

Section 1

Understanding Life Systems

EXPLORATION 1

Why do flowers and insects like each other?

Explore the unique relationship between flowers and insects.



Flowers and insects are very close partners. Through their interactions, they get benefits from each other. Insects, such as butterflies and bees, love nectar for food. Nectar is the sweet liquid inside flowers. In return, insects help flowers by spreading their pollen while collecting nectar. Pollen is the powdery substance on flowers which is needed to produce more flowers. But apart from producing sweet-smelling nectar, how do flowers attract insects?



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In this experiment, you will observe how the colour of flowers plays a role in attracting insects.

Level of Difficulty:

easy

Time Needed:

5 hours

Hypothesis:

Circle the words to show your hypothesis.

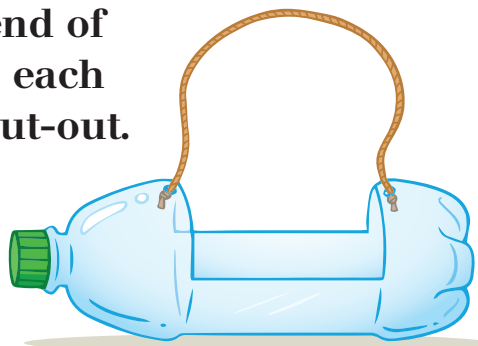
If the flower is **more / less** colourful, it will attract **more / fewer** insects.

Steps:

1. Make a cut-out on one side of each bottle.



2. Staple one end of the string to each side of the cut-out.



Materials:

- honey
- string
- stapler
- scissors
- 2 plastic bottles
- construction paper (black, white, brown, and brightly coloured)

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3. Cut the sheets of construction paper in plain colours into small pieces and crumple them. Put them in a bottle. Then do the same for the colourful construction paper and the other bottle.
4. Pour a cup of honey into each bottle.



5. Ask an adult to help you hang the bottles outside. Then observe.

Record your observation in the tally chart below.

Time	Number of Insects	
	Bottle A	Bottle B
The 1st Hour		
The 2nd Hour		
The 3rd Hour		
Total:		

||||| = 5

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Conclusion:

Circle the correct words after conducting the experiment.

More / Less colourful flowers attract **more / fewer** insects.

My hypothesis was **correct / incorrect** .

Explanation:

Although there was honey in both bottles, more insects were attracted to the bottle with the colourful construction paper. This is because pollinating insects such as butterflies and bees are colour-sensitive and rely on their vision to locate food. They were more likely to visit the colourful bottle for a tasty meal. Due to this preference, many flowers have colourful petals to attract more insects and receive help in spreading pollen in return.

