

TowerTest™

Challenge Lesson Directions Overview

Equipment List

- 36 Rainbow® Buckets
- 40 Heavy-Duty Rubber Bands
- 6 Rainbow® Vinyl Balls (3" dia)
- 1 Spool String

Learning Objectives

1. Students work together using communication, creativity, teamwork, and problem solving to complete the tasks given.
2. Students engage in different challenges following the Engineering Design Process.
3. Students modify their designs based on the parameters of the challenge and the principles of forces and motion.

Grade Levels: 3-8

Vocabulary Covered

- Engineering Design Process
- Prototype
- Force
- Stability

Next Generation Science Standards

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|--------------|-------------|
| • 3-5-ETS1-1 | • MS-ETS1-1 |
| • 3-5-ETS1-2 | • MS-ETS1-2 |
| • 3-5-ETS1-3 | • MS-ETS1-3 |
| • 3-PS2-1 | • MS-ETS1-4 |
| • 3-PS2-2 | • MS-PS2-2 |