HANDS-ON ACTIVITY

Flower Power

The flowers on an apple tree attract bees and other insects. The bees feed on the nectar made by the flowers. When a bee lands on a flower, pollen sticks on its legs and body. The bee flies from one tree to another, and pollen falls off into other flowers. The trees need this pollen to make new fruit. The process is called *pollination*. Pollination occurs as the result of the bee, flower and pollen working as a system.

Did you know?

It takes an apple tree four to five years to produce its first fruit.

Form a question Ask a question about the different parts that make up a flower.

Parts of a Flower

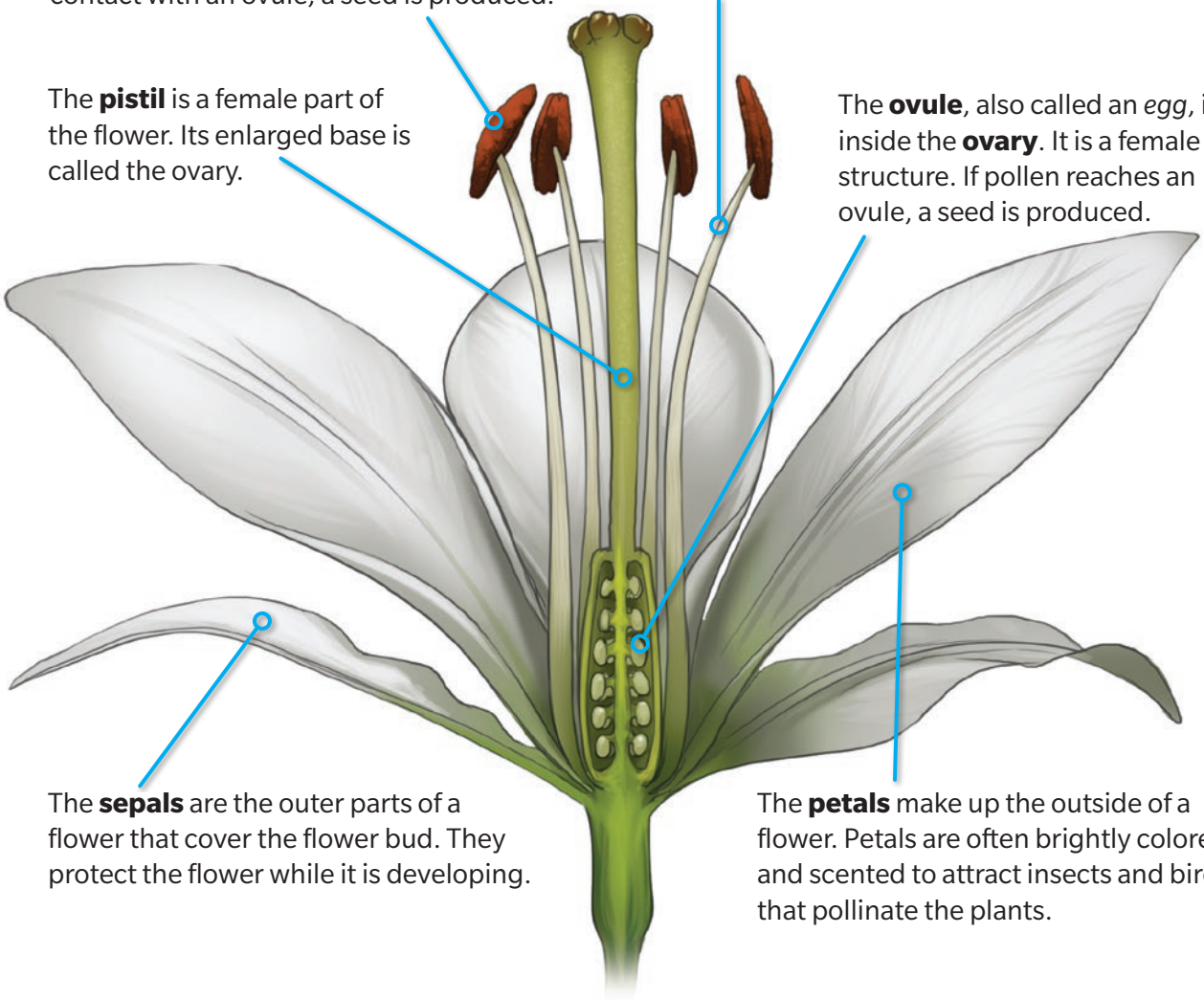
The diagram of a flower below shows the parts of a flower. These parts work together as a system to ensure the plant can reproduce. Explore each part to understand their function.

The **anther** is part of the stamen. This male structure sits on top of a long **filament** and produces pollen. When pollen comes into contact with an ovule, a seed is produced.

The **stamen** is a male part of a flower that contains the anther and filament.

The **pistil** is a female part of the flower. Its enlarged base is called the ovary.

The **ovule**, also called an *egg*, is inside the **ovary**. It is a female structure. If pollen reaches an ovule, a seed is produced.



The **sepals** are the outer parts of a flower that cover the flower bud. They protect the flower while it is developing.

The **petals** make up the outside of a flower. Petals are often brightly colored and scented to attract insects and birds that pollinate the plants.

Describe Choose the correct words from the diagram that complete the sentences below.

The _____ are plant parts that cover and protect the flower bud. The function of the _____ is to make pollen. If pollen comes into contact with an _____, a seed is produced.

POSSIBLE MATERIALS

- ☐ flower on a stem
- ☐ scissors
- ☐ gloves
- ☐ newspaper
- ☐ tweezers
- ☐ hand lens

STEP 1 **Investigate your question** The sepal, petal, stamen (including the anther) and pistil (including the ovule) create a system. Identify those parts on your flower.

STEP 2 **Organize your data** Use this space below to draw a model of your flower. Include all of the parts you've identified.

Communicate Share your model with other groups. Explain differences or similarities among the group's model.

Draw conclusions Make a **claim** about how the parts of a flower create a system. Support your claim with **evidence** from your investigation and explain your **reasoning**.

Making Sense

How does your claim or the evidence you gathered in this investigation help you begin to explain why trees produce fruit?