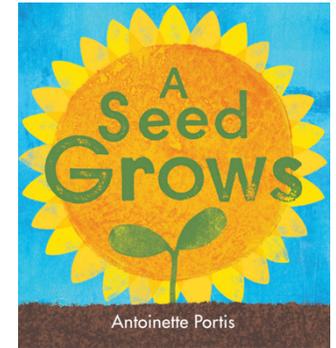


A Seed Grows by Antoinette Portis

To understand how a seed becomes a sunflower, you have to peek beneath the soil and wait patiently as winding roots grow, a stalk inches out of the earth, and new seeds emerge among blooming petals.

With evocative and lively illustrations, A Seed Grows offers a close-up view of each step of this process and the ways in which flowers and seeds depend on other creatures, with a striking fold-out spread of a full-grown sunflower and additional material at the back of the book explaining the science of plant life cycles.



Science Investigation	National Curriculum Objectives: Pupils should be taught to: <ul style="list-style-type: none">- observe and describe how seeds and bulbs grow into mature plants- find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	Resources: A Seed Grows by Antoinette Portis Images from the book Magnifying glass Sunflower seeds Seeds and bulbs from a variety of plants
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Before reading 'A Seed Grows' ask the children what they think a plant needs to grow? Write down the children's responses and then read 'A Seed Grows' – would the children like to add anything to their ideas?



Ask the children to label the different parts of a sunflower plant using images from the book.

Compare the image of a sunflower plant to the image of a tree and identify similarities and differences between their features & their structures.

Observational Drawing

- Use images from the book as well as seeds and bulbs at various stages of growth (some with shoots, shoots & roots etc) and children make close observational drawings. You could give the children magnifying glasses to look very closely at the seeds and bulbs as they draw.
- Give the children an image from the book that is cut in half, ask the children to draw the other half of the image using what they know about seeds and how they grow to complete the image.



Investigating & Experimenting

Carry out an investigation into the best conditions plants need to be healthy. Plant three sunflower seeds - keep one on a windowsill, one in a cupboard and one in the fridge.

Observe how the seeds grow and how healthy the plants appear.

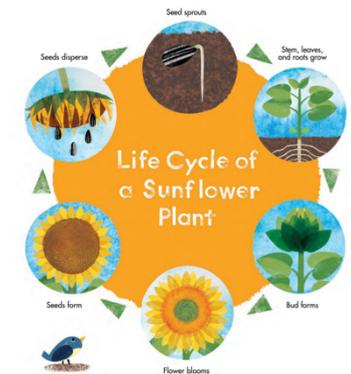
Return to the book, 'A Seed Grows', and look at the pages where the sun shines onto the seed and flourishes. Explain to the children that seeds need warmth to grow.

Continue to observe the seedling growing in different conditions and recording observations.

Lifecycles

Examine the life of a sunflower plant using the images in 'A Seed Grows'. Sunflowers go through four phases in their life cycle: a vegetative phase, a reproductive phase, a period of ripening, and period of deterioration from which they can be replanted.

- Use images from the text and ask the children to write about what is happening at each stage of the life cycle.
- Encourage the children to use accurate scientific language: grow, sprout, bloom, stem, leaves, roots, disperse.



Other ideas to use with this book:

- Keep a diary of a sunflower and record how it grows using diagrams and descriptions
- Measure the height of different sunflowers
- Learn about famous art inspired by sunflowers, including work by Vincent Van Gogh, Georgia O'Keeffe, Paul Gauguin, Henri Matisse, and Gustav Klimt
- Print with the different parts of sunflowers to create a painting

A little bit of fun: fun with plants and true or false quiz found at the back of the book.

Jenny Guest is an independent educational consultant and writer alongside her role as an Assistant Headteacher in a large London primary school. She has been a primary school teacher for ages 3-11. Jenny is also an avid reader of children's literature and runs @bookishwaytoplay on Instagram, which aims to showcase and review the very best children's books, as well as create accompanying supportive learning activities for toddlers, preschool and primary school age children.

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See also Antoinette Portis's other books for Scallywag Press: HEY! WATER and A NEW GREEN DAY.

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