PLAN
Planning for assessment

Examples of Work

Melissa

Living things and their habitats - Year 5

Primary Science
Education Consultancy

THE Partnership

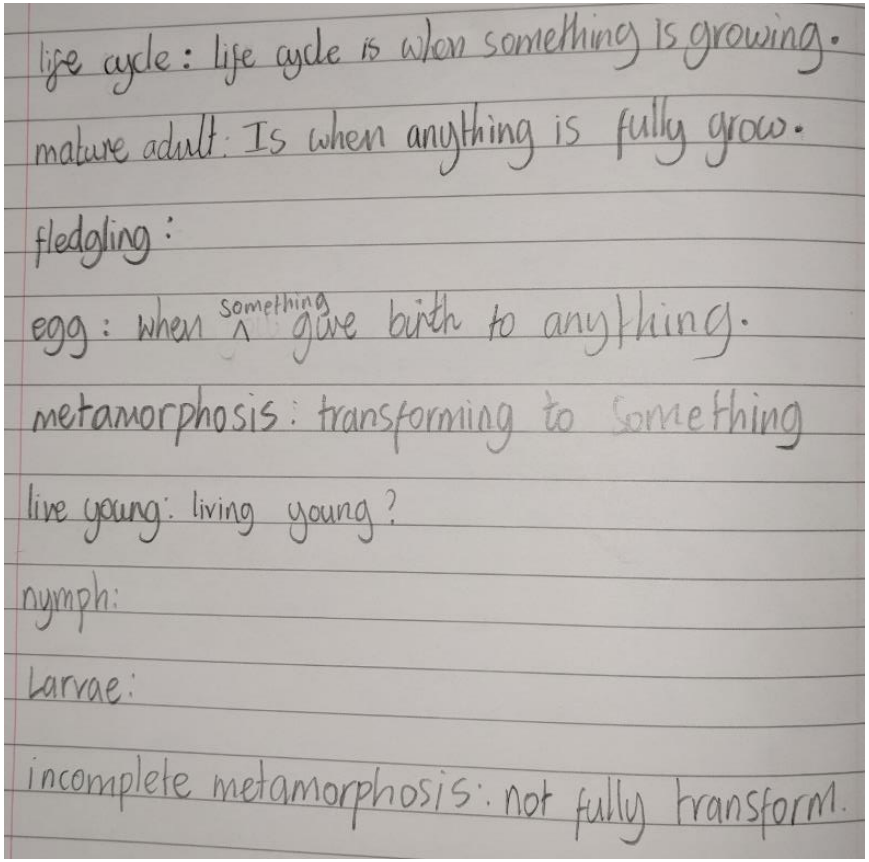
Year	5	Topic	Living things and their habitats

Focus of assessment (National Curriculum statements)

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- Describe the life process of reproduction in some plants and animals.

Description of activity

The pupils were given the key vocabulary for the unit and asked to write definitions for the words that they already knew.

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		This shows that Melissa is already aware of some of the key vocabulary.
Teacher observations		Working scientifically

Year	5	Topic	Living things and their habitats

Focus of assessment (National Curriculum statements)

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- Describe the life process of reproduction in some plants and animals.

Description of activity

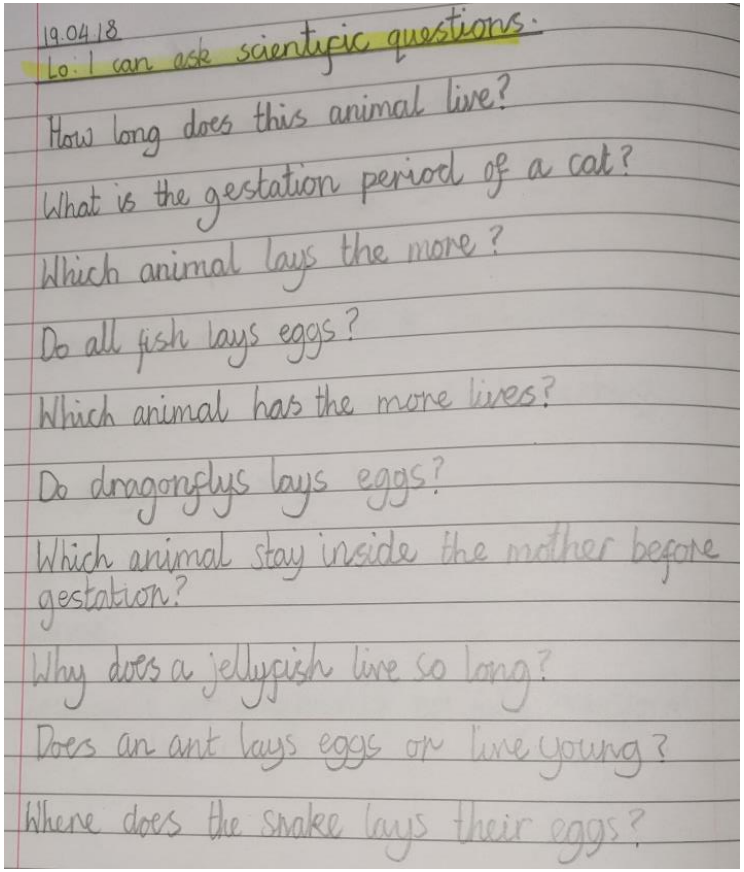
The pupils were given some images of a variety of animals and asked to generate questions about their life cycles.

EVIDENCE OF LEARNING

Oral evidence

Teacher observations

Examples of work



ASSESSMENT

Knowledge

Melissa's questions show that she knows that some animals lay eggs and others do not. She also knows that animals live for different amounts of time She shows an awareness of gestation.

Working scientifically

Melissa asks questions linked to the topic.

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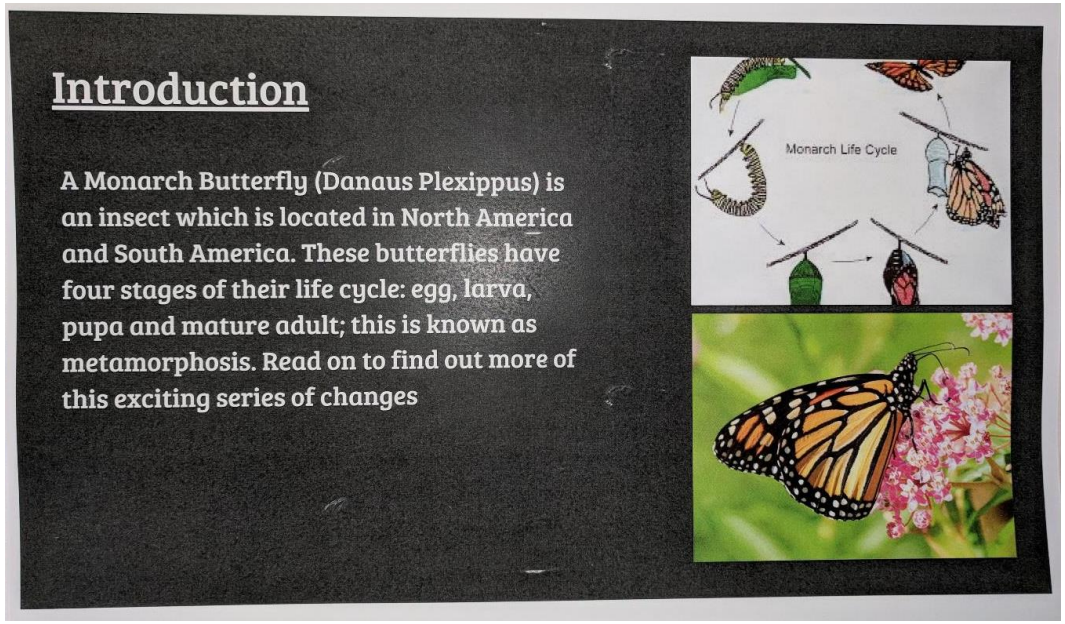
- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- Describe the life process of reproduction in some plants and animals.

Description of activity

The pupils each researched the life cycle of a butterfly of their choice.

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		Her slides show a good understanding of the four stages of an insect's life cycle.
Teacher observations		Working scientifically
		Melissa used a number of websites for her research and took notes. She created these slides from her notes.

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Description of activity

The pupils each researched the life cycle of a butterfly of their choice. (Continued from the previous page.)

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		Her slides show a good understanding of the four stages of an insect's life cycle.
Teacher observations		Working scientifically

Year	5	Topic	Living things and their habitats

Focus of assessment (National Curriculum statements)

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- Describe the life process of reproduction in some plants and animals.

Description of activity

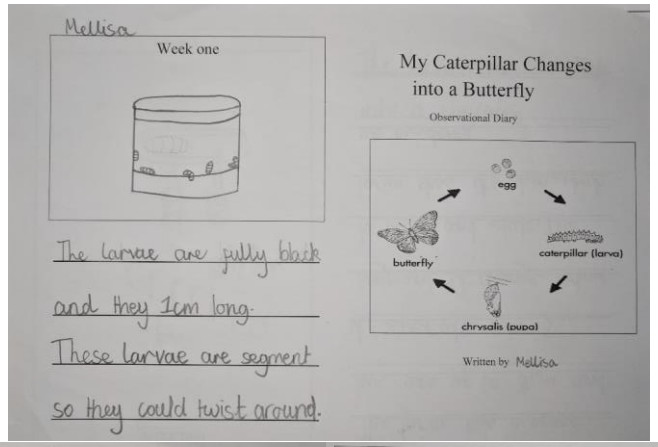
The class had some caterpillars in the classroom that they observed over a number of weeks. When the butterflies emerged, they were released into the playground.

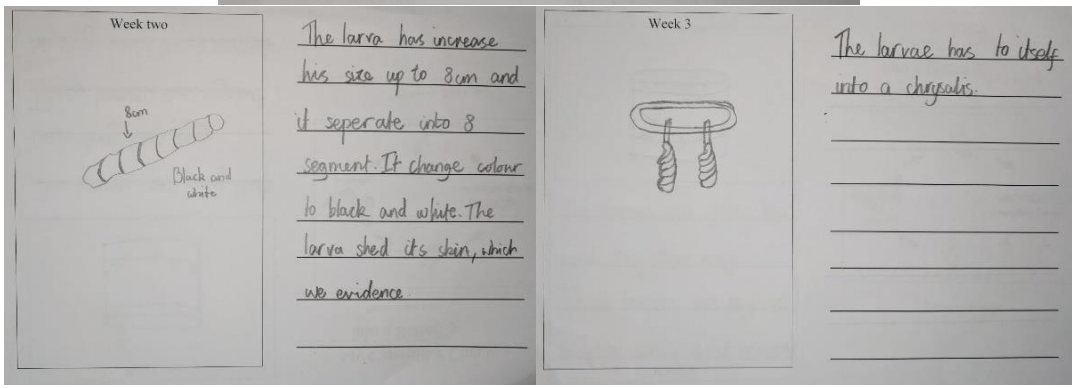
EVIDENCE OF LEARNING

Oral evidence

Teacher observations

Examples of work





ASSESSMENT

Knowledge

Working scientifically

Melissa makes close observations over a period of time and records these using words, drawings and scientific diagrams.

Year	5	Topic	Living things and their habitats

Focus of assessment (National Curriculum statements)

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
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Description of activity

The class visited a local pond during the summer term to pond dip. They used a key to identify the animals which included the dragonfly nymph. They then saw two dragonflies mating and a female laying eggs. The whole life cycle in one visit!

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
"Those dragonflies are mating. It is a male and female, and the male is giving the female sperm to fertilise the eggs. (This visit occurred after the pupils had learnt about the process of reproduction in humans.) "The nymph is the young dragonfly. It must metamorphosise like the caterpillar."	  (Illustrative images from www.arkive.org)	Melissa makes links to her knowledge about the life cycles of other animals and compares them.
Teacher observations		Working scientifically

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Focus of assessment (National Curriculum statements)

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
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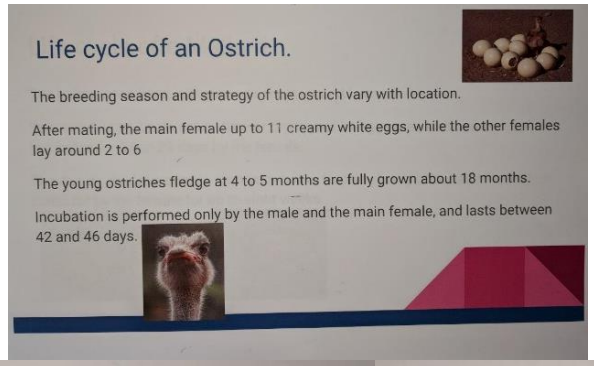
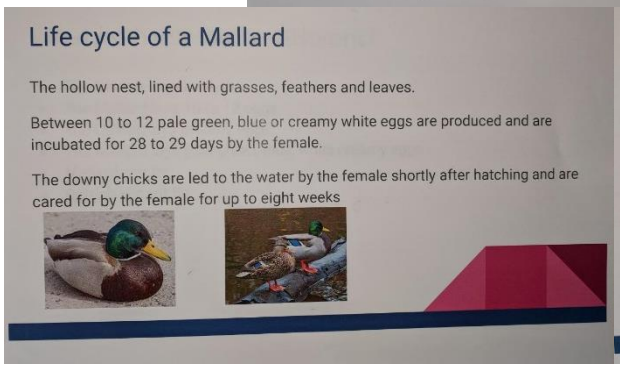
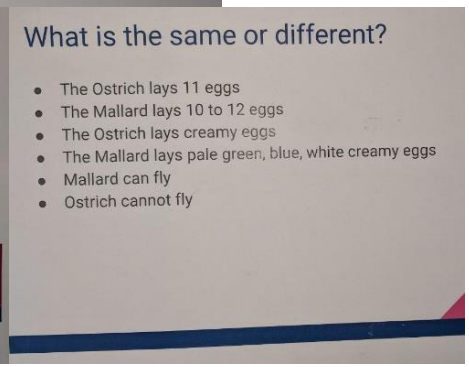
Description of activity

The pupils were asked to choose two birds from the Arkive website and to find out about their life cycles. The pupils were then asked to create a PowerPoint to compare the two life cycles.

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		Melissa describes the difference between the life cycle of two birds.
Teacher observations	 	Working scientifically Melissa located the relevant information and made notes.

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Focus of assessment (National Curriculum statements)

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
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Description of activity

During a reading lesson, the pupils found out about other life cycles and recorded them as diagrams.

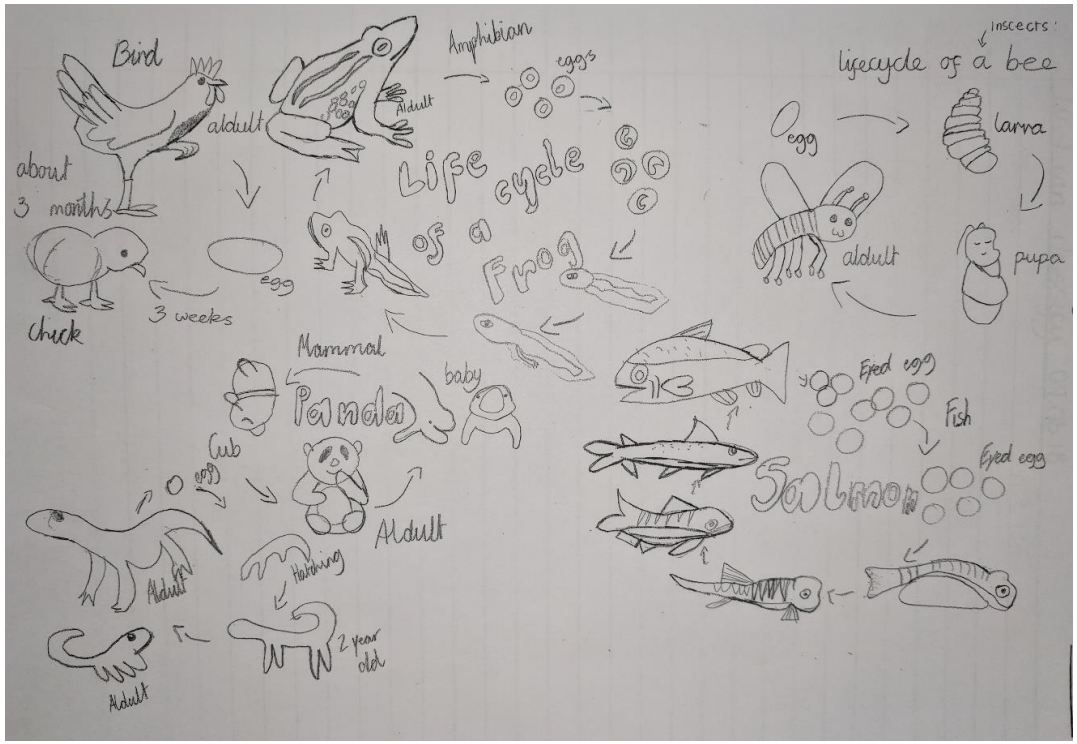
EVIDENCE OF LEARNING

Oral evidence

"Birds, frogs, insects and fish lay eggs. Mammals have live babies. Insects and amphibians have a metamorphosis."

Teacher observations

Examples of work



ASSESSMENT

Knowledge

Melissa is secure in describing the differences in the life cycles of different groups of animals.

Working scientifically

Melissa records her research using life cycle diagrams.

Year	5	Topic	Living things and their habitats

Focus of assessment (National Curriculum statements)

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
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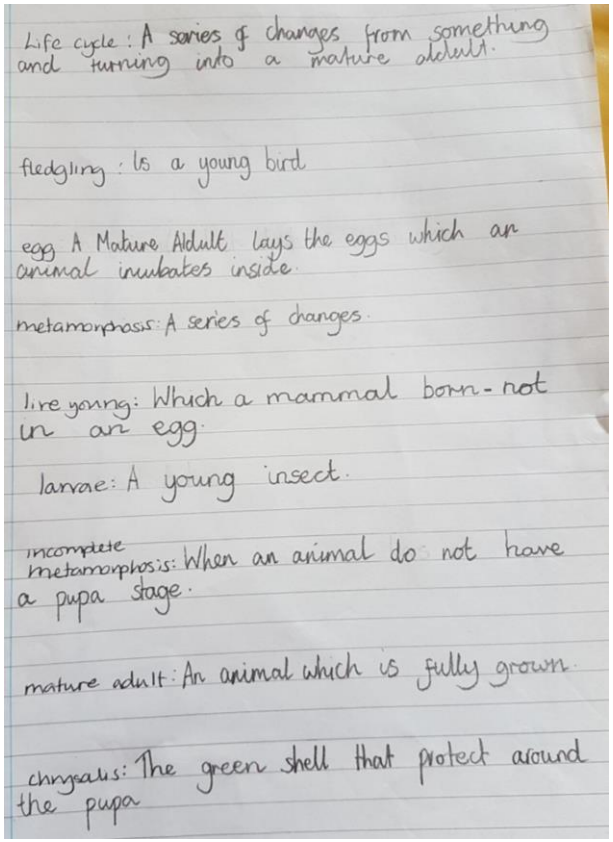
Description of activity

The pupils were given the same key vocabulary as they were at the start of the topic and asked to write definitions for the words that they now knew.

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		Melissa's knowledge now extends to fledgling and larvae and a better understanding of incomplete metamorphosis.
Teacher observations		Working scientifically

Year	5	Topic	Living things and their habitats

Focus of assessment (National Curriculum statements)

- Describe the life process of reproduction in some plants and animals.

Description of activity

Before the class learnt about asexual reproduction, the teacher wanted to find out what they had remembered from Year 3 about the life cycle of flowering plants. The pupils were given the key vocabulary which they discussed in pairs before writing about what they knew.

EVIDENCE OF LEARNING		ASSESSMENT
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	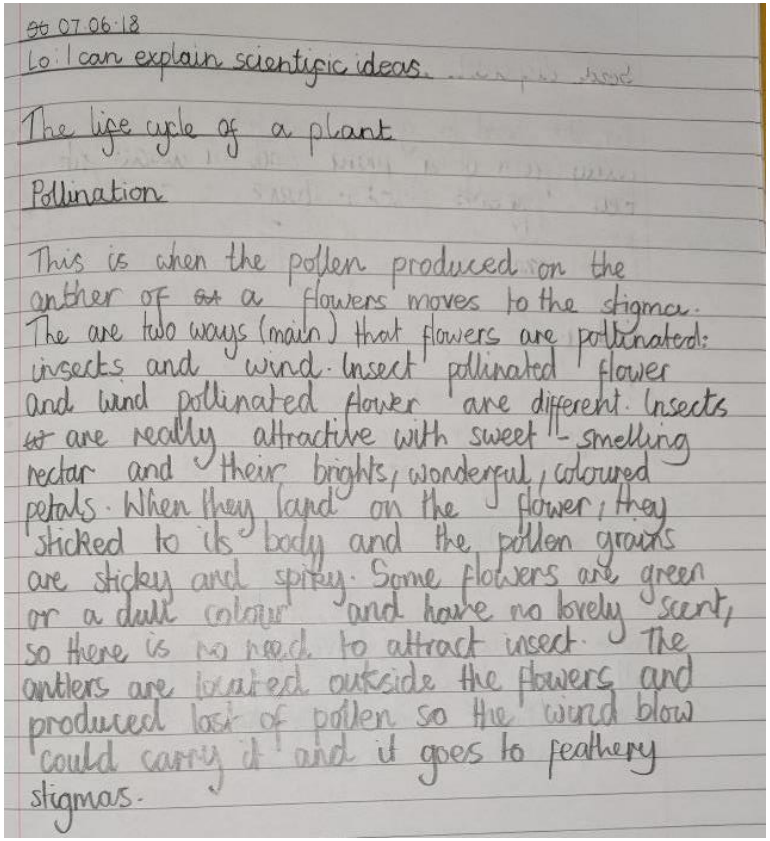	The sentence about "green or dull" coloured flowers is slightly unclear but shows an understanding that wind pollinated flowers are different to insect pollinated flowers.
Teacher observations		Working scientifically
It is not essential for pupils to use the terms 'anther' and 'stigma'.		

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	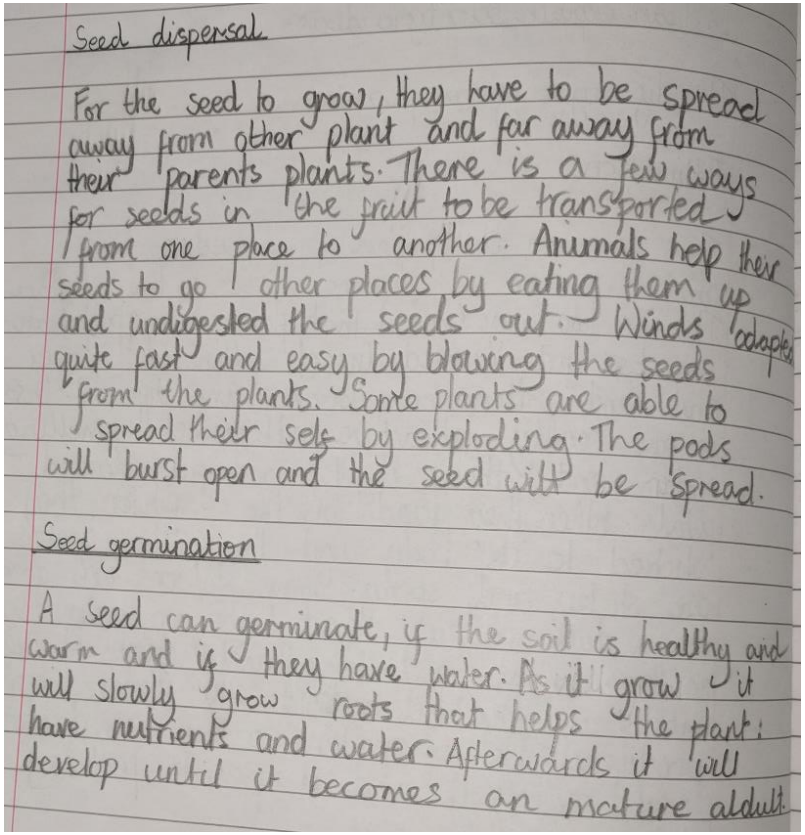	This writing shows a good understanding of the life cycle of flowering plants.
Teacher observations		Working scientifically

Seed dispersal

For the seed to grow, they have to be spread away from other plant and far away from their parents plants. There is a few ways for seeds in the fruit to be transported from one place to another. Animals help their seeds to go other places by eating them up and undigested the seeds out. Winds adapted quite fast and easy by blowing the seeds from the plants. Some plants are able to spread their sels by exploding. The pods will burst open and the seed will be spread.

Seed germination

A seed can germinate, if the soil is healthy and warm and if they have water. As it grow it will slowly grow roots that helps the plant: have nutrients and water. Afterwards it will develop until it becomes an mature aldult.

Year	5	Topic	Living things and their habitats

Focus of assessment (National Curriculum statements)

- Describe the life process of reproduction in some plants and animals.

Description of activity

While the teacher consolidated the Year 3 learning with some pupils, the rest of the pupils created PowerPoints which they later shared with the less secure pupils.

EVIDENCE OF LEARNING		ASSESSMENT
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	 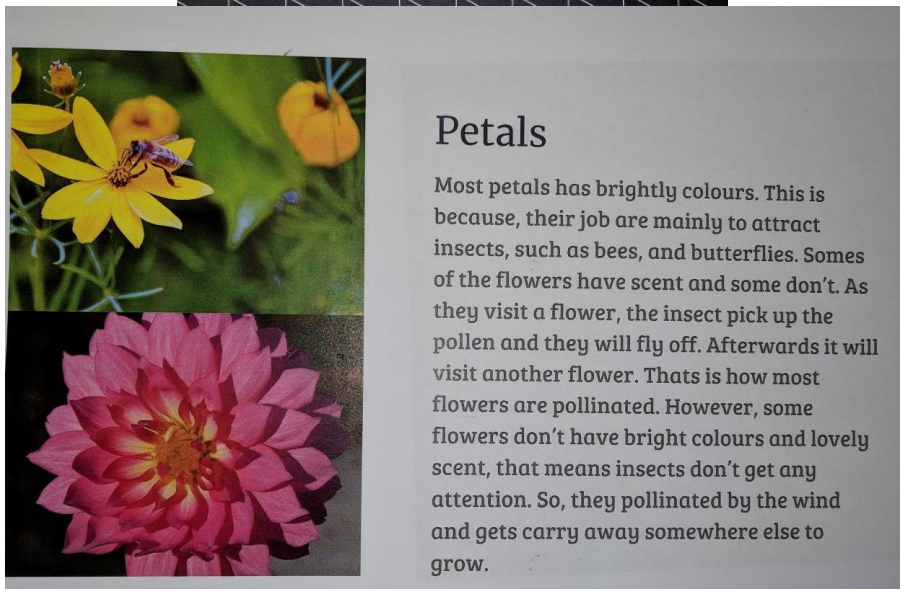	
Teacher observations		Working scientifically

Year	5	Topic	Living things and their habitats

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- Describe the life process of reproduction in some plants and animals.

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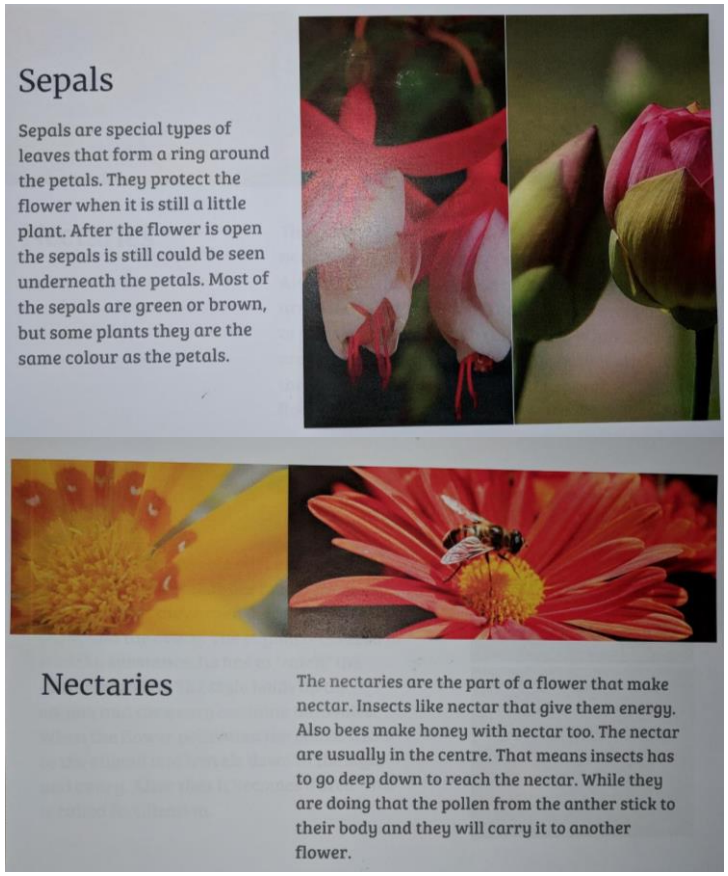

Sepals

Sepals are special types of leaves that form a ring around the petals. They protect the flower when it is still a little plant. After the flower is open the sepals is still could be seen underneath the petals. Most of the sepals are green or brown, but some plants they are the same colour as the petals.

Nectaries

The nectaries are the part of a flower that make nectar. Insects like nectar that give them energy. Also bees make honey with nectar too. The nectar are usually in the centre. That means insects has to go deep down to reach the nectar. While they are doing that the pollen from the anther stick to their body and they will carry it to another flower.

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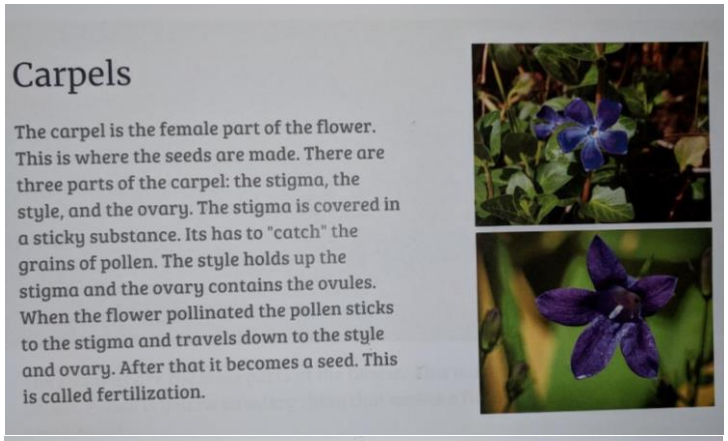
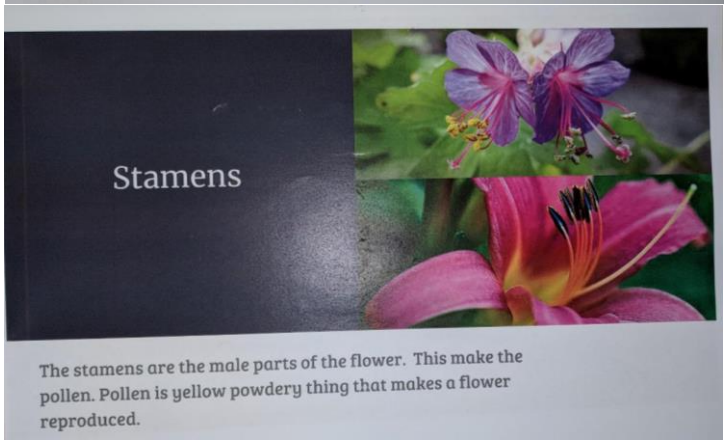
		Melissa's knowledge of sexual reproduction goes beyond the requirements of the Key Stage 2 curriculum.
Teacher observations		Working scientifically

Year	5	Topic	Living things and their habitats

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- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- Describe the life process of reproduction in some plants and animals.

Description of activity

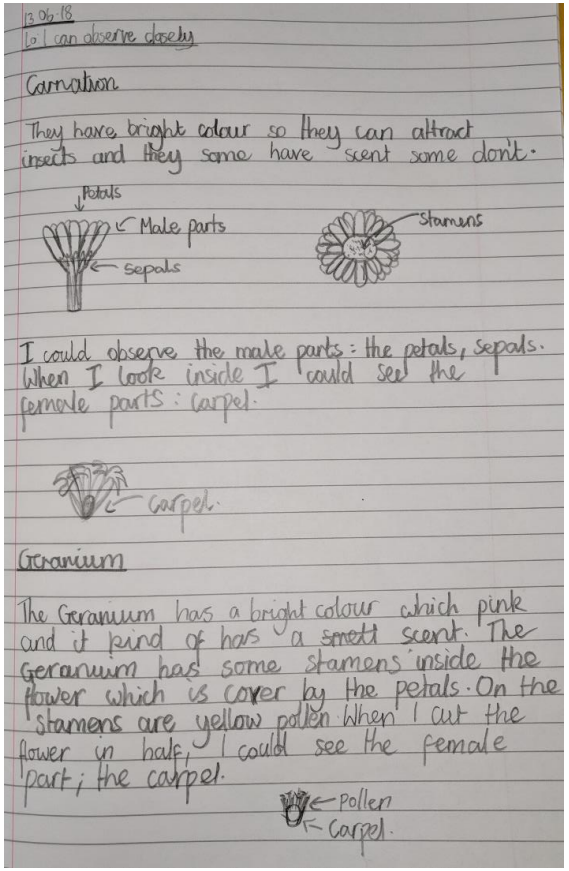
Outside, the pupils looked for flowers and made careful observations of them.

EVIDENCE OF LEARNING

Oral evidence

Teacher observations

Examples of work



ASSESSMENT

Knowledge

Working scientifically

Melissa presents her observations clearly in a mix of text and labelled diagrams.

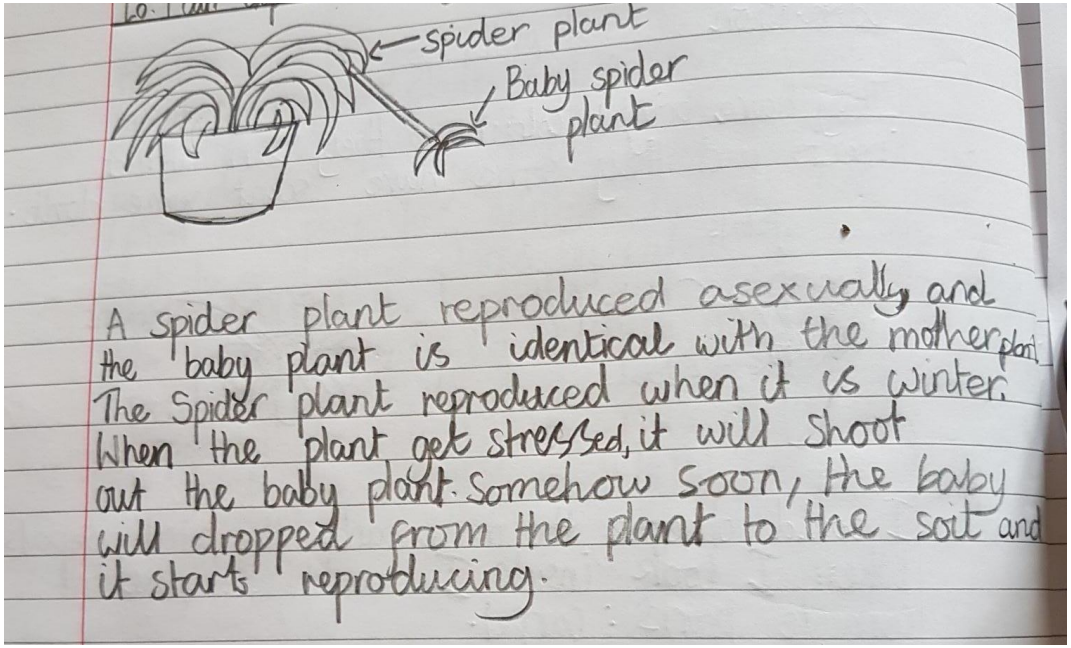
Year	5	Topic	Living things and their habitats

Focus of assessment (National Curriculum statements)

- Describe the life process of reproduction in some plants and animals.

Description of activity

The class had a spider plant in their class which they noticed had ‘babies’ The teacher used this as an opportunity to teach about asexual reproduction. The teacher then asked the pupils to compare this to plants they had previously grown.

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
“The strawberries that we grew also had runners. These are a bit like the baby plants on the spider plant. It is also a bit like when we grew potatoes. We planted one and then more grew underground.”		Melissa describes asexual reproduction as producing identical offspring to the parent. Melissa identifies other plants that also reproduce asexually.
Teacher observations		Working scientifically

Overall summary

Secure

Melissa describes the differences between the life cycles of different groups of animals. She shows an understanding of the process of sexual reproduction of animals and plants and has an awareness that plants can also reproduce asexually, resulting in identical offspring.