**NTI - STEM ASSIGNMENTS**

Weekly STEM Assignments:

* **Week 1 (3/16 - 3/20):** Pepper and Soap
* **Week 2 (3/23 - 3/27):** Heat and Friction
* **Week 3 (3/30 - 4/3):** Skittles and Water

**Pepper and Soap:**

1. Fill a bowl/pie tin with about an inch of water.
2. Sprinkle pepper evenly across the surface. (Try not to sneeze!) The pepper flakes should float, not sink, upon the surface of the water.
3. Stick one finger in and take it out. Notice how you have some pepper left on your finger.
4. What do you think would happen if a soapy finger touches the water? How would the pepper flakes react?
5. Write down your best, often called a hypothesis, in the space below.

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1. Now squeeze a small amount of dish soap onto a clean counter.
2. Touch the tip of your finger to the dish soap. You'll want just a tiny amount of soap.
3. Poke your soapy finger into the water, right in the center of the bowl/tin.
4. What happened? Was your hypothesis correct?

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**Heat and Friction:**

1. Rub your hands together quickly.
2. Observe how your hands start to warm up, due to friction.
3. Take a piece of wire/coat hanger and bend it back and forth rapidly.
4. Hold your hands close together, so you can isolate the bending right in one spot. (Don’t do this too much...it might overheat!)
5. Notice how the rapid motion has been turned into heat.
6. What do you think would happen if you had a piece of cardboard? Would the heat last longer?
7. Write down your best, often called a hypothesis, in the space below.

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1. Take a piece of cardboard and rub it against your hand.
2. What happened? Was your hypothesis correct?

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**Skittles and Water:**

1. Place your skittles into a white container.
2. Try to put the skittles into some sort of pattern.
3. Make sure that your skittles form the shape of the white container.
4. What do you think would happen if you poured water into the container? Would the colors mix?
5. Write down your best, often called a hypothesis, in the space below.

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1. Carefully pour water into the container.
2. If the skittles move, just push them back into place quickly!
3. Observe what happens…
4. What happened? Was your hypothesis correct?

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