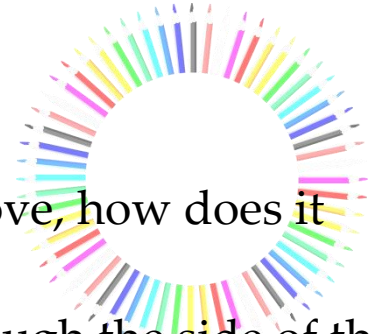
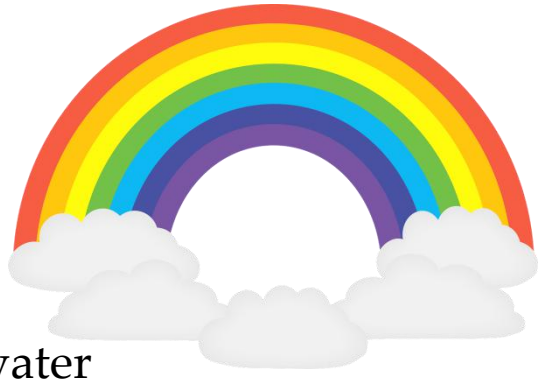
Rainbow Refraction



Need:
1 Pencil
Glass of water
1 Laminated Rainbow



How to:
Fill your glass with water
Set the glass on a solid surface such as a desk or bench
Get your pencil and stare at it thoroughly making sure you know exactly what it looks like
Blink 5 times
Stand up and turn around
Blink 5 more times
Place in your pencil so that some of it is sitting in the water and some of it is sticking out of the water
Look at the pencil from above, how does it look?
Now look at the pencil through the side of the glass, how does it look?
Now take the pencil out of the water and examine it
Repeat the process from the start with your laminated rainbow.

How did the rainbow look when you looked through the side of the glass?

BRAINSTORM:
Why do you think this is

Watching light bend

When looking through the side of the glass the pencil and rainbow looked bent because light bends.

When light passes through the glass and water it bends, it refracts.

How it works:
The light that is hitting the glass is being bent in different directions because of the glass surface and the water.

This causes the light to hit you eye from different angles, more angles than normal.

Which causes the pencil and rainbow to appear bent and larger than normal.

How much larger depends on how much water is between the object and the edge of the glass.

Rainbow Refraction ACTIVITY 2

How to:
Repeat the experiment multiple times with the pencil and rainbow in different places in the glass.

Look through the glass in the same place as before.

Where can you place it to make it look biggest?

Where can you place it to look most bent?