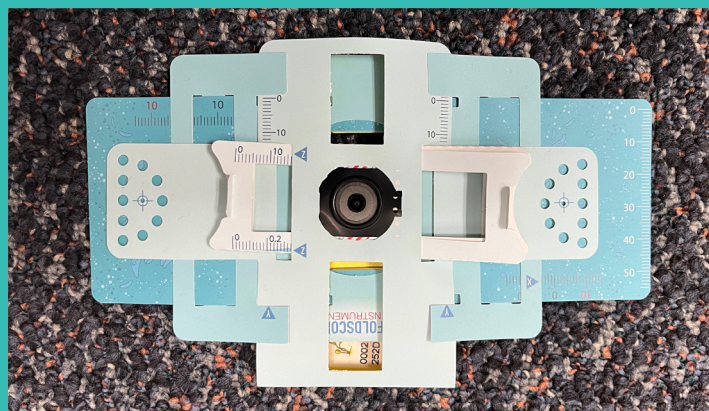


FOLDSCOPE MICROSCOPE

Scientists make observations and collect data to better understand what they study. A microscope is a tool that magnifies small objects.

Let's build a tool to magnify small objects called a foldscope!



MATERIALS

Foldscope Classroom Kit

- Paper with perforated components
- 1 lens and 3 couplers
- 9 white ring stickers
- 9 clear coverslip stickers
- 1 Identification sticker

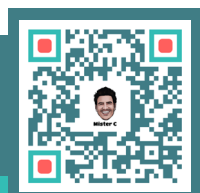
GETTING STARTED

1. Put together your microscope following the "Instruction Manual" sheet in the foldscope bag.
You can also watch a video of the assembly online:
<https://youtu.be/L-tFJRGQBlo>
2. The back of the instruction sheet shows how to mount a slide, that means how to set up a sample on a slide. You can also watch a video of how to mount a slide online:
<https://youtu.be/vOq-8cORMd0>

STANDARDS

Science: PS1.A: Structure and Properties of Matter. Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties.

Crosscutting Concepts: Patterns - Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.





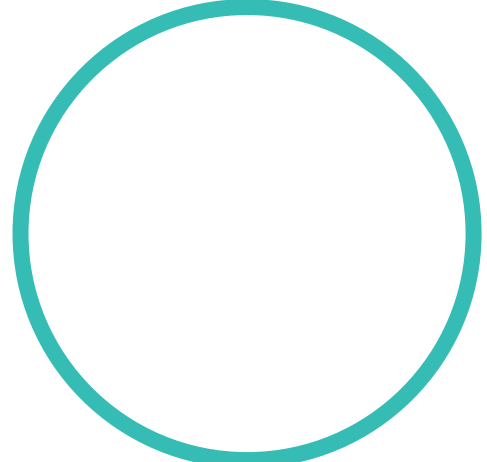
Mister C

THE CHALLENGE

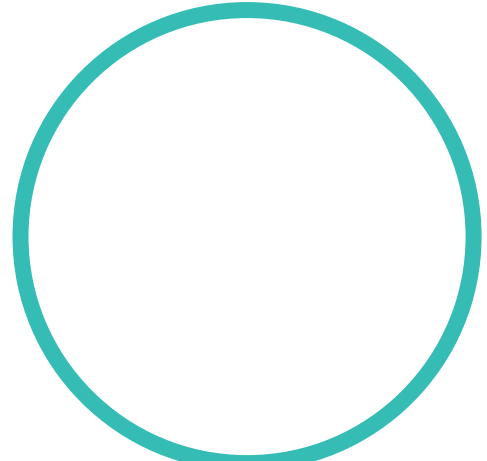
There are many things you can look at under a microscope! Collect three samples to explore. Some easy samples to get from around your house might be hair, toilet paper, or saliva. Dry items like hair and toilet paper can be prepared on the dry standard slide, and wet things like the saliva should be prepared on the wet slide.

Record what you see in the microscope in the circles to the right and make some observations below.

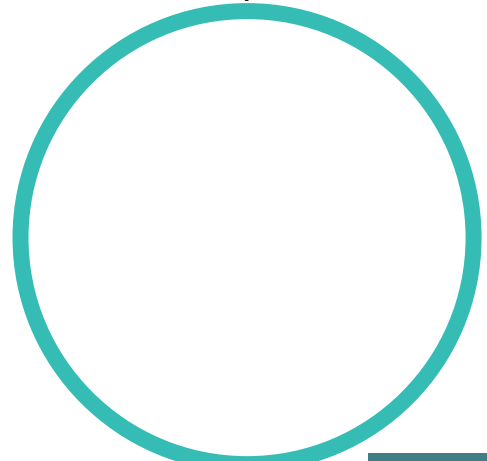
Sample 1



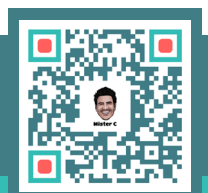
Sample 2



Sample 3



- What colors do you see in each sample?
- What shapes do you see?
- Did it look different than you expected?
- What differences did you see between the samples?
- What looked the coolest?





Mister C

MICROSCOPE TECHNOLOGY

Scientists use tools like microscopes to magnify small objects. Strong microscopes can even observe things at the cellular level, allowing the shape of a cell, its nucleus, mitochondria, and other organelles to be seen. While modern microscopes are highly complex, the most important parts are the lenses. These lenses are what magnify the object being viewed and allow objects to be observed in much greater detail than what we could see with just our eyes.

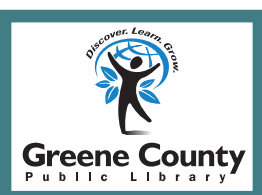
READ A BOOK AND KEEP EXPLORING

*All in a Drop: How Antony van Leeuwenhock Discovered an Invisible World, Lori Alexander (2019), Houghton Mifflin Harcourt, ISBN 9781328884206

*Under the Microscope: Earth's Tiniest Inhabitants: Life Books for Kids-Children's Science & Nature Books, Baby Professor (2019), Speedy Publishing LLC, ISBN 9781541968714

*The Science of Snot and Phlegm, Fiona Macdonald (2018) Franklin Watts Publishers, ISBN 9780531231449

*Unseen Worlds: Real Life Microscopic Creatures Hiding All Around Us, Helene Rajcak & Damien Laverdunt (2019), What on Earth Books, ISBN 9781999968014



WWW.WUNDERSTEM.COM

