

## Provocation - Storm Structure

### Objective(s)

Build a structure that can stay standing in a storm (wind storm, rain storm, ice storm).

### Activity that involves problem-solving and strategic thinking:

- Students will use materials provided and plan individually or together how to build a strong structure that can stay standing in a storm.
- Students will test their structures against wind storms, rain storms, and snow storms (see materials on how to create these storms)

### Standards/Objectives addressed:

- **K-2-ETS1-1:** Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- **K-2-ETS1-2:** Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
- **K-ESS3- 2:** Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.

### Background knowledge needed:

- How to make a plan - sketch a design
- Different weather patterns and the effects - heavy ice, wind gusts can blow things over easily, rain would affect the roof of a structure
- How to prepare for different weather coming

### Materials:

- Paper, popsicle sticks, cardboard, straws, tape, fabric, etc. - anything they can find at home including toys (blocks, legos..)
- Fan (wind), spray bottle (rain), shaved ice, crushed cubes or shredded paper (snow)

### Prompts – questions or statements to elicit engagement

- To engage, connect with students by asking them, what happens when you're standing in a rainstorm, a windy place, a snow storm? (answers they might say → you get wet, it's hard to move forward or you might fall over, the snow sticks to you..)
- What materials can you add to make your structure stronger or more sturdy for faster winds/more rainfall/thicker snow?
- How can you keep it so the wind doesn't get into the structure? (make stronger/sturdier/solid sides)

### Vocabulary

- Storm, gusts, structure, sturdy, elements, hazards, precautions

### Reflection prompts

- What worked well? What material worked best?
- What worked best to make the structure sturdy?