

Activity #2 – The Skittles Rainbow Experiment

The Skittles Rainbow Experiment is a fun and colorful science experiment that demonstrates the principles of diffusion and water density.



Image from ChemEdX

Let's get started with the Skittles Rainbow Experiment

Materials Needed:

1. A plate or shallow dish
2. Skittles candies (multiple colors)
3. Warm water (room temperature or slightly warmer)
4. A dropper or spoon
5. Paper towels (for cleanup)

Instructions:

1. **Prepare Your Workspace:**
 - Choose a flat surface to conduct the experiment.
 - Lay down some paper towels to catch any spills or drips.
 - Arrange your materials within reach.
2. **Arrange Skittles:**
 - Take your plate or shallow dish and arrange the Skittles around the edge in a circle.
 - You can use one color per section of the plate or mix them up for a more varied result.
3. **Add Water:**
 - Carefully pour warm water into the center of the plate, enough to cover the bottom and reach the Skittles.
4. **Observe:**
 - As the warm water comes in contact with the Skittles, the sugar coating on the Skittles dissolves.
 - Watch as the colors start to spread out from the Skittles into the water.
5. **Wait and Observe:**
 - Allow some time for the colors to spread and mix in the water.

- You should start to see a rainbow pattern forming as the colors diffuse through the water.
6. **Document Your Results:**
- Take note of any interesting patterns or observations.
 - You can take photos or make drawings of what you see.
7. **Cleanup:**
- Dispose of the Skittles and water properly.
 - Clean up any spills or messes.

Tips:

- Using warm water can help speed up the dissolving process but be careful not to use water that is too hot.
- You can experiment with different arrangements of Skittles and water to see how it affects the pattern formation.
- This experiment can be a great opportunity to discuss concepts like diffusion, solubility, and density with students.

Have fun and enjoy the colorful results of your Skittles Rainbow Experiment!

References:

Kuntzlemen, T, (2021), How Does the Rainbow Candy Experiment Work?, ChemEdX.
https://www.chemedx.org/blog/how-does-rainbow-candy-experiment-work?ip_login_no_cache=s%97%83%DDv%E4%B9%92



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