

Skittles Rainbow Experiment

In this activity, students use the scientific method to see how the temperature of water affects how fast the skittles rainbow forms. Use the included video or directions presentation to guide students through the activity.

Part 1 – In part 1 students use plain tap water to observe the formation of the skittles rainbow.

Teaching tips:

- You can have students work alone, in pairs, or in groups of 3 – 4.
- Make sure the students have their skittles arranged in a circle around the outside of the plate or cup.
- Have the students slowly pour enough water to just cover the skittles
- Use the Student pages that fit with your students ability level – Set 1 requires more reading and observations. Set 2 includes less writing for younger students.

Part 2 - In part 2, students change the temperature of the water to see how that affects how quickly the skittle rainbow forms.

Teaching tips:

- Students should know that you change only **one** variable in an experiment
 - Ask students why you shouldn't change more than one variable - they should explain that if you change more than one variable, then you don't know which variable affected the experiment.
- Explain that **controlled variables** are the part of the experiment that stay the same. Have students come up with examples of controlled variables for this experiment and record them on their sheets. This might include: Using the same type of candy, the same size plate/cup, using the same liquid.
- Have the students repeat the experiment and then compare their data from part 2 and compare it to the data from part 1. Then they will write a conclusion using their data.
- Tie this into your curriculum if you do a unit on temperature and the movement of molecules.

Skittles Rainbow- Part I

MATERIALS

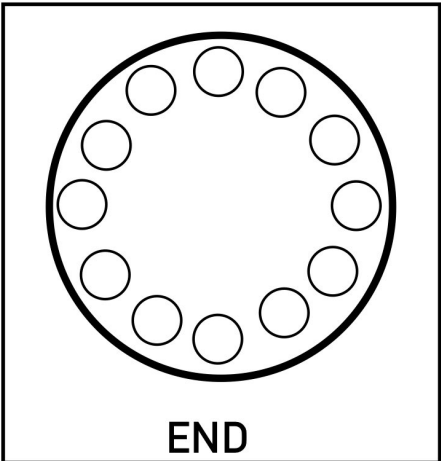
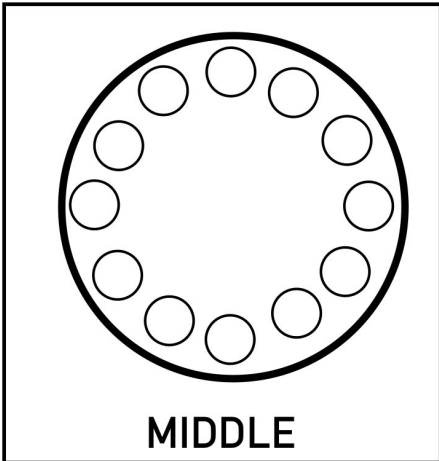
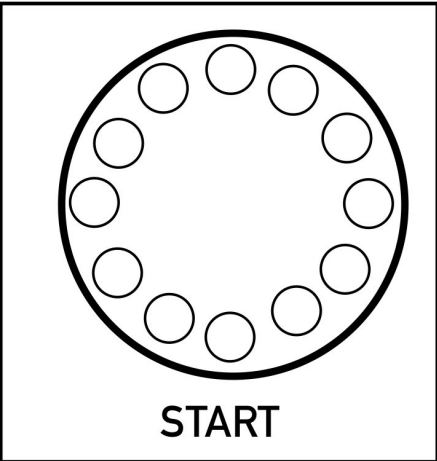
- Skittles Candy
- Cup or plate
- Water
- Small pitcher or cup.
- Timer
- Colored Pencils

PROCEDURE

1. Arrange your skittles around the outside of your container so they form a ring.
2. Alternate colors so they are not next to the same colored skittle.
3. Draw your observations in the **START** section
4. Carefully pour water into your container so the skittles are covered.
5. Draw pictures in your observations to show how it changes over time.

OBSERVE

Draw your observations from the start to the end of the experiment.



DESCRIBE

Describe how the experiment changed over time.

Skittles Rainbow- Part 2

QUESTION

Does the skittles rainbow form faster in hot water or cold water?



HYPOTHESIS

Make your prediction by checking one of the boxes:

- Hot water will make a rainbow faster than cold water.
- Cold water will make a rainbow faster than hot water.
- They will be the same in both hot and cold water

PROCEDURE

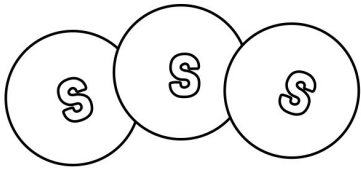
1. Set up your skittles
2. Get your timer ready
3. Pour **HOT** water over your skittles and start your timer
4. Measure how long it takes for the colors to meet in the middle
5. Record your data.
6. Repeat for **COLD** water.

DATA

	Cold	Hot
Time		

CONCLUSION

How did changing the temperature of the water affect the how fast the skittles rainbow formed?



Skittles Rainbow

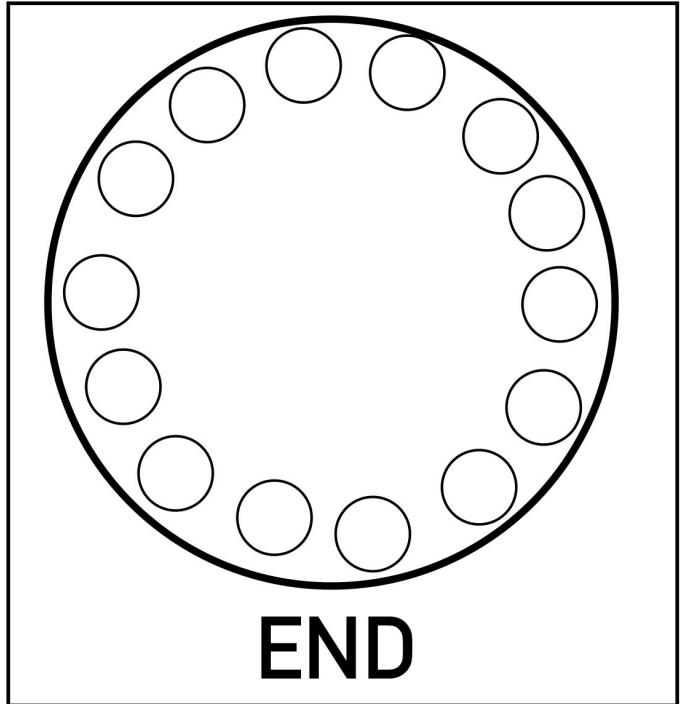
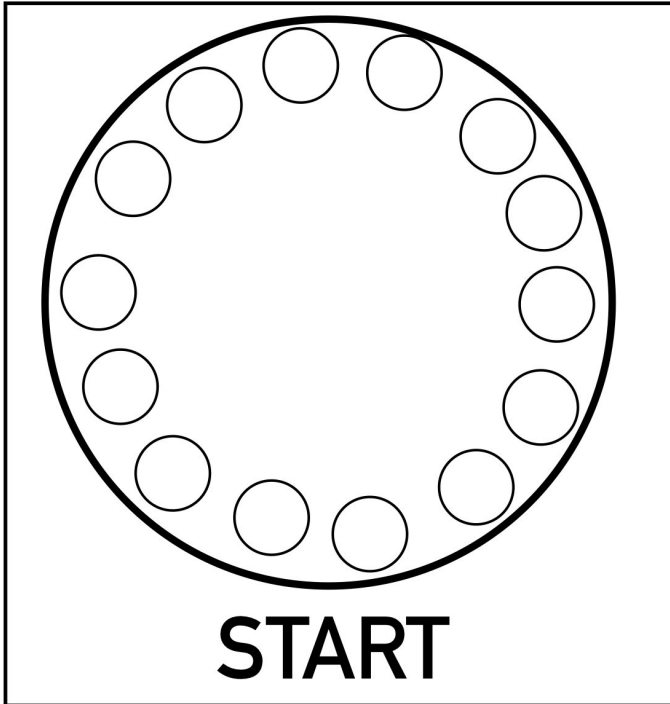
MATERIALS

- Skittles
- Cup or plate
- Water

PROCEDURE

1. Set up the Skittles
2. Slowly pour water into the dish
3. Watch what happens

OBSERVE



DESCRIBE

What happened during the experiment?

SCIENTIFIC METHOD

Name: _____

Skittles Rainbow- Part 2

QUESTION

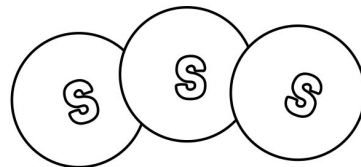
Does the skittles rainbow form faster in hot water or cold water?



HYPOTHESIS

Choose one:

- Hot water will be faster.
- Cold water will be faster.
- They will be the same.



PROCEDURE

1. Set up your skittles
2. Pour **HOT** water over your skittles
3. How long does it take?
4. Repeat for **COLD** water.

DATA

	Cold	Hot
Time	Seconds	Seconds

CONCLUSION

Which rainbow formed faster?
