KEY CONCEPTS

Review with your students before your visit. Students should be familiar with basic lab techniques such as using a microscope and following written lab procedures.

**CIVIL ENGINEER**
A person who designs structures such as roads, bridges and skyscrapers, and supervises their construction and inspection.

**COMPRESSION**
A force that squeezes an object together. Materials in compression tend to become shorter and fatter.

**TENSION**
A force that stretches an object. Materials in tension tend to become longer and thinner.

**SPAN**
The distance a bridge extends between supports.

**LOAD**
The weights and forces acting upon a bridge or structure.

**BEAM BRIDGE**
A horizontal structure with supports at each end.

**TRUSS BRIDGE**
The triangles on a truss bridge allow weight to be evenly spread throughout the bridge, allowing it to be rigid and strong.

**ARCH BRIDGE**
The curved structure of an arch bridge transfers the downward force of the load into an outward force along its sides and base.

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