

ACTIVITY!

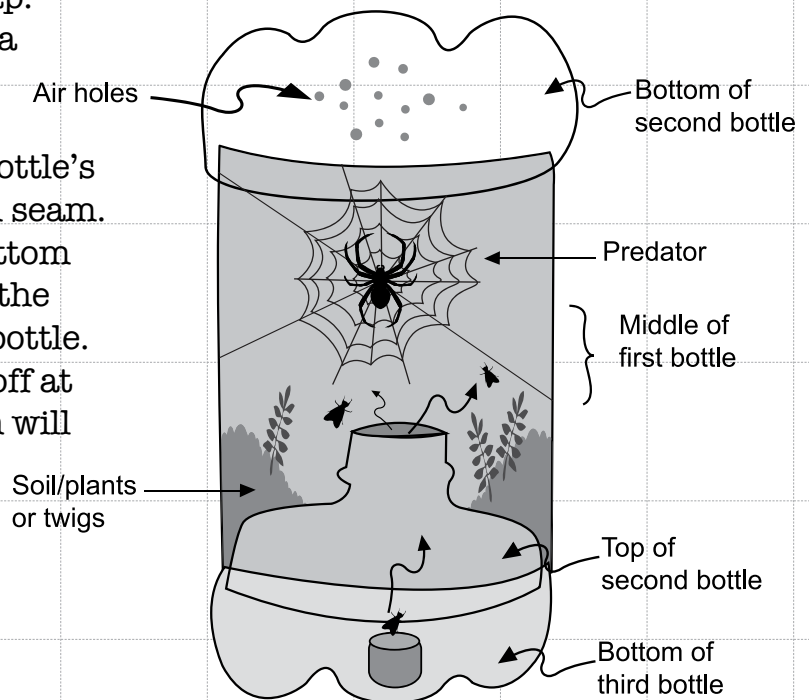
Make Your Own Mini Food Chain

Here's a way you can create a tiny food chain to watch a predator and its prey.

1 Using a sharp knife, cut the first bottle's top off 2 inches from the cap. Cut the bottom of this bottle off 1 inch down from the seam on the bottom of the bottle. Discard the top and bottom. Using a sharp pointed tool or nail, poke small air holes in the big cylinder you've created.

2 Cut the second bottle's top off 4 inches from the cap. Take the cap off. Using a hammer and nail, poke a hole in the cap, then put the cap back on. Cut the second bottle's bottom off right at the bottom seam. Poke small air holes in the bottom of this second bottle. Discard the middle section of the second bottle. Cut the third bottle's bottom off at the bottom seam. This bottom will be your base.

3 To assemble your mini food chain, first slide the top of the second bottle into the body of the first bottle. You may have to twist it a bit. If these two sections don't seem to stay together tightly, use wide tape to seal them together. When it's in, set this two-part combo into the base, which is the bottom you cut off the third bottle.



Fruit flies go here; they fly up through the hole in the cap into the space where the predator lives.

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4 Fill the container with soil, plants, and twigs. Put the bottom of the second bottle (the one you poked air holes into) on the top. Set this aside while you collect enough prey to sustain your mini food chain (see the next steps).

5 Take the last bottle and cut the top off about 4 inches from the top. Poke a very small hole in the cap big enough for a fruit fly to get through.

Supplies

four, 2-liter bottles with any labels cut off

sharp knife

small nail or small sharp tool

hammer

large nail

wide tape

soil, twigs, or small plants

empty film canisters

fruit, such as bananas

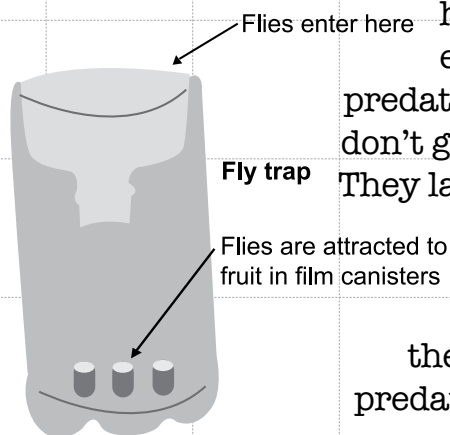
small plastic lid from a yogurt or margarine container

spiders

6 Put slices of fruit inside the empty film canisters. Set the small plastic lid in the base of your bottle to form a flat surface, and set your film canisters on top.

7 Turn the top bottle piece over and put it inside the bottom piece, forming a funnel into the bottom. Tape the top securely. Fruit flies will be drawn to the fruit, enter the funnel, and be trapped inside.

8 Find a small spider who's built a web around the yard and transfer it into your mini food chain environment when you've got some flies. To remove your flies from the trap, place the trap in the refrigerator for 30 minutes. This will slow them down so you can grab the film canisters with flies inside. Put the film canisters in the base of your ecosystem. They'll find their way up through the large hole in the cap, into the environment with your predator. Don't worry if you don't get lots of flies, though. They lay their eggs in the fruit. When the eggs hatch you'll have flies that way, too. Watch the interaction between predator and prey.



FOURTH BOTTLE