

WeeMan Science Experiments

WHERE DOES HONEY COME FROM?

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Crystallized Honey

Try not to eat your experiment!



Add 1 tablespoon of honey to each of containers.

Container 1: 1 teaspoon water / 1 Tbsp honey

Container 2: 2 teaspoons of water / 1 Tbsp honey

Container 3: 3 teaspoons of water / 1 Tbsp honey

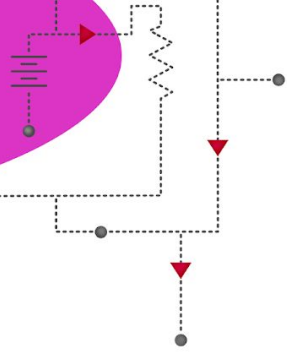
Container 4: 4 teaspoons of water / 1 Tbsp honey

Container 5: just honey

You may have to push the honey off the spoon into the container, heat the honey up in the microwave, or use a little vegetable oil coating your spoon.

1. Use the craft stick to gently mix the water and honey together in each jar. Ask the student what they predict.
2. Create the hypothesis. *When you put your containers in the freezer, which one do you think will be the fastest to crystallize? Why?*
3. Use our handy chart to track your findings. The chart will have five rows. Suggestion: on the side of the chart, create an area for notes. This is where you will note the temperature at which each jar of honey started to crystallize
• IF you are able to do so.





Place all of the jars into the freezer.

Don't forget to set a timer. After approx. 2 minutes, look at the jars and check them for signs of any crystallization.

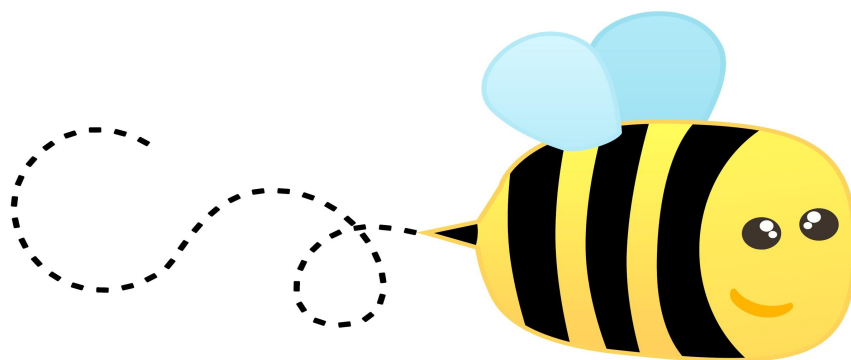
Continue to look at the jars about every 2 minutes. If you see crystals forming, place the thermometer into the honey and record the temperature on your chart.

Honey Crystallization Chart Name: _____

Predictions:

	2 min	4 min	6 min	10 min	20 min
Jar 1					
Jar 2					
Jar 3					
Jar 4					
Jar 5					





Step 1

Step 2

Step 3

Step 4

Tell in your own words how honey is formed after watching videos and then we will see how closely it matches up with what your teacher reads:

THE FASCINATING, YET DISGUSTING CREATION OF HONEY EXPLAINED:

<https://youtu.be/6A86UJVNydc>

Where Does Honey Come From - youtube link

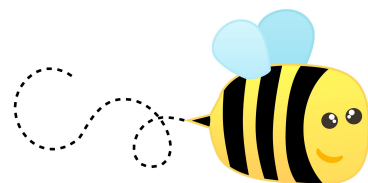
Honey comes from the determination and hard work of bees. They use their long tongue to suck nectar - the sugary liquid from flowers. The bees then swallow it and store it in a special type of stomach that is not part of the actual digestive system. This nectar never enters the bee's digestive system.

Extra stomach, or **honey crop**.

In the crop/ extra stomach, the nectar mixes with enzymes that transform its chemical composition and pH and then they return to the hive. They pass the nectar to other bees by regurgitating the liquid into their mouth. This regurgitation process is repeated again and again until the partially digested nectar is finally deposited into a honeycomb.

To get all that extra water out of honey, bees begin fanning the honeycomb with their wings, which speeds up the process of evaporation. When most of the water has disappeared, the bee seals the comb with a secretion of liquid from its abdomen, which eventually hardens into beeswax.

WOW! This is un"bee"lievable!





Bee Crafts



Materials:

- Plates either yellow (or painted yellow)
- Poms (clamp with a clothespin) dip in paint
- clothespins
- Black tempera and pink for cheeks (optional)
- Googly eyes
- Ziploc bag
- Honeycomb cereal
- Black pipe cleaner
- Glue
- Scissors
- Sharpie to draw the mouth or eyelashes





Density in a Jar

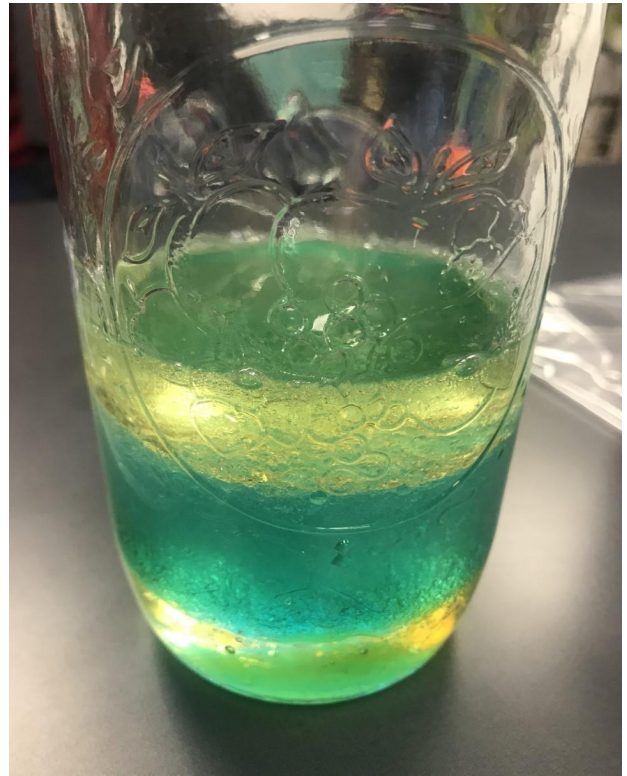
By Mrs. Goodwin

Ingredients:

- Rubbing alcohol
- Vegetable oil
- Water
- Dish soap
- Karo syrup
- Honey

Directions:

1. Add ingredients to jar and allow to settle.
2. Observe density of different Ingredients. The honey Will almost look like it's glowing.
3. The Sugar Density Lab is similar and can be found in Science Experiment: DENSITY LABS





Infused Honey

Materials:

- Clean empty Mason jar and lid
- Honey
- Cinnamon sticks, cloves, vanilla beans, or dried herbs such as lavender, lemon thyme, mint, rose petals, or rosemary
- Cheesecloth or patterned cloth
- Tongs or the herbs and spices can be sprinkled in.
- Optional: label and markers

Give as a gift for students to give on Mother's Day.

**Mom - you are as
Sweet as honey!**

From: _____

