Science Capital

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Please write your name, school name and name of hub leader (if known) in the chat so that I can register you ☺

Feel free to also use the chat to chat to each other ☺

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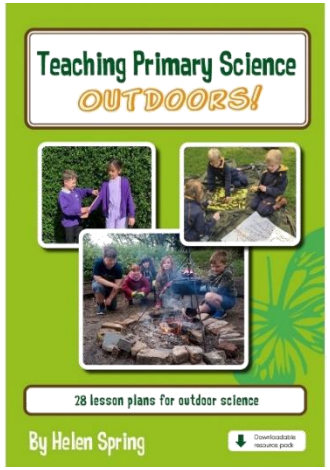
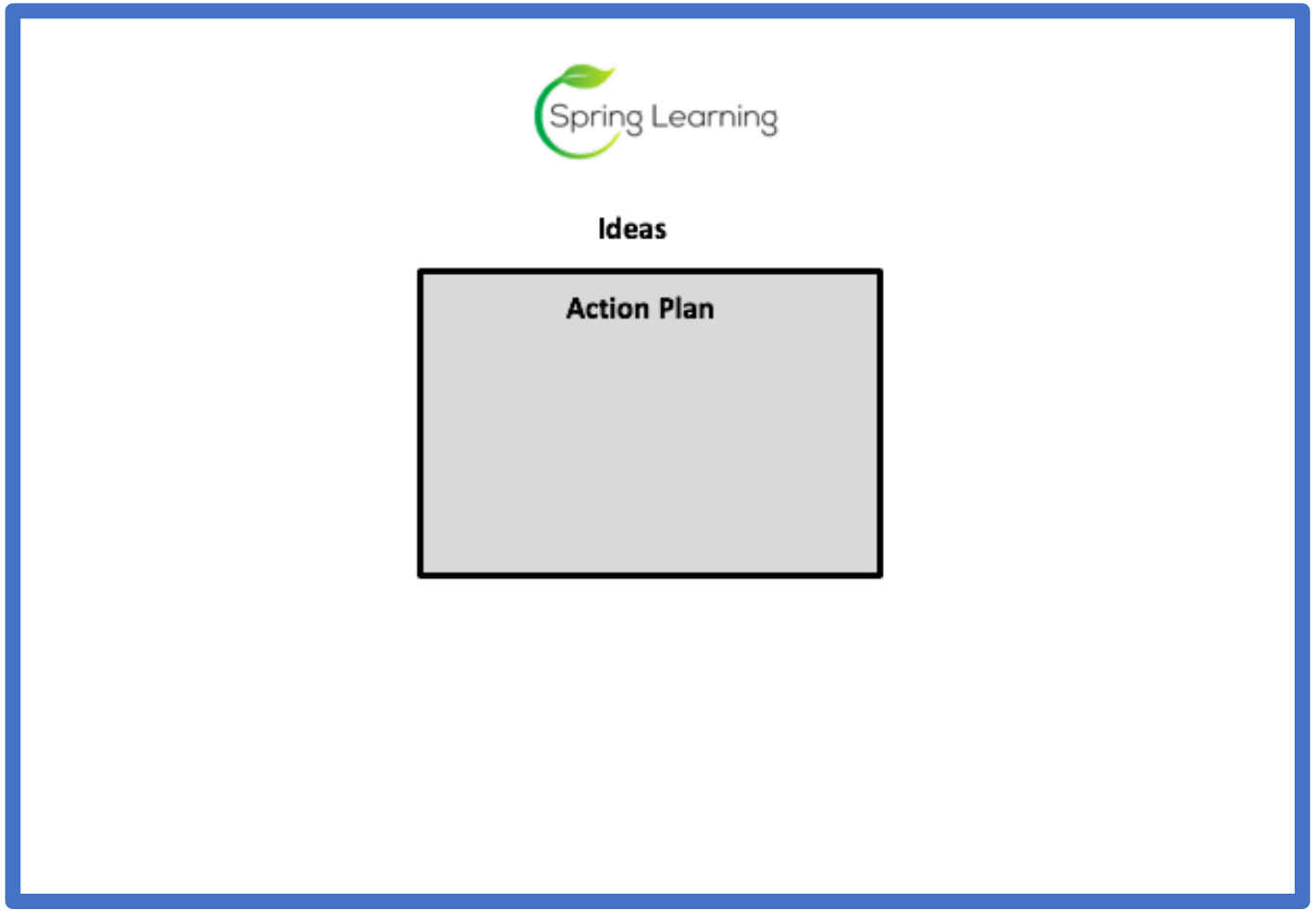


Objectives…

The session aims to:

- develop understanding of the term 'Science Capital'
- explore resources to develop Science Capital
- identify realistic ways in which Science Capital can be developed in your classroom and school
- Explore how Science Capital fits in with PSQM

Action planning



What do you understand by the term ‘Science Capital’?

Families

Schools

Science Capital

Skills gap

Gender

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SCIENCE LEARNING

PSQM Science Learning Aim

Science learning is strengthened and developed through a shared understanding of:
A. the purposes and process of science enquiry;
B. the purposes of science assessment and current best practice;
C. the importance of, and strategies for, developing all children's science capital.

These aims are expressed through the following PSQM Science Learning criteria, which define the evidence required to meet them and achieve PSQM, PSQM Gilt and PSQM Outreach.

For Primary Science Quality Mark:

PSQM Science Learning Criteria

Subject leadership develops teachers' practice:
A. Children are taught to use different enquiry types to answer scientific questions about the world around them, through the use of scientific enquiry skills.
B. A range of strategies and processes for formative, summative and statutory assessment are used, which reflect a shared understanding of the purposes of assessment in science and current best practice.
C. Initiatives that encourage all children to think that science is relevant and important to their lives, now and in the future, are supported and promoted.

For Primary Science Quality Mark Gilt and Outreach:

PSQM GILT and OUTREACH Science Learning Criteria

Subject leadership develops and evaluates teachers' practice:
A. Children develop independence in the full range of enquiry types, using scientific enquiry skills appropriately to answer scientific questions about the world around them.
B. There is a school-wide commitment to continually improving assessment practice and processes for formative, summative and statutory assessment, through regular evaluation which ensures that they reflect the shared understanding of the purposes of assessment in science and current best practice.
C. The whole-school community supports and promotes initiatives that encourage all children to think that science is relevant and important to their lives, now and in the future.

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C. Science capital

Required task

- Watch Introduction to Science Capital (two minute video) available at www.youtube.com/watch?v=A0t70bwPD6Y
- Collect examples (planning, photographs and children's work) of how lessons have been adapted to develop children's science capital plus any additional activities and their impact on children's and teachers' attitudes towards science. You should note the leadership activity that has supported this. These examples will be needed to illustrate this criterion in your PSQM submission.

Recommended activities

- Find out about your colleagues' science capital.
  - How is it relevant to their lives?
  - Do they have friends or family whose work is science related?
  - Do they have science related hobbies?
  - Do they watch science programmes on TV?
  - Do they use real life contexts in their science lessons?
- Find out about the children's science capital.
  - Do they think science is for them now?
  - What about in the future?
  - Do they know adults whose work or study is science related?
  - Do they have science related hobbies?

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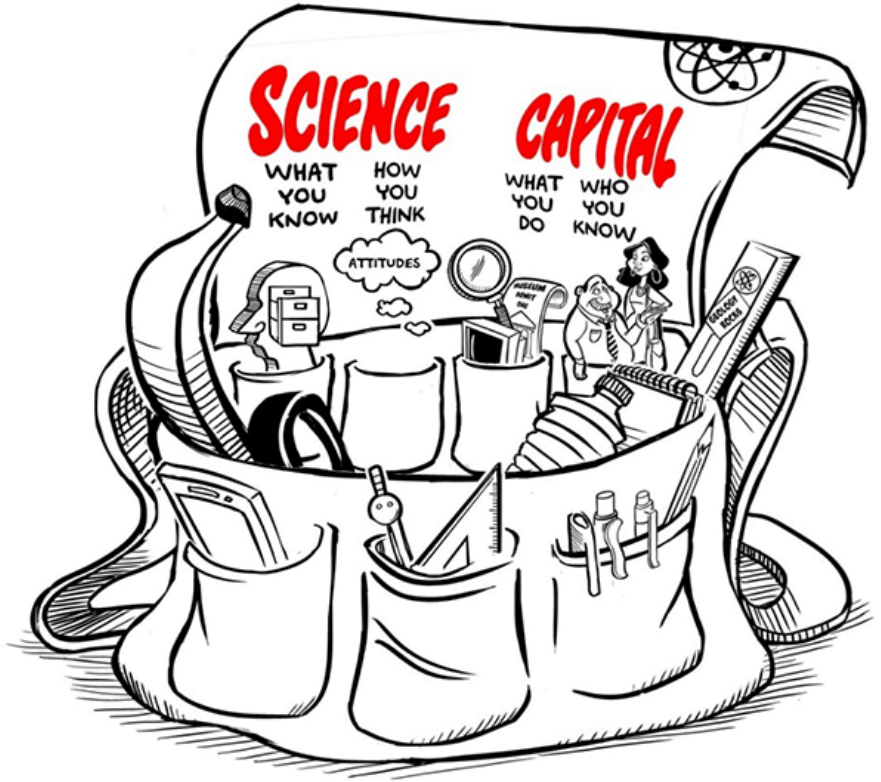
Science Capital

- **What is Science Capital?**
- **Why ‘do’ Science Capital?**
- **How can Science Capital be measure?**



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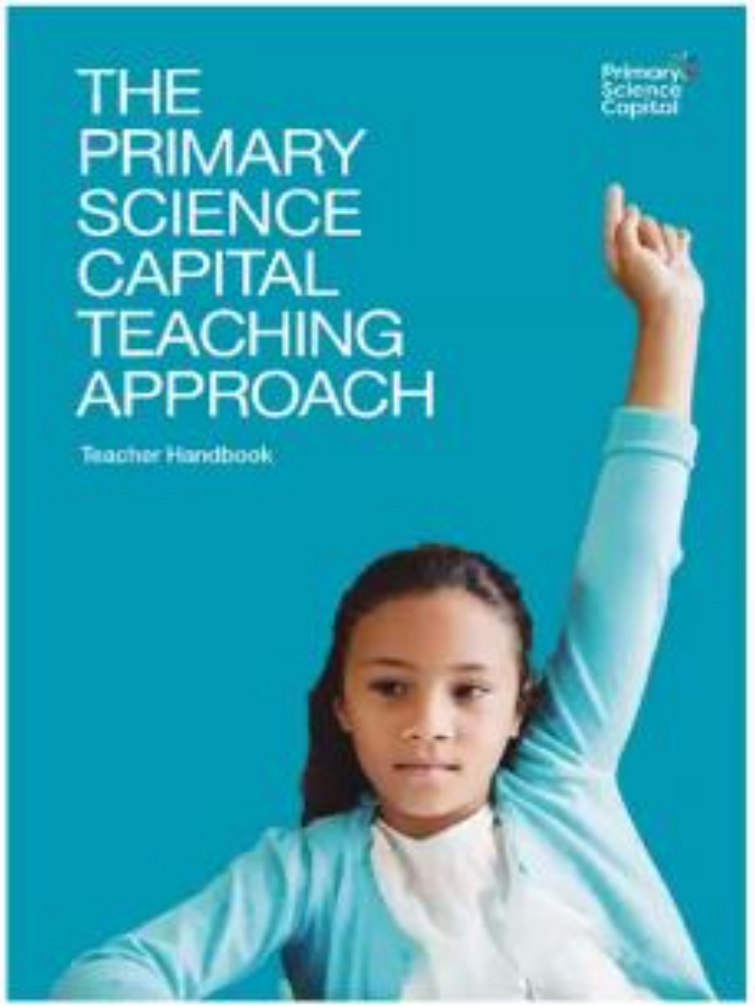
The Primary Science Capital Teaching Approach



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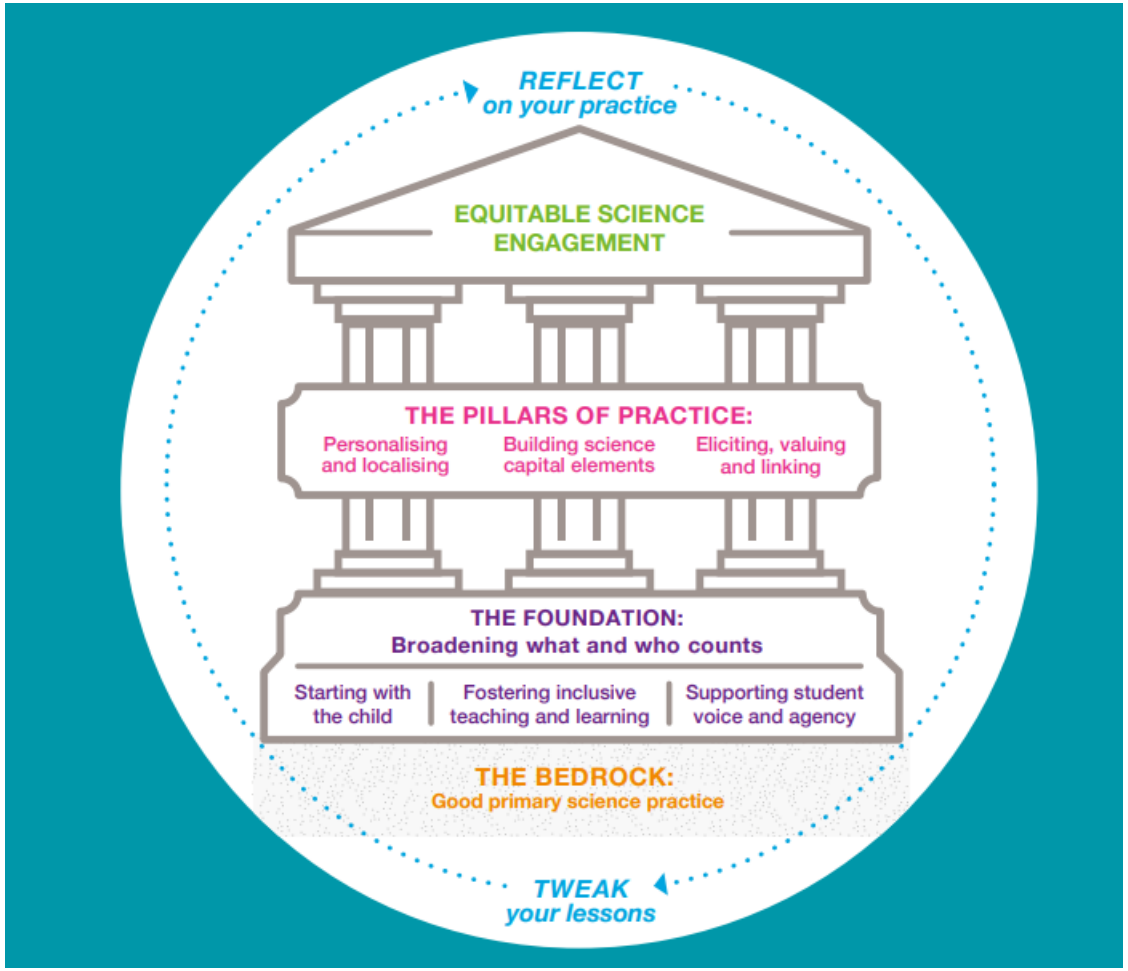
The Primary Science Capital Teaching Approach



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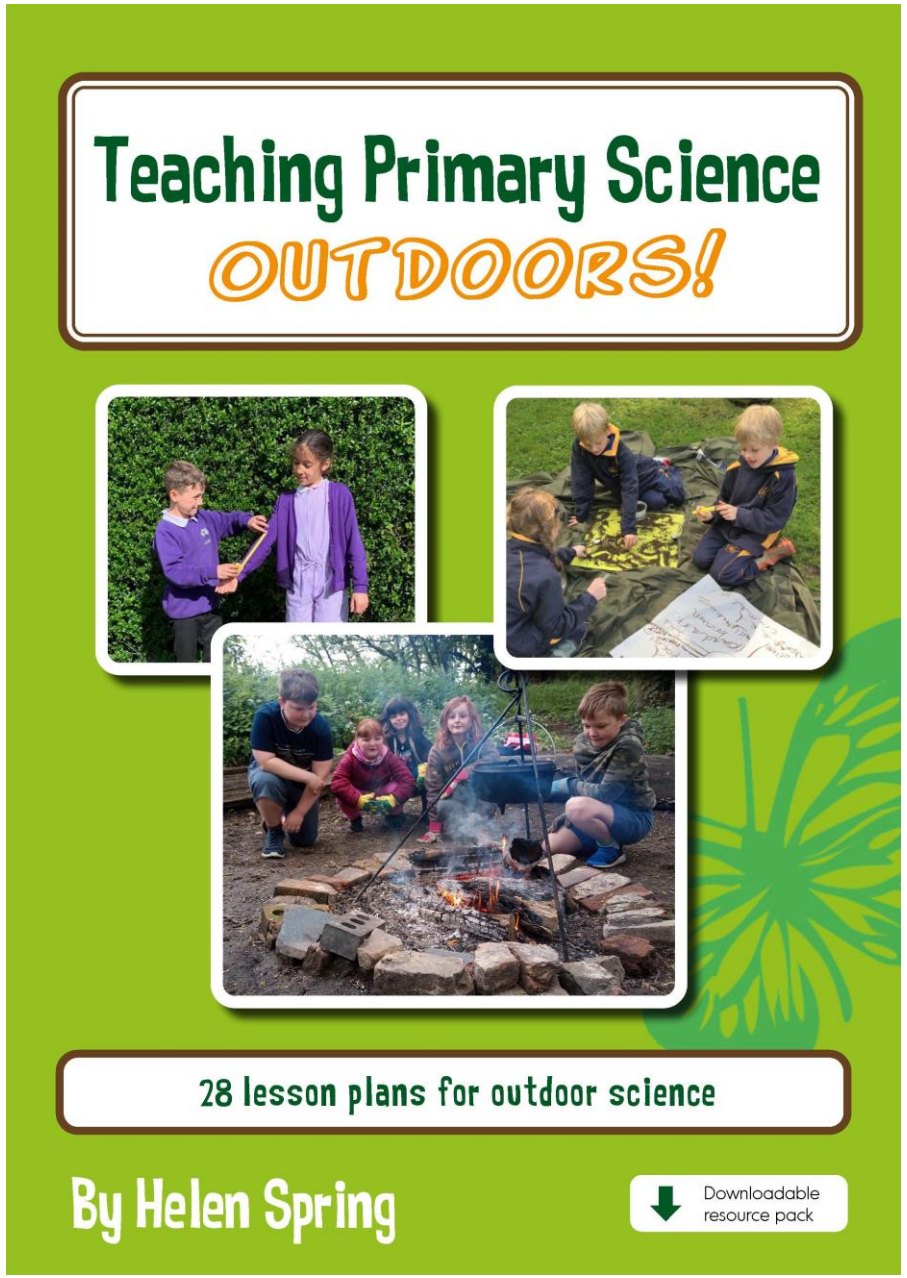

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£18 (RRP £20) inc postage.

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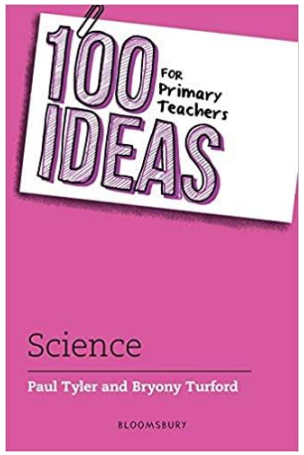
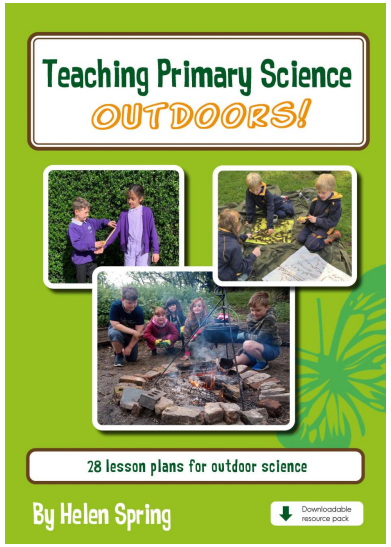
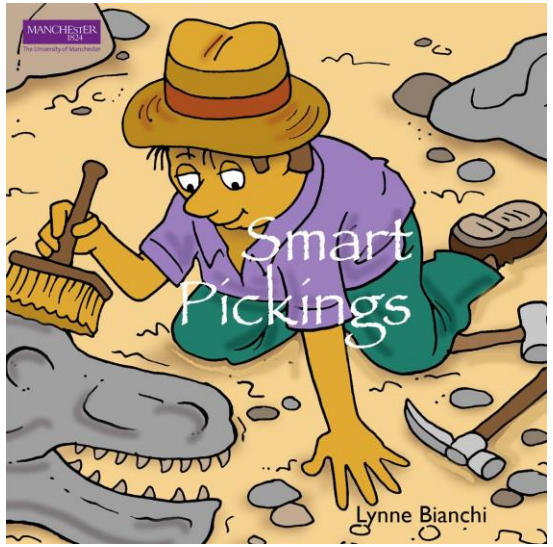
Resources to support Science Capital



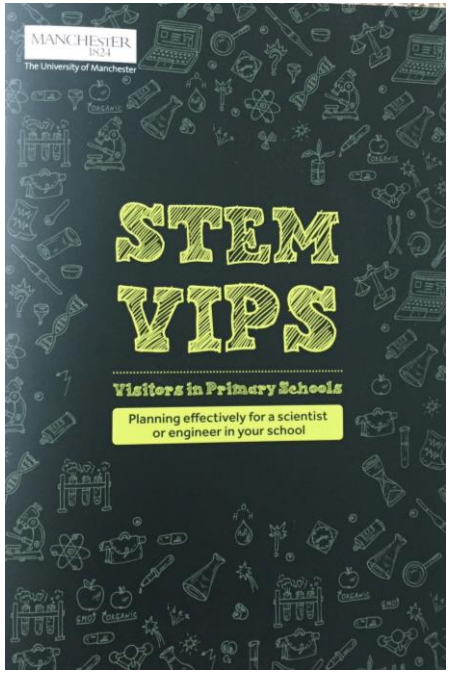


16 Science 4 families



why & how?
PRIMARY SCIENCE TEACHING TRUST

POLAR EXPLORER PROGRAMME



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Farmer Time

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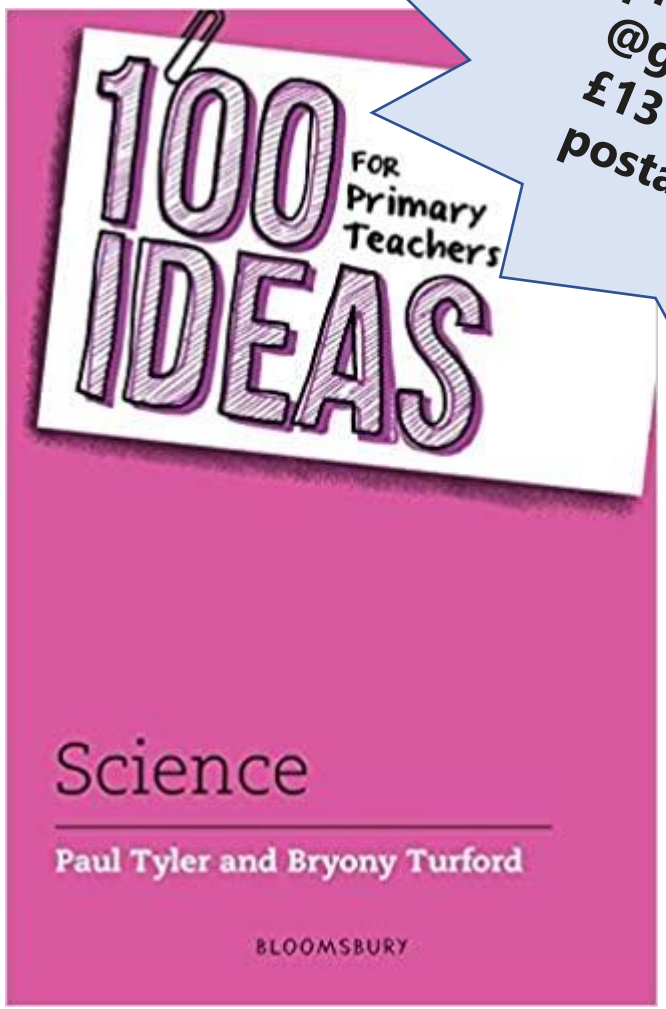
primarysciencegeeks @gmail.com £13 (RRP £15) inc postage.



IDEA 92

Keeping it topical

'Topical science brings science in the classroom to life. It gives it context and relevance and shows children the far-reaching impact of science every day.' Primary teacher, Glasgow

Making knowledge relevant to children's lives and events in the world around them helps them make sense of science concepts in a meaningful way. Topical science is about using up-to-date science stories to show how science affects our lives.

Integrating topical science into your everyday teaching and learning can engage children with the wonders of the world around them.

Topical science can be used as a hook into a new topic. For example, discussing number seven in the United Nations Sustainable Development Goals (SDGs) can lead into a topic on renewable energy sources and why they are important (see Idea 74). It can be used as a context for the science topics you are teaching. For example, if you are teaching a topic on plants, you could include recent research on how trees communicate with each other through their roots. If you are teaching the Solar System, you can extend children's understanding of our place in the universe by discussing the recent discoveries of exoplanets orbiting other stars and a giant black hole at the centre of the Milky Way galaxy.

Teachers are busy people and, unless you have

Teaching tip

Topical science can easily be linked to scientific literacy, research skills, developing questioning and debating skills.

Taking it further

Encourage your class to be researchers, finding science stories in the news to bring to class and talk about.

Bonus idea ★

There are some brilliant

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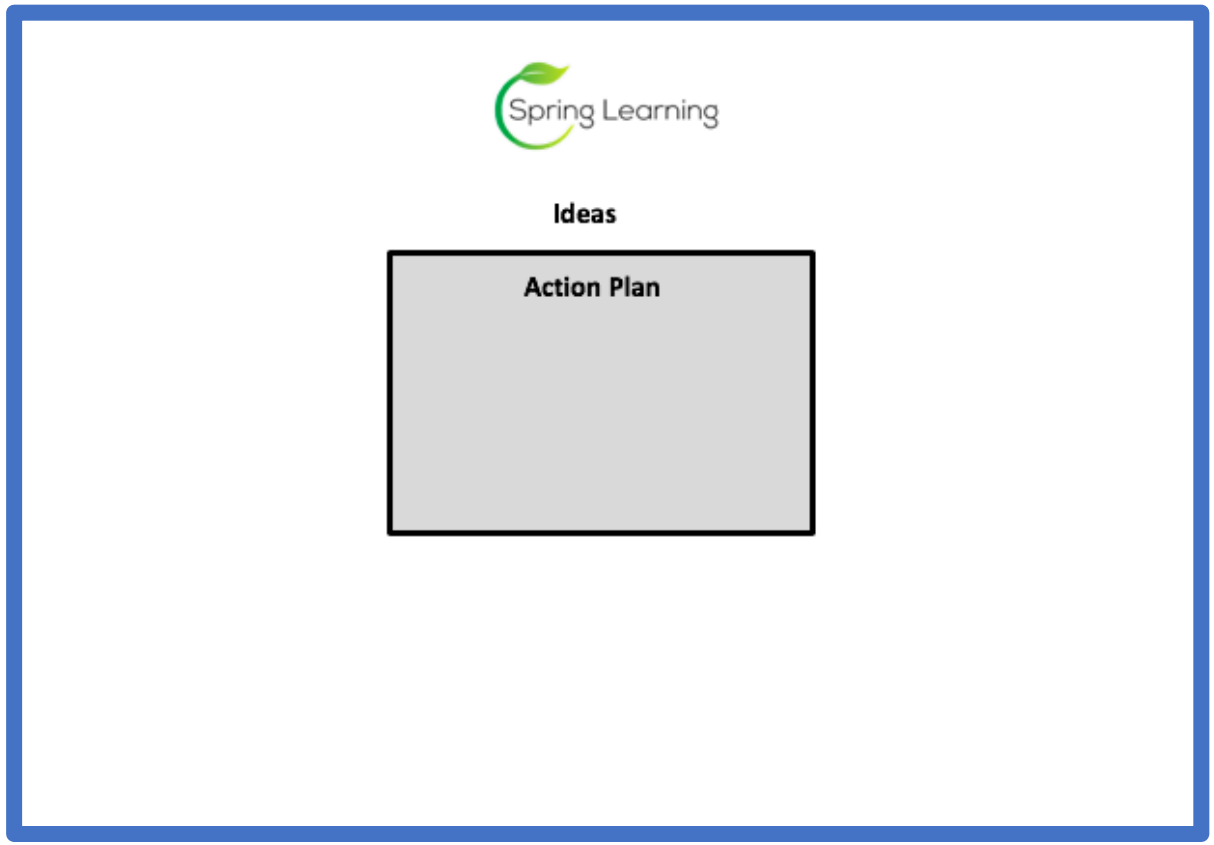
Action planning and evaluations



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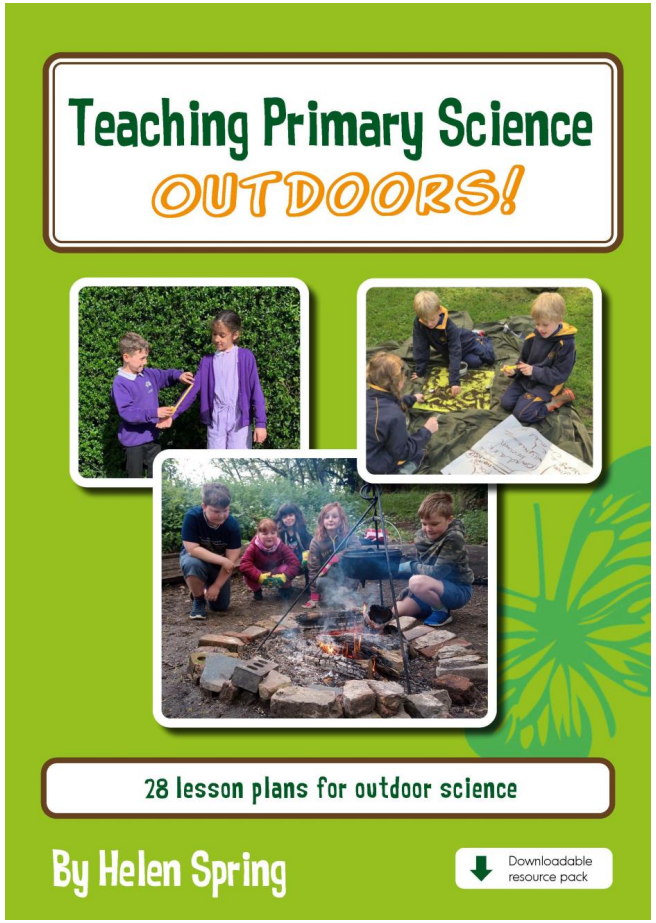

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