

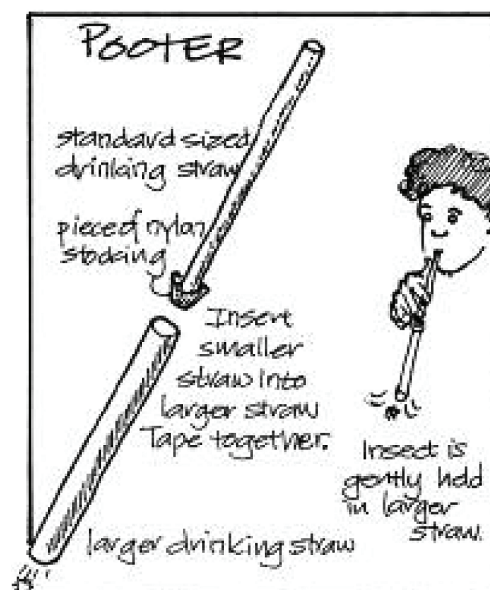
### Homemade tools can help students to better connect with and explore nature.

One of the best things about a “Pooter” is its name! Also called an insect aspirator, the pooter was named after its inventor, William Poos. This low-tech device allows scientists to gently collect insects without harming or touching them. With two tubes and a nylon barrier in between, the insects can be sucked up into the lower tube by inhaling into the upper tube. Scientists and young enthusiasts alike then aim the pooter over a container, exhale into the tube... and voila! the minibeast is ready for observation.



### How to use the Pooter

- Find a creature that you would like to examine more closely (must be smaller across than the opening of the pooter).
- Put the end of the smallest tube into your mouth.
- Place the other end of the pooter to within a few centimeters of the creature in question.
- Gently suck air in so that the creature is vacuumed into the larger straw (separated by the nylon divider).
- Place your finger over the pooter opening to ensure that the creature doesn't come out.
- Place the pooter over a container, remove your finger from the end and gently tap the straw or exhale into the straw to release the creature.
- Voila! You have captured a creature and are now an experienced pooterist!





Here are a few different options on how to make your own:

## Option 1 - Straw Pooter

### Materials:

- a wide-diameter and a narrower straw - two different types of plastic drinking straws
- a small square (2.5 cm<sup>2</sup>) of nylon taken from a discarded pair of ladies hosiery
- 3 cm of masking tape (approx. 2.5 cm wide)
- scissors

### Instructions:

1. Place the nylon square over one end of the smaller sized straw.
2. Insert the straw with the nylon end into the wider and longer straw. Push the nylon in so that only the edges of the nylon appear at the joint.
3. Tape the joint, catching the exposed nylon under the tape.
4. Looking through either end of the straw, you should note that the nylon has now formed a net across the straw at the joint.

## Option 2 - Jar Pooters

### Instructions:

1. Take a small, clean jar and remove any labels. Using a nail or drill, carefully make two holes in the lid.
2. Take two bendy straws (or plastic tubing) and trim a few centimetres off the end of one. Insert the straws through the lid holes, plugging any gaps with blutack or plasticine. Next, using an elastic band or tape, secure a square of muslin, old tights or gauze over the end of the shorter straw (this keeps the insects away from your mouth).
3. When you've replaced the lid, it's time to go pootering! Find an invertebrate, point the long straw at it and suck at the shorter straw. The insect will plop safely into your jar for observation. Once you've had a good look, release the bug carefully where you found it.

### Video References:

<https://www.scienceworld.ca/resources/activities/insect-pooters>

