



STEM
LEARNING

Teaching Primary Science Outdoors

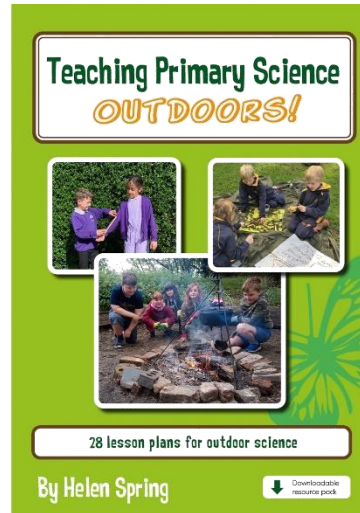
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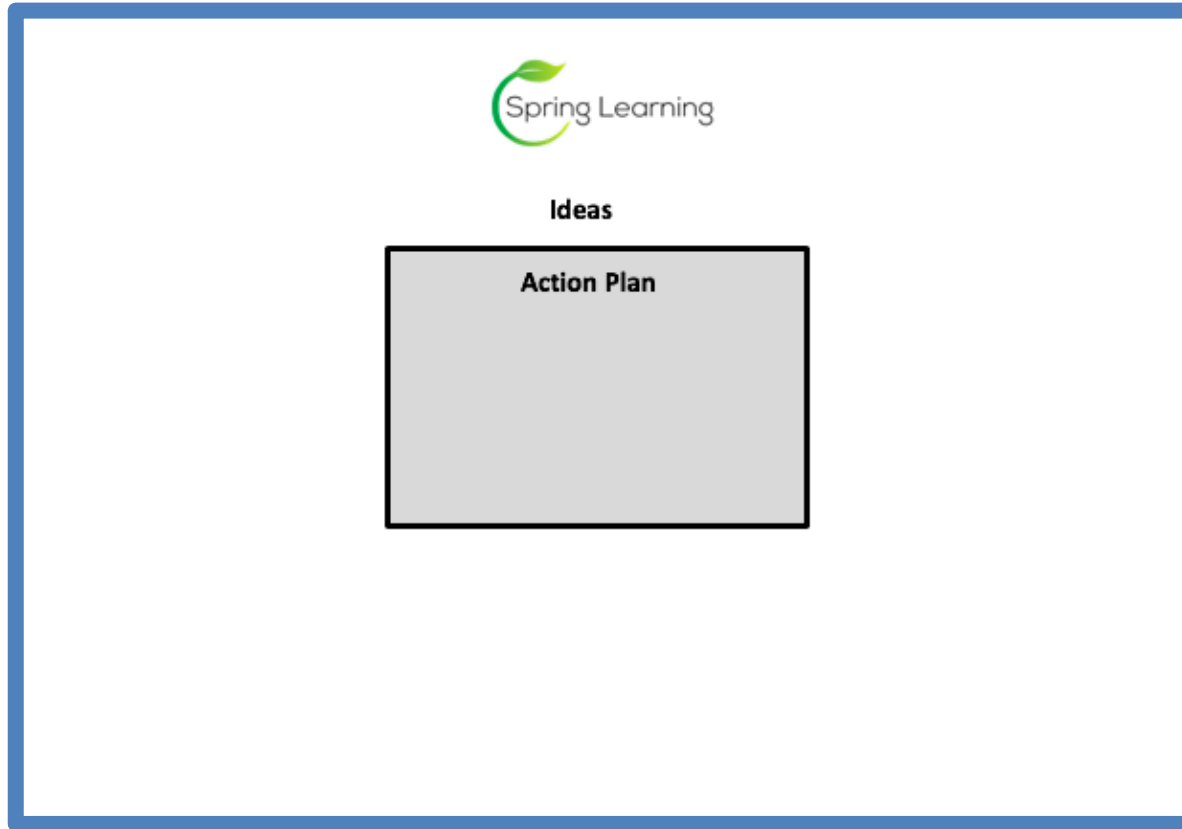


Intended Learning Outcomes

By the end of the session you will be able to:

- Explore the theory behind outdoor learning
- Discover curriculum-linked science lesson ideas that can be taught outdoors
- Explore assessment in the outdoor setting
- Plan meaningful outdoor learning for your pupils

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)



Why go outside anyway?



Outdoor Learning at your school

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

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).

Rocks



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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 to teach science outdoors

Animals, including humans – Year 4

Pupils should be taught to:

- describe the simple functions of the basic parts of the digestive system in humans
- identify the different types of teeth in humans and their simple functions
- construct and interpret a variety of food chains, identifying producers, predators and prey

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?

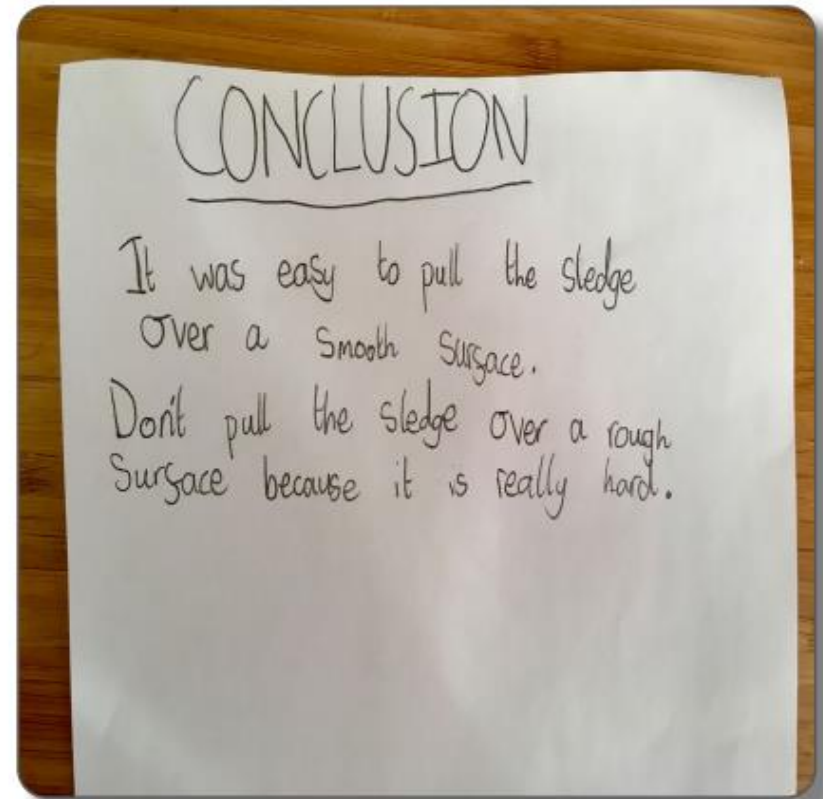


Living things and their habitats



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Forces



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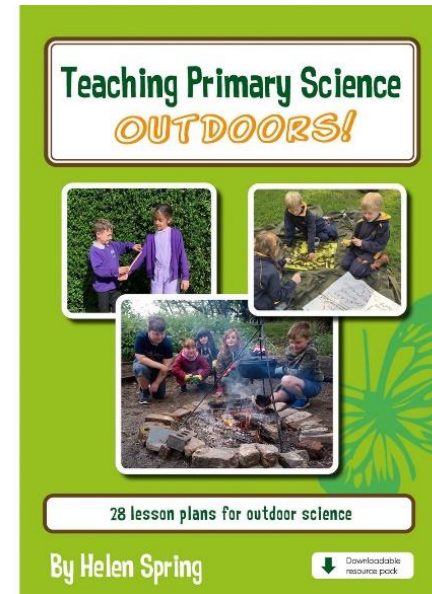
Resources to support outdoor learning and science



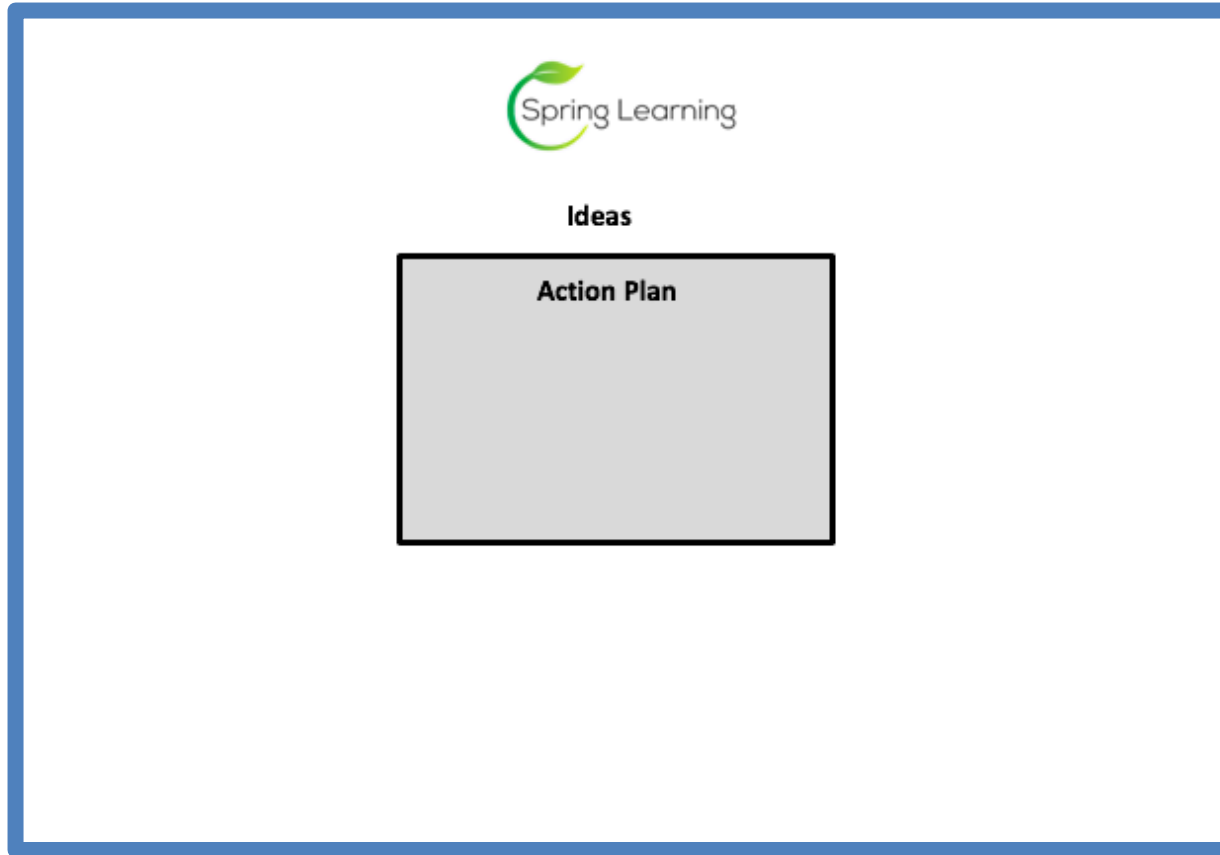
Learning through Landscapes



PLAN
Planning for assessment



Action planning



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