

Summer Camps 2020

DECOMPOSER DISCOVERY CAMP

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- Background Information
 - What is a decomposer?
 - Where do they fall in the food chain/ how do they help?
 - Mushrooms don't spread with seeds, they spread with spores

- At Home Activities
 - Grow a Mold Garden
 - Create a Spore Print

- KCOEC Activities at Hoover
 - Look at our spore print
 - Hike and Find- Decomposer Bingo (print your card before you come out)

- At Home and at Hoover
 - Would a worm eat that?

The page is framed by a decorative border of black beetle silhouettes. The border consists of a horizontal line of ten beetles at the top, a vertical line of ten beetles on the right side, and a vertical line of ten beetles on the left side. The beetles are of various species, including some with prominent horns (stag beetles) and others with more standard body shapes. The central text is surrounded by these beetle silhouettes, creating a nature-themed frame.

Decomposers

There are several levels of the food chain and the organisms in each level do very different things to survive! The first level of the food chain is producers. These are organisms, like plants, that make their own food. Next are consumers, and these are organisms that consume other organisms for food. Some consumers only consume producers making them primary consumers. Others consume other consumers making them secondary consumers! Even after all of this, there is a very important level of the food chain that is missing; this level is decomposers. Decomposers are organisms like mold, fungus, and certain bugs that break down organic material like wood, fallen leaves, animals, or other bugs! Check out this video for some additional information on decomposers! <https://www.youtube.com/watch?v=uB61rfeeAsM>

To help you learn about decomposers and their role, we at the Kendall County Outdoor Education Center have put together some activities for you to try at home and out here at Hoover Forest preserve.



Decomposers at Home

Grow a Mold Garden!

For every mold garden you plan to grow, you will need a paper plate, a gallon ziplock bag, a piece of bread, at least one slice of fruit and a cracker. You may place other things in the bag if you would like but do not put any meat in.

How to grow your garden!

1. Dip each item in water VERY briefly (do not soak it) if you would rather you may just place a few drops of water on each item.
2. Place the bread, fruit, and other foods on the paper plate.
3. Place the whole plate inside the plastic bag and seal it very well.
4. Come back every day and record what you see! Keep a journal of what each item in your bag looks like. Make sure you do not open your bag!
5. After 10-14 days, you may discard your bag in a garbage can- do not open your bag.

So what happened? You didn't smear your foods with mold so how did it grow inside your bag? Well, mold spreads through something called spores. Spores are basically like the seeds of mold and other types of fungus. Spores are so small you cannot see individual ones without the help of a microscope. But they are so small, they travel around on the bottoms of your shoes or blow in through open windows they can stick to your clothes or even be carried in by your pets! These spores can then land on food and begin to grow mold and break them down. Watch this video to see it happen quickly. <https://www.youtube.com/watch?v=c0En-BVbGc>

Show me some Spores!

So in the last activity, we mentioned spores and how they are so small you can't see individual ones without microscopes. Even though that is true, you CAN see big groups of spores together.

To see the spores you'll need to make a spore print.

For a spore print you will need:

- 1 piece of plain white paper
- Whole fresh mushrooms from the store
- A glass or cup
- A few drops of water

To see the spores of your mushroom you will need to gently remove the stem. Once you remove the stem, you may need to peel some of the cap back so the gills can rest directly on the paper. Once you peel the cap back, place your mushroom on the paper, gill-side down, and place 3-5 drops of water on the cap. Dripping the water on the cap helps the mushroom release its spores. Then place a cup or bowl upside down around the mushroom on the paper to prevent any air from blowing the spores around. Leave the mushroom alone for 1-2 days to allow enough time for the spores to drop. After the 1-2 days, come back to your mushroom, remove the covering then gently lift the mushroom cap from the paper.

<https://www.youtube.com/watch?v=KRtEllgivHs> This video gives great directions on how to do this experiment! Also, feel free to come out to the Kendall County Outdoor Education Center to look at our spore print!

Hike and Find Decomposer Bingo

B	I	N	G	O
<p>Turkey Tail</p> 	<p>Pear-shaped Puffball</p> 	<p>Spider Mite</p> 	<p>Morel</p> 	<p>Centipede</p> 
<p>Millipede</p> 	<p>Worm</p> 	<p>Wood Roach</p> 	<p>Ambersnail</p> 	<p>Dryads Saddle</p> 
<p>Click Beetle</p> 	<p>Mica caps</p> 	<p>Free Space</p>	<p>Wood Ear</p> 	<p>Stag Beetle</p> 
<p>Grey Field slug</p> 	<p>Black knot</p> 	<p>Carrion Beetle</p> 	<p>House Fly</p> 	<p>Green-gilled Lepiota</p> 
<p>Pill Bugs</p> 	<p>Dusky Arion Slug</p> 	<p>Ceramic Parchment</p> 	<p>Moss</p> 	<p>Oyster Mushroom</p> 



Scan this QR Code to play the game! On every other page, there is an item and you decide yes a worm would eat that or no a worm would not eat that. Once you make your decision, go to the next slide and see if you are right!



Or go to this link:

https://docs.google.com/presentation/d/1vtbHH6GYGr5LGAhSLfcu6wPCi-ELTpbe8dczqpkIL_g/edit?usp=sharing