

Engagement:

Ask students about what they learned about their towers when they went to The Discovery.

Exploration:

Ask students to look at and feel all of the objects. Once they have had a chance to inspect all of them, ask them to select the best material for making the following items:

1. Chair
2. Boat
3. Shirt
4. Book

After each object, ask them what were the properties of that material that made it best suited for the job?

Explanation:

Explain that when people who build things, engineers, plan their projects they have to select materials that best fit what they are building. The materials that you used in each of the challenges might have properties that make them better for one type of building over another and as engineers it is our job to look at these.

Extension:

Have students identify materials that have been used in surprising ways. Discuss why the properties were chosen for that job? For example, some dentists are using 3D printers to make teeth out of plastic!

Other Resources:

Iggy Peck, Architect by Andrea Beaty

WCLS Call #: J E BEA

<https://www.amazon.com/Iggy-Peck-Architect-Andrea-Beaty/>

What You Will Need:

Various items and materials with different properties:

i.e. a book, paper towel, straw, piece of metal, piece of wood, cloth, piece of plastic, foil, etc.

Optional book: *Iggy Peck, Architect* by Andrea Beaty



Next Generation Science Standards:

2PS1-2 Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.