Welcome to NSTA’s Daily Do
Teachers and families across the country are facing a new reality of providing opportunities for students to do science through distance and home learning. The Daily Do is one of the ways NSTA is supporting teachers and families with this endeavor. Each weekday, NSTA will share a sensemaking task teachers and families can use to engage their students in authentic, relevant science learning. We encourage families to make time for family science learning (science is a social process!) and are dedicated to helping students and their families find balance between learning science and the day-to-day responsibilities they have to stay healthy and safe.

What is Sensemaking?
Sensemaking is actively trying to figure out how the world works (science) or how to design solutions to problems (engineering). Students do science and engineering through the science and engineering practices. Engaging in these practices necessitates students be part of a learning community to be able to share ideas, evaluate competing ideas, give and receive critique, and reach consensus. Whether this community of learners is made up of classmates or family members, students and adults build and refine science and engineering knowledge together.
Introduction

Today's task is geared toward younger children and their families (older siblings are encouraged to participate!) and uses wind moving objects around as the phenomenon to motivate science learning. Using familiar objects, students conduct investigations (science and engineering practice) and use the thinking tools of patterns and cause-and-effect (crosscutting concepts) to make sense of the science ideas. Pushes can be big or small and can cause changes in motion.

Experience the Phenomenon

Young children have experience with wind moving objects, but may never had a chance to notice and wonder. Consider sharing this video of wind moving leaves with your students so they have a common experience with the phenomenon (they can share and build on each other's ideas). Ask students to make and record observations (an older sibling or adult may need to help) - you may need to play the video more than once. Encourage students to ask questions about what they've observed in the video or a related phenomenon (personal experiences similar to what they observed in the video) and make sure to record them.

Help students make connections between their observations of the phenomenon and the patterns and cause-and-effect relationships they notice in the investigations. Can students use these patterns and cause-and-effect relationships to answer any of their questions?

Materials

- straw (short, or cut in half)
- feather
- cotton ball
- small river rock or similar item
- dried beans (small and large, such as kidney and lima bean)
Getting Started with the Task

Set objects on the table. Tell students to each pick up a straw.

Ask your students to blow with the straw on the back of their hands, then ask them to describe what they feel. You might ask: What is pushing on your hand? (What did you blow through the straw?)

Investigation 1

Ask: What do you think will happen when you use the straw to blow on the different objects on the table? Why do you think so?

Let your students explore blowing on the objects for a little while. Then ask your students to select one of the objects and ask: What do you think will happen if you blow softly on this [object]? If you blow harder? Let them try and make observations. Some questions you might ask your students include:

- How do you make the objects start moving?
- How does the object move (roll, slide, or hop) when you blow on it through the straw?
- What do you notice that is similar between the object’s movement with a hard blow through the straw and a soft blow? What do you notice that is different?
- Can you make the object move the same distance each time? How did you do it?

Tell students: Now try blowing on all of the object with hard blows through the straw and soft blows. Let them try and make observations.

Help students make sense of their exploration:

- What patterns did you observe? (objects move farther when you blow harder than softer, objects move faster when you blow harder than softer, blowing on objects make them start moving, all the objects stopped moving, etc.)
- Help students use the patterns they observed to make cause and effect connections using “When... then” statements. (For example: When I blew harder on the cotton ball, then it moved farther.)

Investigation 2

Ask students: How could we make a fair test to find out how far the same size blow through the straw (push) moves each object? For a fair test, your students could line up the objects on the table and blow with the same size push (blow through the straw) on each object, noting how far each object moves.

Depending on the age and prior experience of your students, they may use different ways to measure how far each object moved. For example, students might just use general comparisons, such as farther, less far, etc. Your students might use non-standard measurements, such as their...
hands or other objects. Students might also use a ruler (as appropriate).

Help students recognize patterns in their data. You might ask:
- **Which objects moved the farthest? What did these objects have in common?** (objects that roll or had wheels moved farther than objects that slide across the table, lighter objects moved the farthest, etc.)
- **Which objects didn’t move very far? What did these objects have in common?** (heavy objects didn’t move as far as light objects).

Consider asking these questions to help connect the investigations back to the phenomenon.

- **How is blowing through the straw like the wind blowing outside?** (air can move things, sometimes the wind blows softly and sometimes it blows hard)
- **What does the wind pushing on you feel like?**
- **Does air move things/objects when it is not windy at all? Why do you say so?**
- **Which questions are we able to answer?**
- **How might we investigate the questions we have left?** See collection of resources (below) for investigation ideas.

**NSTA Collection of Resources for Today's Daily Do**

NSTA has created a [How does air make things move? collection of resources](#) to support teachers and families using this task. If you're an NSTA member, you can add this collection to your library by clicking ADD TO MY LIBRARY located near the top of the page (at right in the blue box).

**Check Out Previous Daily Dos from NSTA**

The NSTA Daily Do is an open educational resource (OER) and can be used by educators and families providing students distance and home science learning. Access the [entire collection of NSTA Daily Dos](#).