



BUILDING BEDS

SCIENCE: STRUCTURE & PROPERTIES OF MATERIALS

ENGINEERING: INVESTIGATION

Every child is different. Do what works best for encouraging each child's exploration of this suggested activity.

OBJECTIVE OF THIS INVESTIGATION:

Children will determine which materials are best for building an animal bed.

VOCABULARY:

- Sturdy
- Support
- Warm
- Soft
- Hard

MATERIALS:

- a variety of materials that have different attributes and properties (e.g., cotton balls, pieces of felt, chenille sticks, cardboard, blocks, bubble wrap, cotton swabs, etc.)
- a toy animal to create the bed for

PROGRESSION STEPS (SCIENCE: STRUCTURE & PROPERTIES OF MATERIALS, ENGINEERING: INVESTIGATION):

Visit [STEMIE Learning Trajectories](#) for details

- Properties Recognizer
- Properties Identifier
- Creative Investigator

THIS INVESTIGATION:

- Gather children together and present the problem:
“This dinosaur is tired and wants to go to sleep. How can we use these materials to build a bed that’s sturdy (or strong), but also comfortable?”
- Encourage children to explore the materials before they build.
- Ask children to identify the different properties of the materials (e.g., hard, soft, sturdy, etc.). **(Properties Identifier)**
- If children are unable to identify properties, encourage them to find materials of a given property. Which materials are hard? Soft? Sturdy/strong? Etc. **(Properties Recognizer)**
- Encourage children to build and try out different materials and designs by comparing and contrasting, asking questions, and experimenting with new ideas. **(Creative Investigator)**

ADAPTATIONS:

See [A Guide to Adaptations](#) for general ideas and strategies

Environment:

- Try this activity on the floor or at a table, whichever environment allows all children to participate.

Materials:

- Provide materials that are easy for children to grasp (this might mean larger, softer items).





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ADAPTATIONS (CONTINUED)

Materials (continued):

- Provide a grabber tool to aid children in picking up items.

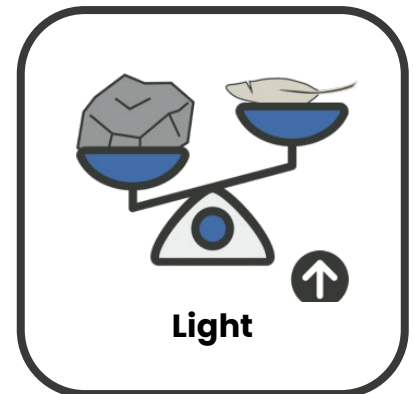
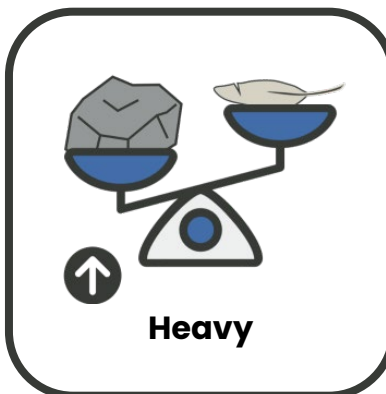
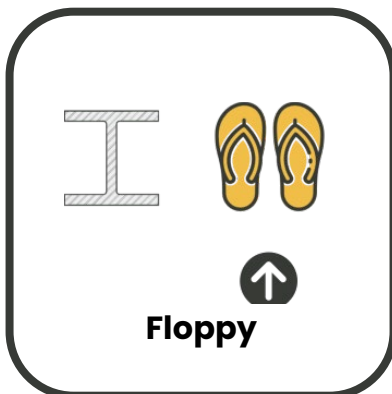
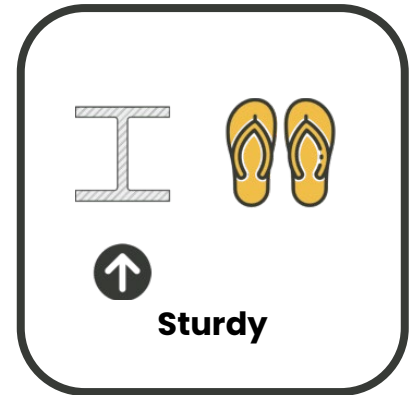
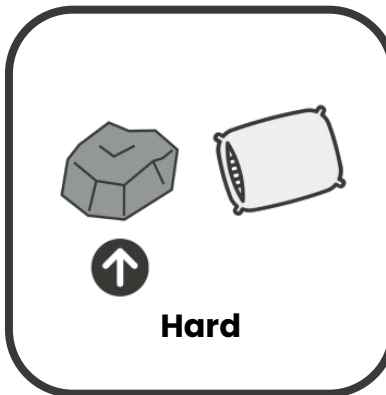
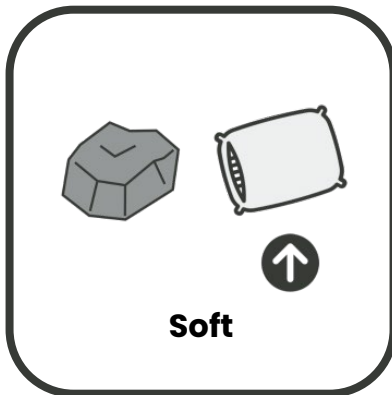
Instruction:

- If children do not yet identify or recognize properties, encourage them to explore the materials with all of their senses. Then label the properties and attributes as children explore.
- Use an animal of interest to engage children.

HOW TO CONTINUE THIS INVESTIGATION:

- Add more challenges. For example, **"How can we keep the dinosaur warm, if it's cold? What material should we use? Why?"**

SUPPORT MATERIALS:





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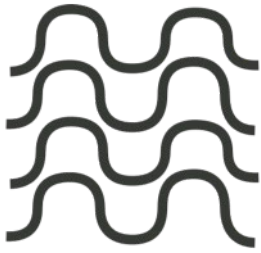
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SUPPORT MATERIALS:

Use the blank ones to make your own!



Bumpy



Smooth/Flat

