




















# Plants: What Do Plants Need to Grow Well?

<b>Aim:</b> To explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) by investigating what plants need to grow well. I can set up an investigation to find out what plants need to grow well.	<b>Success Criteria:</b> I can think about what plants need to grow well. I can think of a question to investigate. I can predict what will happen in my investigation. I can plan what I will do to set up my investigation. I can set up my investigation carefully.	<b>Resources:</b> <b>Lesson Pack</b> Small plants (such as tomato, bean or sunflower seedlings) in pots Measuring cylinders/beakers Access to a dark cupboard Access to a light windowsill or shelf Access to a fridge Rulers
	<b>Key/New Words:</b> Air, light, water, nutrients, soil, investigate, explore, predict, observe.	<b>Preparation:</b> Differentiated <b>Investigation Planner</b> - 1 per child <b>Recording Results Sheet</b> - 1 per child

**Prior Learning:** It would be helpful if children have had some experience of planning and setting up a scientific investigation.

## Learning Sequence

	<b>What Do Plants Need?</b> Discuss the 7 life process with the children. Ask whether the children have looked after plants before. What did they need to provide to help them grow? Gather their ideas on the whiteboard.	
	<b>How Can We Find Out?</b> Discuss different investigations with the children using the <b>Lesson Presentation</b> . Introduce the <b>Investigation Planner</b> .	
	<b>What Are You Going To Investigate?</b> Children work in pairs to choose a question as the focus for their investigation.  Encourage children to think of their own question to explore.  Encourage children to think of their own question to explore.	
	<b>What Do You Predict Will Happen?</b> Read the information on predictions on the <b>Lesson Presentation</b> . Ask the children to work together to add their predictions to their <b>Investigation Planner</b> .  Children use the sentences starters for support.  Children give a reason for their prediction.	
	<b>What Are You Going To Do?</b> Ask the children to record what they intend to do on their <b>Investigation Planner</b> using words, pictures or both. <b>Can children communicate their ideas about their investigation scientifically?</b>  Children should use the suggested ideas, words and pictures for support.	
	<b>Set It Up!</b> Allow the children time to set up their investigation. They may need to put their plants in a dark cupboard or in a fridge. They should measure the height of their plant and record it on their <b>Recording Results Sheet</b> so that they can tell if it grows taller during the course of the investigation. Remind children about health and safety issues around handling plants, and ensure that they wash their hands afterwards.	
	<b>Accurate Observations:</b> Read the information on observations on the <b>Lesson Presentation</b> . Allow children time each day to record their observations on their <b>Recording Results Sheet</b> ready for the next lesson.	

## Taskit

**Growit:** Why not try caring for a plant at home or in the garden? Maybe you could even have a go at growing a plant from a seed! Try a sunflower or a bean. Make sure you ask a grown up first.

**Designit:** Can you use your imagination to design a brand new plant? Think about where it lives and how it survives.

**Writeit:** Can you write an acrostic poem to explain what plants need to grow well?