

Make Your Own Rainbow



Watch: How to Make a Rainbow by SciShow Kids.

<http://www.viewpure.com/Cm9ZkYTnCNE?start=0&end=0>

Materials:

- A clear cup
- Water
- A piece of white paper
- A sunny day



Rainbow water
experiment

Instructions:

1. Find a sunny window that makes a patch of sunlight on the ground.
2. Put the clear cup on the window sill. Move it into a position that you can see the cup's shadow on the patch of sunlight on the ground.
3. Pour water into the cup and look on the ground for wiggling light.
4. Put a piece of paper on the floor where the wiggling light is.
5. You have made your own rainbow! Draw a picture and write about your observations.

Milk Rainbow Toast

By <https://www.123homeschool4me.com/milk-toast-rainbows> 95

Materials:

- Bread
- Sweetened condensed milk
- Food coloring
- Small bowls
- A toaster (optional).

Instructions:

1. Divide your sweetened condensed milk into six small bowls or containers.
2. Colour each of the bowls of sweetened condensed milk with a colour of the rainbow.
3. Using the sweetened condensed milk "paint," have kids paint their bread to make rainbows or pictures.
4. **Blot the bread with a paper towel to remove any excess "paint."**
5. Pop your painted bread in the toaster. This step is optional, you can just have milk bread if you like!



Homemade Spectroscope

By <https://buggyandbuddy.com/homemade-spectroscope/>



Materials:

- Empty paper towel roll
- Knife and/or scissors
- Blank or old CD
- Pencil
- Small piece of cardboard or cardstock
- Tape
- Paint (optional)

Instructions:

1. If you'll be painting your paper towel roll, you'll want to do that first and let it dry.
2. Use a knife (an adult should do this) to cut a thin slit at a 45° angle toward the bottom of the cardboard tube.
3. Directly across from the slit, make a small peephole or viewing hole using your knife (another step for an adult).
4. Trace one end of your paper towel roll onto your small scrap of cardboard or cardstock. Cut it out.
5. Cut a straight slit right across the center of your cardboard circle.
6. Tape the circle to the top of your spectroscope.
7. Insert the CD into your 45° angled slit with the shiny side facing up.

Climbing Rainbow

By <https://beyondtheplayroom.com/climbing-rainbow-science-experiment/>

Materials:

- Water Based Markers
- Paper Towel
- String, Ribbon or Tape
- Paper clip
- Pencil
- Water
- Scissors
- Tray, dish or pan that can hold water



Instructions:

1. Trace a rainbow outline onto a half a sheet of paper towel and cut it out.
2. Using a **WATER** based marker, add the colours of the rainbow to the bottom of each side of the paper towel. Start colouring about $\frac{1}{2}$ inch above the bottom of the paper towel.
3. Flip the paper towel over and colour the other side as well.
4. Connect a string to a paperclip. Clip the paperclip to the middle of the rainbow. Hang or tape the string so just the bottom of the paper towel rainbow touches the bottom of a tray or pan.
5. Add water to the dish to a depth of about 1/2 inch. Observe what happens. Ask your child questions about what they see. Explain to your child how the colors are "climbing" up the rainbow"

The science behind the Climbing Rainbow experiment is similar to the way in which water is able to go from tree roots to tree leaves- **CAPILLARY ACTION**. Capillary action is the ability of water to flow in narrow spaces, resisting gravity along the way. When the paper towel gets wet, the water-due to capillary action- travels upwards through the fibers in the paper towel. When the water passes the color it brings the color upwards with it as it continues to travel up the paper towel.