



How to Build a Bug Vacuum

Materials (per vacuum)

- Clear-sided empty film canister (can get these donated from a local film development center)
- Hole puncher or sharp pointed object
- 2 bendable drinking straws
- Small 1” square of pantyhose material
- Scotch or masking tape or a small rubberband

Procedure

1. Punch 2 holes in the lid of the film canister – teacher should prepare these as it is difficult to cut through the plastic lid.
2. Kids can push the 2 straws through these holes with a little bit of maneuvering. Note: Place the shorter end of the bendable straws into the holes. This end should be inside the canister when the lid is replaced – this will give you more space to move and aim the vacuum.
3. Stretch the pantyhose over one of the straw ends that will be inside the canister and fasten with tape or rubber band. Replace the lid and you are done!
4. When you spot a small insect you’d like to collect, simply aim the straw without the pantyhose cover at the bug and suck on the straw with the cover. The small bug will be vacuumed into the film canister for further study. Clear canisters work well because you can see if something was actually sucked up into the canister.

SAFETY NOTE:

Not all bugs are harmless and not all are dangerous. When collecting insects and other small invertebrates you should advise the students to be careful and consider the following things:

- Small spiders can be collected with this method, but simply observe them in the container and do not touch them. (Colorado has only 1 native spider that is dangerous to humans, the black widow, but other spiders can still bite and leave a mark.)
- Animals such as centipedes and bees can inflict a painful bite or sting and should be avoided.
- The small canisters can heat up quickly on warm days. Remember to respect the animals you are observing and return them to where you found them as soon as your study is complete.

Other methods of catching bugs to observe:

Sweep nets – Nets made with a strong and sturdy material, such as canvas, to sweep up creatures residing on the surfaces of plants, grasses and trees.

Aerial or butterfly nets – A more delicate net made out of a light weight net or other fine, loosely woven material used to catch insects and other invertebrates on the fly (mid-air).

