

P7 Transition Task	
Learning Intention	I am developing my Scientific Literacy skills!
Success Criteria	I can demonstrate a practical understanding of the Scientific method !

What is Science?



Part 1 Introduction

Science consists of observing the world by watching, listening, observing, and recording.

Anyone can think like a scientist.

Science is . . .

- Observing the world.
- Watching and listening
- Observing and recording.

Let's do some easy, but interesting Science!!

Part 2 - Science Experiment

First forming a hypothesis (this is a guess or prediction, which also forms the question **we will answer with science**).

1. Here is our Question:

'Does music effect plant growth?'

2. So our hypothesis could be (guess what the result will be):

'We think music WILL help plants grow better'

Or

'We think music WON'T help plants grow better'

Circle the hypothesis above that **YOU** think will be the result.

Now for the experiment to **test** if your **hypothesis** is correct.

Experiment equipment:

You will need:

- Some **cress seeds** (these can be found in supermarkets)
- Some **soil from outside**. (Be careful, there are no sharp stones or glass in it). If your parents have plant potting compost - use this instead.
- Two old yogurt pots or other plastic containers.
- A ruler or measuring tape

Experiment preparation:

- Fill up the yoghurt pots or plastic containers with soil.
- Thoroughly **wash your hands** after touching the soil.
- Place 10 seeds in one pot and 10 seeds in another pot, making sure they are evenly spread out.
(Just put the seeds just underneath the soil - **do not put them in too deep** - just sprinkle a dusting of soil over them).
- Label one pot '**music**', and label the other '**no music**'.
- Add around **20cm³ of water** to both pots covering **all** the seeds. It is important to add the same volume of water to both.
(Ideally use a measuring jug or cup with a scale from your kitchen if you have one).
- Leave them on a window sill, or somewhere sunny, (but **not somewhere they will dry out or get too hot** - like too near a radiator).

Carrying out the experiment:

- Here is the interesting part: Play your **favourite music** to one of the set of plants labelled '**music**'. (You need to make sure the **other 'no music' pot is far enough away** that the seeds cannot be influenced by the music).
- Play the **music every day for an hour or more to only the 'music' group**. It must be music you really like.
- Look after the seeds - add **10cm³ of water** to the pots **every 2 days** - **Important: You must add the same volume of water to both pots to keep the experiment fair.**

- If **you** think the pots are too wet, water every 3 days with the same volume instead. **BUT**, if **you** think the pots are too dry, water them every day. Please be careful - too much water will make it too muddy and eventually kill the plants. Not enough water will make it too dry and kill the plants. The soil **must feel just a bit damp** to the touch every day. **You** have to judge/look after your experiment.
- Leave to grow for 3 weeks.

Writing down your results:

- After 3 weeks, the plants will have grown. Measure the height of the plants with a ruler and record them in the table below:

Plant	'Music' pot Height (mm)	'No Music' pot Height (mm)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
AVERAGE HEIGHT (mm)	_____	_____

Learning from our experiment by coming to a conclusion:

The hypothesis I circled at the start was:

'We think music WILL help plants grow better'

Or

'We think music WON'T help plants grow better'

Do your results show your hypothesis to be correct?

Yes or No

Music has/has not shown an effect on plant growth because

Evaluation:

Sources of **error** might be:

Steps that **should be taken** to make this a better experiment **next time**:
