

Building Bridges

Go to:

<http://www.pbs.org/wgbh/buildingbig/lab/forces.html>

Complete the Forces, Load, Materials, and Shapes Labs.

Answer the questions below for each one.



FORCES:

1. _____ is the force that squeezes a material together.
2. _____ is the force that stretches a material apart.
3. _____ is the action when a straight material becomes curved. One side is compressed and the other is stretched.
4. _____ is the force that causes parts of a material to slide past one another in opposite directions.
5. _____ is an action that twists a material.



LOADS:

1. Forces that act on structures are called _____.
2. The weight of the structure itself is called the _____. It includes _____, _____, and _____.
3. The weight of the stuff on the structure is called the _____. It includes _____ or _____.
4. Other loads that can affect a structure include _____, _____, _____, _____.

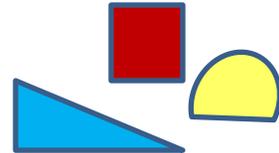
MATERIALS:

1. Which materials cost the most? _____ & _____
2. Which material weighs the least? _____



SHAPES:

1. The shape of a structure affects how _____ it is.
2. Three common shapes used in structures are _____, _____, and _____.
3. You can use a _____ to strengthen a rectangle.
4. Draw a picture and label how you can strengthen an arc.



5. What is the weakest part of a triangle? _____

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Complete the Bridge Challenge: