

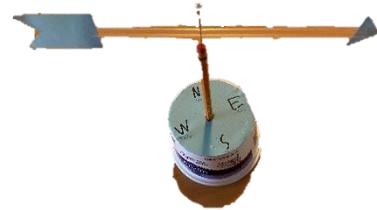
Homemade Weather Vane

O- 'Ohana goal (Why do the activity?) Family Goal

A weather vane is one of the simplest weather instruments. It can help us to tell which direction the wind is blowing. Just as we can see clouds we can also feel the wind. We can use these weather phenomenon to tell us about what is going on in our environment and even help us to prepare for the day and upcoming week. This activity is intended to help exercise our tactile skills of building and practice utilizing kilo (observation) skills.

Purpose:

- Build and create a weather vane together
- Add tools to use in your 'ohana weather observations
- Practice and hone skills of kilo (observations) together



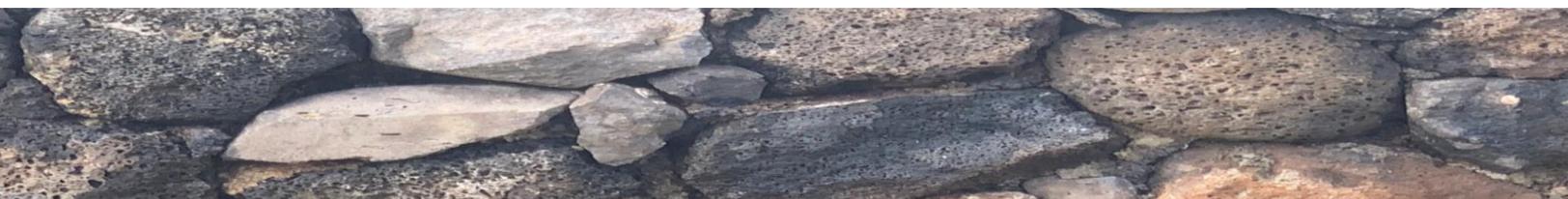
H- Ha'awina (Let's do the activity) Lesson, Assignment, Task

Materials Needed:

To make the weather vane, you will need:

** This is a basic design, get creative and add your own touches. Use materials you have around the house.*

- A Marker or Pencil
- A Small Round Plastic Container with a Lid
- Cutting tool
(i.e. scissors, x-acto, small knife, box cutter)
- A Few Pieces of Cardstock
(a business card, postcard or old greeting card will work)
- An unsharpened Pencil with a New Eraser
- Play dough, Putty, or Rocks
- A Disposable Straw
- A Pin
- A Compass or your kilo (observation) skills



Let's build it!

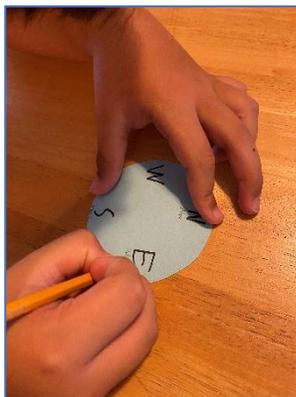
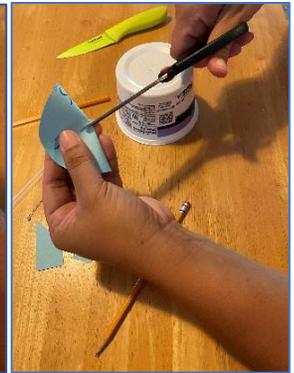
Starting with the cardinal direction guide:



Take your plastic container and trace the base of the plastic container onto the cardstock. Cut out the circle you just traced.



For these next few steps, have an **adult** use your cutting tool to make an "x"-shaped hole in the base of the plastic container and cut an "x" in the center of your cardstock circle.



On your cardstock circle, label the 4 cardinal directions with N, S, E, and W appropriately and glue the circle onto the bottom of your plastic container.



Your cardinal direction markings are complete. Now for the next steps:

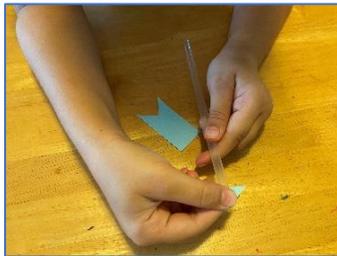


Begin by pushing the putty or play dough onto the inside of your plastic container lid.

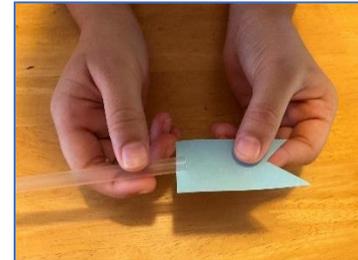
No putty, no problem! Another option is to fill the container with rocks. Just be sure there is enough room to stick your pencil through the middle of the container filled with rocks.



Poke the unsharpened pencil through the holes in the cardstock and plastic container with the eraser side of the pencil sticking out of the bottom of the plastic container. Push the top (unsharpened) end of the pencil into the play dough on the lid. The eraser side of the pencil should be sticking out through the center of your cardinal direction guide. Now seal your plastic container shut.



Cut a small triangle out of cardstock for the point of your direction arrow and cut a larger rectangle for the back. The back end needs to be large enough to catch the wind. You may need to experiment to find just the right size.



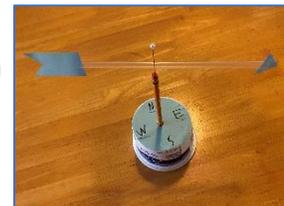
Push the pin through the center of the straw arrow and then into the top of the eraser of the pencil.



Now your weather vane is ready!

Orient the weather vane so that the side with the N is pointing North and place your weather vane in an area that will “catch” the wind.

Observe what happens.



Tips:

- There are apps for your phone that can be utilized for a compass to get you started.
- Add rocks inside of your container before sealing to add weight. The weight of this part of the project will prevent it from falling over when the wind blows.
- For the cutting of the arrow, cut a triangle out of one side of the rectangle you cut for the back. It will make the rectangle the shape of a tail/flag without wasting paper.



A-Alaka'i (What did you learn? What can you teach?) To Lead, Guide, Direct

Reflective Question(s):

- How can using a weather vane help your 'ohana prepare for your day? Try naming 3 things you would do, pack or prep for the day based on your observations of the wind.
- What can you predict when using a weather vane?
- What other kinds of weather instruments are you familiar with? Can you make a homemade version of any of these other instruments.

Extension Activities:

Try adding the Hawaiian terms for these cardinal directions:

- NORTH - 'AKAU
- SOUTH – HEMA
- WEST – KOMOHANA
- EAST – HIKINA

Talk about why cardinal directions are important. How would you be able to figure out the cardinal directions using observations of the environment? (i.e The sun rises in the East.)

You can utilize this tool to enrich the use of the following OHAna Resources:

- Anilā (Weather) Report
- Kite Innovation
- Hawaiian Star Compass

In the the passing down of stories and traditions within cultures there are usually wise sayings that accompany this knowledge. In Hawai'i some of these have been recorded as 'ōlelo no'eau. Take a look at these regarding wind for examples:

"Nā maka o ka makani."

Eyes of the wind.

Clouds, which show the direction of the wind.

'Ōlelo No'eau 2259

"Huli ka lau o ka 'ama'u i uka, nui ka wai o kahawai."

When the leaves of the 'ama'u turn toward the upland, it is a sign of a flood.

When the wind blows the leaves of the 'ama'u fern so that they bend toward the mountains it is also blowing clouds inland, which will produce rain.

'Ōlelo No'eau 1137

Interview your family to see if they have any "wise saying" pertaining to wind and weather. Try testing them out or observing them for yourself.

