

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**

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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?

