

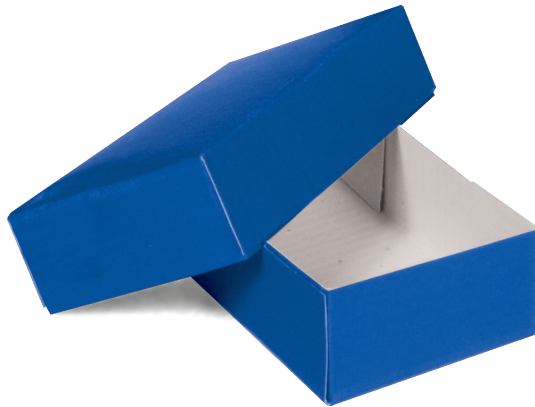
## Packaging Design

Grades 3+ | Students Served: 25

ELEMENTARY

MIDDLE LEVEL

HIGH SCHOOL



### Essential Questions

Does a larger surface area guarantee a larger volume?

What did you do to make sure your package would fit the object provided?

What efficiencies are important for packaging companies to consider in the design of their packaging?

### Career Connections:

- USPS Worker
- Graphic Artist
- Package Design Engineer
- Marketer

### STEM Connections

#### Science

- Materials science
- Force and motion
- Problem solving

#### Technology

- Safety
- Construction techniques
- 3-D modeling

#### Engineering

- Scale and structure
- Modeling
- Technological design

#### Math

- Solid geometry
- Surface area
- Volume



## Sample Activity

### Santa Claus Is Coming to Town! Challenge

The elves have been busy building toys and have run out of time to build the boxes to put them in. They need your help! Design and build boxes to fit the toys. Remember, there's not a lot of room on Santa's sleigh, so the boxes must fit the toys snugly without a lot of extra room. Consider whether the toy is fragile and needs room for extra padding as well. Using the materials provided – card stock, ruler, Super Boxmaker, and glue or tape – construct a box that fits the item you are provided.

### Discussion

How did you determine how much extra room in the package was needed for padding? What is the importance of accurate measurements in this activity?