

Rot On!

Essential Question: Why do some things rot and others not?

Expectation: Set up an experiment to test the rate of decomposition for three different items: food, paper, and plastic.

Engage (10 minutes)



Think about it:
Why does food rot?

Read (or Listen) to this Wonderopolis article: click [here](#).



Then, connect with your teammate (a family member or friend) to share your thinking about why food rots. (I think _____)

Experiment (20 minutes)



Make a prediction:
What objects will rot the most over 3 weeks? (I predict _____ because _____)

- Pick three items to test: one food item, one paper item, and one plastic item.
- Gather three containers and add an equal amount of soil and one item to each jar.
 - Clear containers will be best so you can see the decomposition happening inside.
 - Consider using glass or plastic containers from your recycling bin.
- Cover your items with soil
- Add a little bit of water to moisten the soil.
- Place your containers in a sunny location.
- Seal your containers and observe over the next three weeks

- make sure to leave room for air in your jar.

	<h2>Observe (10 minutes)</h2>
	<p>Observation Ideas:</p> <ul style="list-style-type: none"> ● Take notes once per week for 3 weeks ● Take photos to track the decomposition process ● Draw a diagram of what is happening ● Use your senses <ul style="list-style-type: none"> ○ Smell ○ Touch ○ Sigt <p>Observation Discussion Questions:</p> <ul style="list-style-type: none"> ● Are the items decomposing at the same or different speed? Why do you think that is? ● What factors are affecting the rotting of your items?

	<h2>Reflect (10 minutes)</h2>
	<p>With a teammate, ask...</p> <ul style="list-style-type: none"> ● Why do you think decomposition is important? ● What will happen to the materials that do not rot? What impact does this have on our environment? ● What was your favorite part of this experiment?

	<h2>Extensions</h2>
	<ul style="list-style-type: none"> ● Why do we need rot? Check out this article about why rotting is important for us all! ● Curious about other material decomposition rates? Check out this website comparing material decomposition to other familiar processes in our lives. ● Do things break down in landfills? Check out what happens inside landfills here.