everyone who belongs to a group is the same.

2.2 Group membership

If you are a member of a group, you share a connectedness or common culture with other members of that group and, in some way, you differ from those who are not members.

In some groups membership is quite formal, as when you are a member of a club and have a membership card. However, for most social groups membership is more informal and comes about because of where someone lives or as a result of something that has happened to them.

'Mothers' are a good example of this. There is no membership card required but someone who is a mother is more likely to share ways of seeing the world that differ from those who are not mothers. Mothers are also seen by society as a single group which can mean that they are assumed to share characteristics. For example most mother are assumed to care for their children, so only 'bad' mothers do not.

These ideas about mothers are the basis of the humorous take on mothers in this video:

View at: [youtube:OsXuPFNZiw8](https://www.youtube.com/watch?v=OsXuPFNZiw8)

Double take – Mothers' Group

Informal membership also connects people who use social networking websites and media such as Facebook. As members of this group, they share common behaviours such as 'poking' friends, sharing photos and writing on each other's walls. They might also share ideas about the importance of virtual connectedness and may believe that having an online element to their social life is important. In these ways they share a common culture.

However, this does not mean that all Facebook users are the same or that they all use Facebook in the same way or with the same frequency. Another way in which Facebook

users will differ is that different users will belong to a range of other groups. For some, these other groups will be far more important than being on Facebook. So each individual will have their own personal combination that reflects their personal identity.

2.3 Spider diagrams

Spider diagrams are simple ways of displaying information and can be quickly created and easily adapted. The purpose of the spider diagram below is to display information about an individual's group membership: the title is 'Belonging to many groups'. What information can be understood from it? Three of the groups are 'male', 'leisure' and 'worker'. Leisure is subdivided into groups which include gardening and cycling. There is a link between cycling as a leisure activity and cycling as a means of commuting to a place of work. From all the information given, it is possible to say that this spider diagram has been drawn by a 'late middle aged' family man, who cooks some meals at home when not gardening, cycling or playing reggae music. He works as an academic and he commutes to his place of work by bike.

Figure 3 is an example of a spider diagram.

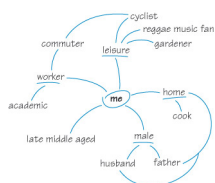


Figure 4 Belonging to many groups

!Warning! Calibri not supportedActivity 3 Who am I?

Allow approximately 20 minutes

This activity is designed so that you can apply the idea that individual identity is built up from membership of different groups. Think about the different groups you consider yourself to be part of. A useful starting point is family relationships, friendships, work, hobbies, interests.

Don't forget being a learner on this Open University badged open course!

Then create a spider diagram in your notebook to illustrate how these connections work. Start, as in Figure 4, by putting yourself in the centre of the page using the word 'me'. Then, for each group you belong to, begin a new branch from the centre and label it. If you want you can also have a further level of groups, linked to the main groups by more branches.

You may want to show a connection, a branch line, between groups as illustrated in Figure 4 between cycling for leisure and cycling as a means of commuting.

Discussion

Were you surprised at the number of groups you were able to put into your diagram? Do you belong to overlapping groups? For example if you identified yourself as a woman you may have put 'sister' as a group, but sister belongs too in a 'family' or 'home' group if you have one.

Whatever you included in your spider diagram, the experience of belonging to many groups, and the diverse cultures associated with them, will contribute in different ways to your sense of who you are, or, to put it another way, your identity.

You have been looking at how your identity is in part derived from the social groups you belong to. You have also briefly considered how behaviour or lifestyle can demonstrate membership of a group.

This raises an interesting question: if you can 'see' your own identity through the way you belong to different groups, then perhaps other people can see that identity too. You will consider this in more detail next.

3 Communicating connections

A key skill in the social sciences is to stop and look at everyday life, at what we might usually take for granted, and then try to explore it to find out more.

You will develop the skill of stopping and looking at what is taken for granted throughout the course and not just in the social science weeks.

Think back to the beginning of this section, which discussed the different ways that individuals greet one another. When you greet someone, you are communicating something about your identity and which groups or cultures you feel connected to. You are, in a sense, telling the rest of society where you feel you belong. It is very difficult, in fact, to do or say anything that does not give away clues to your cultural identity.

One form of behaviour which marks out how people belong to a culture is the way people stand (close or far away) with other individuals. Edward Hall (1966) recognised that the physical distance between people, known as interpersonal space, reveals a great deal about relationships. The better you know someone, the closer you stand to them.

Hall identified four types of interpersonal space which are illustrated in Figure 5. Intimate space is the tightest bubble around a person and only closest family and intimates can enter it. Other family members or close friends can enter personal space, and acquaintances or colleagues can enter social space. Public space would be occupied by those unknown or not known well to the individual.

Hall's approach is very typical of social science. It probably came as no surprise that people 'distance' themselves from people they don't know very well. But Hall then explored this notion with research and was able to suggest different sorts of 'space'. These suggestions can then be tested out by further research.

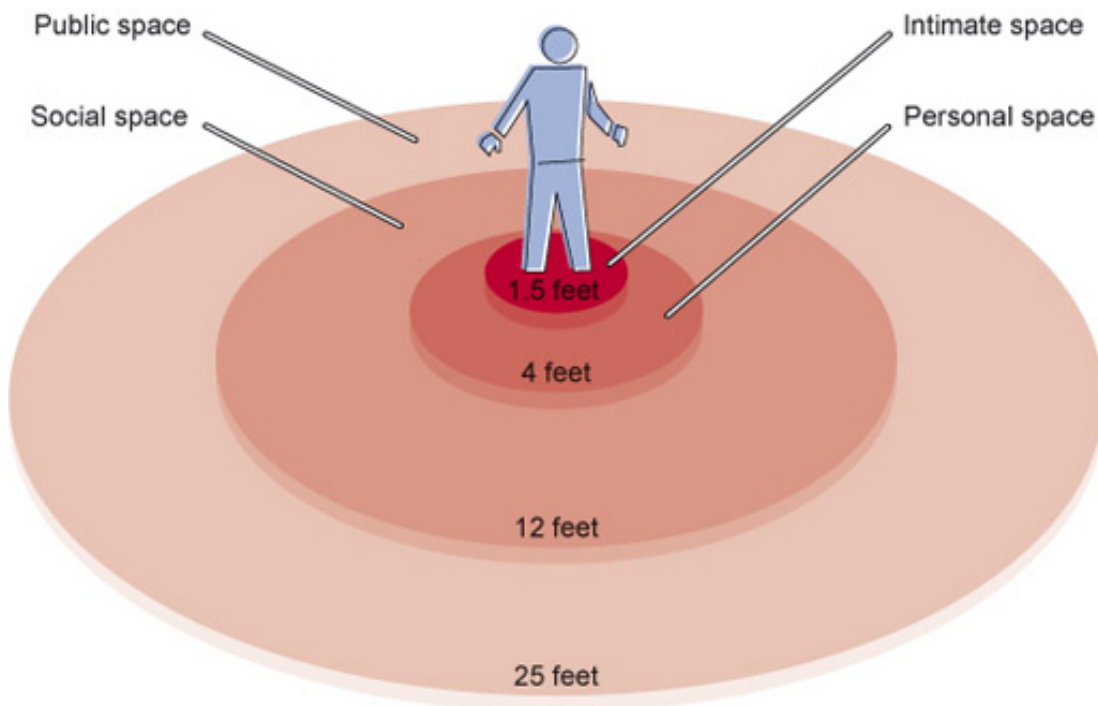


Figure 5 Edward Hall's personal reaction bubble

Hall, 1966

While carrying out his research, Hall further noticed that different cultures prefer different distances apart for personal space. This has been borne out by research which compared the distances adopted by couples from Japan, Venezuela and the USA. This research found that the Japanese couples tended to sit furthest apart, while Venezuelans tended to be closest together. Americans were somewhere in the middle (Sussman and Rosenfeld, 1982).

3.1 Appropriate space

Knowledge of what is seen as the appropriate space between people is important in any culture. It helps avoid embarrassing mistakes such as standing too close to someone.

Our knowledge about appropriate interpersonal (between people) space is implicit or tacit – it is understood without being stated.

However, there are situations in which these rules are broken.



Figure 6

Apart from being crowded together, in life there are also times, for example in health and social care and when working with children, when it is important to be very aware of the

interpersonal space they are supposed to maintain with others. Health care practitioners, for example, need consent before crossing the boundary into someone's intimate space. In these circumstances knowledge has to be stated or explicit (rather than tacit).

Our behaviour gives out a constant stream of clues which can be 'read' by others. For example, if someone leans away from you, you may well move a step back yourself because you recognise their discomfort with being close. But it is also possible you may label them as being 'oversensitive' or 'stuck up'. This is a judgement made on very little evidence and can lead to what is called stereotyping.

4 Stereotyping

Stereotyping is another idea (or concept) which is important in social science. It means having a fixed idea about an individual on the basis of knowing which group they belong to. Stereotyping can be harmful and lead to conflict because it depends on assumptions about, and simplifications of, an individual's cultural beliefs and attitudes.

You have actually come across examples already in this course. For example, Popeye stereotypes 'palookas' and, more seriously, society has stereotypes about 'good' and 'bad' mothers.

Using stereotypes distorts how we think about situations. It leads to assumptions that are based on very limited information about a person, such as their age or gender (not just whether they are a palooka).

Stereotyping tends to overlook the fact that most people will feel connected to a collection of cultures and belong to a number of groups. These connections and memberships play a very big part in making up our identity. If you are aware of only one part of an individual's identity, you will be missing out on crucial information about who they are and how they see themselves.

Sometimes the groups and cultures an individual feels connected to can appear in the first instance to be very diverse and lead to what appears to be a very complex identity. To illustrate this complexity, read the case study in the next section.

4.1 Piecing together an identity

As you read the case study, concentrate on the different social groups that an individual, known as Barry, seems to belong to, and the various cultures he has a connection through his family members. You should look out for places these family members have lived but also their education, class and ethnic origin. We have presented some of this information in the form of a spider diagram (Figure 7) which puts 'Barry' in the middle and then shows his family members around the outside.

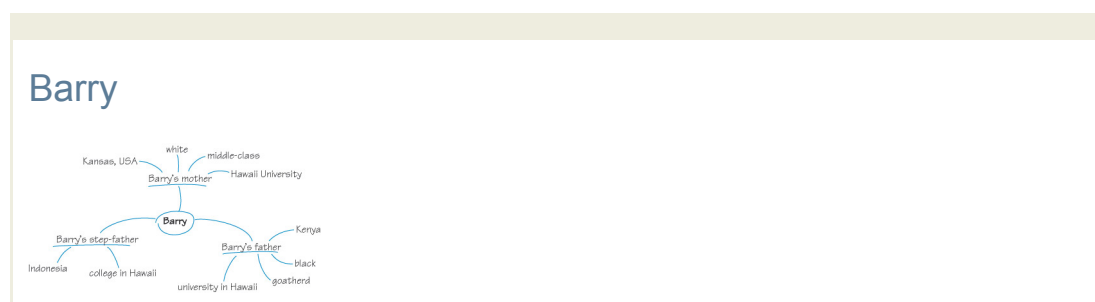


Figure 7 Barry, part 1

Barry's father He was born in Kenya and for a time worked as a goatherd in his village. However, he showed ability in his schooling and with the support of his teacher and family he won an educational scholarship to the USA. He was the first black student at the University of Hawaii. He had little contact with Barry after the age of 2 as he returned to Kenya to be a senior government adviser.

Barry's mother She was born in Kansas, USA, from a white middle-class background. She had a good education, a comfortable home and also went to university in Hawaii

where she met her husband to be, Barry's father. However the two were divorced when Barry was young and his mother later remarried.

Barry's step-father He was from Indonesia but was also studying at college in Hawaii, which is where he met Barry's mother. When Barry was 6, the family moved from Hawaii to Jakarta, Indonesia, to live.

What do we know so far? Barry has lots of different cultural influences from his parents. These include college or university education, Kenyan-African culture, Indonesian culture, a middle-class American background on his mother's side at least, and more than one ethnic identity.

The activity coming up next gives you some more information about Barry and helps you to piece together a little more of his identity.

Activity 4 Piecing together an identity

Allow approximately 10 minutes

Copy out the spider diagram in Figure 7.

Don't worry about making an exact copy, but do leave some space around it so you can add more branches. Now read the following information and, based on it, add to the spider diagram, showing the main influences on Barry's identity. As you will see the emphasis is shifting now from Barry's parents to Barry himself.

Barry's middle name is Hussein. He lived in Hawaii until he was 6 and then lived in Indonesia. His first school was a Catholic school but his first registered religion was Muslim after his father. He changed to Christianity later on. At 10 he moved back to Hawaii and was raised by his white grandmother, who paid for him to be privately educated. He went to Columbia University, then Harvard Law School. After college he became a civil-rights lawyer. He also married and became father to two children.

Discussion

My Comment

So now you know more about Barry. In addition to a potential connectedness with a number of ethnic groups, he also has connections to different religions. His varied experiences of different types of education and his choice of career all served to expose him to cultural groups with different attitudes and beliefs.

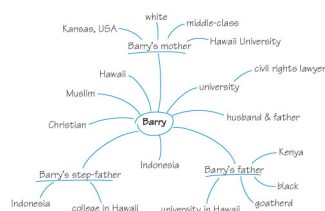


Figure 8 Barry, part 2

Figure 8 shows how we completed the identity diagram for Barry. You will probably have drawn yours differently, but we hope you have shown a few of the same influences. I also hope that you have found drawing spider diagrams useful. It can be an important part of taking notes from your reading and a powerful means of shaping what you have read on the page into information that is organised visually, in a way which makes sense to you. You can also use spider diagrams when planning essays or other written tasks. Some people find them a really helpful way of starting off a piece

of writing. Often the spider diagram can assist you to structure your initial thoughts in a way that written notes on their own might not do.

Barry's identity as you know it

You might be surprised to know that 'Barry' is in fact Barack Obama, President of the USA (at the time of writing)!

Does this change the identity that you had constructed of Barry? Perhaps you knew who we were describing already, or perhaps you didn't know that President Obama has such a rich cultural background.

From considering the information in the spider diagram, you can see that Barack Obama is an individual with a very complex and diverse range of cultural connections, and different elements of his identity can and do mean different things to different people. This will depend on their cultural beliefs and attitudes.

So the point is that everyone can and often does belong to many different groups and feels connections to many different cultures. The extent to which an individual feels this connection is unique to them and makes up their own multifaceted identity. In an important way, then, someone like Barack Obama, with his connections to many different groups, provides living evidence of the limitations of stereotyping.

5 This week's quiz

Well done, you have just completed the last of the activities in this week's study before the weekly quiz.

Go to:

[**Week 4 practice quiz.**](#)

Open the quiz in a new tab or window (by holding ctrl [or cmd on a Mac] when you click the link).

6 Summary

This week has introduced you to the social sciences. This would be a good moment to pause and reflect on your initial thoughts and reactions to the approach taken in Week 4, which aims to give you an idea about what it might be like to study these subjects at university. You might want to ask yourself if you have enjoyed the way social science explores everyday encounters and aspects of popular culture. Perhaps your reaction has been very different and you do not think you would be comfortable with the way in which social science tends to ask question rather than provide straightforward answers. These personal reactions are important as they should help guide your decision about what sort of subject might suit you best.

In Week 4 you have learned about:

- the subjects that can be grouped as social science
- how social science can be used to think about everyday events
- the concepts of identity and stereotyping
- aspects of cultural identity and group belonging
- using a spider diagram to develop your study skills.

You are now half way through the course. The Open University would really appreciate your feedback and suggestions for future improvement in our optional [end-of-course survey](#), which you will also have an opportunity to complete at the end of Week 8. Participation will be completely confidential and we will not pass on your details to others.

Week 5: Work, inequality and diversity in families

Introduction

First watch this video in which Jonathan introduces Week 5 and the first quiz to count towards your badge:

Video content is not available in this format.



This week you explore families and relationships from a social science perspective. This focus means that there is a shift from thinking about what contributes to the formation of individual identities to how individuals interact with each other. This reflects the scope of different social sciences. Some, like psychology tend to be more focused on the individual, while other social sciences like sociology or economics tend to focus on relationships between groups of people. This is not a hard and fast distinction, for example there is a branch of psychology called social psychology.

This week you will:

- explore how social science sees families and relationships
- revisit the cycle of enquiry
- discuss how the role of women has changed
- learn about the concept of division of labour in the home
- explore aspects of cultural identity and group belonging
- use two families to see how where you live affects life chances
- develop your note-making skills.

1 Is work in the home shared today?

Despite the differences outlined in the Introduction, it is still helpful to use the same cycle of enquiry as the one used for identity last week.



Figure 1 Cycle of enquiry

For this topic, the cycle starts with observations about how work is shared in the home and tries to test out (through research) whether this has changed in the last 50 or 60 years? This means that questions like the following are asked:

- Do men and women share tasks more equally?
- If this has happened, why?
- To what extent do our conclusions need to take into account the differences between families?

So, these changes are the starting point of this particular social science cycle of enquiry.

1.1 Changes in women's employment patterns

During the 1960s and 1970s, it became clear that there was a significant increase in the proportion of women who worked in paid employment outside the home. A pattern seemed to emerge in which many more married women worked until the birth of their first child and then returned to work part time.

Social scientists suggested a number of explanations for this:

- economic changes, bringing with them more, and different, employment opportunities
- increases in educational opportunities for girls
- the re-emergence of feminism in the 1960s.



Figure 2 Mary Wollstonecraft – an eighteenth century feminist and author of *A Vindication of the Rights of Women*

Feminism dates back to the late eighteenth century and to people like Mary Wollstonecraft. Feminism provides theories which analyse and explain the gender divisions and inequalities which disadvantage women. It is also a social movement that advocates and works for equal opportunities for men and women.

Social science theories often try to tackle really complex issues, like gender inequality. This complexity results from the fact that different factors, such as those about the changes to women's employment patterns, all play a part and are connected or interrelated to each other.

Theories also seem complex in themselves because different social scientists emphasise one kind of explanation rather than another. This leads to disputes and disagreements among social scientists about how best to explain what is going on.



Figure 3 Women at work today in a range of occupations

1.2 Division of labour within families

How have these changes affected the division of labour within families?

During the late twentieth century and in the early twenty-first century, the number of women working outside the home continued to increase. In 2009, women's employment in the UK was at a record high of 13.6 million.

This information leads social scientist to ask questions like:

- What have been the implications of these changes for a woman's role as housewife?
- Have women continued to do most of the work in the home or has it become more shared between men and women?

During the 1960s and 1970s, there seemed to be some indication that families might be becoming more equal and that as more women worked outside the home, men would increase the amount of domestic work they undertook. A particularly influential study at the time was Young and Willmott's *The Symmetrical Family* (1973). Young and Willmott argued that the middle classes were leading a trend towards more equal or 'symmetrical' marriages where tasks were shared more equally.

This prompted further research which suggested that these changes had not been as great as was originally assumed. One review of the evidence argued that 'none of the data seem to warrant any suggestion that the traditional female responsibility for household work has been substantially eroded, or that male participation has significantly increased' (Morris, 1990, p. 120). Women, it seemed, now had a dual role, juggling paid employment and work in the home.

So studies from the second half of the twentieth century told two different stories. On the one hand, housework was becoming more equally shared. On the other hand, women still did most of the housework at the same time as working outside the home. Almost certainly some of you reading this will want to support the argument that change has occurred. Maybe it is part of your own experience that men today do a lot more in the home than their fathers' generation did. Equally, some of you may feel that the argument that there has been no change, better reflects your own experiences.



Figure 4 A man doing housework

1.3 Making sense

So how should we make sense of the different conclusions reached by social science research into the division of housework? And what does the evidence tell us now in the twenty-first century? The next extract provides us with more-recent evidence. It also provides the tools for thinking about why our experiences might be different.

Activity 1 Making notes on the division of housework

Allow approximately 30 minutes

Successful social science study depends on being able to make your own sense of different kinds of writing. This activity gives you the opportunity to use a technique called scan reading to make sense of a particular piece of writing.

This short extract contains a lot of different ideas, scan reading can help 'pin down' what the key ideas are in a piece of writing.

You may need to read the extract more than once. Record your answers in your notebook.

- a. Look at the title and the first line in italics under the title. Think of two questions that you think this article might answer for you.
- b. Then scan read the article. Focus on:
 - i. the title
 - ii. the opening paragraph
 - iii. the sentence in each of the following paragraphs which makes clear the topic of the paragraph
 - iv. and the entire final paragraph.

Working up a sweat

Ivor Gaber on the division of housework ... and the wage gap between the genders

Who works harder, men or women? In a marriage or partnership, the answer is that it all depends on the employment circumstances of the couple, their ages and beliefs they have about their appropriate roles within a household.

Researcher, Xavier Ramos, from the Universitat Autònoma de Barcelona, has been looking at the division of work between men and women in British households. What he has found is that when it comes to housework, on average women do almost four times as much as their partners – men averaging five and a half hours a week, compared with women's 19 hours a week.

Where both partners are in employment they end up working (paid and unpaid) almost the same amount of time – 50 hours a week – but with men spending more time in paid work and women spending more time working in the home. However, if the woman is in part-time employment, and the man is working full time, she has a much higher total workload than her male partner – 13 hours more, most of it housework.

The findings are based on the British household panel survey – a long term survey of some 5,500 households and 10,300 individuals. Ramos, who presented his research at a recent conference organised by the Institute for Social and Economic Research at the University of Essex, suggests that, despite his overall conclusions, the differences between the amount of time men and women spend in domestic and paid work are narrowing. And this is attributable mainly to the changing behaviour of women.

For men, he found, the amount of time spent doing housework and paid work remained fairly constant throughout the 1990s. But for women, total work time decreased, reflecting a reduction in the time they now spend doing household chores – a reduction that has outweighed any increase in the time they spend in paid work.

The way household chores are divided between partners appears to depend also on the beliefs partners have about the role each should play in a partnership – their ‘gender ideology’. Where both held more traditional beliefs, Ramos found, the division was more unequal and woman did the bulk of the domestic chores, namely food shopping, cooking, cleaning, washing and child care. Couples holding more egalitarian beliefs shared the housework load more equally.

In circumstances where the two partners held different gender ideologies, the man tended to do a smaller part of the domestic work. In other words, men do relatively little domestic work unless both they and their partners are relatively egalitarian in their beliefs about gender roles.

The domestic workload is still shared unequally in Britain. But this is not perceived as unfair. About three-quarters of men and women surveyed thought the division of housework time either ‘somewhat fair’ or ‘very fair’. Individuals have such favourable views, Ramos argues, because they take account of not only their own share of domestic labour but how much time they and their partners spend in paid employment.

(Gaber, 2003)

Discussion

Scan reading is a really useful technique and writing notes on the basis of a scan reading can help you demonstrate to yourself that you have grasped the key points of a piece of writing.

How do your notes compare with what follows?

According to Ramos, women’s continued high levels of employment outside the home have not been accompanied by dramatic changes in who does the work in the home, although there have been some changes. However, there are differences between families according to age (though discussion of this factor is not developed in the extract), the amount of work that women do outside the home, and also the beliefs of the couple.

This shows that social science struggles to give a short simple answer to the question of who does the work in the home. However, the social science approach does suggest that the complexity of the division of domestic work is at least partly explained by the connection between women’s role outside the home and their role in the home. Ramos’ research also suggests that families differ in how work is divided. This diversity is explored further in the next section from the point of view of gender ideology.

If you would like to learn more about study skills or to refresh your English reading and writing skills you might want to take a look at these other free badged open courses:

[Succeed with learning](#) and [English: skills for learning](#).

1.4 How work is divided in different families

The extract in Activity 1 stated that the way household tasks are divided depends partly on 'the beliefs partners have about the role each should play', that is, what social scientists call their 'gender ideology' – or what people see as behaviour which is appropriate for the different genders, men and women.

In other words, social science suggests that people have ideas about what is the appropriate and 'normal' way to divide work between men and women. As you saw when you took notes on the Ramos reading, these ideas may be traditional, which in this case means believing that men and women have different roles to play and that it is women's role to take most responsibility for what happens in the home.

On the other hand, they may be egalitarian, which means believing that men and women should share the work in the home and that there should be equal opportunities to enter and succeed in the paid workforce.

These ideas or beliefs can be very strongly rooted. They may be ideas about gender that people grew up with, which are supported by families close to them, or ideas they share with workmates or colleagues. They are part of a way of looking at and making sense of the world and, most importantly, they result in quite significant differences in how families divide up the work.

In this section you have been examining how the division of labour in the home contributes to inequality within the family. In the next section you will look at inequalities between families and see how this is associated with location, or where families live.

2 Location and life chances for families

Life chances and location can have a major impact on the organisation of family life. You will first of all explore what is meant by life chances. Then you will consider how life chances are connected to housing and to the place in which people live. This involves looking at how places differ from one another, how they reflect diversity and how they can reinforce inequalities.



Figure 5 Where you live affects your life chances

2.1 Life chances and place

Social science has a long history of producing evidence to suggest that people who live in different areas have differing 'life chances'. The term was first coined by the sociologist Max Weber (2009 [1948]), who argued that people's life chances are influenced by their economic position.

Economic position is largely determined by employment by the extent of property ownership. People's life chances are influenced by the social and economic benefits that they are able to access, such as salary, wealth, housing and education. These aspects of life chances are all connected. For example, our education can affect the type of job we are able to get, which in turn can affect where we are able to live, both in terms of the area and the type and quality of housing. These factors all affect our income and wealth, which ultimately shapes how much choice we have in our lives.

Activity 2 Two families living side by side

Allow approximately 45 minutes

The previous activity introduced you to the technique of scan reading which is useful for identifying the key elements in a piece of writing. This activity is an opportunity to have a go at reading a piece of writing more carefully.

Copy out the table below into your notebook and record your answers there.

- Look at the title line of the article below. What do you predict this article will be about?

- b. Now read the article more closely and make notes on the ways in which the lives of the two families differ.

Table 1

What is the article about?	Bretts	Confinos
Housing		
Daily Lives		
Education		
Prospects for the future		

Go back over the article yet again, writing your notes into the table in your notebook. As you write the notes, try to change the wording so it is not the same as the words in the article.

Keep your table as we will return to it later.

Two families living side by side. But the gulf between rich and poor keeps them worlds apart

Debbie Brett wishes she could fly. It's understandable. She's a 36-year old single mother with four children, trapped in a fifth-floor flat on a south London council estate, complete with three smashed windows and a broken lavatory.

Leaning on the balcony, stepping over water leaking from her flat, she looks out on the prosperous greenery of the private houses stretching away for miles. She dreams of a house of her own.

On the green streets below, families drive their children to schools of their choice, take them away on holidays and plan for a future even better than their comfortable present.

Debbie knows she is invisible to the people living down there. 'They look at me like I'm just another statistic.' Despite the obstacles set in her way, Debbie once had ambitious dreams for herself and her children. Only a few years ago she was studying for a law degree but she had to abandon the course when her child carer – 'a friend' – wanted some money. The lack of that small sum changed her life drastically for the worse.

Now her dreams are more modest. She'd like the council's private contractors, Acorn Housing, to answer her calls. She wants them to fix the toilet their workmen dismantled when they wrongly thought she was flooding the flat below three years ago.

Or they might fix the windows broken by her desperate teenage daughter Laura, for whom Debbie also asked vainly for help. 'They never listened until it was too late.' As for the windows: 'I got a quote for £250 once, but I didn't tell them it was the fifth floor. I'm sure it will be more when they find out.'

The result is that Debbie and her four children have no usable sitting room. They all live in her bedroom when they come home from school. They eat on

her bed or the floor and watch TV. At bedtime the girls go to two small bedrooms they share. They've never had a holiday or been out for a meal as a family.

For those who've never experienced it, poverty is generally described in bare numbers of income differentials, and statistics defining the greater likelihood of falling ill or dying early. A visit to Debbie's home gives a different picture. Poverty means the end of control over your own life. The death of hope. [...]

Debbie and her girls look down from their balcony on to the large house and garden of the Confinos. Daniel is an investment banker who commutes to the City. His wife Jayne is a magistrate. Their four children, aged eight to 13, enjoy a variety of stimulating activity. The family would not make the Sunday Times rich list, but they have enough for frequent trips to their house in France and weekly outings for meals, to the theatre and other treats. [...]

Zoe [eldest of the Brett children] is a beautiful and articulate young woman with obvious potential, still hanging on at college, but she has a part-time job in a shop that pays so badly it faces her already with the futility of her life. [...]

Just across the road, hope is in plentiful supply among the Confinos, both parents and children. They are driven by the pursuit of happiness – not the desire for material things. They see money as a means to that end. They fill every waking minute with productive activity and/or fun. Having moved into a large house with no fewer than six bathrooms, they set about ensuring their children get the most out of life. Every afternoon after school is programmed with art, story-telling, singing classes and the like. There are computers on broadband and a dazzling array of educational toys and devices to make learning fun. [...]

For Debbie, money is such a headache it stops her thinking clearly about it. She had not even done the sums on her modest income – until I asked her to. Since her partner, the father of the two youngest, left their long term relationship – a relief in some ways, admits Debbie – she now raises her children on Income Support. Like many in her state, she is prey to visiting loan sharks and finds paying 25 per cent on a loan of £100 'a good deal'. [...]

Next time you hear the statistics, think of her.

(Graef, 2003)

Discussion

These are some of the ideas I had.

Table 2.1 Comparing the Bretts and the Confinos

	Bretts	Confinos
Housing	<ul style="list-style-type: none"> • 5th floor flat • 3 bedrooms (4 girls in 2 small ones) • no useable living room • council estate • smashed windows, broken lavatory, leaking water • overlooking prosperous, private houses 	<ul style="list-style-type: none"> • large house • 6 bathrooms • garden • greenery
Daily lives	<ul style="list-style-type: none"> • eat on the bed • watch TV • feel invisible with no control over life and no hope • little money = a 'headache' 	<ul style="list-style-type: none"> • meals out, theatre, treats • activity and fun • hope • pursue happiness • plenty of money
Education	<ul style="list-style-type: none"> • Debbie's abandoned law degree (can't afford childcare) • Zoe's potential, but only 'hanging on' at college 	<ul style="list-style-type: none"> • after-school classes: art, singing, story-telling • computers with broadband
Prospects for the future	<ul style="list-style-type: none"> • lone parenthood • can only <i>dream</i> of own house • Income Support • loan sharks • continuing poverty • badly paid job (Zoe) 	<ul style="list-style-type: none"> • planning for an even better future • choices

Notice that there is much less information in some boxes, especially on the Confino's side. Often when you are looking at information (whether in the form of writing or numerical data in a graph or table) it is important to consider what is left out. In this case it seems the writer is letting us 'fill in the blanks' for the well-off Confinos, perhaps because they want to concentrate on making the poverty of the Bretts, which tends to be invisible as Debbie suggests, something you can see and have a real feeling for.

There are many differences in the lives of the two families; for now it is worth noting that one of the key differences is the very different income levels of the two families. These income differences affect many aspects of their lives and futures. For example, Debbie's hopes of a better life for her and her family through studying for a law degree were dashed for the want of some money for childcare. This has made a difference not only to Debbie's life, but to her future too. Having an education and a professional qualification would have enabled Debbie to improve not only her own life chances but also those of her children.

On the other hand, the Confino children are receiving a good education. 'Parental choice' in education means that those who can afford to transport their children easily by car are more likely to be able to exercise a choice than those who are dependent

upon public transport. The Confino children more likely to continue in education until they are 18 and to attend university. Meanwhile, Zoe Brett is 'still hanging on at college'. If Zoe does well she might go on to university, but having a part-time job means she will have less time to study. Her family's overcrowded flat affords her little space to study, especially given the space limitations imposed by the broken windows. It is not impossible for Zoe, but it is much harder. Economic inequality is a significant influence upon education and life chances.

As the article points out, the Bretts have very little control over their lives', and very little choice. The Confinos, by contrast, have a great deal of control and choice. They can afford to choose where their children are educated and have holidays, and they have a large house with plenty of quiet space for homework and reading. Money, or in Debbie's case the lack of it, clearly has a significant effect on the lives of both families.

2.2 Comparing different housing

It is very easy to forget that the reason we looked at the Bretts and Confinos in so much detail was to try and draw out some wider issues. If these two families were the only ones where this contrast could be found, this would be important for the individuals concerned but it would not reflect the wider society. Social science uses examples like these two families to identify broader issues such as the amount of control and choice people have in their lives.

As you do the next activity try to bear this in mind. Although you are still using the two families as examples you are drawing on your understanding of wider social influences to make predictions about their futures.

Activity 3 The effects of different housing

Allow approximately 40 minutes

Record your answers in your notebook.

So far you have been focusing on skills and techniques of reading. This activity gives you the chance to do some writing using the notes you already have.

Look back at your table of differences between the housing conditions of the two families, and at the article too so that you can provide more detail if you need it. Now use your notebook to write about 200 words contrasting the ways in which the two families' differing circumstances might affect their futures.

Focus on these three major factors: housing, education and money. To contrast means to show differences.

Try and start with a sentence that says what you are writing about. It is also a good idea to finish with a concluding sentence to highlight your main point.

Discussion

Here is an example of writing about the effects of different housing:

Three major factors which impact on the families' futures are housing, education and money. Housing plays a key part in shaping educational opportunities and therefore life chances. The cramped space in the Bretts' flat means that the children have little room for quiet study, whereas the

Confinos have plenty of room to study. The poor condition of the Bretts' flat also plays a role. Broken windows and a broken lavatory will make for harsher living conditions than in the Confinos' comfortable house. Then there is the lack of educational resources. Whereas the Confino children have computers with broadband, educational toys and after-school classes the Brett children appear only to have a television. Finally there is lack of money. Debbie had to give up her law degree because of the cost of childcare, and Zoe is only 'hanging on' at college, partly because of the pressure of having to do part-time work. The Confinos have none of these financial pressures, and can concentrate on studying. It seems, then, that the three factors act together to shape in contrasting way the likely futures of two families.

Don't worry if your writing looks different to the one above. This example has been constructed as a paragraph which has:

- sentences which introduce each of the three factors
- a sentence to sum up
- sentences that make comparisons between the Bretts and Confinos using words like: whereas, harder, only, none of these.

Some social scientists have argued that housing has a significant influence upon life chances in a wide range of ways, including but not limited to educational factors. As you read the next section, you should be able to identify how living in different types of housing affects the life chances of the members of the two families.



Figure 6 Different types of housing

2.3 Housing wealth as an influence on life chances

As you read the following text notice how life chances are affected by whether you are a home owner or a tenant in rented accommodation. Why are life chances different for these two groups?

Does it matter whether you rent or own your home?

Saunders (1988) argued that housing tenure (whether your home is owned or rented) has become more important than occupation (type of job) in terms of affecting people's life chances. According to this argument, owner-occupied housing (housing which is owned, or is being purchased with a mortgage, by the people who live in it) represents a source of wealth accumulation which enables people to buy things through the private market (such as health care and education) rather than relying on that provided by the state via taxation. This, it is argued, can be achieved by withdrawing money from housing in the form of equity (the difference between the value of the house and the amount of mortgage remaining on it), and also gaining access to cheaper credit as a result of being a home owner (Saunders, 1988, 1990). Furthermore, passing on wealth through inheritance means that this advantage is passed on from generation to generation.

Tenants, in contrast, represent a distinct group without access to such resources. Saunders argued that because housing tenure affects the way that people are able to gain access to wealth and services, it has become the most important source of division in society, outweighing the importance of occupation as an influence on life chances.

Other social scientists have argued that Saunders overstated the importance of housing tenure. Watt (1993), for example, argued that not enough consideration had been given to the impact of people's ability to withdraw equity from their properties. If you withdraw equity, in other words get cash to pay for things by enlarging your mortgage, then this would reduce how much your children could inherit. Also, people often have to sell property in later life to pay for residential or nursing care. If that happens then the advantages of home ownership are further reduced. Forrest and Murie (1995) also pointed out that all owner-occupied housing is not alike, and that the quality and value of houses vary enormously. The implications of this are that home ownership in itself may not be the primary factor affecting opportunities in life. Rather, it is people's level of income which is still the main factor which influences life chances.

The three previous paragraphs demonstrate one of the key things that social scientists (and other academics and students) do when they write for an academic audience, which is to propose an argument, or debate. The first two paragraphs give an overview of Saunders' argument, and describe the details of the argument and reasons for the assertion. The third paragraph outlines a counter-argument which suggests that Saunders is not right and cites evidence (including some from other social scientists) to support this. Thus a debate is being developed and evidence is used to support the points being made.

While Saunders' argument about housing tenure has some merits, it does not seem to present the whole picture, as those who have criticised him suggest. At present, most people still rely on their incomes in order to obtain mortgages, and those with smaller incomes who are likely to struggle to afford to buy a property are also more likely to need to release equity later in life in order to boost a small retirement income. On the other

hand, those who have greater incomes from employment are likely to be able to afford bigger houses. They are less likely to need to withdraw equity from their property and therefore more likely to pass on inheritance to their children. They might even provide financial assistance to help their children obtain mortgages themselves. Thus, it is possible to argue that owning or buying a property rather than renting brings more choice and possibly wealth for only some people – those who are already affluent. Overall, housing tenure could be said to worsen existing inequalities relating to income from employment.

Returning now to the issue of housing wealth, think back to the article in Activity 2 which illustrated the way that housing wealth is likely to influence the lives of the Confino family. The Confinos' house is probably owner-occupied and, given its size, it is likely to be worth a good deal. It will probably provide an inheritance for the children in the future, which will help them in their lives. Furthermore, it provides the family with choice over where they live. If they wish to move, they can sell the house and buy another one of similar or greater value as their incomes rise with age and they accumulate wealth in their housing in the form of equity.

In contrast, Debbie has very little control over her life and cannot easily move. Housing-association and local-authority housing is not easy to obtain in many areas (especially in London) due to the high demand. Availability further declined as a result of the sale of council houses following the 1980 Housing Act, which gave tenants the right to buy their properties at considerable discounts. Those properties sold tended to be in towns and more rural areas rather than inner-city areas and also tended to be houses rather than flats (Malpass and Murie, 1999). While new properties have been built for renting from housing associations since then, overall the stock has severely diminished, and what remains is often in deprived, inner-city areas. Debbie could request a transfer to another housing-association property but she would probably have to wait a long time for it to happen, if it did at all. The Brett children will not inherit capital. Thus (notice the concluding word 'thus', which is being used to conclude the discussion), housing influences the quality of people's everyday lives, their life chances and the life chances of their children.

This section has given you the opportunity to think about what you can possibly learn about wider society by starting with a comparison of just two families. Drawing wider understanding from detailed observation and the use of concepts, is at the heart of social science. Your work on this and the previous week will have put you in a good position to move onto the Week 5 quiz.

3 This week's quiz

Now it's time to complete the Week 5 badge quiz. It is similar to previous quizzes, but this time, instead of answering five questions there will be 15.

Go to:

[**Week 5 compulsory badge quiz.**](#)

Remember, this quiz counts towards your badge. If you're not successful the first time you can attempt the quiz again in 24 hours.

Open the quiz in a new tab or window (by holding ctrl [or cmd on a Mac] when you click the link).

4 Summary

The two social science weeks of this course have provided an introduction to some key concepts in social science including identity and stereotyping. We have also touched on issues like class and gender and the importance of where people live. Over the two weeks you have seen how people can come together in groups or in a shared culture as well as how they may be separated from social inequality.

Week 5 has introduced a number of important social science ideas about relationships in the family, and has focused on role of women and how feminism can help develop a more informed understanding. You have also practised your note taking skills.

In addition to developing your understanding of these shared topics you have seen how the systematic approach that underpins the cycle of enquiry can be used to illuminate a range of social science topics. (You might like to test this out by seeing if you can apply it to something that interests you and something that is in the news.

In Week 5 you have learned about:

- how social science sees families and relationships
- how the role of women may have changed
- the concept of division of labour in the home
- aspects of cultural identity and group belonging
- how where you live affects life chances
- note making skills.

In the next two weeks you will look at what might be involved in studying science, technology and maths subjects.

Week 6: Communicating ideas in science, technology and maths

Introduction

So far in this course you have encountered the study of arts and humanities and the social sciences. This week you will have the opportunity to do some initial study of science, technology and maths. Perhaps more than any other subjects, science, technology and maths can provoke fear in some students and great excitement and interest in others. Yet, if we study science, technology and maths, or the STM subjects, as they are often referred to, we are doing far more than simply learning about abstract ideas. Your previous study of arts and languages and the social sciences has given you an insight into how individuals and societies interact, and the value of the culture we create. The study of science, technology and maths provides an answer to much more fundamental questions about what makes the world around us and what is our impact on it.

Laura Hills, the author of this week and next introduces you to Week 6:

Video content is not available in this format.



This week you will have the opportunity to understand more about science, technology and maths, how they connect to each other, and what it is like to study these subjects at HE level. In particular you will explore how we communicate ideas and information in STM subjects, including the use of written texts, diagrams and graphs.

This week you will:

- gain an understanding of what science, technology and maths are
- recognise how ideas are communicated in science, technology and maths
- develop your study skills of reading and note making
- learn how diagrams and graphs are used.

1 What are science, technology and maths?

Given the strong feelings science, technology and maths provoke amongst many learners and students, the first place to start, before we embark on an explanation of what science, technology and maths are, is to ask what you understand by these terms.

Activity 1 What do science, technology and maths mean to you?

Allow approximately 10 minutes

Write a few words or phrases in your notebook that describe what you understand by 'science', 'technology' and 'maths'.

Discussion

Here are some of the ideas I had:

Table 1

science	technology	maths
experiments and theories	electronic devices such as laptops and smart phones	numbers
laboratories	tools and gadgets	measurements
finding out about the world	applied science	calculations
testing ideas	engineering	problem solving
chemistry, biology, physics	design	data

To what extent are the words or phrases you came up with similar to those listed here?

In general terms, **science** is about a particular type of knowledge about the world.

Scientific knowledge has been tested through experiments and observations. Science involves the investigation, analysis and study of nature. It has its own methods and techniques for finding out things. Before a new observation or theory can be accepted as a scientific fact, it has to be tested by scientists working independently. Some sciences, such as chemistry and physics, tend to be based within laboratories. In these subjects, experiments are often set up under controlled conditions, such as a specific temperature or combination of chemicals. In other sciences, such as astronomy or biology, experiments more often start from observing the world outside the laboratory, and then testing ideas or theories against those observations. The aim is to understand the world around us, to know how things work.

If the aim of science is to comprehend the world, the aim of **technology** is to change it. Technology uses knowledge to achieve a practical purpose, to solve a problem, say, or to satisfy a need. Technology is the application of knowledge, including scientific knowledge,

to change things. Often, technology is thought of as applied science, but there are many cases where a technologist has developed a practical solution to a problem before the scientific principles have been fully understood. For instance, people were building boats long before the physical theory of buoyancy (floating) had been worked out. Technology often involves devices or tools, such as power stations or computers, but it also includes social innovations. For example, a book can be thought of as a technology for sharing ideas, or a meeting between people as a technology for sharing experience to solve a problem.

Just as science and technology look at the world, **!Warning! Calibri not supported-maths** concerns knowledge about the abstract world, quantities, sets and relationships. Maths has no single accepted definition, but we could say it is the classification and study of all possible patterns. This definition may surprise you, as you may think maths is simply about numbers and arithmetic. But maths is about so much more than numbers. Numbers have patterns, and when you dig deeper into maths you find patterns everywhere. This includes all patterns in science, design and technology, and more abstract patterns as well.

Mathematical facts cannot be demonstrated with the aid of experiments as they are true in any world or universe, not just ours. They are instead demonstrated with logical arguments. Maths is a language in which many scientific and technical ideas may be expressed.

In practice, science, technology and maths tend to be closely linked. Human beings find it difficult to know something without using that knowledge for some purpose or another. The more we know about the world, the more we are able to change it. But the more we change it, the more we learn about the way things work. Our understanding of our surroundings progresses hand in hand with our ability to change and manipulate them. Understanding the world allows us to change things in new ways, or to change them more effectively and efficiently. Similarly, the process of changing things improves our understanding of how the world works – and thus our ability to investigate it in new ways so as to improve our understanding still further.

An example should make things clearer. People were using yeast to make bread for thousands of years before yeast was identified as a living thing, made of many microscopic cells. The technology of breadmaking had gradually developed as a practical process that worked, without having to know the detailed science. Recipes were used that measured the quantities of ingredients and these quantities could be adjusted. Once the biology of yeast was understood, however, people could apply that knowledge to improve the breadmaking process. So, technology can find solutions before the science is understood, but can also benefit from applied scientific knowledge. At each step of the process measurements and maths help to understand what is going on.

One consequence of this distinction is that we tend to judge science, technology and maths in different ways. Science and maths tend to be evaluated in terms of 'right' or 'wrong', 'yes' or 'no'. Does the Earth rotate around the Sun? Yes. Is the Earth supported on the back of a giant turtle? No. In contrast, when we look at technology we ask about whether it works. Is this particular technology effective and appropriate in this particular situation? Does it achieve the desired result?

2 Communicating ideas and information

So far on this course you will have encountered a number of ways of communicating ideas and information, from poetry to art installations and cartoons. The STM subjects also use varied forms of communication, including writing, diagrams, tables and graphs. As has been made clear, maths is also considered a language.

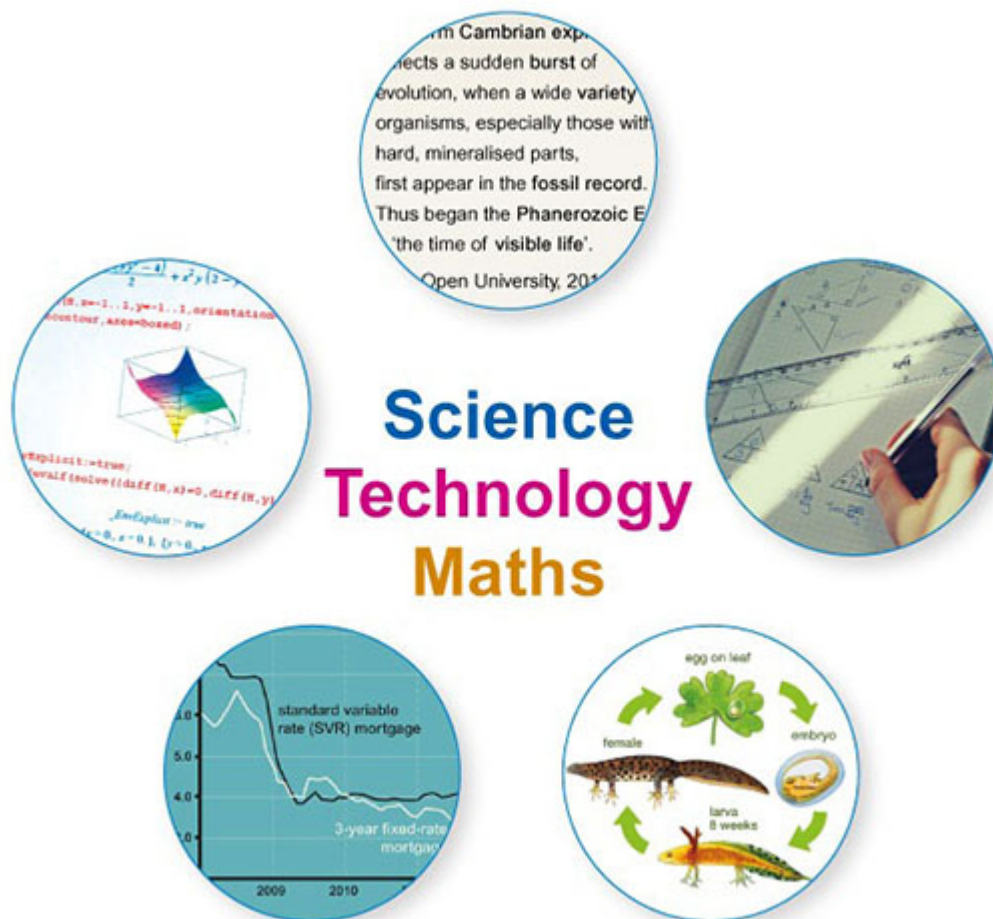


Figure 1 Different forms of communication in Science, Technology and Maths

In this section will start to learn how to communicate information and ideas in science, technology and maths. You'll begin with the form of communication you are probably most familiar with, that of written text.

2.1 Reading text

In the STM subjects, words have very precise meanings, so you will encounter terms that may be unfamiliar at first. The following activity will help you to tackle complex and unfamiliar text.

Activity 2 Reading text

Allow approximately 30 minutes

The three examples of text in this activity come from three different sources: Example 1 is from a popular science magazine, Example 2 is from a student textbook for a module of a higher level than this course and Example 3 is from a book intended for the general reader. Note that a billion is a thousand million, and a million is a thousand thousand. These three texts are probably more complicated than anything else in this week, so the comment afterwards will give you some advice about how to interpret them. After this activity, the rest of the week should be less daunting. You don't need to remember the information in these examples – what matters more is how you approach the reading.

Read each of the three articles, then in your learning notebook:

- list them in order from easiest to understand to hardest to understand, writing down why you put them in this order (which may be related to the terminology used, the numbers included, or some other reason)
- identify which one you think is the most scientific
- write down a few words – no more than a couple of sentences – summarising what each one was about.

Example 1

Geologists can trace the history of the Earth back about 4.6 billion years, to its formation from a ring of gas and dust around the young Sun. They divide this vast span into intervals that form the basic yardsticks of geological time. Early geologists named these intervals on the basis of the rocks formed within them but without knowing how long they lasted. Succeeding generations have changed the names of some and calibrated them in years to produce a geological time scale – a means of measuring the history of the Earth.

(Hecht, 1995)

Example 2

One of the most important events in the history of life began about 545 million years ago, i.e. some four billion years after the origin of the Earth. The term Cambrian explosion reflects a sudden burst of evolution, when a wide variety of organisms, especially those with hard, mineralised parts, first appear in the fossil record. Thus began the Phanerozoic Eon – 'the time of visible life'. Very small (1–2 mm) shelly fossils appeared in the earliest part of the Cambrian Period – assorted shapes such as tubes and cones (that presumably enclosed soft tissue), as well as spines, scales and knobs. It's often difficult to tell, however, whether a fossil is the complete skeleton of a single organism or an isolated part of some larger creature.

(The Open University, 2013)

Example 3

Throughout its 15 billion years, the pace of the Universe's development has been accelerating, each new wave of innovation building up to trigger the next, in a series of 'leaps' to further levels of change and diversification. Compress this unimaginable timescale into a single 24-hour day, and the Big Bang is over in less than a ten-billionth of a second. Stable atoms form in about four seconds but not for several hours, until early dawn, do stars and galaxies form. Our own solar system must wait for early evening, around 6 p.m. Life on Earth begins around 8 p.m., the first vertebrates crawl on to land at about 10.30 p.m. at night. Dinosaurs roam from 11.35 p.m. until four

minutes before midnight. Our ancestors first walk upright with 10 seconds to go. The Industrial Revolution, together with our modern age, occupies less than the last thousandth of a second. Yet, in this fraction of time, the face of this planet has changed almost as much as at any but the most tumultuous times in the prehistoric past.

(Myers and Kent, 2005, p. 12)

Discussion

Here is what some students said about these articles:

I haven't studied science before, so some of the words had me puzzled – I'm not sure I could even pronounce Phanerozoic. All the examples talk about the age of the Earth, and how long ago life started. Overall, I think Example 2 is the most difficult, but then, it did say that this was from a higher-level textbook. I had to read that one several times – I hope the rest of the book is easier! I think Example 2 was the most scientific, then Example 1, then Example 3. I underlined some of the words, so I could work out what made sense.

Some of the words were new to me, but the confusing part was sorting out all the numbers – billions of this and millions of that. I drew a sort of clock for the last example, so I could see how all the numbers fitted together.

I've done some science before, so I wanted to check that the three examples made sense together. They all refer to the age of the Earth as 4.6 billion years, but you need to think about the different ways the numbers are presented. I didn't think Example 3 was very scientific – although it included terms such as 'Big Bang'.

I found the language quite hard to follow – there were lots of long and confusing words within vital bits of information that you needed. I found it took up a lot of time. However, the extracts of texts from books were very useful and helpful.

Your response is likely to differ from all of these, although there may be some similarities.

One way of helping you to understand scientific writing is to underline the words or phrases which you think are most important and which summarise the content and meaning of the text. These are often referred to as key words.

Identifying key words is not an exact science. Different people may have a different sense of what is important in a text, perhaps because of their familiarity with the subject area or the reason they are reading the text in the first place. However, there will always be a number of key words which most people can agree are central to understanding the text and what it is about.

Activity 3 Identifying keywords

Allow approximately 10 minutes

Reread Example 1 from Activity 2 and try to identify the key words or phrases in the text. I have identified a total of twelve.

Geologists can trace the history of the Earth back about 4.6 billion years, to its formation from a ring of gas and dust around the young Sun. They divide this vast span into intervals that form the basic yardsticks of geological time. Early geologists named these intervals on the basis of the rocks formed

within them but without knowing how long they lasted. Succeeding generations have changed the names of some and calibrated them in years to produce a geological time scale – a means of measuring the history of the Earth.

(Hecht, 1995)

Discussion

Here are my key words from the text:

Geologists can trace the **history** of the **Earth** back about **4.6 billion years**, to its **formation** from a ring of **gas and dust** around the young **Sun**. They divide this vast **span** into **intervals** that form the basic **yardsticks of geological time**. Early geologists named these intervals on the basis of the rocks formed within them but without knowing how long they lasted. Succeeding generations have changed the names of some and **calibrated** them in years to produce a **geological time scale** – a means of measuring the history of the Earth.

Did you identify the same key words? How far do you agree with my selection of key words?

2.2 Understanding diagrams

Diagrams, which can be quite complicated, are often used in STM subjects, and it can take time to interpret them. Even so, for some topics, an illustration can clarify the meaning, especially if used alongside the text. In academic text diagrams, illustrations and graphs are often all referred to as 'figures' and that is the convention used here. For each figure, the content will be described, to give you a guide to interpreting the diagram.

Figure 2 relates to Example 1 in Activity 2. The geological timescale is divided into eons, which in turn is divided into eras and then periods. To simplify the diagram in Figure 2, most of the technical names for the time intervals have been omitted from this version, which just shows where the Cambrian period fits into the overall scheme.

The oldest (earliest) events are on the left side of the diagram, and the youngest (most recent) events are at the right side of the diagram. The oldest event on this diagram is the formation of the Earth itself. Note that the times are in millions of years.

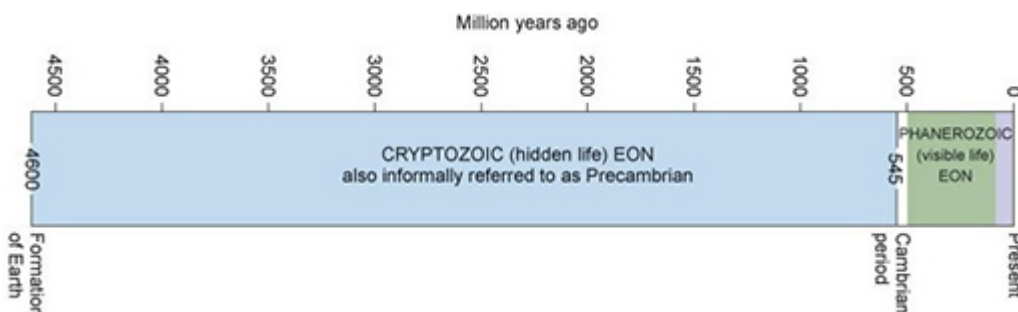


Figure 2 A simplified version of the geological timescale

Figure 3 shows magnified photographs of typical fossils and relates to Example 2 in Activity 2. There is a range of sizes but none of them is longer than a few millimetres. It is not always possible to tell whether each fossil is a complete creature, or just part of one.

Unlike the previous diagram, there is no written information other than the data of the fossils provided in the caption.



Figure 3 Fossils from the early Cambrian period

Figure 3 relates to Example 3 in Activity 2. The timeline in Figure 3 shows the oldest events on the left, and the youngest ones on the right. The oldest event in this diagram is the Big Bang, the formation of the Universe. This timeline is labelled with the actual time periods in millions of years (below the line), and the imaginary equivalent if the whole sequence were fitted into 24 hours (above the line). The most recent segment of the timeline (the last 'hour') is repeated below at a larger scale, to show more detail, and then the latest segment of that line (the last 'minute') is again enlarged below that.

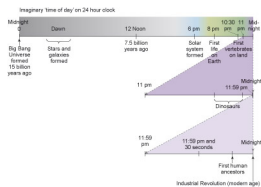


Figure 4 The age of the Universe as a timeline

Activity 4 Using information from diagrams

Allow approximately 10 minutes

Read Examples 1, 2 and 3 in Activity 2 again, referring to the diagrams in Figures 2, 3 and 4. Make notes about your responses to the following questions:

- How much effect do the illustrations have on your understanding?
- Would you make more sense of the information if it were only in a diagram, or only in words?
- Which do you prefer?

Discussion

Some people have a preference for words or illustrations, although the STM subjects use both together. One of the challenges is to interpret the diagrams alongside the text – and there will be opportunities to practise this as you progress through the module. You may also find that sketching your own simple diagrams will help – they do not need to be works of art.

2.3 Reading graphs

Another important form of communication in STM subjects is graphs. You will now look at how graphs are used in STM subjects through the example of population growth, which is a topic you will be returning to next week.

A graph is a way of showing how one set of data varies with another set of data, and it can be used to see whether the data is likely to be related to each other. For example, a graph is useful for seeing how something changes over time. Figure 5 shows the growth in the population of human beings over time. The graph has two axes: y and x. The y-axis runs vertically and typically shows the number of what is being measured. In this case, the y axis shows the population in millions of people. The x-axis runs horizontally and here has symbols representing different time periods or names of things being compared. Here the axis shows time in years.

'BCE' stands for 'Before Common Era' and CE for 'Common Era', and they sometimes replace 'BC' and 'AD'.

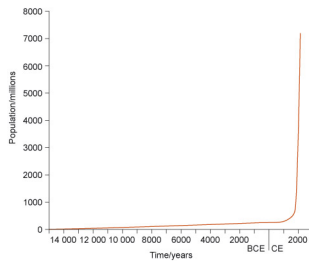


Figure 5 The population of human beings over time

Activity 5 Reading graphs

Allow approximately 5 minutes

Look at Figure 5. Write a few words to describe how the population of human beings has increased over the time period shown in the graph.

Discussion

Human population growth increased very slowly from 14 000 BCE until nearly 2000 CE when it rose very steeply.

If you would like to learn more about graphs and communicating information with numbers, you might want to study another free badged open course [Succeed with maths – Part 2](#).

Population levelling off

The population of human beings continues to increase because of our ability to increase the efficiency with which we exploit the ecosystems we manage for food and other resources. An ecosystem is a complex set of relationships between the living resources, habitats and residents of an area. It includes plants, trees, animals, fish, birds and micro-organisms, water, soil and people.

Our agriculture allows us to increase the amount of energy available to us as food and the spread of human populations across the Earth demonstrates our ability to migrate from one ecosystem to another in search of new resources. Since the nineteenth century in the industrialised west, improved hygiene and the development of medicine have also led to fewer infants dying, and people living longer.

But population growth and industrialisation increase our demands on the biological and physical resources of the Earth. As the human population nears the limit of what the Earth

can provide, the competition for resources (water, food and oil) and the consequences of overcrowding (pollution and disease) will tend to increase.

There is some good news, however. Figures from the United Nations Population Fund have indicated that the rate of the rise in the human population may be levelling off (see the dashed line on Figure 6). One probable reason is that improved healthcare, including reproductive health, has led to people choosing to have smaller families. (In many parts of the world, high mortality rates, including high infant mortality, mean that people have large families to ensure that enough children survive to care for their parents in their old age.) A far less positive reason may be the increasing mortality rates in sub-Saharan Africa and parts of the Indian subcontinent, in large part due to HIV/AIDS.

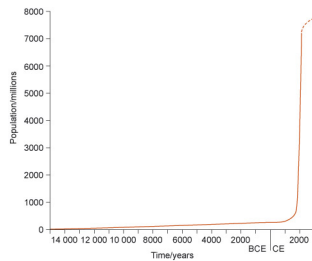


Figure 6 The population of human beings over time, showing the predicted trend

3 This week's quiz

Well done, you've just completed the last of the activities in this week's study before the weekly quiz.

Go to:

[**Week 6 practice quiz.**](#)

Open the quiz in a new tab or window (by holding ctrl [or cmd on a Mac] when you click the link).

4 Summary

Well done. You have now completed Week 6 of the course and the introduction to the disciplines of science, technology and maths.

In Week 6, you have learned about:

- what science, technology and maths are
- how ideas are communicated in science, technology and maths
- developing your study skills of reading and note making
- how diagrams and graphs are used.

Next week you will have the opportunity to further examine the use of science, technology and maths through a case study of water. You will also be able to further explore the use of diagrams in STM subjects, and be introduced to the use of tables and some basic fractions and percentages.

Week 7: Water for life

Introduction

Last week you were introduced to some of the concepts and skills associated with science, technology and maths, and the different ways in which these concepts are communicated. This week you will be able to further develop some of these skills in order to explore our relationship with water and what its existence means for world population. There will be more of a focus on maths and technology this week as you work out how much water you use and consider ways of reducing that consumption.

Watch Laura introduce Week 7:

Video content is not available in this format.



This week you will be exploring the topic of water. Water is essential for life, and without water there would be no life. Water also has many special properties that single it out from other substances and that make it of interest to scientists in all areas.

Water is also a subject that is part of your everyday experience; you know a lot about it already. For example, water is the most common liquid on the Earth: it forms ice; it falls in the form of rain; all plants and animals need water to survive.

This week you will:

- explore the relationship between population and water
- enable you to investigate your own use of water
- develop your study skills of reading diagrams and tables
- use your skills to calculate fractions and percentages.

1 The relationship between population and water

Last week you looked at how the population of the world has increased, particularly in the twentieth century. However, population growth has not been uniform across all areas of

the world. In this section you'll learn about the relationship between rainfall and population.

The need for water to maintain human life, both for essential drinking water and cultivating food, means that human population in desert areas are generally very low. Populations are very much higher where there are plentiful supplies of water. This is evident from comparing the two maps in Figure 1.

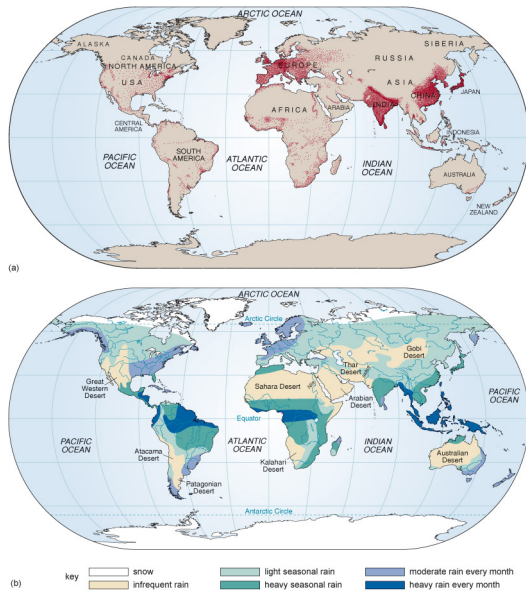


Figure 1 (a) A map of the world showing the distribution of the human population; (b) A map showing world rainfall

As you will appreciate, because the Earth is a sphere, the views in Figure 1 are not those you would see if you could look down on the Earth from space. The advantage of maps like those in Figure 1 is that they allow the whole surface of the Earth to be shown in one picture. As was mentioned last week, scientists often use diagrams to represent particular aspects of an object, and these diagrams are rarely accurate representations of all aspects of the object. The population map, for example, shows the world as a flat sheet, with Alaska a long way from Siberia, whereas a look at a globe will show that they are close together.

However, as long as you bear in mind the limitations of this sort of map, it is a very useful way to convey information about the population of all regions of the world in a single diagram.

Figure 1 (a) shows how densely populated the different areas of the Earth are. The population information is conveyed by the dots on the map, and the caption tells you that each dot represents the same number of people. This means that, where the dots are very close together, more people live in that region. In other words, there is a high population density in that region. England, for example, has a high population density overall, and the dots are close together there. If you live in a rural area, you may find this concept hard to comprehend, but the low population density in the countryside is balanced by a far higher population density in cities and towns. To read Figure 1 (a) you don't need to know how many people each dot represents. All you need to know is that the more dots there are in a given area, the more densely populated that area is. The impact is immediate.

Activity 1 Interpreting information from figures

Allow approximately 20 minutes

- From Figure 1 (a), which are the most densely populated areas of the world? Which are the least populated?
- Figure 1 (b) shows how rainfall (or snowfall) varies in different regions of the world. Which are the areas with the most rainfall? Which are the areas with least rainfall?
- Consider the visual impact of Figure 1 (b). Do you think the colours used were chosen randomly? If not, what do think the colours in the key represent.
- Are there any features, such as geographical area, which are labelled in one map and not the other? Why do you think this is?

Discussion

- According to Figure 1 (a) the most densely populated areas of the world are India, China, Japan and Europe. The dots are the closest together in these areas. The least populated areas are North Africa, Australia, parts of Russia and Siberia, Alaska and Canada, and parts of South America.
- The areas with the most rainfall are around the equator, particularly in South America, Africa and the islands north of Australia. The areas with the least rainfall are the Atacama Desert in South America, the Sahara and Kalahari deserts in Africa, the Arabian Desert in the Middle East, the Thar and Gobi deserts in Asia and the Australian desert.
- The colours have associations. Blue is traditionally the colour of the sea, a watery environment: the darker the blue, the more watery the environment. Yellow is the colour of sand, which is associated with deserts. These sorts of associations make it easy to distinguish at a glance the wet areas from the dry areas. In Figure 1 (b) there is a key to show you what the different colours on the map mean. Hot desert areas where it seldom rains are yellow, and areas where there is heavy rainfall throughout the year are dark blue.
- Several features have been labelled in Figure 1 (b) that were not labelled in Figure 1 (a), notably the locations of the Equator and the Arctic and Antarctic Circles. The Arctic and Antarctic Circles were not labelled on Figure 1 (a) because they were irrelevant to the discussion of the world population distribution. However, they are relevant to the consideration of world rainfall and deserts. You probably associate the Arctic Circle with cold temperatures and the Equator with hot temperatures. The closer to the Equator you are, in general, the higher the average annual temperatures and so the more likely you are to find hot deserts if there is little rain. Beyond the Arctic Circle, you are likely to experience snowfall rather than rainfall.

When you compare the maps in Figures 1 (a) and (b) you will see that areas of very low rainfall generally match up with the low population density area. There are, however, two clear exceptions that you might have noticed. These are along the Nile river valley in Egypt, and along the Indus river valley in Pakistan. The Nile and Indus valleys have desert climates with little rainfall. The large rivers that give their names to these valleys bring water from the mountains, which can be used for drinking water and crop irrigation, and so that high populations can be supported in these areas.

It is known that water is essential for humans, and therefore one conclusion to be drawn from these observations is that human populations are concentrated in regions where they have access to water. Next you'll look at the quantities of water that are required to sustain human populations.

2 How much water do you use?

You have just examined the relationship between rainfall and population. Global water use has increased over the centuries not only because the world population has increased but also because water is now used in a huge range of additional ways.

In a rain-soaked country such as the United Kingdom, we often take water for granted. In this section, however, you will look at water consumption and how it can be reduced through the use of technology. You will also look at how tables can be used to communicate information and you'll use some basic mathematics with fractions and percentages to calculate how much water it is possible to save.

Activity 2 Where is water used?

Allow approximately 5 minutes

In your notebook, write a list of some of the ways water is used today. Do not limit yourself to household use but think of as many environments as possible where water is used.

Discussion

Water is used the most for washing and cleaning (baths and showers, washing machines and dishwashers, flushing toilets). In addition, water is used in manufacturing industries, in electricity generation and for recreational activities (e.g. swimming pools).

2.1 Household use of water

Table 1 shows information about the domestic use of water in the UK. The left-hand column of the table lists the main ways in which water is used, and the right-hand column indicates the average amount of water used each day for each person in the UK.

Of course, these figures are estimates rather than precisely measured amounts. The water supply companies have no way of keeping track of how the tens of millions of households use all of the water that they supply. They base their estimates on surveys of a range of different types of households, carried out over extended periods of time to allow for seasonal variations, and they use the survey results to estimate typical values for the whole population. So it shouldn't be surprising if your use of water doesn't correspond to the pattern shown in Table 1 – you are not necessarily a 'typical' water user!

Table 1 Estimated daily domestic use of water per person in the UK

Use of water	Volume/litres
baths and showers, etc.	50
flushing toilet	37
clothes washing	21

dish washing	12
garden watering	9
drinking and cooking	6
car washing	1
miscellaneous	14
Total	150

(Source: based on figures published by the Environment Agency, 2013)

Table 1 gives data only for domestic water use; commercial and industrial use of the mains supply is excluded.

2.2 Reading tables

Tables provide a neat and concise way of displaying and comparing information that can be referred to quickly, without having to read through large sections of text.

If you look at Table 1 again, you can see some of the important features which are common to all tables of this type:

- a title
- a heading at the top of each column
- the 'volume' heading includes the unit of the measurement (litres in this case), so the unit does not have to be repeated after each number in the column. Where appropriate, it is conventional to use 'quantity/units' in labelling the column headings in tables.
- a source for the data that are displayed.

Table 1 Estimated daily domestic use of water per person in the UK

Use of water	Volume/litres
baths and showers, etc.	50
flushing toilet	37
clothes washing	21
dish washing	12
garden watering	9
drinking and cooking	6
car washing	1
miscellaneous	14
Total	150

(Source: based on figures published by the Environment Agency, 2013)

Look at the data in Table 1. To discover the estimated amount of water used in washing clothes, for example, look down the first column to find the row that says 'clothes

washing', and then read across this row to the number displayed, which is 21. But 21 what? The column heading makes it clear that the number means that 21 litres of water are used in washing clothes and the title of the table tells you that this 21 litres is the estimated amount of water used daily per person in the UK for washing clothes.

To practise reading the information in Table 1, answer the following questions.

Activity 3 Reading a table

Allow approximately 5 minutes

- How much water, as an estimate, does each person in the UK use per day for baths and showers, etc.?
- How much water does each person in the UK use each day in the home for flushing the toilet?
- What does the number 6 in the third row from the bottom of the table mean?

Discussion

- The answer is 50 litres. Remember to include units with your answer, otherwise saying '50' doesn't make it clear that the amount is in litres – not gallons, pints or drops!
- The number given in the second column of Table 1 on the same line as 'flushing toilet' is 37, and the units 'litres' are attached to this. So the average person uses 37 litres of water per day for this purpose.
- The entry in the third row from the bottom of the first column of the table is 'drinking and cooking', so the number 6, together with the table title and the column heading, should tell you that the use of water for cooking and drinking in the home in the UK is equivalent to 6 litres per day for each person in the country.

Activity 4 Calculating personal water use

Allow approximately 10 minutes

The Energy Saving Trust is a charitable foundation which provides advice to communities and households on how to use water and energy more sustainably.

- Use the [Water/energy calculator](#) (press ctrl and click on link to open in a new window) on the Energy Saving Trust website to calculate how much water your household uses on a daily basis. The calculator automatically produces an estimate of the amount of water used per person per day.
- Compare your household's per person estimated water use with the estimated average in Table 1, which is 150 litres a day. Do you use less or more water than average per day?

The calculator requires you to indicate your water supplier. This is purely to work out the cost of your water and so, if you would rather, you can choose any water provider.

For the next activity you will be asked about which devices or tools can save water and so please make a note of any water saving devices you are asked about while you complete the calculator questions.

Discussion

The report produced will include a lot of information. You should look at the bar chart on the right hand-side, which will indicate your water consumption per day and compare it to the average.

In the case of my own household, each person uses 94 litres per day, which is much less than the average.

3 Saving water

You have just considered the daily domestic water use per person in the UK. The numbers given in Table 1 are estimates for the whole population, averaged over the year. There are three ways of calculating an average, but the most common is calculated by adding quantities together and then dividing the total by the number of quantities there are; this type of average is known as the mean. An example of the mean can be seen in the water calculator quiz. The total amount of water used per week for different purposes is divided by the number of days in the week and also by the number of people in the household. Where the exact amount of water used is known, the resulting number is the average (mean). Where the exact of water is not known or guessed at, then resulting number is an estimate or estimated average (mean).

Clearly, there will be seasonal variations in domestic water use and when droughts lead to water shortages there can be dramatic changes to the levels and patterns of water use. You'll now look at some of the savings that could be made in water consumption to cope with drought conditions or to reduce water bills that are based on the amount of water supplied.

Activity 5 Reducing water consumption

Allow approximately 10 minutes

In a serious drought, or if you wished to reduce your water bills, how would your household be likely to reduce its water consumption? Take a few minutes to think about this and jot your answers into your notebook.

Last week you saw that technology could include tools and gadgets. Looking at the list of what you intend to do to save water, identify those which are forms of technology. You might want to look at the advice at the bottom of the report produced by the water/energy calculator for some ideas.

Discussion

Here is a list of different ways of saving water, divided into technological and non-technological methods. Of course, it could be argued that buckets and watering cans are also a form of technology but the focus here is on technologies which have been specifically designed to save water.

Non-technological ways of saving water	Technological ways of saving water
Wash the car with a bucket rather than a hose	A or A* rated washing machine
Water the garden with a watering can	Dual flush mechanism on toilet
Flush the toilet less often (If it's yellow let it mellow, if it's brown flush it down!)	Toilet displacement device
Have a shower rather than a bath	Trigger operated spray gun for your hose
Fully load the washing machine/dishwasher	Shower timer

To illustrate the savings that might be made, consider the strategy adopted by a hypothetical household, the Browns. They agree to reduce their normal pattern of water use by:

- not using any water outside
- reducing water use for baths and showers to two-thirds of normal
- putting a 1-litre 'save-a-flush' bag in their 10-litre flush cistern. (This sealed bag contains a couple of tablespoons of grains of super absorbent polymer and silica sand. The bag allows water through and the grains swell up with water from the cistern expanding the bag to a volume of 1 litre and reducing the flushing volume to 9 litres.)

Table 2 Average daily water use by the Brown household before they implemented water-saving measures

Use of water	Volume/litres
flushing toilets	120
bath and shower	96
washing machine	54
dishwashing	24
outside use (e.g. garden, car washing)	20
miscellaneous (including, drinking, cooking, cleaning)	86
Total	400

3.1 Using fractions and percentages

One way of better understanding the impact of the Browns' water savings is to express them as fractions and percentages.

Using the example of the Browns' first water saving measure, not using water outside the house, we can calculate that as a fraction. A fraction should be expressed as a numerator (the saving) and a denominator (the total water used):

$$\frac{20}{400}$$

In this case the units cancel each other out:

$$\frac{2}{40}$$

Fractions can be simplified when the numerator and denominator have a common factor in them. If both the numerator and denominator have common factors, then we can cancel these factors out. In this case the common factor is 2. It is therefore possible to simplify the fraction by cancelling the 2 from both the numerator and denominator of the fraction. Cancelling is equivalent to dividing both the numerator and denominator by the same number.

As a result the Browns' saving expressed as a fraction is:

$$\frac{1}{20}$$

This fraction can also be expressed as a percentage. To do this it is useful to understand that the fraction $\frac{1}{20}$ is the same as the division sum $1 \div 20$.

The percentage can therefore be calculated as follows:

$$\frac{1}{20} \times 100 = 5\%$$

$$1 / 20 \times 100$$

The Browns' water savings could also have been calculated directly:

$$\frac{20}{400}$$

Activity 6 Fractions and percentages

Allow approximately 10 minutes

What saving would result from their strategy to reduce their water use for baths and showers to two-thirds of the normal use?

You can calculate the reduced daily amount of water used for baths and showers as follows:

This will be $\frac{2}{3} \times 96 \text{ litres} = 64 \text{ litres}$.

The saving is therefore $96 \text{ litres} - 64 \text{ litres} = 32 \text{ litres}$.

An alternative way to get to this answer is to recognise that if the water use is reduced to $\frac{2}{3}$ of its normal value, the saving must be $\frac{1}{3}$ of the normal value.

Copy Table 3 into your notebook and enter your answers there.

Question 1

Now express the water saving as a fraction and a percentage of the family's initial total average daily water use.

Question 2

Now consider the savings from their third strategy. What fraction of their normal use for flushing the toilet will be saved, and what is this saving as a percentage of the normal use for flushing the toilet?

What total daily saving results from their strategy of reducing their water use for flushing the toilet? Express your answer in litres and as a fraction and a percentage of the initial total daily water use.

Table 3 The Browns' water

savings relative to initial total use

Use of water	Fraction	Percentage
outside use		5%
bath/ shower		
flushing toilet		

Discussion

Question 1

As a fraction this saving is $\frac{32}{400}$ or $\frac{2}{25}$ and as a percentage $\frac{2}{25} \times 100\% = 8\%$.

Question 2

By putting a 1-litre 'save-a-flush' bag in the cistern, the amount of water used per flush is reduced from the normal 10 litres to 9 litres, a saving of 1 litre.

This saving as a fraction is $\frac{1}{10}$ and as a percentage $\frac{1}{10} \times 100\% = 10\%$

The daily saving will be $\frac{1}{10}$ of the daily use for flushing the toilet, so this

is $\frac{1}{10} \times 120 \text{ litres} = 12 \text{ litres}$.

This saving can again be expressed as a fraction of the total daily use as $\frac{12}{400}$ or $\frac{3}{100}$

and as a percentage $\frac{3}{100} \times 100\% = 3\%$.

Table 3 The Browns' water savings relative to initial total use (complete)

Use of water	Fraction	Percentage
outside use		5%
bath/ shower		8%
flushing toilet		3%

Activity 7 Comparing fractions and percentages

Allow approximately 2 minutes

Which of the two ways (fractions and percentages) used in the table above to express the relative savings makes them easiest to compare?

Discussion

The completed table shows that the savings are much easier to compare when expressed as percentages. The savings on water for toilet flushing is lowest – 3% of the total use – followed by outside use (5%), and the largest saving, of 8%, is for baths and showers. The savings are not so easy to compare when expressed as fractions.

For example, can you tell from a quick glance which of $\frac{1}{20}$, $\frac{2}{25}$ and $\frac{3}{100}$ is the largest and which is the smallest?

If you would like to find out more about using fractions and percentages you could take a look at the free badged open course [Succeed with maths – Part 1](#).

4 This week's quiz

You've just completed the last of the activities for this week's study before the weekly quiz.

Go to:

[**Week 7 practice quiz.**](#)

Open the quiz in a new tab or window (by holding ctrl [or cmd on a Mac] when you click the link).

5 Summary

Well done. You have now completed Week 7 of the course and the introduction to the disciplines of science, technology and maths.

In Week 7, you have learned about:

- the relationship between population and water
- how to investigate your own use of water
- developing your study skills of reading diagrams and tables
- calculating fractions and percentages.

This is the last week of learning about how different subjects are taught at HE level. Next week you will have the opportunity to reflect on the nature of learning in HE and where to take your first steps.

Week 8: Reflecting on the course and looking forward to your next steps

Introduction

This is the final week of *Taking your first steps into higher education*.

By the time you have finished this week, you will have spent about 24 hours thinking about what broad subject area you might opt for if you plan to go to university. And perhaps join us here at The Open University.

Just to think about here is an interesting quotation by the philosopher Søren Kierkegaard:

Life can only be understood backwards; but it must be lived forwards.

In the following video, Jonathan Hughes introduces you to the final week of the course:

Video content is not available in this format.



I hope you feel that these 24 hours have been well spent and that the equivalent of a day in your life has put you in a better position to make some important decisions.

This week looks back over the course. It encourages you to think about what your next steps are – it also provides the opportunity to take the second quiz that counts towards your badge. Remember, that if you have worked through all of the weeks, and get 50 per cent on this quiz and in the Week 5 quiz, you can claim your Open University badge for the course.

This week you will:

- look at what it means to reflect on your learning
- reflect on each of the topic areas the course has introduced
- consider what your next steps in study might involve.

1 Reflecting back on the course



Figure 1 Reflecting

Reflecting on the course is the first aspect of this week.

The first week of this course started with a number of assumptions. As a way of seeing how far you have travelled over the last eight weeks, let's have another look at these.

First assumption

The first assumption is that you are already thinking about higher, or university level, education. This seems a reasonable assumption – why else would you be looking at this course?

Second assumption

The second assumption is that you may be open minded (to put it positively) or undecided about what sort of subject you think would suit you best, that you would most enjoy.

Third assumption

The third assumption is about why you might be thinking about HE because it's one that is widely shared. This widely shared assumption is that the main reason people go into HE is to have a better career.

Fourth assumption

This assumption is about why you've left it until now to think about university.

An assumption about this course

Our main assumption is that informed choice plays a big part in determining success, not least success in higher education.

Another assumption about the course

The final assumption was that learning needs to be active – so there are lots of activities in this course.

These assumptions were the starting points of this course, so this section aims to get you to capture your thoughts about these assumptions and how they have changed since you started the course.

Activity 1 Reflecting on the assumptions

Allow approximately 20 minutes

This activity is a useful opportunity to think back over the changes that have occurred since you began the course. It also provides the basis to think about what your next steps might be.

Copy Table 1 below into your notebook then read through the assumptions above. Fill in the first column for how you feel about each assumption now. Then check back to your answers you made for the activities in Week 1 and add a second note to say how you think your thoughts have changed since you began the course.

Table 1 Reflecting on assumptions

Assumption	Now	What's changed?
1. My thoughts about HE		
2. What subjects would I most enjoy?		
3. Why do I want to go to university?		
4. Why now?		
5. How informed do I feel?		
6. Is active learning useful?		

Discussion

Your reflections on these six questions should provide you with a lot of ideas about what you have achieved, how far you have travelled, over quite a short period of time. Hopefully, this gives you a sense of the excitement of study at this level.

2 Reflecting on the arts and humanities

Weeks 2 and 3 introduced poetry and art history (with a focus on contemporary visual art). Both weeks used the study diamond. This was intended to help and encourage you to move beyond personal reactions and reactions that are heavily influenced by some hostile responses in the media, particularly to modern visual art.

2.1 Poetry

Week 2 started off by asking you about your personal responses to poetry. It then outlined a number of ways to shape your initial responses to poetry. It would be a good idea to have another look at Week 2 as a reminder.

Once you have done this you will be able to do the next activity.

Activity 2 Reflecting on poetry

This is an opportunity to think about how your responses to and understanding of poetry might have changed.

Note your answers to the following questions. Again, you might like to create a table to do this:

Table 2 Understanding poetry

	Now	What's changed?
1.	What were the key ways to interpret poetry?	
2.	Have you used these to read any poems?	
3.	Do you enjoy poetry more now?	
4.	Do you understand poetry more now?	
5.	Are you more or less likely to study an arts subject as a result of this week?	

Discussion

This activity has selected some key pointers from Week 2 of Taking your first steps in higher education for you to focus on. However, you may notice that question 5 is asking you to look ahead by reflecting on the effect the week's work might have had on you.

If you are able to recall some of the key points about poetry, this suggests that you have begun to understand them. If you have gone a step further to apply your ideas to other poems that really indicates that you have, very quickly, got a good grasp of them.

2.2 Contemporary visual art

In Week 3, the focus was on contemporary visual art. This can be an area that is even harder to understand because of the volume and intensity of public comment. It's difficult to avoid such comments about art works like Tracey Emin's *My Bed* or Damien Hirst's *Mother and Child*.



Figure 2 Tracey Emin, *My Bed*



Figure 3 Damien Hirst, *Mother and Child (Divided)*

Week 3 encouraged you to go beyond these reactions and to explore your own responses and to shape these using the study diamond. It would be useful to spend a few minutes reminding yourself about this by going back to Week 3

Once you have done this please go on to the next activity.

Activity 3 Reflecting on contemporary art

Allow approximately 20 minutes

This is an opportunity to think about how your responses to and understanding of modern art might have changed.

Answer the following questions:

Table 3 Understanding contemporary art

	Now	What changed?
1.	What were the key ways to understand art?	
2.	Have you used these to try and understand an example of modern art?	
3.	Do you enjoy modern art more now?	
4.	Do you understand modern art more now?	
5.	!Warning! Calibri not supportedAre you more or less likely to study an arts subject as a result of this week?	

Discussion

This activity encourages you to reflect on both your responses to modern art and your understanding of it. There is an inbuilt assumption that these two are related and that the more you understand the more you will enjoy modern art. You might want to disagree with this assumption, but it is one that is tested out by the final, more forward looking question.

In a short course like this, it is only possible to provide a snapshot or a taster of what study in the arts and humanities is like. Most of the separate subjects that are included under the broad heading of arts and humanities have not been included.

That said, the course authors hope that you have picked up a real sense of what studying arts and humanities subjects at university is like.

3 Reflecting on the social sciences

In Weeks 4 and 5 you studied aspects of social science. In Week 4 the focus was on identity. In Week 5 the focus was on families and relationships. You were introduced to the cycle of enquiry which underpins the social science approach to question. You also learned about study skills including note making and the use of spider diagrams.

3.1 Identity

Let's focus on Week 4 (identity). You might want to quickly skim through the pages for this week to remind yourself about what was included.

When you have done this, you should do the next activity.

Activity 4 Reflecting on identity

Allow about 20 minutes

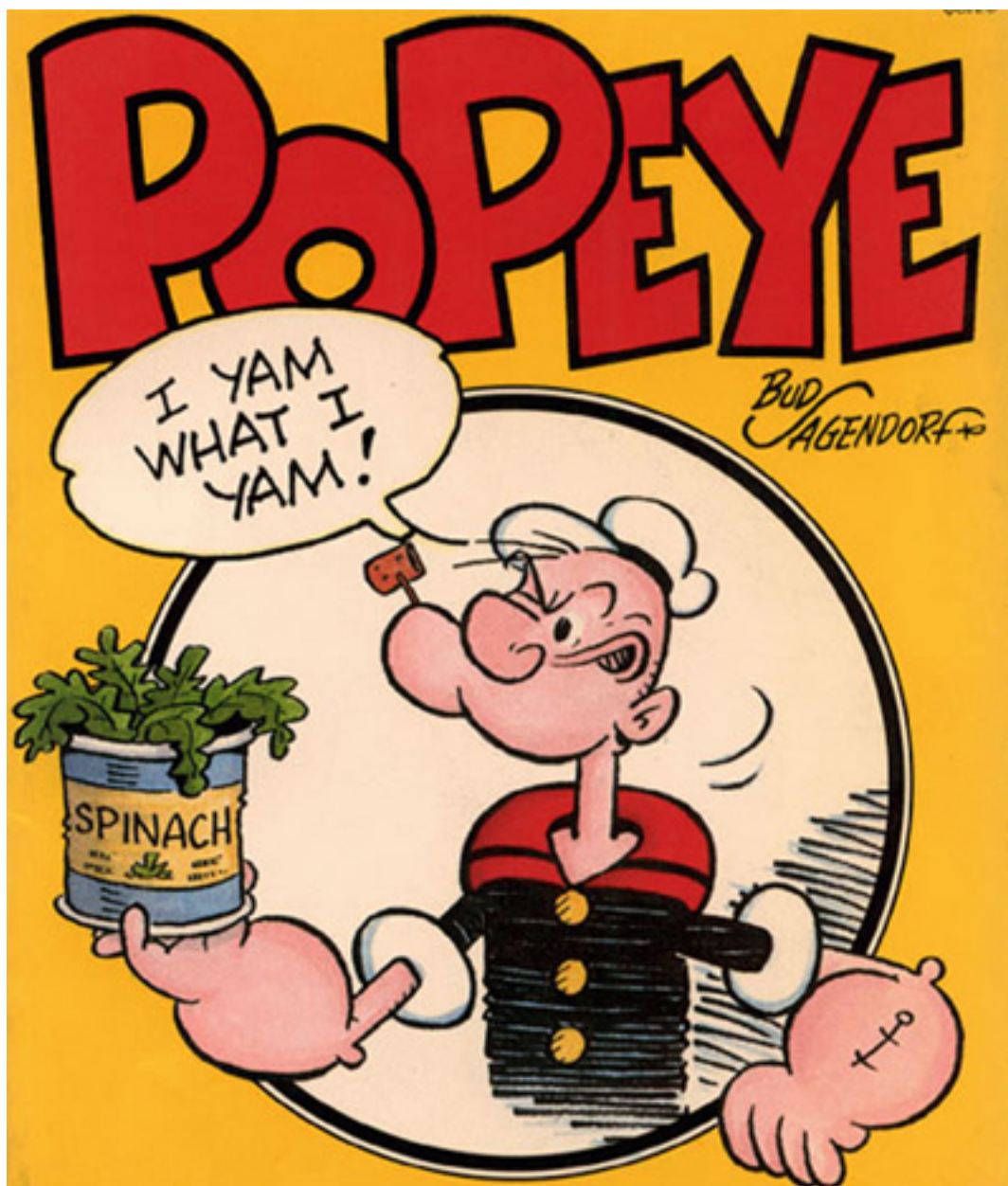


Figure 4 Popeye – I yam what I yam

This is an opportunity to think about how your responses to and understanding of this aspect of social science might have changed.

Answer the following questions. If you like you can copy Table 4 into your notebook and complete it there.

Table 4 Understanding identity

	Now	What's changed?
1.	How do you understand 'stereotype'?	
2.	How do you understand 'culture'?	

3. Do you understand how social science sees identity?
4. Can you use your understanding of identity and apply it to yourself or someone else?
5. Are you more or less likely to study a social science subject as a result of this week?

Discussion

This activity asks you some direct questions about some important social science concepts, including identity, culture and stereotypes. These are all words that can be used in everyday conversations. However, in social science they have particular meanings, although sometimes these meaning can be disputed. The final question is a more personal one and is trying to get you to think about how much you enjoyed the social science approach taken in Week 4.

3.2 Domestic roles

Week 5, focused on the changes in the domestic role of women and the effect of where you live on life chances. You will probably notice quite a few social science ideas in the previous sentence. A good example is 'the domestic role'. Everyday conversations probably don't usually use this phrase but it is used in social science to help identify a social issue clearly. In this case the issue is why men and women seem to behave differently at home.

Noticing this difference and then carrying out research to provide evidence is a key aspect of social science. It explains why it can be quite powerful, for example, noticing that men and women occupy different roles reveals what people think being a woman or a man involves, and has many implications, for example in relation to domestic violence.

Once you have reminded yourself about what you studied in Week 5, please do the following activity.

Activity 5 Reflecting on domestic roles, place and life chances

Allow approximately 20 minutes



Figure 5 A man doing housework

This is an opportunity to think about how your responses to and understanding of these aspects of social science might have changed.

Answer the following questions:

Table 5 Reflecting on domestic life

	Now	What's changed?
1.	How do you understand 'domestic role'?	
2.	How do you understand 'feminism'?	
3.	Do you understand how social science sees the domestic division of labour?	
4.	Can you use your understanding of place and life chances and apply this to yourself or someone else?	
5.	Are you more or less likely to study a social science subject as a result of this week?	

Discussion

There are more questions in this activity about social science ideas. A key part of social science is taking these ideas and applying them to problems and issues that concern or interest people. If you have found that this approach appeals to you, then you will probably answer the final question by saying that you are more likely to choose a social science subject than you were at the start of this course.

In the two weeks that focused on arts subjects it was suggested that understanding of poetry and modern art begins with our own personal responses. In the social sciences these responses are shaped by the fact that we are individuals within a society. To survive and prosper, we all become social scientists, if only to navigate the encounters we have with people.

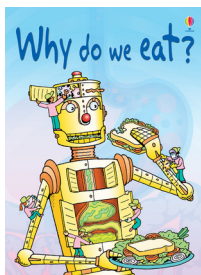


Figure 6 We are all scientists

Some people suggest that humans are all scientists too because if we have an idea about something we try and test out whether it is true. For example, if I'm hungry, my 'solution' is to have something to eat. Science is a very human activity, but it can come to seem very specialised and dependent on high levels of expertise.

4 Reflecting on science, technology and maths

This issue of science being specialised, and even a bit scary was mentioned in Week 6. This week introduced science, technology and maths as well as looking at how information is communicated in these subjects and the value of diagrams and graphs. Week 7 continued this focus but used the case study of water.

Take a look back at Week 6 to remind yourself. When you have done this, you should do the next activity.

Activity 6 Reflecting on communicating ideas

Allow approximately 20 minutes.



Figure 7 Fossils from the early Cambrian period

This is an opportunity to think about how your understanding of science might have changed.

Answer the following questions:

Table 6 Understanding communicating ideas

	Now	What's changed?
1.	What are the main differences between science, technology and maths?	
2.	How are ideas communicated in science, technology and maths?	
3.	What is meant by an ecosystem?	
4.	Have you been able to 'read' a graph or diagram with greater understanding?	
5.	Are you more or less likely to study a science subject as a result of this week?	

Discussion

This activity asks you some questions that should get you thinking about your learning in Week 6 of the course. The concept of ecosystem is an important one but the focus of this week was mainly on understanding how ideas are communicated in these subjects. These methods of communication, including graphs and diagrams are vital irrespective of the particular topic being studied. It is also important to realise that information conveyed in numerical form has to be read with the same questioning approach at university level as you would apply to any other source of information. It's probably true to say that there are more definite answers in science, technology and

maths subjects, especially in maths. If you answered 'yes' to question 5, this is perhaps a reflection of your preference for such answers compared to the rather more indefinite answers provided by arts and social science

Activity 7 Reflecting on the study of a science topic

Allow approximately 20 minutes.



Figure 8 Using water

This is a further opportunity to think about how your understanding of science might have changed, in relation to the topic of water.

Answer the following questions:

Table 7 Understanding the study of a science topic

	Now	What's changed?
1. Why was water used as a case study?		
2. What are the links between population and water?		
3. What do you think of your own water use?		
4. What are your thoughts about using fractions and percentages?		
5. Are you more or less likely to study a science subject as a result of this week?		

Discussion

This activity asks you some questions that should get you thinking about your learning in Week 7 of the course. The concept of ecosystems remained an important idea but the focus was on the case study provided by water. Using a case study is a useful way to focus learning and develop understanding. Case studies are found in many different subjects including, for example health and social care courses. The use of numerical forms of information was also continued from Week 6 so it's worth repeating that number-based information has to be approached like any other information – with caution. Again, if you answered 'yes' to question 5, this is perhaps a reflection of your preference for such answers.

The previous activity marked the end of the reflection part of this chapter. The section began with an image of a rear view mirror. This is helpful but it's a bad idea to spend too much time gazing at this view, especially if this is at the price of not looking where you are going. The next section begins to outline where your journey might take you.

5 Looking forward: what will your next steps be?



Figure 9 Just 24 hours

You have spent about 24 hours on this course, which could help shape your life. Some of this time has focused on looking back over what you have got out of the course itself. This should provide the basis for what you do next as it has enabled you to review your thinking. This review has not just included whether you should go to university; it has also included which university and what subject you should study.

Activity 8 How have your ideas about the future changed?

Allow approximately 20 minutes.

Now would be a really good time to do this future-orientated activity. It's something that you can come back to as your ideas develop.

Make a copy of Table 8 below to record your thoughts for each of the 'now' prompts. Then for each one, think back to the start of the course and make a note of what you think has changed.

Table 8 Looking forward

	Now	What's changed?
1.	My ideas about going to university	
2.	My ideas about the subject I'd like to study	
3.	What can going to university do for me?	
4.	How will other people react if I said I wanted to go to university?	
5.	The problems I face if I want to go to university	

6 This week's quiz

Well done – you've not only come to the end of this week's study, but you've also almost completed the final week in *Taking your first steps into higher education*.

To finish up in style and be able to share this achievement with others, if you want to, now complete the Week 8 badge quiz.

Go to:

[**Week 8 compulsory badge quiz.**](#)

Remember, this quiz counts towards your badge. If you're not successful the first time you can attempt the quiz again in 24 hours.

Open the quiz in a new tab or window (by holding ctrl [or cmd on a Mac] when you click the link).

7 Summary

The course team hope that you have surprised yourself by what you have done over the last eight weeks and that you are equally surprised with the point you have reached. Reaching unexpected points is very much part of the fun and excitement of learning at university level and we hope that this will be just the start for you.

In this final video John and Jonathan summarise what they hope are the key things you will take from the course:

Video content is not available in this format.



Good luck with this and with all your future studies.

If you've gained your badge you'll receive an email to notify you. You can view and manage your badges in [My OpenLearn](#) within 24 hours of completing all the criteria to gain a badge.

Tell us what you think

Now you've come to the end of the course, we would appreciate a few minutes of your time to complete this short [end-of-course survey](#) (you may have already completed this survey at the end of Week 4). We'd like to find out a bit about your experience of studying the course and what you plan to do next. We will use this information to provide better online experiences for all our learners and to share our findings with others. Participation will be completely confidential and we will not pass on your details to others.

Glossary

Form

the shape, configuration and structure of an artwork, including elements such as medium and colour

Installation

a type of three-dimensional artwork; it usually consists of many parts and is created for a specific gallery space or outdoor site, to be viewed as an entire whole

Palette

is used when describing the number of different colours that are present in an artwork

Colour value

the lightness or darkness of a colour

Medium

the substance used to make a particular artwork

Oil paint

a slow-drying paint comprising pigment suspended in a drying oil, commonly linseed

Tempera

a medium bound with emulsions, combined with dry pigments and water; emulsions might include egg yolk (egg tempera) and milk proteins (casein tempera)

Watercolour

a paint comprising pigment suspended in a water-soluble vehicle; the addition of water adds to the paint's transparency

Found object

a natural or an artificially made object used in an artwork, but which has not been designed for that purpose

Ceramics

art objects such as figures and tableware made from clay and other raw materials using the process of pottery

Acrylic

a fast-drying synthetic paint

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Week 3 Videos

Video: A Perfect Place to Grow: from Y031 *Arts and languages* Access Module, featuring artwork by Tracey Emin.

Week 4 Images

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Week 4 Lyrics

'Popeye's Signature Song' lyrics by Sam Lerner.

Week 5 Images

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Activity 1: Extract from The Guardian: Ivor Gaber 'Working up a Sweat', *Guardian* 30 July 2003. © Guardian News and Media 2003; Activity 2: Extract from The Observer: Roger Graef 'Two families living side by side. But the gulf between rich and poor keeps them worlds apart', *Observer* 20 July 2003. © Guardian News and Media 2003.

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