



Connecting Math to Our Lives and Communities

Hummingbird (Militaw) Feeder

Introduction:

Every spring after we have experienced the long cold winters, we all look outside trying to look for the beginning signs of spring and summer. Early signs include melting snow or tulips poking out of garden beds. One clear example that warmer weather is on its way is the return of our small bird friends that have returned from the south. One of these small birds that we welcome back each year are hummingbirds! Hummingbirds stand for many different things depending on which culture we are looking at. In some cultures, a hummingbird is a messenger of joy and stands for intelligence, beauty, devotion, and love.

Nobel Laureate Wangari Maathai tells an inspiring tale called “I will be a hummingbird” that describes a huge forest that is consumed by a fire. All of the animals in the forest come out and feel overwhelmed as they watch their homes burn. Everyone except a tiny hummingbird who thinks “I am going to do something about the fire”. So the bird flies to the nearest stream and takes a drop of water and puts it on the fire. The bird continues to do this going up and down up and down putting single drops of water on the fire as fast as it can. In the meantime, all of the animals, even the much larger animals like the elephant who could be taking a lot more water with his huge trunk, are standing there helpless and they say to the hummingbird “what do you think you can do, you are too little, and this fire is too big!” The hummingbird without wasting any time turns to them and says, “I am doing the best that I can”.

Today in the spirit of the “I will be a hummingbird” story we will remember that all we can do is the best that we can! One thing that we can do to help these tiny creatures and welcome them to their homes in Nova Scotia is by providing them with nourishment and enjoy their beauty in the process.

To hear Wangari Maathai tell the hummingbird story in her own words check out the CMTOLC Math in Nature module for a video and animation of the full story presented above.



Hummingbird quill work done by Ingrid Brooks a Mi'kmaq artist from New Brunswick

Math Connections

- Measurement
- Boiling temperatures
- Timing

Materials:

Hummingbird feeder:

- Plastic bottle (and cap with one hole in it)
- Drinking straw with a bend
- Plastic red flower
- Wire
- White glue

Hummingbird nectar:

- Measuring cup
- 1 cup white sugar
- 4 cups of water



Activity

For this activity we will be building our own hummingbird (feeder and making our own nectar for the birds to enjoy!

Making the feeder:

1. Take the plastic red flower with the hole and thread it onto the short end of the straw.
2. Insert the opposite end of the straw into the hole on the bottles lid until the bend in the straw is just outside of the caps opening so that the straw bends at an angle as it comes out from the bottle.
3. Using the white glue, seal the straw into place on the cap and the red flower onto the end of the straw so that it attracts the hummingbirds.
4. Allow the glue to dry overnight.
5. Once the glue has dried screw the cap onto the plastic bottle.
6. Wrap the wire around the neck of the bottle and pull the wire up to create a hanger.

It is now time to fill up the feeders and make hummingbird food!

Homemade hummingbird nectar:

1. Using the measuring cup provided in your kit measure out 2 cups of white sugar and place it in a large pot.
2. Using the same measuring cup measure out 4 cups of water and add it to the same pot as the sugar.
3. Stir together and with the help of an adult bring the mixture to a boil.
4. Once the water begins to boil remove from the heat and stir the sugar until it is dissolved.
5. Refrigerate this mixture overnight.

Using the hummingbird feeder:

1. Once your nectar has cooled completely fill your bottle until it is halfway full and reattach the cap.
2. Hang your hummingbird feeder about 5 feet above the ground from a tree, post, or porch beam.



Send us a photo of your hummingbird feeder at Connecting Math To Our Lives and Community email (cmtolcstfx@gmail.com)! ☺