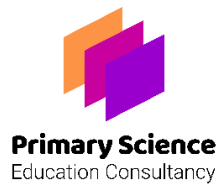





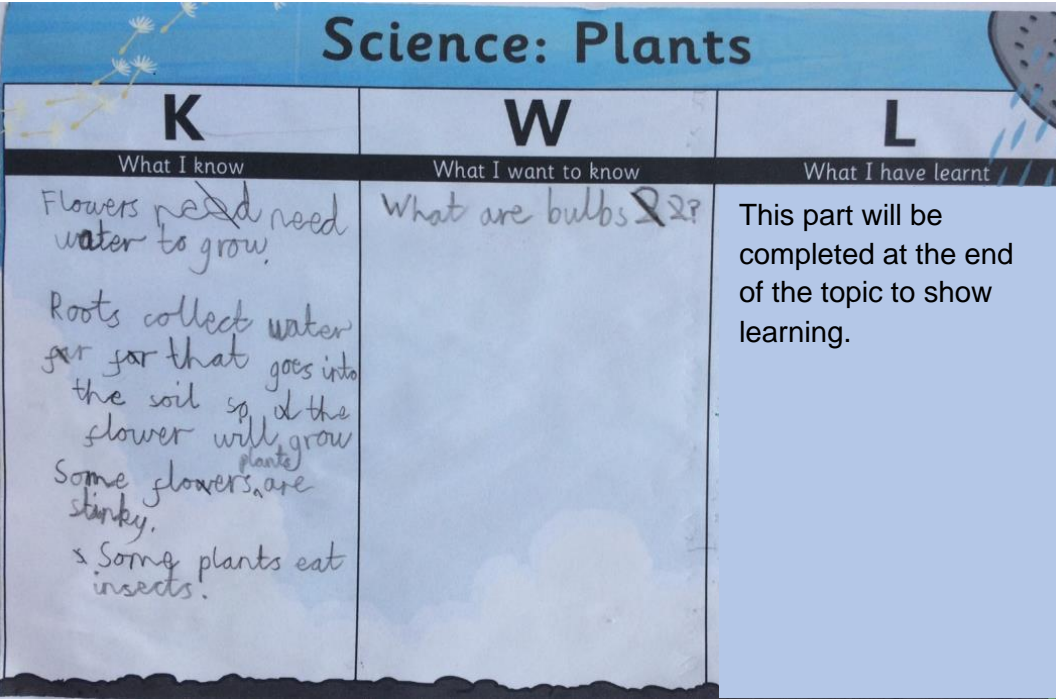
Examples of Work


J.R.

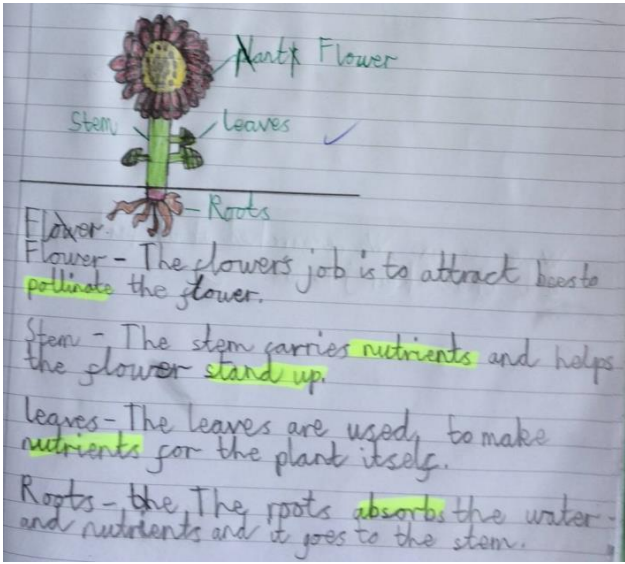
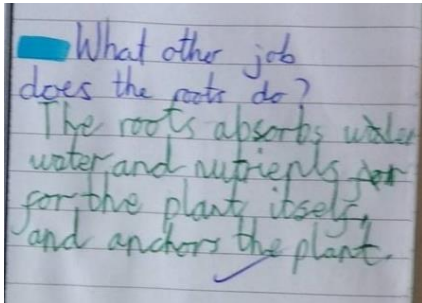
Plants - Year 3





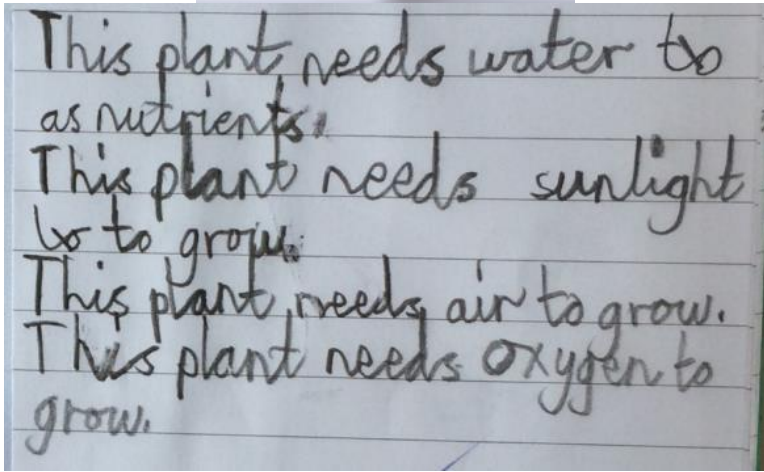
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Observe and describe how seeds and bulbs grow into mature plants. (Y2) Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. (Y2) 			
	Description of activity			
	The children were taken outside and asked to find as many different plants as they could. They took photos of these so that they could talk about them back in the classroom. Following on from this, the children completed the first two columns of the KWL grid.			


EVIDENCE OF LEARNING		ASSESSMENT									
Oral evidence	Examples of work	Knowledge									
Teacher observations	 <p>Science: Plants</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; font-weight: bold; font-size: 2em;">K</td> <td style="text-align: center; font-weight: bold; font-size: 2em;">W</td> <td style="text-align: center; font-weight: bold; font-size: 2em;">L</td> </tr> <tr> <td style="text-align: center; font-size: 0.8em;">What I know</td> <td style="text-align: center; font-size: 0.8em;">What I want to know</td> <td style="text-align: center; font-size: 0.8em;">What I have learnt</td> </tr> <tr> <td style="vertical-align: top;"> <p>Flowers need need water to grow.</p> <p>Roots collect water far far that goes into the soil so the flower will grow</p> <p>Some flowers are stinky.</p> <p>Some plants eat insects.</p> </td> <td style="vertical-align: top;"> <p>What are bulbs?</p> </td> <td style="vertical-align: top;"> <p>This part will be completed at the end of the topic to show learning.</p> </td> </tr> </table>	K	W	L	What I know	What I want to know	What I have learnt	<p>Flowers need need water to grow.</p> <p>Roots collect water far far that goes into the soil so the flower will grow</p> <p>Some flowers are stinky.</p> <p>Some plants eat insects.</p>	<p>What are bulbs?</p>	<p>This part will be completed at the end of the topic to show learning.</p>	<p>J.R. shows an awareness that plants need water to grow (Y2) and that roots are involved in taking in the water (Y3). He also shows an awareness that plants vary.</p> <p>The question indicates that J.R. is not secure on the Year 2 objective about bulbs and seeds.</p>
K	W	L									
What I know	What I want to know	What I have learnt									
<p>Flowers need need water to grow.</p> <p>Roots collect water far far that goes into the soil so the flower will grow</p> <p>Some flowers are stinky.</p> <p>Some plants eat insects.</p>	<p>What are bulbs?</p>	<p>This part will be completed at the end of the topic to show learning.</p>									
		Working scientifically									

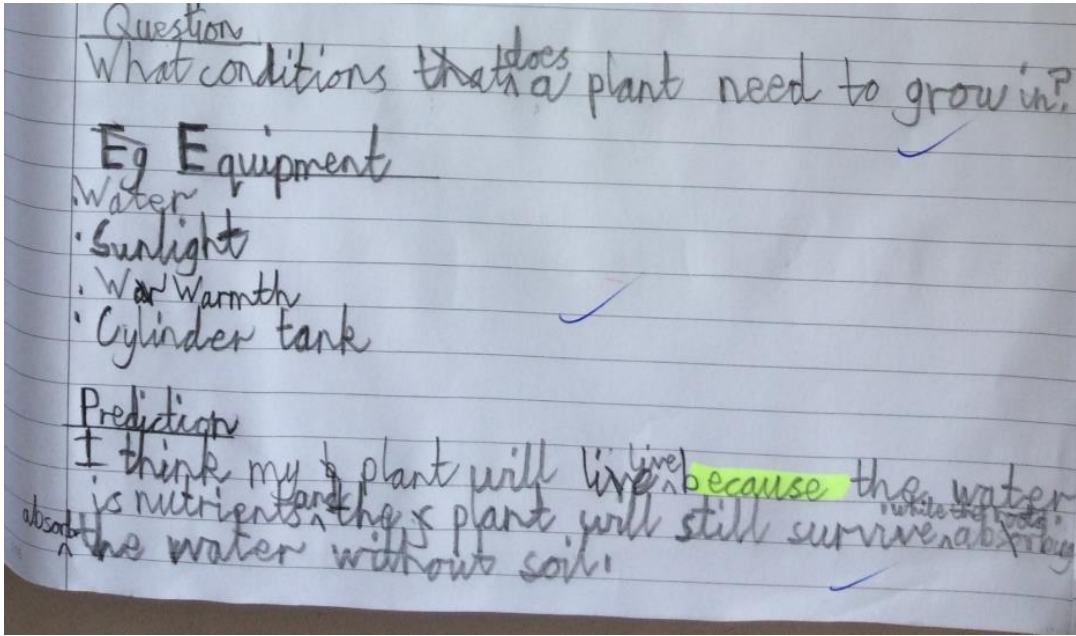
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. 			
	Description of activity			
<p>In groups of four, each child was nominated a part of the plant. They used secondary sources to find out the function of this part of the plant. They explained this to the rest of their group, highlighting the key scientific vocabulary. The children then recorded what they had learnt about the four parts of the plant.</p>				


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		<p>J.R. is aware of the main functions of the parts of a plant but has not yet investigated how these are performed.</p>
Teacher observations		Working scientifically
		<p>J.R. carries out research using secondary sources.</p>

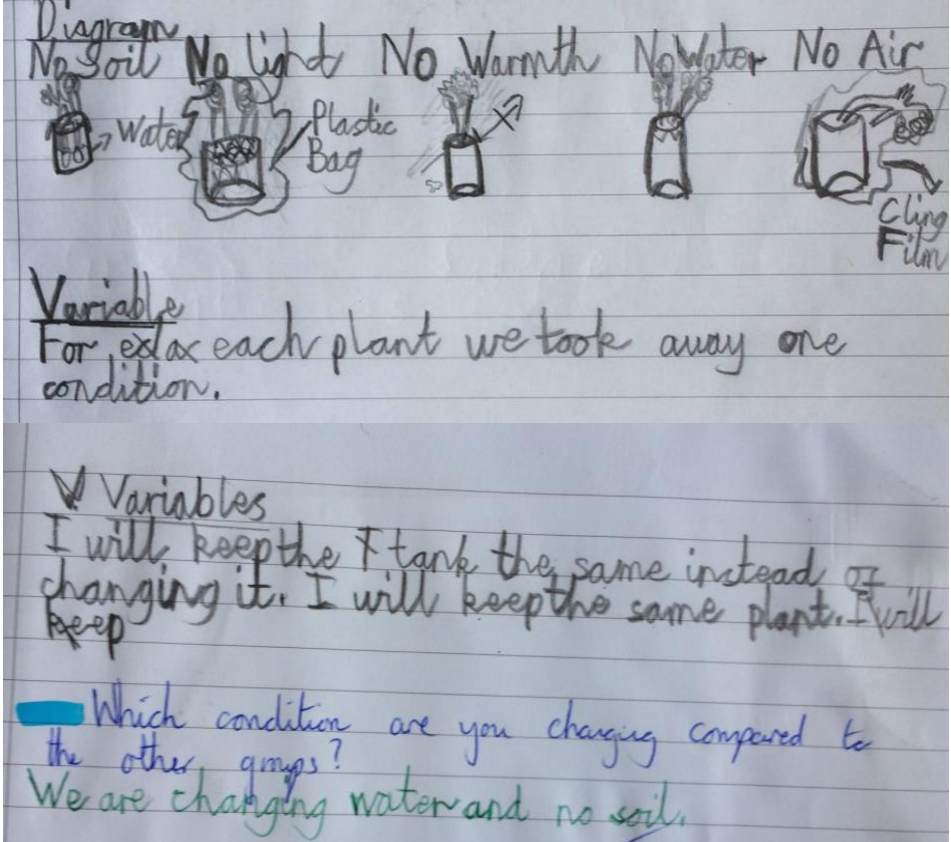
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. 			
	Description of activity			
	The teacher showed the children a plant he had brought in from home that was dying and asked the children to discuss what he may have done wrong. This discussion supported the children to identify what plants need to stay healthy and grow.			

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>“The soil is very dry. Have you not been watering it?”</p> <p>“Maybe it is too hot.”</p> <p>“Do you think it is getting enough light?”</p>		<p>J.R. is aware of some of the needs of a plant for growth. This needs to be developed further and investigated.</p>
Teacher observations		Working scientifically
<p>The first sentence shows confusion between water and the nutrients it contains.</p> <p>The distinction between air, oxygen and carbon dioxide is not required in Key Stage 2.</p>		

	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> 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. 			
	Description of activity			
	<p>The children, working in 5 groups, planned investigations to test their ideas about what a plant needs. Each group was given the same type of mature plant, grown from a bulb, and decided how to deprive it of one of the requirements. There was a class control which had all the requirements.</p>			

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
Teacher observations		Working scientifically
<p>J.R.'s group tested whether their plant needed soil by placing it in the neck of a plastic cylinder with the roots and part of the bulb in the water.</p>		<p>J.R. uses his knowledge of plants to make a prediction.</p>

	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> 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. 			
	Description of activity			
	The requirements that the class suggested changing were soil, light, warmth, water and air.			

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
Teacher observations		Working scientifically
The tank referred to here is the cylinder the plants were in.		J.R. understands that different variables are being investigated across the class and that each group is changing only one thing. He identifies some control variables and, when prompted, he knows that his plant will have water and no soil.



Year

3

Topic

Plants

Focus of assessment (National Curriculum statements)

- 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.

Description of activity

The children measure and observe their plant each day for a week.

EVIDENCE OF LEARNING

ASSESSMENT

Oral evidence

Examples of work


Knowledge

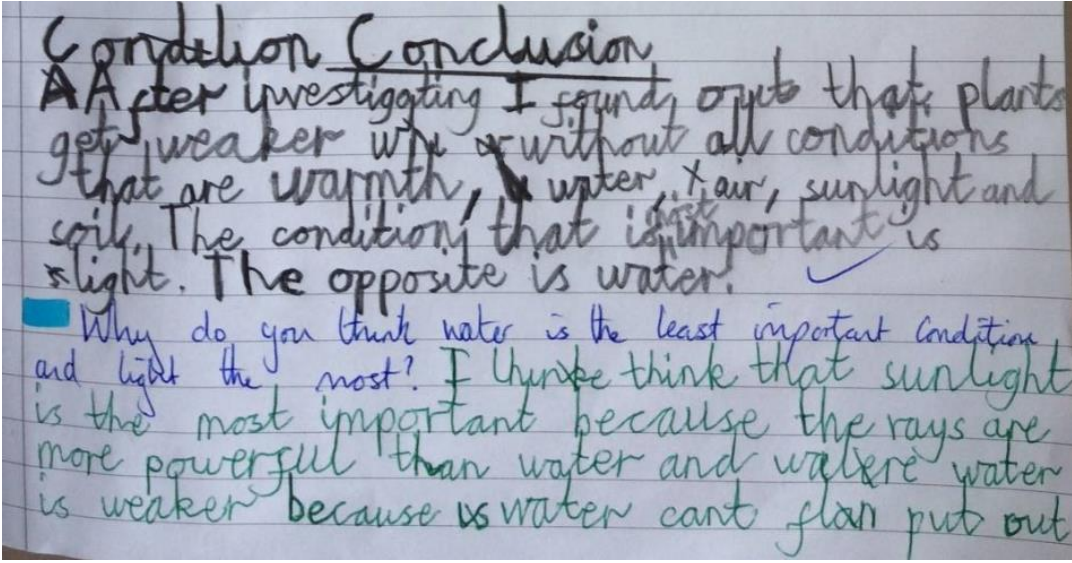
Plant location/Day	Height of plant (cm)	Description of plant	Drawing of plant
Day 1	28 cm	Bright green. Leaves are long. stem is thick. smells weird.	
Day 2	32 cm	Leaves limping mostly light green	
Day 3	32 cm	Broken bulb. Brown leaves. Flower is blooming. Tulip has white edges. Leaves drooping.	
Day 4	33 cm	Leaves A leaf is growing. Leaves are flopping. Petals flopping down. Three leaves standing straight.	
Day 5-7	29 cm	All leaves are floppy. Flowers curled up. Broken bulb still. Legs is still baby.	


Working scientifically


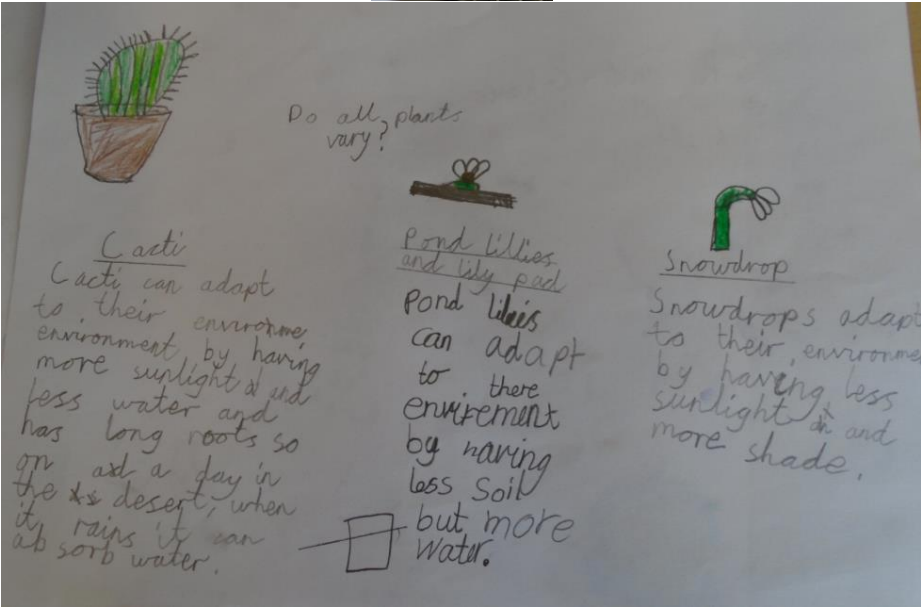
JR records his observations and measurements on a prepared table.


Teacher observations

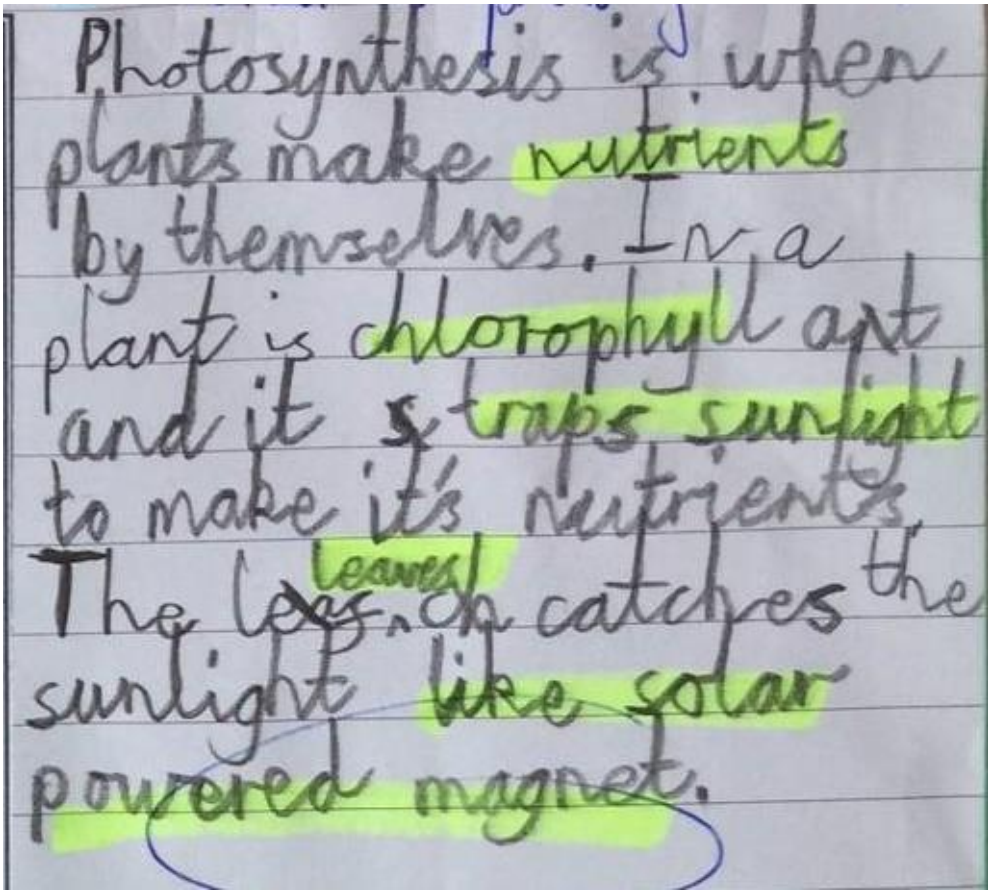
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. 			
	Description of activity			
Each group compared their plant with the control and with those of the other groups.				


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
Teacher observations		Working scientifically
All of the plants were unhealthy compared with the control, but J.R. decided that the plant which had been deprived of light was the least healthy. The one which had not been watered looked healthiest.		<p>J.R. knows all the plant requirements, except for room to grow, which was not investigated. He is not yet secure in his understanding of the function of the leaf and does not explain why sunlight is important for plants.</p> <p>Although not very clearly expressed, J.R.'s conclusion is consistent with the data, as his plant was in a worse condition than the one without water at the end of the investigation.</p>

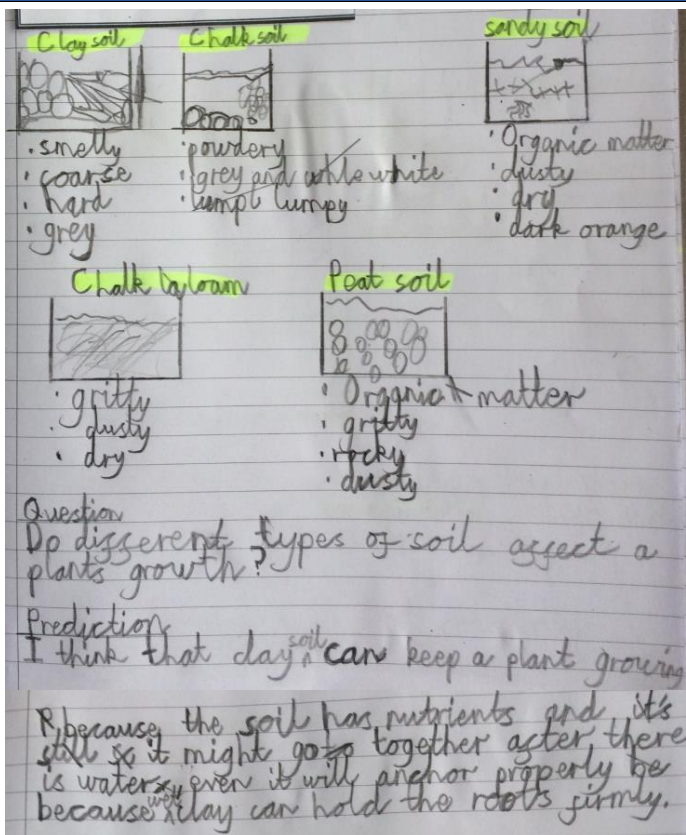
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. 			
	Description of activity			
	Stimulated by a cactus in class, the children undertook their own research, using laptops, as to why and how plants' needs vary. They created a poster.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		J.R. has identified how plants are adapted to habitats with varying amounts of light, water and soil.
Teacher observations		Working scientifically J.R. carries out research using secondary sources.


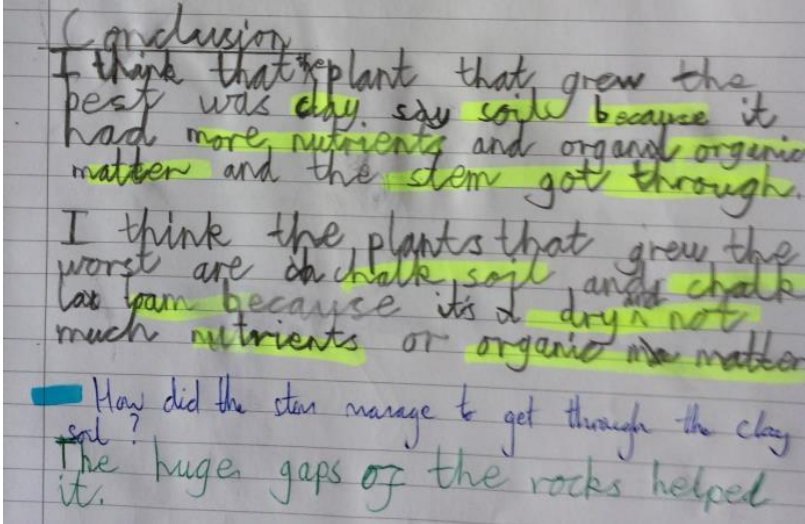
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. 			
	Description of activity			
	The children were given a range of web links to explore to learn more about the role of the leaf.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		J.R. draws on his knowledge of healthy eating to describe the food made by the leaves as nutrients. He now knows the function of the leaves of a plant.
Teacher observations		Working scientifically

	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> 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. 			
	Description of activity			
	To link in with learning about soils, the children were presented with five types of soil to observe closely and were then asked to think about how the different soils might affect plant growth.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		<p>J.R now shows a secure understanding of the role of the roots in providing the plant with water and nutrients while also holding it in place in the ground.</p>
Teacher observations		Working scientifically
		J.R. makes careful observations of the soils which he presents using annotated diagrams.

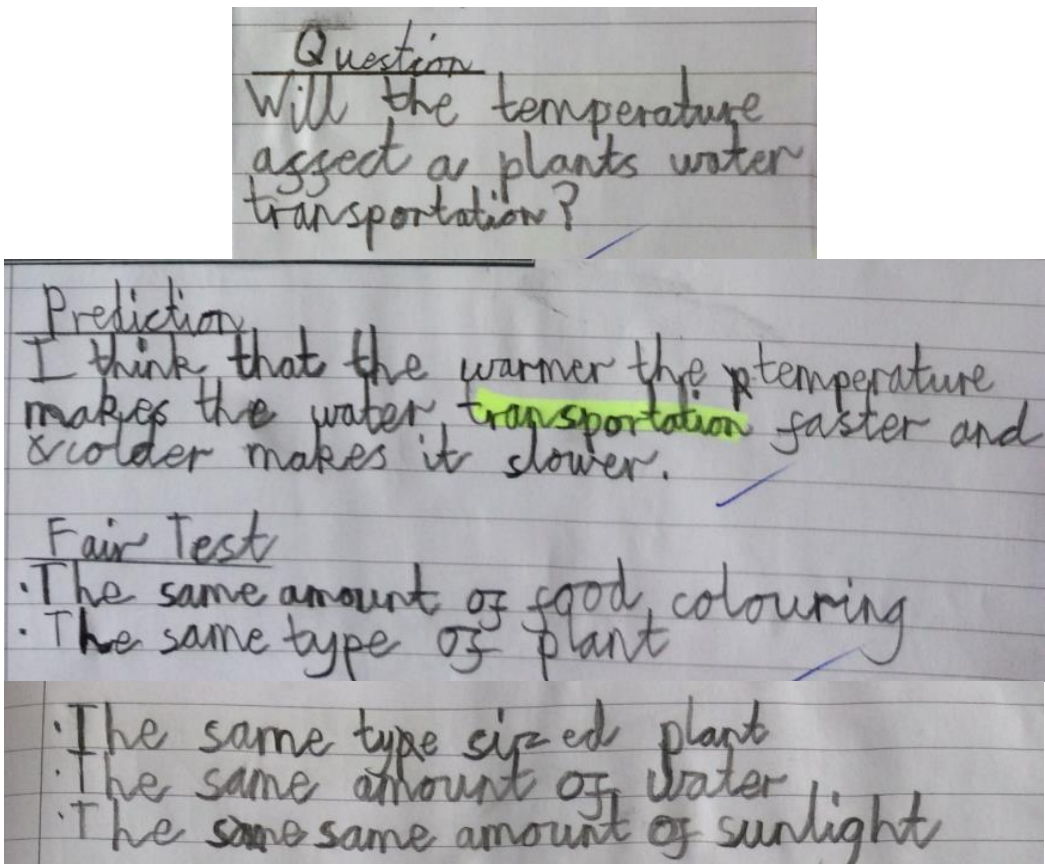
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. 			
	Description of activity			
	After a number of days, the children observed the plants and drew conclusions from their observations.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		J.R. shows understanding that the soil provides nutrients, and that organic matter is also important. He also understands that the texture of the soil may affect whether the plant is able to grow through it.
Teacher observations	 <p>Conclusion I think that the plant that grew the best was clay soil because it had more nutrients and organic matter and the stem got through. I think the plants that grew the worst are on chalk soil and chalk because it's a dry and not much nutrients or organic matter. How did the stem manage to get through the clay soil? The huge gaps of the rocks helped it.</p>	Working scientifically
		J.R. draws a conclusion based on his observations.

	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Investigate the way in which water is transported within plants. 			
	Description of activity			
	<p>The teacher showed carnations and food colouring to the children and reminded them about their research into the function of the stem. He asked them how they might use these resources to see the water within the plants and to demonstrate that the stem transports water to other parts of the plant. The teacher then set up the demonstration.</p>			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>"I think that, if we put the white flowers in the blue water, it will go up the stem and make the stem go blue and then the flower."</p>		
Teacher observations		Working scientifically
		<p>J.R. uses his knowledge of the function of the stem to make a prediction.</p>

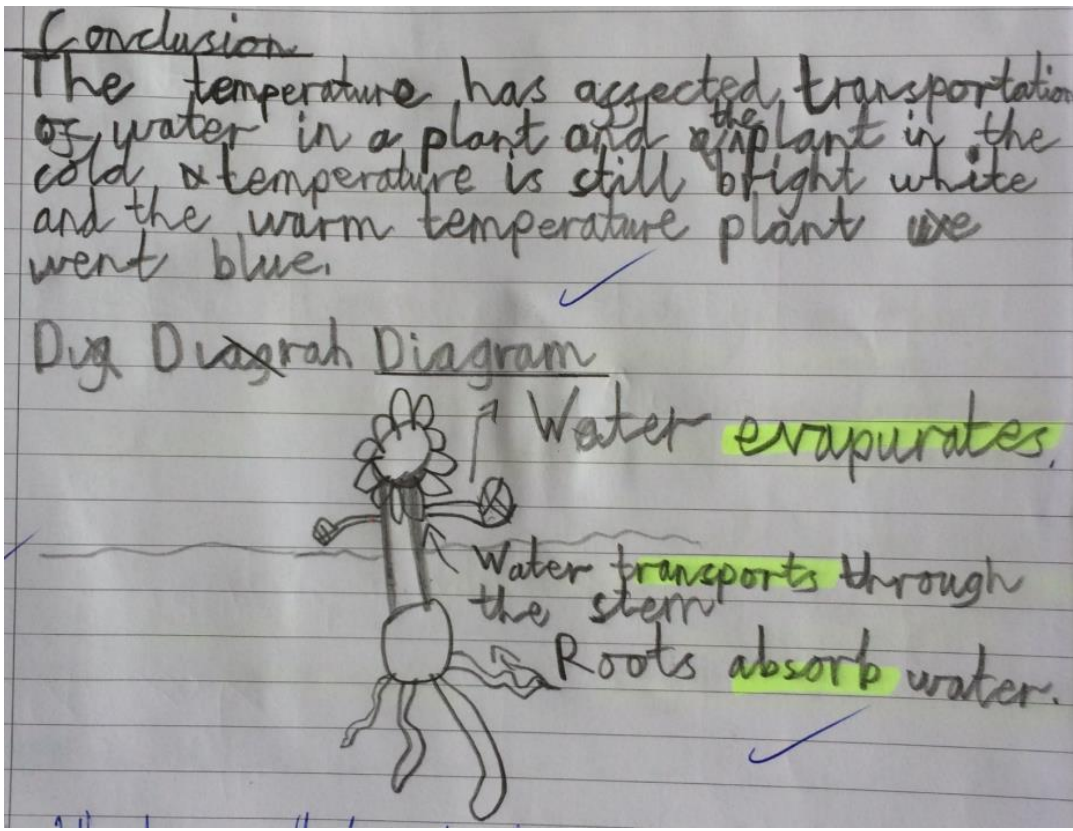
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Investigate the way in which water is transported within plants. 			
	Description of activity			
	The children were then asked to think about what might make the water be transported more or less quickly. The class decided to investigate the effect of temperature.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>"If the stem is long, it will take longer to reach the flower."</p> <p>"If it is hotter, it may change colour more quickly."</p> <p>"It may be different for different flowers."</p>		
Teacher observations		Working scientifically
		<p>J.R. suggests possible variables to be investigated and makes a logical prediction for the chosen variable.</p> <p>J.R. has identified a number of variables that need to be controlled.</p>

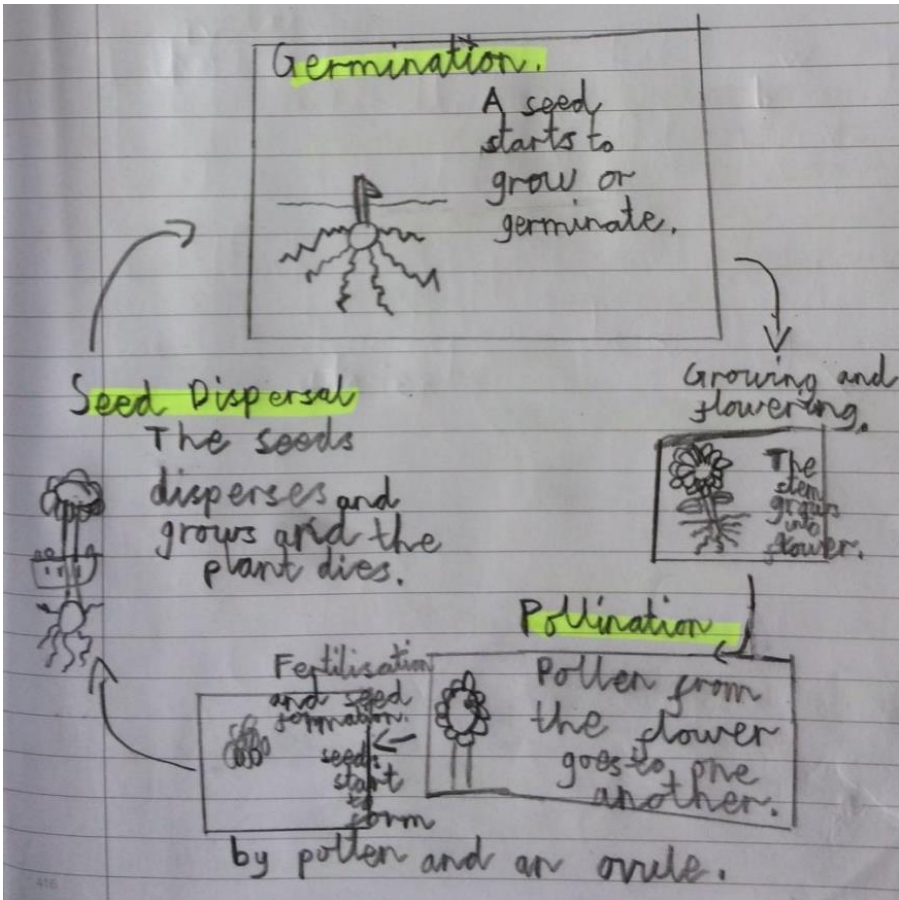
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Investigate the way in which water is transported within plants. 			
	Description of activity			
	The children made observations of the carnations at the start, then added the dye and put one in a cold and one in a warm location.			


EVIDENCE OF LEARNING			ASSESSMENT								
Oral evidence	Examples of work		Knowledge								
	<table border="1"> <thead> <tr> <th>Time</th> <th>Cold location</th> <th>Warm location</th> </tr> </thead> <tbody> <tr> <td>02:00 pm 02:00 pm 20/03/2017</td> <td> <ul style="list-style-type: none"> Flower is white Stem is light green Water is translucent </td> <td> <ul style="list-style-type: none"> Flower is white Stem is light green Water is translucent </td> </tr> <tr> <td>03:00 pm 20/3/03/2017</td> <td> <ul style="list-style-type: none"> Flower, Flower still white. Stem is dark green. Water is dark blue. </td> <td> <ul style="list-style-type: none"> Flower is blue blue. Stem is dark green. Water is dark blue. </td> </tr> </tbody> </table>	Time	Cold location	Warm location	02:00 pm 02:00 pm 20/03/2017	<ul style="list-style-type: none"> Flower is white Stem is light green Water is translucent 	<ul style="list-style-type: none"> Flower is white Stem is light green Water is translucent 	03:00 pm 20/3/03/2017	<ul style="list-style-type: none"> Flower, Flower still white. Stem is dark green. Water is dark blue. 	<ul style="list-style-type: none"> Flower is blue blue. Stem is dark green. Water is dark blue. 	
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Teacher observations			Working scientifically								
			J.R. makes observations and records them on a prepared table.								


	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Investigate the way in which water is transported within plants. 			
	Description of activity			
The children drew conclusions from the data including a diagram to show how water is transported in a growing plant.				


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		<p>J.R. is now consistently demonstrating that he understands how water is transported within a plant and the role of roots and the stem in this.</p>
<p>Teacher observations</p> <p>The class have not been taught about evaporation, but J.R. picked this up from the research into leaves.</p>		<p>Working scientifically</p> <p>J.R. uses his observations to draw a conclusion. He does not refer to the colour change in the stem of the cold plant.</p>

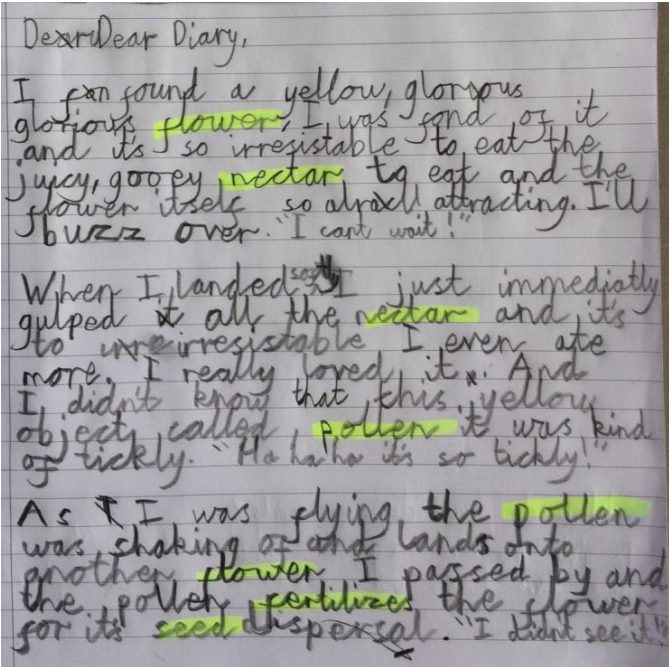
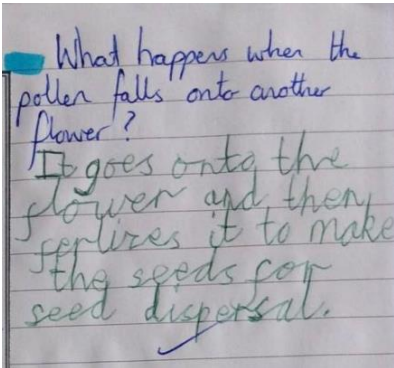
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 			
	Description of activity			
Following a group research activity, the children drew what they had learned about the life cycle of a flowering plant.				


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		<p>J.R has not yet included how flowers are pollinated or the types of seed dispersal.</p>
<p>Teacher observations</p> <p>J.R. includes the key vocabulary – germinate, pollen, pollination, seed formation, seed dispersal.</p>		<p>Working scientifically</p>

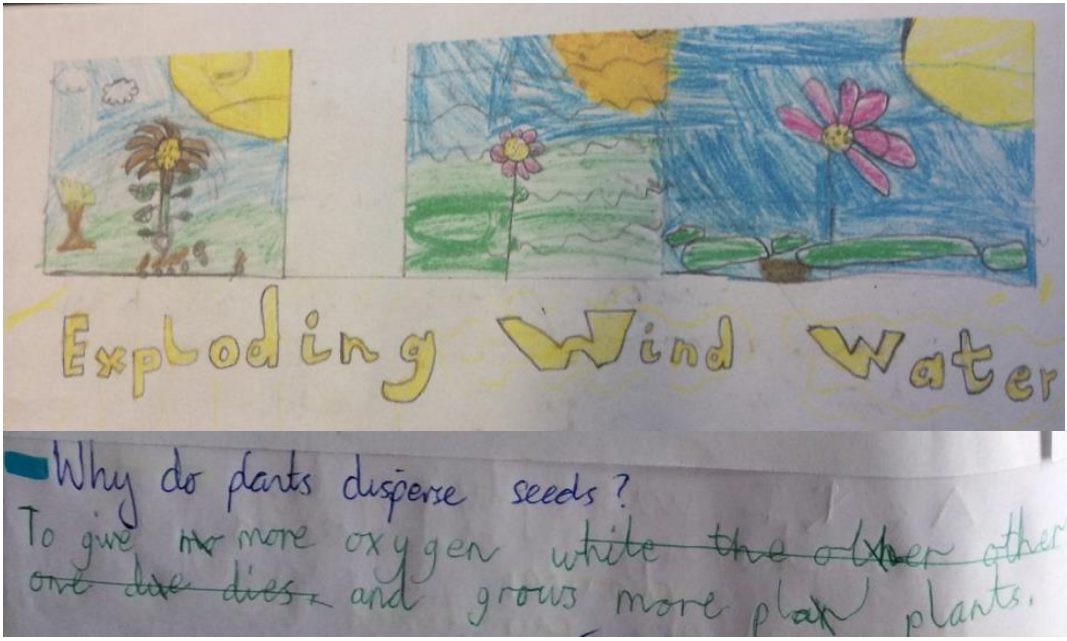
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 			
	Description of activity			
	The children made further observations of plants in the school grounds focusing on the flowers. Then they discussed cut flowers in the classroom and compared them to labelled images.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>“There are bees on the flowers. They must be pollinating them.</p> <p>“I can see the stamens where the pollen is and the bit where it has to land. They stick out a long way, so I think this one is wind pollinated.”</p>		<p>J.R is now developing his understanding of how flowers are pollinated.</p>
Teacher observations		Working scientifically

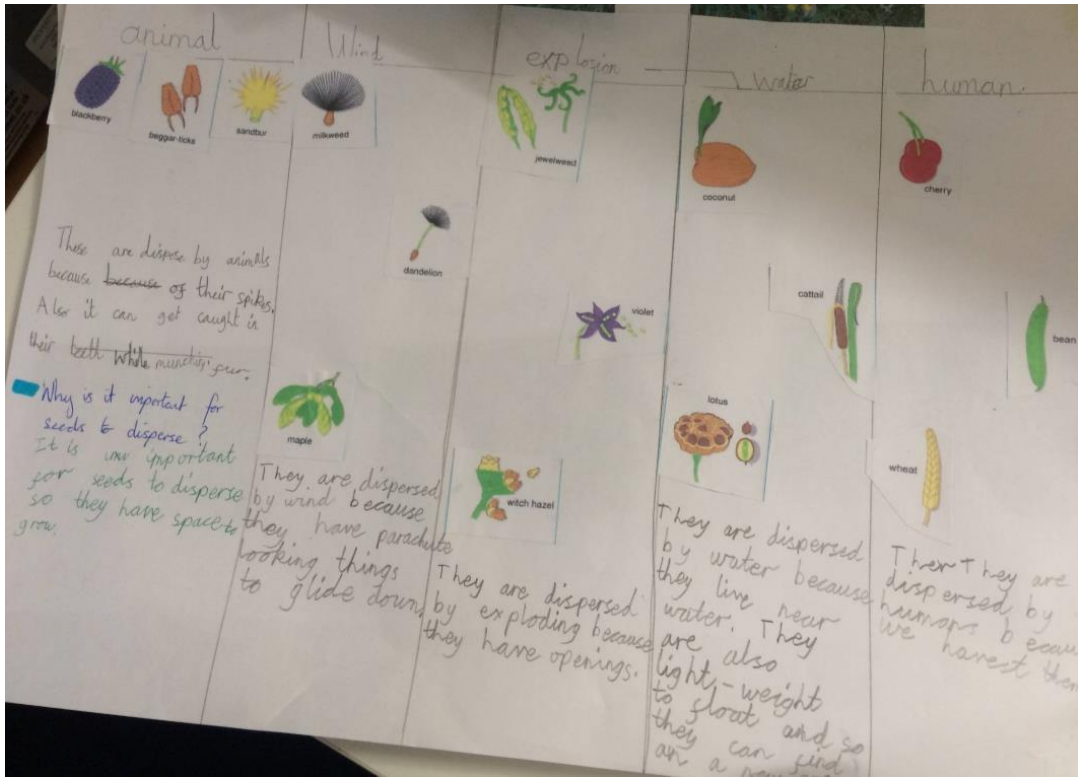
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 			
	Description of activity			
During an English lesson, the children were asked to write a diary entry from the perspective of a bee, including their scientific understanding about the life cycle of a flowering plant.				


EVIDENCE OF LEARNING		ASSESSMENT	
Oral evidence	Examples of work	Knowledge	
			<p>This piece of creative writing demonstrates a secure understanding of pollination.</p>
<p>Teacher observations</p> <p>There is confusion regarding seed dispersal and seed formation which is clarified by the follow-up question.</p>		<p>Working scientifically</p>	

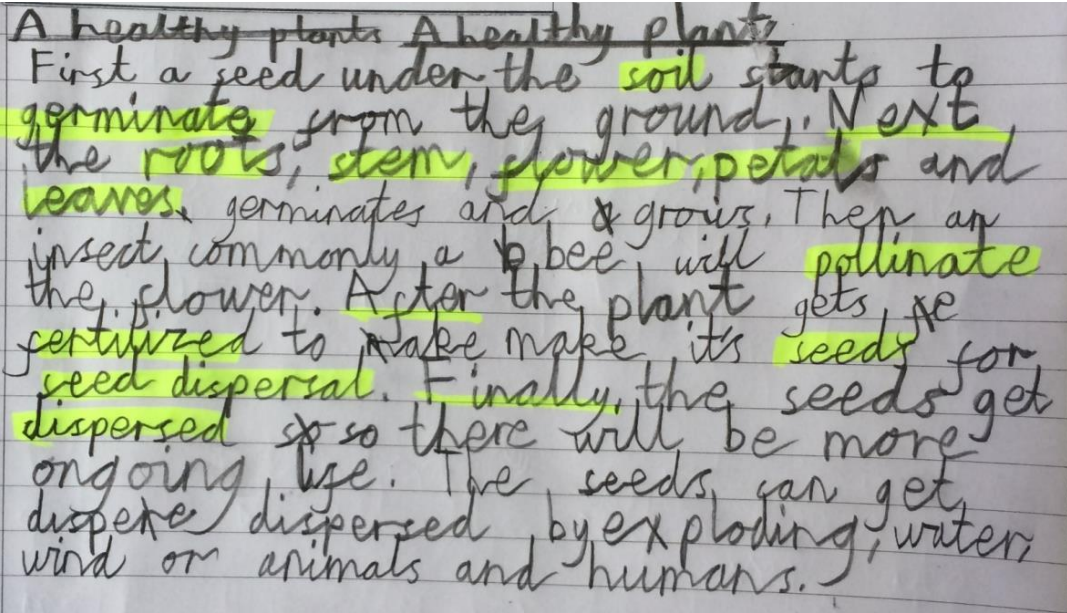
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 			
	Description of activity			
	The children were asked to carry out and present some initial research into how seeds are dispersed.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>Teacher: "What do you mean, 'to give more oxygen'?"</p> <p>J.R.: "We need more plants to put more oxygen in the air."</p>		<p>J.R. knows some ways in which seeds are dispersed, although his drawings do not show good understanding of this stage of the lifecycle. He knows why plants need to produce seeds, but not why dispersal is important.</p>
Teacher observations		Working scientifically

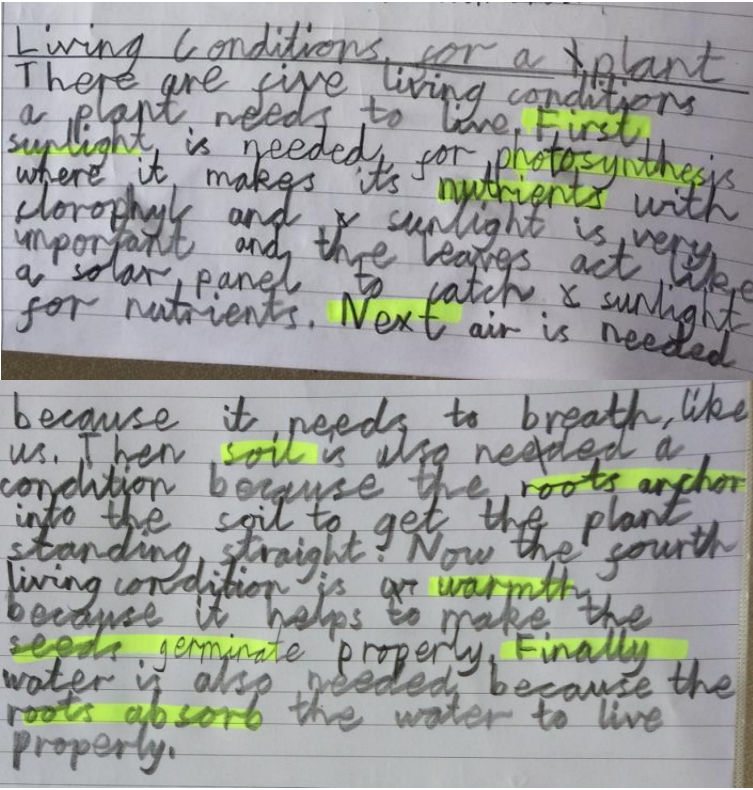
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 			
	Description of activity			
	After looking at a selection of seeds, the children sorted pictures of different types of seeds and explained why they are suited to certain types of seed dispersal.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		<p>J.R. has extended his knowledge of methods of seed dispersal and can identify seeds which are dispersed in different ways.</p> <p>He now knows that plants need room to grow and can give a reason why seed dispersal is important.</p>
Teacher observations		Working scientifically

	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 			
	Description of activity			
	The children completed a piece of writing explaining what they know about the life cycle of a flowering plant.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		J.R. describes the life cycle of a flowering plant, names plant parts, and identifies the function of the flower.
Teacher observations		Working scientifically

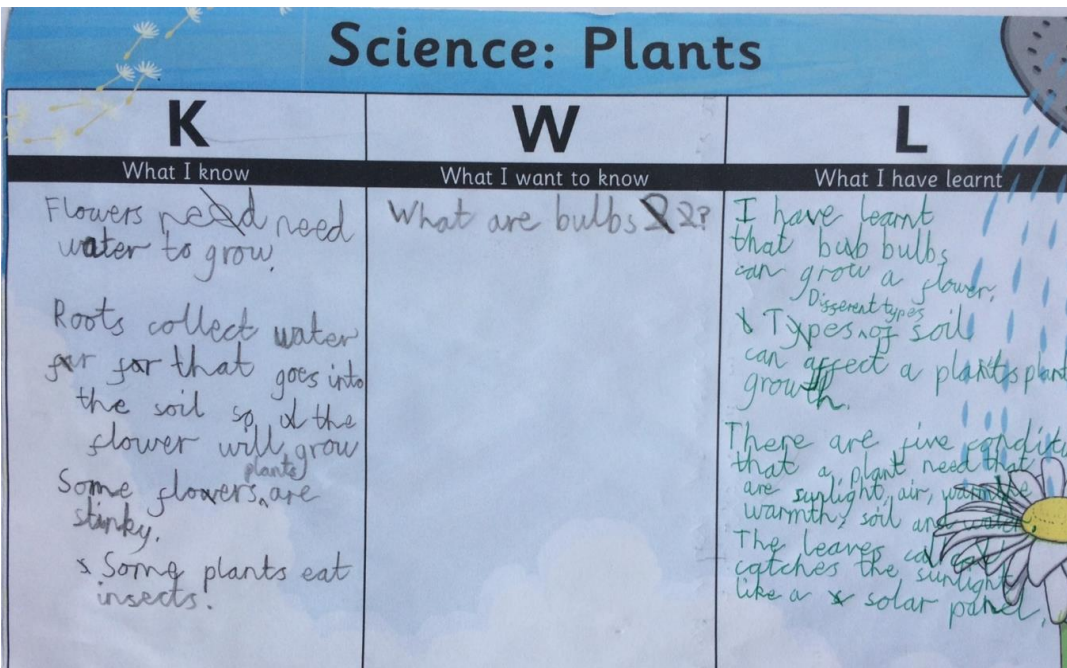
	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 			
	Description of activity			
	Continued from the previous page			

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		<p>J.R. describes most of the requirements of a plant for life and growth, linked with explanations of the functions of leaves and roots.</p>
<p>Teacher observations</p> <p>The term chlorophyll is not needed at this stage.</p> <p>The distinction between the need for carbon dioxide from the air for photosynthesis and oxygen for respiration is not needed at this stage.</p>		<p>Working scientifically</p>

	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> 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. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 			
	Description of activity			
	Continued from the previous page			

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
Teacher observations	<p>GC A fantastic report! You've learned a lot about plants! Well Done.</p>	<p>In the last paragraph. J.R. describes the function of the stem.</p> <p>The whole piece of writing is a good summary of J.R.'s learning about the function of the parts of plants, the conditions for growth, and the life cycle of a flowering plant, including types of seed dispersal.</p>
		Working scientifically

	Year	3	Topic	Plants
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> 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. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 			
	Description of activity			
	At the end of the unit, the children completed the final column of their KWL grid.			

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
Teacher observations		J.R. includes information about conditions needed for growth and the function of the leaves.
From his observations of growing plants from bulbs in different conditions, J.R. now knows what bulbs are.		Working scientifically



Overall summary

Secure

J.R. identifies and describes the functions of the different parts of flowering plants: roots, stem/trunk, leaves and flowers. He explores 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, as well as investigating the way in which water is transported within plants. He also explores the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.



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