



Challenger's Morning Science Segment:

December 21, 2015

Topic: Measuring Wind Speed

Build: Make an Anemometer

Credit: https://www.sercc.com/education_files/anemometer.pdf

Materials Needed:

Five 3 oz. cups / two straws / one pencil with unused eraser / scissors / tape / push-pin / perm. marker

Building an anemometer - Take a cup and punch two holes directly opposite each other, 1/2 inch below the rim. Then, punch two more holes 90 degrees from the others, 1/4 inch below the rim. Make a hole in the bottom of the cup that is large enough for the pencil to fit through. This cup serves as the base onto which all other materials will be attached. Slide two straws thru the four holes on the cup to form an "X" inside the cup, with the ends sticking out. Take the four remaining cups and, using the tip of your scissors, punch one hole in each, 1/2 inch below the rim. Take the four cups and slide each onto the end of each straw and then bend and tape the straw to the inside of the cup. The four cups should be facing sideways to catch the wind, all facing in the same direction. Carefully insert the pencil into the hole in the bottom of the base cup, with the eraser end poking through the bottom until it rests against the straws (the "X"), and push the pin through the "X" and into the eraser. Finally, take a permanent magic marker and draw a large X on the bottom of one of the "wind catching" cups.

The science [credit: https://www.sercc.com/education_files/anemometer.pdf]- Your anemometer is now ready to use! Take it outside and hold it in front of you in an open area where the wind is blowing. Look at the "X" on the bottom of the cup as it spins around. Count the number of times it spins around (revolutions) in 10 seconds. If you see 2-4 revolutions in 10 seconds= wind speed of 1 mph, 5-7 revs/10 sec=wind speed of 2 mph, 8-9 revs/10 sec=3 mph. You just made your own device to make wind measurements!

This activity ties into the Challenger Learning Center of Maine: Challenger Vacation camps cover all kinds of fun sciences topics such as the science of weather. Our December Vacation camp registration is open for Dec 28-31, 2015, grades K-5. Sign up now to reserve your spot today for fun topics such as Soaring thru Space, Star Wars, LEGOs and more! FMI- www.astronaut.org