Classroom Activity 9: What is STEM capital and how can I build it?

Show this video to your class https://www.youtube.com/watch?v=A0t70bwPD6Y&feature=youtu.be

What is science capital?

Think of a bag which you put your knowledge, attitudes, skills, experiences into.

Science capital is a combination of 4 things:

1. What you know
2. How you think
3. What you do
4. Who you know

This affects if you think "science is for me!"

Think of ways to build each of these. Provide prompt questions around these 4 themes about how you can build your STEM capital:

- How could you find out more about science?
- What might change your attitude about science?
- How can you try out more science related activities?
- How could you talk to people involved in science?

In groups, write answers to these questions, stick them on foam blocks and try to build the highest tower.

Classroom Activity 10: Science experiment

The science experiment that you found online in section 3.6 of the course and developed with other teachers can now be delivered to pupils.

Classroom Activity 11: Match up school subjects to different STEM careers

Provide a list of STEM subjects that your school offers (maths, physics, chemistry, etc) and ask pupils to match these with the careers below that require STEM subjects (all of the below require either math, computing or a science).

Ask pupils their thoughts on how gender and subject choices might influence future career options. (If working with younger children you may want to provide simpler examples).

Actuary
Air Traffic Controller
Animator
Architect
Astronaut
Attorney
Biologist
Biostatistician
Budget Analyst
Cartographer
Chemical Engineer
Chemist
Civil Engineer
Computational Biologist
Computer Game Designer
Computer Scientist
Cost Estimator
Cryptanalyst
Economist
Electrical Engineer
Epidemiologist
Foreign Exchange Trader
Forensic Analyst

Geographer
Geologist
High-School Math Teacher
Hydrologist
Inventory Control Specialist
Market Research Analyst
Mathematical Biophysicist
Mathematical Physicist
Mathematician
Mechanical Engineer
National Security Analyst
Nuclear Engineer
Operations Research Analyst
Petroleum Engineer
Physician
Political Scientist
Psychometrician
Purchasing Agent
Quantitative Financial Market Analyst
University Professor
Software developer
Statistician
Stockbroker
Technical Writer
Urban Planner