

A Chair for Mr. Bear

Can you design a solution for a specific purpose?

ENGAGE

Mr. Bear sat on his chair and it broke. Now, Mr. Bear has nowhere to sit! The students must build a chair that will not break when he sits on it and can support him from falling over. Provide time for students to research different types of chairs before sending them off to build their prototype. Students can begin by sketching their ideas for a chair. Have them label the pieces they think they will be using.

EXPLORE

Students must design and construct a sturdy chair for Mr. Bear (a floppy stuffed animal). The chair must be able to support Mr. Bear from falling out of the chair in any direction (i.e., backwards, forwards, to the left and to the right).

EXPLAIN

When they have finished building, ask students to take turns showing their models and allowing Gather students to start testing their chairs by placing Mr. Bear in it and seeing if it is sturdy. If it breaks or does not support Mr. Bear, they should improve their design and test it a second time.

ELABORATE

Consider how your design would change if Mr. Bear was a different size, shape, or weight. Which one of these attributes would impact the design of the chair the most? What kind of changes would you need to make to your chair design if the size changed? If the shape changed? If the weight changed?

EXTEND

Review the methods of construction for the sturdy chairs. Discuss how people designed their chairs to restrain Mr. Bear from falling over. Consider the real world application of this activity—what kind of chairs have been designed for unique purposes and/or unique people?

