

SCIENCE LESSON YEARS 1 AND 2 – SUMMER 2 WEEK 1

We are continuing with our plants topic, beginning with an investigation called 'Upside down seeds'.

Materials needed: A selection of seeds. Two broad bean seeds, saucer, water, two see through containers (jar or plastic bag), kitchen roll/ cotton wool/napkins.

Learning objectives:

I can make a prediction and give a reason.

I can follow instructions for planting a bean seed.

I can make a prediction and record my observations.

*We will begin by looking at a selection of seeds. What do you notice about the seeds? How are they different? Why are they different? Can you predict what they might grow into?*

*Show your child the picture below and talk about what each of the children are saying. Who do you agree with?*



**Prediction:** Ask your child whether they think the way the seed is planted makes a difference to how it grows. Making a prediction is a chance to encourage the children to think and question, to talk about what *might* happen, and see if they have any suggestions to explain what will happen in their experiment.

# Grow a bean plant



You need: • a broad bean seed • a saucer • some water • a glass jar • a piece of kitchen roll or a napkin

**1** Soak the broad bean seed in some water on a saucer for one hour.



**2** Swirl some water around in your jar then tip it out but leave the jar wet – don't dry it.



**3** Roll up a piece of kitchen roll or a napkin and put it inside the jar, pressing it against the glass. Then, slip your bean seed in between the napkin and the glass.



**4** Stand your bean on a sunny windowsill and use a plant spray or spoon to sprinkle a little water on it every day.



**5** Your bean should sprout after about 4 days.



**6** After about 10 days, your bean seed should have grown roots, a stem and leaves!



Plants need sunlight.



leaf  
stem  
seed  
root



For broad bean plants to carry on growing and produce beans for you to eat, they need nutrients from soil – so plant your sprouted bean in a pot of compost and water it often.

You could keep a diary – draw a picture of your plant each day!



All ideas are valid, so encourage suggestions, even if you know they are wrong, and even if they seem a little too extraordinary.

**Activity:** In your book write down your prediction (you can print off the template below or copy it into your books). You must try and give an explanation for your prediction.

**Experiment:** Follow the instructions (poster on the left). You will need to do this twice – one where the seed is planted the right way up and the other where it is planted upside down – label the containers.

**Activity:** Over the next week record what happens to each of your bean seeds, by drawing pictures and adding labels.

What changes in each do you notice?

**Activity:** What conclusion have you drawn? Does it matter which way you plant a seed? Can you explain why this is?

You can explain to your child that the shoot of a seed always grows upwards. It doesn't matter which way up the seed is. If it is upside down then the shoot will still grow the right way around.

Upside down seeds

Do you think that it will matter which way round you plant the broad bean seed? Yes / No

My prediction:

I think that \_\_\_\_\_

because \_\_\_\_\_

Date		Date		Date		Date	
Right way up	Upside down						

I noticed that \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Does it matter which way up you plant a seed? Yes / No

Explain why you think this is \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_