

Date: _____

Decomposition Cups

Materials and Procedure

In this investigation you will make decomposition cups to discover the effect of composting worms on plant waste matter.

Investigative question: How do worms affect the decomposition of cucumbers?

Materials:

- Newspaper
- Scissors
- Water and container to soak newspaper
- Two paper lunch bags
- Two plastic cups
- Masking tape (optional)
- Permanent marker
- Plastic knife
- Two slices of cucumber
- Container of perlite
- Worms from the worm bin
- Two pieces of plastic wrap
- Two rubber bands
- Ruler
- A glove for each member of your group (optional)

Procedures:

A. Prepare the newspaper

1. (optional) If you will use gloves, put them on now.
2. Cut and separate thin strips of newspaper, approximately 1 cm (1/3 in) wide.
3. Soak the strips in water.
4. Squeeze out any extra water. The paper should be damp, not soggy.

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B. Label your bags and cups

You can use tape as labels or write directly on the cups and bags with a permanent marker.

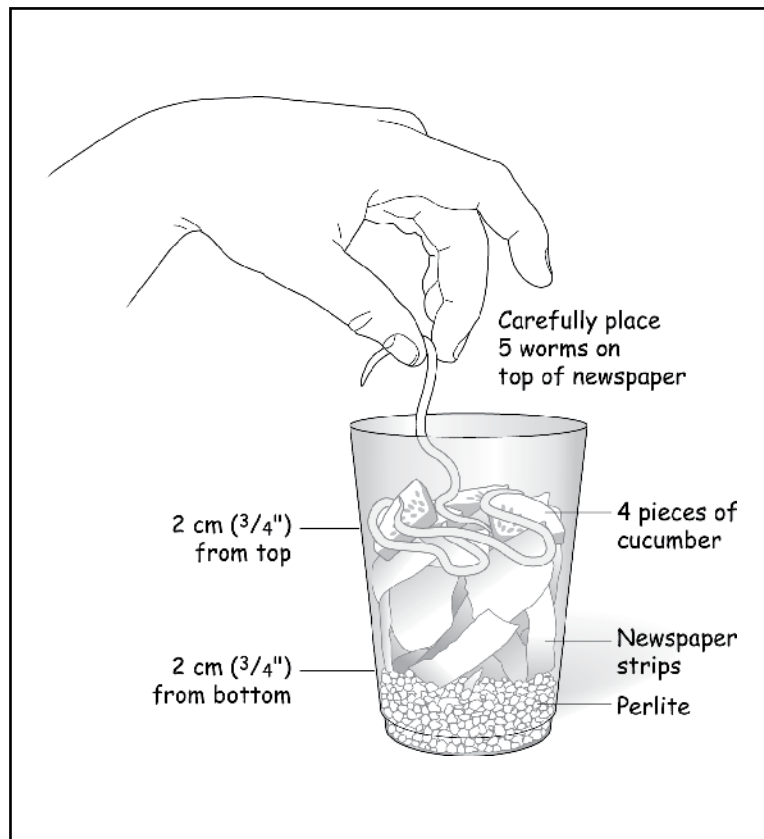
1. Label one cup and one bag “Worms.”
2. Label the other cup and bag “No worms.”
3. Label each cup and bag with your group members’ names and today’s date.

C. Assemble the cups

1. Fill each cup approximately 2 cm (3/4 in) deep with perlite.
2. Loosely put the damp newspaper strips on top of the perlite to about 2 cm (3/4 in) from the top of the cup. Do not pack down.
3. Cut each slice of cucumber into four small pieces and place on top of the newspaper.

4. Get five worms from your teacher. Put them on top of the cucumbers in the cup labeled “worms.” (Wash your hands if you touch the worms without gloves.)

5. Observe how the worms react to their new environment. Record your observations on the **Worm Investigation: Prediction** section of the science notebook.



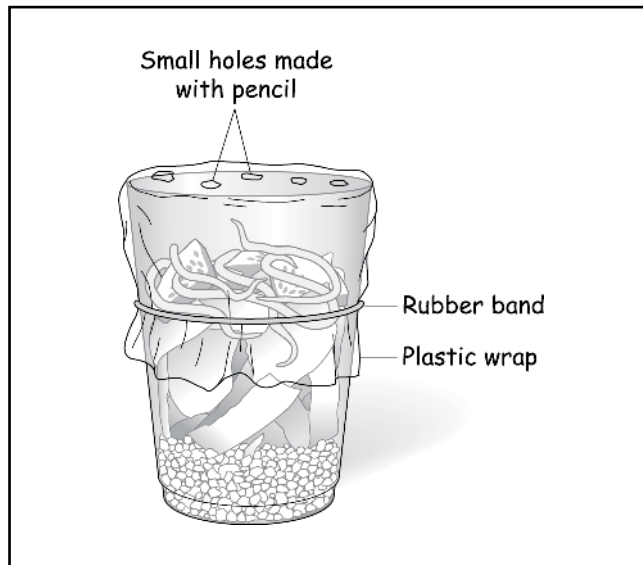
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Storage

D. Store the cups

1. Cover the tops of the cups with plastic wrap. Use a rubber band to keep the plastic wrap in place.
2. Poke five small holes into the wrap on top of each cup with your pencil.



3. Carefully move both cups to the area your teacher has assigned for them.
4. Place a bag upside down over each cup.
5. Remember to check your worms regularly. If the materials in the cup dry out, use a spray bottle and lightly mist the top of the materials.