Program: Skyscrapers workshop

Grade Level: 5 - 8

Group Size: Max. 30

Length: 90-120 minutes

Location: Center for Architecture and Design or on site

Overview
Explore the challenges of building tall in the Pacific Northwest. Youth are introduced to the physics, engineering and design behind skyscrapers and the factors that bring them down, earthquakes and wind. Participants are then challenged to build their own skyscraper.

Big Ideas
• Architects and engineers must consider multiple factors (earthquakes and wind) when designing skyscrapers.
• There are several ways to create a stable skyscraper (foundation, braces, base isolation, and tuned mass damper).

Outcomes
• Define what a skyscraper is.
• Create a model skyscraper that can withstand a mock earthquake.

Vocabulary
• Plate tectonics
• Tuned mass damper
• Subduction Zone
• Brace

Standards Supported
Common Core State Standards (CCSS)
• ELA: Speaking & Listening: CCSS.ELA-Literacy.SL.5.1, CCSS.ELA-Literacy.SL.5.1.b, CCSS.ELA-Literacy.SL.6.1, CCSS.ELA-Literacy.SL.6.1.b, CCSS.ELA-Literacy.SL.7.1, CCSS.ELA-Literacy.SL.8.1

Next Generation Science Standards (NGSS)
• MS-ETS1-1 Engineering Design
• 3-ESS3-1 Earth and Human Activity
21st Century Skills

- Collaboration
- Communication
- Creativity and innovation
- Critical Thinking
- Flexibility

Reservations
For reservations, please call 206-957-1921 or email: info@seattlearchitecture.org