

Refraction

IN ACTION!

EXPERIMENT 1

Water Lens

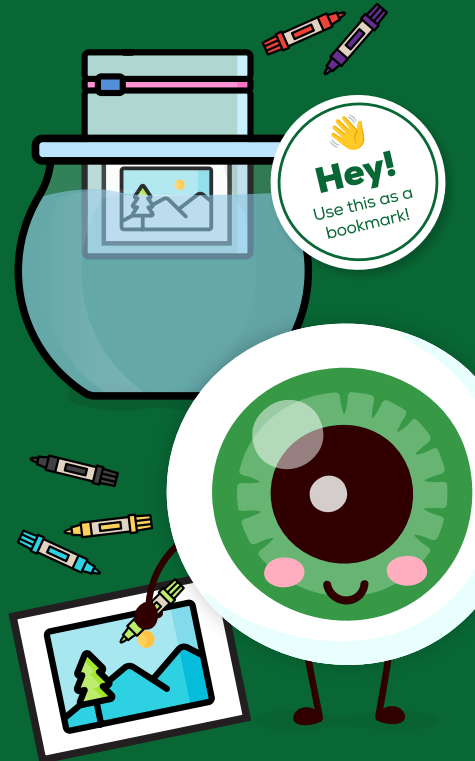


Refraction

IN ACTION!

EXPERIMENT 2

Disappearing Art



Refraction

IN ACTION!

EXPERIMENT 3

Bent Straw

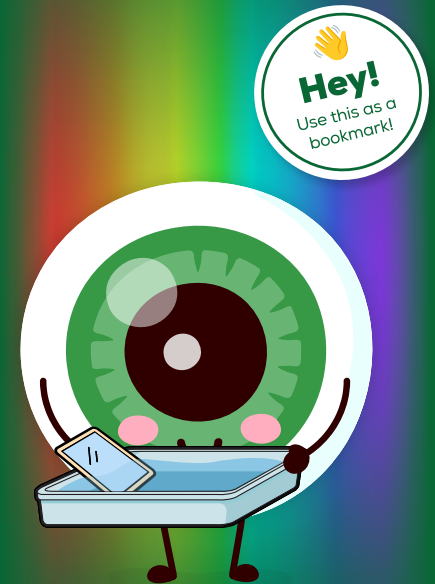


Refraction

IN ACTION!

EXPERIMENT 4

Dancing Rainbow



Refraction

IN ACTION!

EXPERIMENT 4

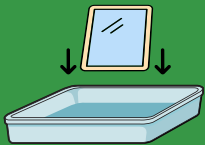
Dancing Rainbow

Rain not included

MATERIALS

- Small mirror
- Shallow container
- Water
- Direct rays of sunlight
- Piece of paper

INSTRUCTIONS



Place the mirror in the shallow container at about a 45-degree angle.

Fill the shallow container about half way with water until the mirror is half way under water.



Find a space (or head outside!) that has direct sunlight.

Move the mirror in the water so that the sun's light reflects through the water and onto the paper. You may have to move the paper to catch the rainbow. 🌈



Source:
<https://lsc.org/news-and-social/news/rainbow-refraction>

Refraction

IN ACTION!

EXPERIMENT 3

Bent Straw

Without really bending it

MATERIALS

- Straw
- Clear glass or jar
- Water

INSTRUCTIONS



Fill a clear glass about half way with water.

Place the straw in the water.



Look through the front of the glass and notice that the straw appears to be bent. It's an optical illusion! 👁️

Source:
coolscienceexperimentshq.com/can-water-bend-straw/

Refraction

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EXPERIMENT 2

Disappearing Art

Colors disappear with water

MATERIALS

- Index card or paper
- Clear glass of water that fits the index card
- Clear, resealable plastic bag
- Colorful markers
- Black marker

INSTRUCTIONS



Draw a colorful picture on the index card. Make sure to trace your picture with a black marker.

Place your drawing in the plastic bag and seal it.



Slowly lower the plastic bag into the water and watch the colors disappear!

Slowly pull the plastic bag up out of the water and watch the colors reappear! It's magic! ✨



Source:
<https://youtu.be/5kvcWPHvLMc?si=v9xOdWk00Kthbt79>

Refraction

IN ACTION!

EXPERIMENT 1

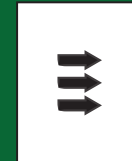
Water Lens

Reverse an image with water

MATERIALS

- Paper
- Marker
- Water
- Round, clear glass
- Box or book to use as a stand

INSTRUCTIONS



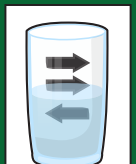
Using paper and a marker, draw 2 or 3 arrows going in the same direction that are about the width of the glass.

Stand or lean the drawing up against a book or box.



Pour water into the glass, aiming for the water level to be above 1 arrow but below the other.

Move the glass of water in front of the paper and adjust until the arrow reverses direction behind the water. So cool! 🌈



Source:
coolscienceexperimentshq.com/light-refraction/