GRADE 3 SCIENCE: STRUCTURES & MATERIALS

SURVIVAL SHELTER

OUTCOME

• SM3.1 - Investigate properties of materials and methods of joinery used in structures.

BACKGROUND KNOWLEDGE

- Shelters provide necessary protection from the elements.
- Shelters vary around the world, based on their purpose, climate, environment and materials available.
- 2D and 3D shapes can be found in structures, offering strength, and stability.
- Rectangles, arches, and triangles are the most common shapes found.
- Animals also construct a variety of shelters!

ACTIVITY: EMERGENCY SHELTER

- 1. Send home a list of desired items for the project.
- 2. Ask families to label any items they want returned.
- 3. Show students short student survival video-
- Bring all collected items outside and spread out so that everything is visible.
- 5. Divide class into groups of 3-4 students.
- 6. Teams take turns selecting items from the collection.
- 7. With materials chosen- groups need to create an emergency shelter.
- 8. Once complete, students present their shelter and classmates evaluate their design.

TOP TIPS

- 1. Can be done in all seasons!
- 2. Block off at least half the day for this activity.
- 3. Ideally find a space with trees.
- 4. Try to space teams apart so that ideas are original.
- 5. If you need more building materials, ask staff to contribute.

MATERIALS

Variety of fort building materials:

- tarps.
- large pieces of cardboard.
- old sheets.
- newspaper.
- particle board.
- thin blankets.
- rope.
- duct tape.
- zip ties.
- bungee cords.
- long branches.
- pieces of wood, etc.

INQUIRY QUESTIONS

- 1. What are the best building materials?
- 2. What shelter designs are best suited for our local environments?

HEALTH/SAFETY

• Monitor students to make sure that they aren't balancing larger items overhead.

EXTENSIONS

- **1. MATH (SS3.3)-** Measure and record the dimensions of their shelters.
- 2. MATH (SS3.5)- Document shapes found in their design.
- ELA (CC3.2) Make a blueprint before starting, including sketches and notes.
- **4. ELA (CC3.4)-** Write a short survival story using their shelters for inspiration.

DID YOU KNOW?

Beavers are so efficient at felling trees that Meewasin needs to protect some trees in the river valley from being chewed down!





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TAKING IT FURTHER

- 1. EXPERTS- Invite a parent who works in construction to bring in their work tools & PPE to talk about their job!
- 2. FIELD TRIPS- Visit Beaver Creek to learn more about Nature's greatest engineer- the beaver!

RESOURCES

- 1. Blog post- How to build an outdoor fort.
- 2. Video- Homes around the world.

HOME CONNECTION

• Build a fort at home- snow, blanket, box, ice blocks, cardboard, tarp, branches, etc.





