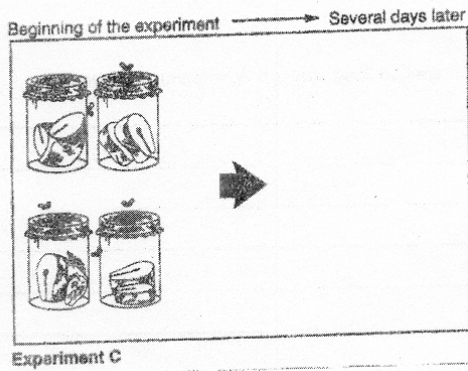
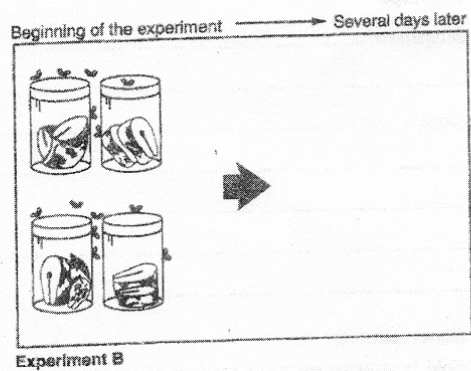
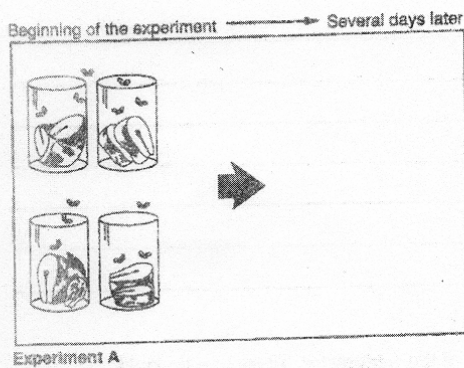


## Testing the Hypothesis of Spontaneous Generation

For many centuries people believed that living things could originate from nonliving matter. This belief is known as spontaneous generation, or abiogenesis. In this activity you will consider Francisco Redi's experiment to disprove the hypothesis of spontaneous generation, and then devise some of your own experiments.

People who supported the belief in spontaneous generation often gave the example of rotting meat to support their theory. As meat spoiled, maggots appeared on the meat and eventually changed into flies. Examine the three sets of drawings below. Each set represents the beginning of each of Redi's experiments. You are to draw in the results of his experiments.



1. Briefly describe Redi's experiment and the conclusion that he reached.

People now know that living things can come only from other living things. This belief is known as biogenesis. Each of the following observations is explained in terms of spontaneous generation. For each case, explain the observation in terms of biogenesis. Then devise an experiment to test one of the hypotheses about the origin of living things in these cases.

**Observation 1**

After a heavy rain in the desert, frogs are seen in the newly formed mud puddles and flowers begin to grow in formerly barren areas.

**Hypotheses**

Abiogenesis: Frogs were spontaneously generated from mud and the flowers arose from raindrops.

Biogenesis: \_\_\_\_\_

Experiment: \_\_\_\_\_

**Observation 2**

Mold is growing on some forgotten leftovers in the back of the refrigerator. There was no mold on the food three weeks before.

**Hypotheses**

Abiogenesis: Mold appears on spoiled food through spontaneous generation.

Biogenesis: \_\_\_\_\_

Experiment: \_\_\_\_\_