

# Teaching Primary Science Outdoors

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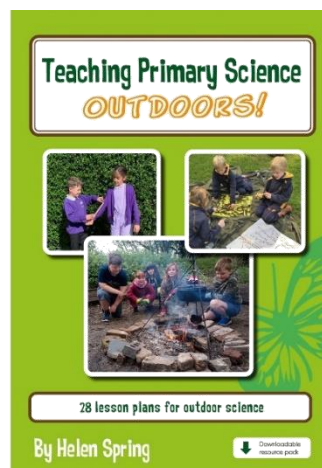
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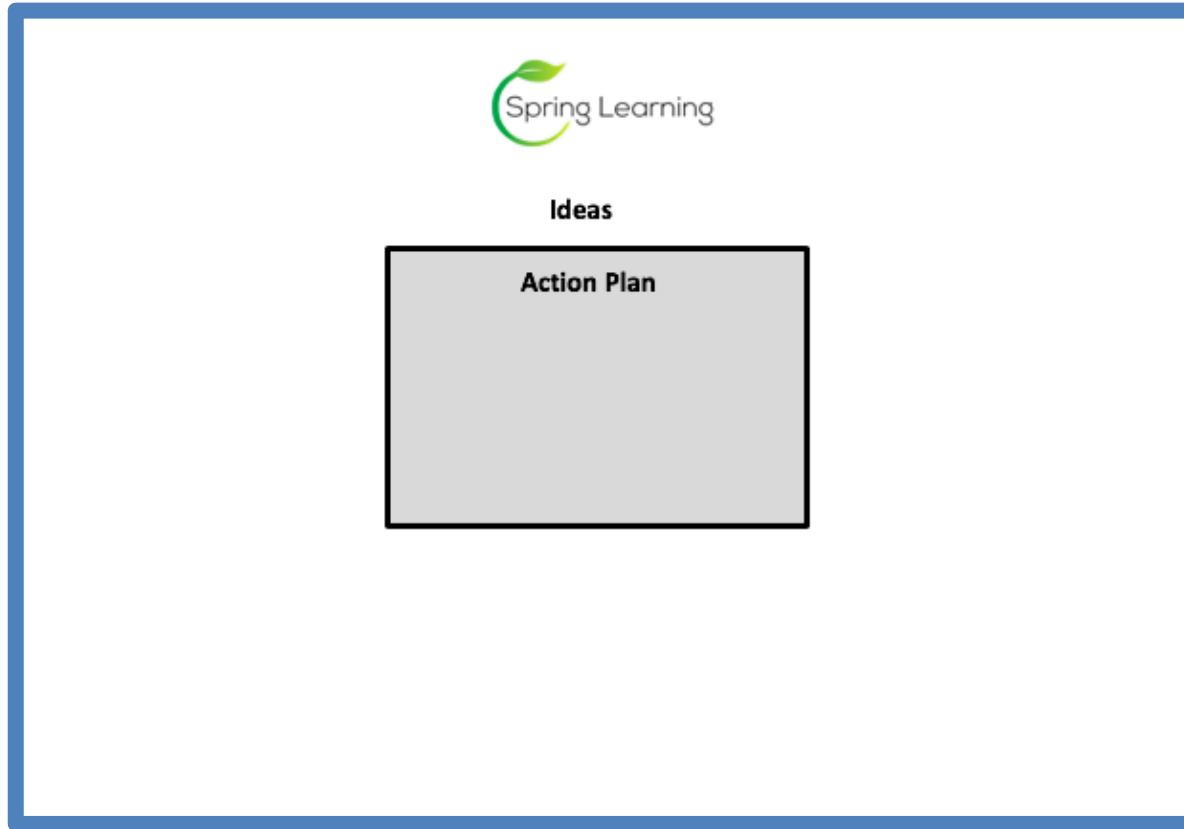
# Spring Learning



LEAD FACILITATOR



# Action planning



# What is Outdoor Learning?

Learning Outside the Classroom (LOtC) is the use of places other than the classroom for teaching and learning. It is about getting children and young people out and about, providing them with challenging, exciting and different experiences to help them learn.



Council for Learning Outside the Classroom

Outdoor learning is that which takes place beyond the four walls of the traditional classroom environment.

Association for Science Education (ASE)



# Teaching science outdoors in your school?

- What is going well?
- What challenges do you face?
- What questions do you have?



# Why go outside anyway?



# 5 Characteristics of Effective Outdoor Learning

1. one that supports children in making the transitions from within the classroom to beyond it
2. one where there is both regular and frequent use of the outdoor setting.
3. fully prepares children for working in the outdoors by addressing the basic psychological and physiological needs of the children before leaving the classroom
4. the teachers manage the transition back to the classroom as consciously as they manage the move to the outdoor setting
5. a shift to weaker framing

HOATH, L. (2015).

# 5 Types of Enquiry



ReachOut  
CPD

enquiring  
science<sup>4</sup>all

**Pause the video for 5 minutes to note down your thoughts – if you are watching with a colleague, discuss the questions.**



# The 5 types of enquiry outdoors....

- Comparative and fair testing – How does the length of time we exercise for affect our heart rate? (taken from [Ogden Trust](#), 'Developing Children's skills in Fair Testing')
- Research using secondary sources – iPad apps – Pl@ntnet
- Observing over time – observe the changes across the four seasons. Can you create a representation of Winter using materials around you? Twig game!
- Pattern seeking – What colour flowers do pollinating insects prefer? (taken from [Ogden Trust](#), 'Develop Children's skills in Pattern Seeking')
- Identifying, classifying and grouping – leaves, trees, fungi, flowers, minibeasts, rocks, materials....

# Materials

Images © Millgate House Publishing  
'Teaching Primary Science  
Outdoors'  
by Helen Spring



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Images © Millgate House Publishing  
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# Definitely outdoors....

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# Could be outdoors....

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# Planning to teach science outdoors

## **Plants – Year 3**

Pupils should be taught to:

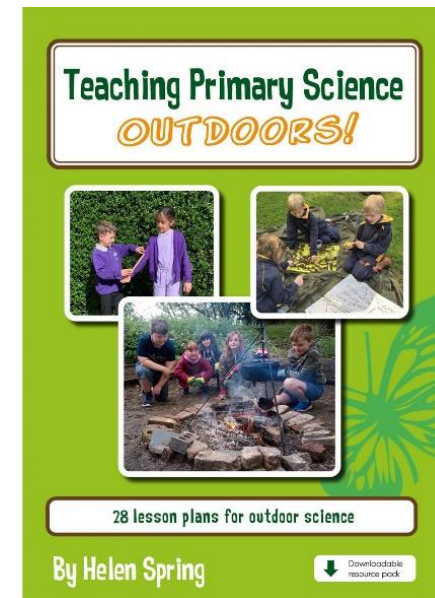
- identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
- explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant
- investigate the way in which water is transported within plants
- explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

# Planning for Outdoor Learning

- Take a copy of the curriculum
- Highlight the obvious opportunities for outdoor learning in your year group (eg – identifying trees)
- In a different colour, highlight the less obvious opportunities for outdoor learning
- Choose one objective and plan how you will teach it outdoors.  
What barriers need to be overcome in your context?



# Resources to support outdoor learning and science





# GAP Tasks

1. Look at your planning for the current or next topic you are teaching. Highlight which objectives could and should be taught outdoors.
2. Teach one science lesson (or part of one lesson) outdoors before next week. Be prepared to discuss next week.

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