

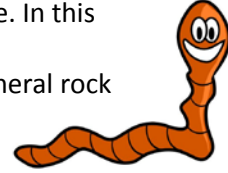
Humus in Soil – Student Activity

Please Note

Science uses the expression “living” for anything that is alive or has been alive. In this case both compost and mulch are classified as “living”.

“Non-living” is used for things that have never lived. In this case the small mineral rock fragments are “non-living”.

Please remove any worms or insects from the soil before starting.



Materials per student or group

- About two tablespoons of soil
- A piece of scrap paper to make a cone
- A test tube or small jar with lid
- Water.
- A ruler

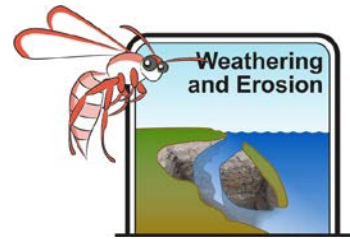
Method

1. Place the paper cone with the open end downwards leading into the test tube or jar.
2. Feed soil down the cone into the test tube or jar.
3. Two thirds fill the test tube or jar with water.
4. Draw what you see in the before column.
5. Place your thumb over the top of the test tube to seal it or screw the lid firmly onto the jar. If your thumb is too narrow to seal the top of the test tube you can use the pad of flesh at the base of your thumb.
6. Shake the tube or jar well for 30 seconds. Make sure the water and soil are well mixed.
7. Hold the container upright and immobile to two minutes.
8. Observe what has happened at the top of the water and draw this into the worksheet provided.



Observations

| | |
|---------------|--------------|
| | |
| Before | After |



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What did you observe after the soil contents had settled after two minutes?

The material that floated is called humus. Humus is made from living things and their products.

How thick is the humus layer? _____

How thick is the rest of the soil? _____

What percentage of the soil is humus? $\frac{\text{Humus} \times 100}{\text{Humus} + \text{Rest of soil}}$ _____ %

Good soil is 10% humus or more. Was the soil you tested good soil? Explain your answer.

What could your school use to make good garden humus? List 4 free things your school could use to make their own humus or compost.

EXTRA for experts - what do worms have to do with good soil?

