

Name

State



Localisation Handbook 2015

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This handbook has been prepared by the TESS-India academic team and members of the TESS-India State Resource Groups that are working to support the localisation of the TESS-India OER for different states in India.

Welcome!

TESS-India is working to improve teacher education through the use of classroom-focused Open Educational Resources (OER). The TESS-India OER are designed for teachers of elementary or lower secondary classes. Each subject set contains 15 units covering key pedagogic practices, exemplified through topics or skills from the relevant student curriculum. (Appendix B lists these key pedagogic practices, which are known as 'Key Resources' in Tess-India.)

The TESS-India OER are not intended to replace the school textbook or cover the entire student curriculum. Instead, they integrate selected skills, topics, disciplinary knowledge and pedagogic practice, as chosen and refined through workshops and consultations with Indian teacher educators and teachers (see Appendix A).

The TESS-India OER will be localised for use in each of the seven states involved in the project. They can then be adapted further for more specific contexts of use (see Figure 1, below).

As a localiser, your role is to **make the TESS-India OER appropriate for use in your state**. This is an opportunity to share your knowledge of the educational frameworks, practices, innovations and challenges associated with your state context.

Thank you in advance for your contribution to the localisation of the TESS-India OER. We look forward to working with you.

Freda Wolfenden
Academic Director, TESS-India

What are Open Educational Resources (OER)?

Open Educational Resources (OER) are teaching, learning and research resources that reside in the public domain or have been released under an intellectual property licence that permits their free use, adaptation, repurposing and redistribution by others.

- OER may take the form of courses, textbooks, videos, tests, software, and any other materials, tools and techniques used to access to knowledge.

The most common OER licences are from Creative Commons (<http://creativecommons.org/>). Further information about OER licences may be found in Appendix E.

OER: freedom to access, copy, modify and redistribute

The term OER was first defined by UNESCO in 2000. A large number of OER repositories are now available in different languages across the world. In India some useful OER can be found at the following websites:

- National Repository of Open Educational Resources (NROER): <http://nroer.in/home/> (MHRD/NCERT)
- National Program on Technology Enhanced Learning (NPTEL) : <http://nptel.ac.in/>
- Karnataka Open Educational Resources: http://karnatakaeducation.org.in/KOER/en/index.php/Main_Page
- The National Mission on Education through Information and Communication Technology (NMEICT) open licencing policy guidelines: http://www.nmeict.ac.in/Document/OER_Policy.pdf
- In addition, Pratham Books has been releasing its books under Creative Commons licences: <http://blog.prathambooks.org/p/cc-tracker.html>

Localising the TESS-India OER

Localising the TESS-India OER to better match the specific needs of a particular state is key to their successful implementation and use.

Localising the TESS-India OER means adapting them for use in the state in which you are working

All the TESS-India OER follow the same format, which includes activities, case studies, reflection tasks ('pause for thought') and additional resources. Appendix C shows the different sections of a TESS-India OER.

Please note the following important points:

1. The TESS-India OER have been written by a large team of Indian and international educators. The OER were then reviewed and endorsed by an Independent Review Panel (IRP). The members of the IRP may be found in the acknowledgements section of the OER. The IRP agreed that the TESS-India OER are fit for use in Indian classrooms and have a very clear pedagogic approach that supports teachers in improving their understanding of teaching and learning processes. **It is important that this approved pedagogic focus is maintained as you localise the units.**
2. The TESS-India OER do not correspond to a complete course of study but are designed to be incorporated into a variety of pre-service and in-service programmes, with the selection, sequencing and pace of use of the materials necessarily varying according to requirements. It is anticipated that, in the majority of cases, the use of the TESS-India OER will be mediated by teacher educators, district officials and headteachers. (See Appendix D for examples of how the OER might be used.)

3. The TESS-India OER are intended to be read and worked through by teachers. For this reason, the teacher is addressed as 'you' throughout. Developmental testing has shown the direct form of address and the informal conversational style of the units to be engaging and motivating to teachers. This communicative style should thus be maintained during their localisation.
4. Careful attention has been given to ensure that individual human rights and equity of representation - of gender and of ethnic and linguistic groups - are respected throughout the units. Females and males are represented equally and the gender of the teacher or students should therefore not be changed. Great care should be taken to maintain or enhance this balance in the representation of teachers and students in a way that reflects the ethnic and linguistic diversity of your state.
5. The finished versions of the TESS-India OER that you are localising will be published on the TESS-India website. However, as OER, these can then be further adapted for specific local use, as shown in Figure 1.

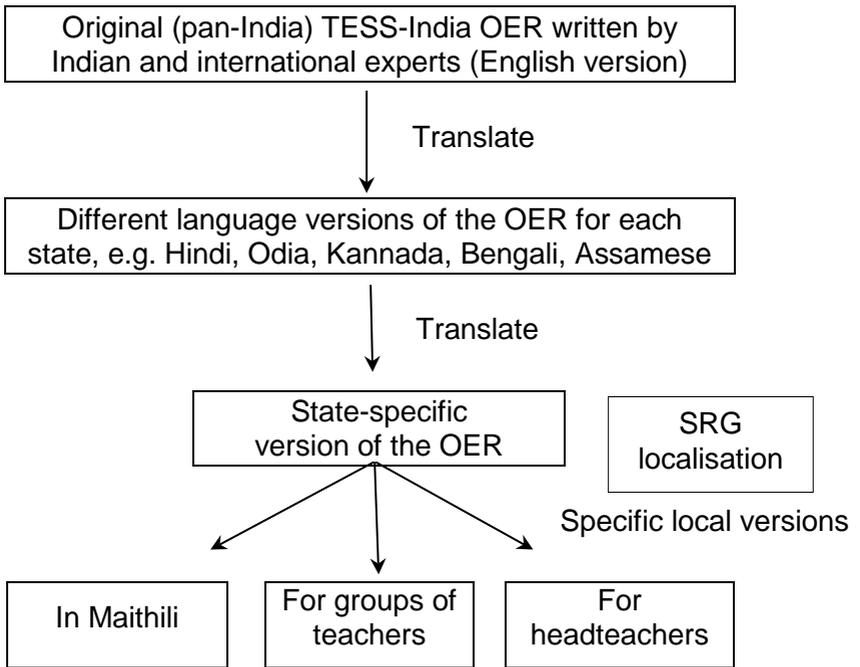


Figure 1 Stages in localisation.

Localising the OER for your state

You will be guided by a localisation leader in your state. Each leader has a team of localisers who will share the task of localising and cross-checking the 15 OERs within a single subject. The duties of the TESS-India localisation team leader are listed in Appendix F.

The possible changes to be made to a set of state-localised OER have been identified and agreed with the state. They are provided on the localisation grid, which specifies:

- which parts of each TESS-India OER may be changed
- the nature of the change.

No changes will be made to the set of Key Resources (see Appendix B) that are referred to in the OER and are often found in the resources sections at the end of the units.

The video clips that are referred to in the OER are having their commentaries translated in a separate process.

Table 1 offers a summary of which sections of an OER may be changed and which should remain as they are. Examples of the types of changes that might be made are given on page 9 of this booklet.

Table 1 Treatment of different sections in localisation.

Section	Change
What this unit is about	No changes
What you can learn in this unit	No changes
Why this approach is important	No changes
Activities	IRP-endorsed. No changes except for small local references
Case studies	Replace whole case study if not appropriate (maximum of one per unit), but otherwise small changes only
Pause for thought	No changes
Narrative	No changes apart from references to the curriculum and textbooks
Summary	No changes except for references to local resources and initiatives
Resources	Augment and enhance
Additional resources	Augment and enhance
References/Bibliography and acknowledgements	Augment and enhance

Example of changes that may be made in localisation to reflect the context of your state

- Names of schools, people and places.
- Particular terminology to fit your context.
- Environmental features (names of animals and plants) or cultural events (festivals, historic or state memorial days, etc.).
- References to the curriculum or textbooks, in line with those used in your state.
- Reference to educational initiatives, priorities and programmes in your state (for example, initiatives to support early grade reading).

In addition, you may:

- Enhance inclusive practices with prompts/suggestions.
- Incorporate positive references to the use of local languages (e.g. in a case study).
- Use parallel poems (Language and Literacy units).
- Replace pictures or images to reflect the local context.*
- Provide additional resources at the end of the OER to better match the context in your state.*
- Insert a local traditional tale, song or poem in preference to the one provided.*
- Enhance a topic by adding a new resource.*

Be sure to:

- Use agreed terminology across the units. You may wish to provide a glossary of agreed terms for localisers and for teachers as a resource.
- Check the interdependencies that flow from any change that is made.

* Note: You can only include new material if you own it or if you have written permission to do so from the publisher or the person who owns it. (Please see the guidelines on third party material Appendix E.)

Step-by-step guide to localisation

We recommend that you read through these step-by-step instructions in their entirety before you start the localisation process.

1. First, read the whole of the TESS-India unit to get a sense of its aims and the content. Look closely at the section called ‘What you can learn in this unit’ and keep this teacher-directed introduction in mind as you localise.
2. Look at the state localisation grid for the TESS-India OER that you are localising. This tells you which parts of the OER may be adapted if required.
3. Consider the language of the OER. Are there any instances where it is not clear? If so, you might find it helpful to refer to the English version on your tablet. Mark these sections and explain why you feel they need to be reworded. In the Elementary English and Secondary English units, there are words and phrases that should ideally stay in English, often alongside the local language. Please therefore avoid changing these.
4. When you have completed Step 3, tick and initial *column 1* on the state localisation grid.
5. Find the first change for your allocated OER on the localisation grid. Using the guidelines in this handbook, write your suggested change on the unit (or on a separate page, clearly labelling where it should be inserted into the unit).

When making changes, it is essential that you do not increase the number of words by a large amount. Teachers do not have time to read long pieces of writing and the TESS-India OER are not textbooks.

If the localisation grid indicates that you have permission to insert material that has been published elsewhere, you must acknowledge this at the end of the unit.

If you need to replace any images, it is recommended that you use your own or locate acceptable alternatives. Appendix E provides further information and websites of images that have been licenced as OER under Creative Commons.

6. When you have completed the first change, tick and initial this on the localisation grid.
7. Repeat this step for all the changes that are permitted on the localisation grid.
8. Exchange your amended OER with your partner and undertake a peer review of their localised OER. Do you agree with their changes? Could you suggest any alternatives? Discuss this with your colleague.
9. When you have come to an agreement over the unit, give the annotated OER to your team leader.
10. If you want to make a change to an OER that is not specified on your grid, refer this to your team leader.

Localisation leader plan for the TESS-India OER

Each localisation leader should complete this template for their subject during the workshop.

Table 2 Localisation plan.

My subject	
My team of localisers	
Name	Contact details
Method of communication with my team	<input type="checkbox"/> Email <input type="checkbox"/> Phone <input type="checkbox"/> Other
Meeting dates	
Meeting venue	
Equipment needed	
Books/resources needed to help with localising	
Format to be used	<input type="checkbox"/> Paper <input type="checkbox"/> Digital

How units will be distributed to members of the team	
Pairing team members will be paired for peer review	
Schedule for localising the OER	

When the OER are completed, I will check them carefully and hand them to	
Questions I have about the process	

Appendix A: OER titles

Elementary English

- Classroom routines
- Using the textbook creatively
- Songs, rhymes and word play
- Learning English in the creative arts
- English and subject content integration

- Community resources for English
- Letters and sounds of English
- Storytelling
- Shared reading
- Planning around a text
- Developing and monitoring reading
- Promoting the reading environment
- The learning environment
- Mark-making and early writing
- Developing and monitoring writing

Secondary English

- Using more English in your classroom
- Building your students' confidence to speak English
- Supporting speaking in English: pair and groupwork
- Strategies for teaching listening
- Supporting reading for understanding
- Whole-class reading routines
- Promoting reading for pleasure
- Supporting independent writing in English
- Whole-class writing routines
- English grammar in action
- Strategies for teaching vocabulary
- Using resources beyond the textbook
- Local resources for teaching English

- Supporting language learning through formative assessment
- Developing your English

Elementary Maths

- Using number games: developing number sense
- Using structured resources to develop understanding: place value
- Using a number line and the expression 'Imagine if ...' positive and negative numbers
- Mathematical stories: word problems
- Asking questions that challenge thinking: fractions
- Making students believe they CAN do mathematics: operations on fractions
- Using manipulatives: decomposition and regrouping
- Using real-life contexts: the formal division algorithm
- Comparing and contrasting tasks: volume and capacity
- Using rich tasks: area and perimeter
- Physical representation in mathematics: handling data
- Learning through talking: variables and constants
- Conjecturing and generalising in mathematics: introducing algebra
- Using embodiment, manipulatives and real-life examples: teaching about angles
- Creative thinking in mathematics: proportional reasoning

Secondary Maths

- Using visualisation: algebraic identities

- Developing mathematical reasoning: mathematical proof
- Visualising, comparing and contrasting: number systems
- Connecting mathematics: finding factors and multiples
- Building mathematical resilience: similarity and congruency in triangles
- Cooperative learning and mathematical talk: triangles
- Creating contexts for abstract mathematics: equations
- Enacting vocabulary and asking questions: exploring the circle
- Hands-on learning and embodiment: constructions in geometry
- Tackling mathematical anxiety: combination shapes and solids
- Learning from misconceptions: algebraic expressions
- Developing creative thinking in mathematics: trigonometry
- Reading, writing and modelling mathematics: word problems
- Thinking mathematically: estimation
- Developing stories: understanding graphs

Elementary Science

- Brainstorming: sound
- Pair work: life processes
- Using groupwork: floating and sinking
- Using demonstration: food
- Concept mapping: water
- Teacher's questioning: forces
- Pupils' questioning: sorting and classifying things
- Observing patterns: shadows and night & day

- Practical investigation: change
- Using stories: environment
- Using games: electricity
- Alternative conceptions: heat and temperature
- Developing the learning environment
- Discussion in science: malnutrition
- Using the community: environmental issues

Secondary Science

- Language in the science classroom: cells
- Reading in the science classroom: heredity and evolution
- Mind mapping and concept mapping: acids, bases and salts
- Questioning: why do we fall ill?
- Pair work: atoms, molecules and chemical reactions
- Brainstorming: forces and laws of motion
- Effective demonstrations: teaching light and vision to Class X
- Using local resources: life processes
- Practical work and investigations: teaching gravitation to Class IX
- Community approaches: science education and environmental issues
- Effective project work: sources of energy
- Using games: the Periodic Table
- Probing understanding: work and energy
- Using physical models: teaching electricity to Class X
- Building mental models: teaching carbon and its compounds to

Class X

Language and Literacy

- School-home communication
- A language-rich classroom
- Speaking and listening
- Early reading
- Storytelling
- Reading for pleasure
- Reading for information
- Knowing and using children's literature
- Authentic writing
- Using local resources
- Language, literacy and citizenship
- Multilingualism in the classroom
- Pair work for language and literacy
- Integrating language, literacy and subject learning
- Monitoring, assessment and feedback

Appendix B: Key Resources

Note that the Key Resources will be translated into the language of the state but will not be localised.

- Planning lessons
- Involving all
- Talk for learning
- Using pair work
- Using questioning to promote thinking
- Monitoring and giving feedback
- Using groupwork
- Assessing progress and performance
- Using local resources
- Storytelling, songs, role play and drama

Appendix C: OER sections

Table 3 *Explanation of the sections of an OER.*

Section	Description
What this unit is about	Introduces the teaching approach and the curriculum topic of the unit.
What you can learn in this unit	These are learning expectations for the teacher and highlight the key opportunities for professional development and learning in the unit.
Why this approach is important	This section explains why the teaching approach is important in supporting student learning.

Section	Description
Activity	These are activities to be carried out by the teacher. Most of them are activities for the teacher to do in the classroom with their students, but some involve working collaboratively with colleagues or preparing for classroom activities
Case study	These are teachers' first-hand accounts of their experience of carrying out the activities described, similar activities, preparatory activities or follow-up activities. The case studies are used to show examples of how to respond to some of the challenges facing teachers in India such as large, multilingual and multigrade classes, and a lack of resources. In particular, they demonstrate inclusive practices, how to elicit prior knowledge and how to make the teaching relevant to students' lives.
Pause for thought	This encourages the teacher to reflect purposefully on their existing practice or experience, or on what they have noticed when carrying out the activities or discussing the case studies. It is this sort of reflection that will lead to learning for the teacher.
Narrative	The narrative reinforces the benefits of the approaches and techniques that are the focus of the OER. It shows how different aspects of the approach link together and complement each other. The purpose of the narrative is to support the teacher to develop their learning and pedagogic practice in different curriculum contexts.
Summary	This provides a brief review of the technique covered in the unit and encourages the teacher to take forward their learning, revisiting the ideas in different curriculum contexts.

Section	Description
Resources	These contain material to support the teacher in carrying out the activities. They may contain more detail about the approach (such as material from one of the key resources), support for subject knowledge development, classroom resources, links to the NCF, or further examples of similar classroom activities.
Additional resources	These are intended to empower the teacher by encouraging them to take their learning beyond the OER and engage with other resources to support their developing professional practice. In particular, this is an opportunity to support subject knowledge development and raise awareness of resources available in India and internationally.
References/ bibliography	These include references used by the authors and other recommended readings for the teacher to extend their academic understanding of the issues highlighted in the unit.

Appendix D: Examples of proposed uses of the TESS-India OER

- For incorporation in an initial teacher training module, with the aim of introducing the teacher to the value of the material, how they can access it, and how they can use it in the classroom.
- For use in micro-teaching sessions within pre-service and in-service teacher education programmes.
- For discussion in a headteachers' forum or subject teachers' forum.
- Sets could be made available in each school library for self-access by teachers.
- Units could be accessed via ICT Kiosks at DIETs, enabling teachers to browse and print them for use in their own classrooms.

Appendix E: Technical details

Third party material

Open educational resources (OER) are educational materials that are free to use and available under an open licence. The TESS-India materials are published using a Creative Commons licence that allows you to use, adapt and share the materials as long as you attribute them to TESS-India and share them under the same licence. See <http://creativecommons.org/licences/> for further information on the different types of licences available.

Third party material is content that belongs to another party that is not TESS-India – such as a publisher – where permission needs to be granted before it can be included in a TESS-India OER and cannot be made available under a Creative Commons licence (unless it is already published with this licence attached).

All external third party material included in the pan-India versions of the

TESS-India OER (in English) has been checked and cleared for use in the English language. It is essential that no new third party resources that require copyright clearance are introduced at the localisation stage. This may apply to resources or diagrams from NCERT textbooks that you may wish to use. If you intend to use any additional resources in localisation, you must be sure that they are licenced openly and allow for unrestricted use (CC-BY-SA, <http://creativecommons.org/licences/by-sa/4.0/>) or that you have written permission to use them (in which case you must acknowledge this at the end of the unit). Otherwise they cannot be used. Alternatively, you can just include them in the references as an indicator for the teacher to go and find the resource themselves.

You can find freely available Creative Commons images and resources at the following sites:

- Creative Commons website: <http://search.creativecommons.org/>
- TESS-India's Flickr page: <https://www.flickr.com/photos/98655236@N06>
- Project OSCAR (Open Source Courseware Animations Repository) from the Indian Institute of Technology, Bombay: <http://oscar.iitb.ac.in/oscarHome.do>
- National Institute of Open Schooling (NIOS): http://oer.nios.ac.in/wiki/index.php/Main_Page
- OER Commons: <https://www.oercommons.org/>
- Open Professionals Education Network (OPEN): <https://open4us.org/>

Sample acknowledgement

To acknowledge the source of any permitted new material, please ensure you have the name of the resource or image, the name of the author or creator, the date it was created, and the date you received written permission to use it. At the end of the unit, under the 'Acknowledgements' section, you must add the details of the resource,

who owns it and that you have written permission to use it. For example:

- Figure 1: Picture of reading corner in Class 3, Sahyogi High School, Bihar taken by Javed Verma, October 2014. Written permission to use this photo received January 2014 with thanks.
- Resource 2: ‘A Little Red Hen’ adapted and rewritten by RVEC as part of a handbook for teacher educators in Karnataka, <http://www.rvec.in>.

Appendix F: Duties of the TESS-India OER localisation leader

You have a critical role in adapting the TESS-India OER for your state. It is your responsibility to organise your team of localisers to ensure that all the changes marked on the localisation grid are considered and completed on the set of 15 TESS-India OER for the subject that you are leading on.

To this end, you will need to do the following:

1. Ensure that you have the names and contact details for the localisers in your team and that everyone is aware of when and where you are meeting.
2. Allocate the units to the localisers in your team.
3. Ensure that each localiser has a copy of the unit to be localised and a copy of the localisation grid.
4. Begin by modelling the process of localising one unit together, as was done at the induction workshop. Check that everyone understands the process.
5. Give the team a set time to localise one unit, following the step-by-step guide.
6. Ensure that each member of the team has a partner. Pairs should then undertake peer review of each other’s proposed changes.

7. When the localisers have completed a unit, they will give it to you. It is your role to read through all the proposed changes carefully and make sure that they are correct and appropriate for your state. No additional changes may be made to any other part of the OER without discussing them with the state representative and the TESS-India academic team.

You should also check that:

- any changes made in the resources are appropriately referred to in the corresponding activities and case studies, and vice versa
- any material owned by someone else (such as a picture taken by a colleague or a resource from a textbook) has written permission to be used in the unit and, is acknowledged and referenced at the end of the unit
- there is no new third party material that needs checking for permissions
- the front cover title and header are correct in the local language
- the page numbers, section headings and numbers are sequential.

It is essential that you do this job thoroughly, as no further checks will be made on the TESS-India OER for your state before they are distributed and published.

8. When you are happy with the changes made to the OER, the completed set should be given to your state representative.