

# Hail Storm House

**What is the challenge?** Design and build a model house sturdy enough to withstand a hail storm.

**What you need:**

- Building materials like:
  - Empty cereal boxes
  - Paper plates
  - Aluminum cans
  - Water bottles
  - Plastic cups
  - Aluminum foil
- Masking tape
- Scissors
- 75-100 marbles
- Container large enough for marbles



**What to do:**

- Imagine a hail storm. What do you think happens during it?
- Ask: What is hail made of? Is it heavy or light?
- Show the learner the marbles. These will represent hail.
  - All of the marbles will be poured onto a house the learner will build.
- Challenge your learner to build a house strong enough to withstand the marbles dropping on top of it.
- Give the learner 20-30 minutes to build their house.
- Test the house by pouring all of the marbles onto the roof.
- What happened to the house? Can you repair it?



**EXPLORATION  
PLACE**

THE SEDGWICK COUNTY SCIENCE AND DISCOVERY CENTER

### Notes for adults:

- Find a place in your home where the marbles can stay contained. We recommend an empty sink, bathtub or large bin.
- Encourage your learner to get creative!
- For younger learners, discuss what makes a good shelter. Does it have a roof? Walls? What about a floor?
- For older learners, consider allowing the learner to sketch out a design before building.

### STEM connection:

- Hail is a type of precipitation (water) in the atmosphere. It is formed when water droplets freeze together in thunderstorm clouds.
- Hail can damage aircraft, homes, cars and even people.
- It is important to have a safe place to shelter during thunderstorms because of hail.

### Take it further:

- Modify the hail storm house to also withstand rain. What changes would need to be made?

