

# Principles of Engineering

## Power Standards

Students will be able to:

- Understand and apply math and science concepts.

## Power Benchmarks

1. Apply major concepts of engineering/engineering technology.
2. Demonstrate competency in the sketching, technical writing, and formal presentations.
3. Use mechanisms in the designing and developing of a SMET project.
4. Use control systems in the creation of a marble sorter.
5. Demonstrate knowledge of static's by designing and building a bridge.
6. Demonstrate knowledge and terminology of material categories and properties.
7. Compute center of gravity, moment of inertia, stress, strain, deflection, mean, median, mode, and standard deviation.
8. Perform nondestructive and destructive testing on materials.
9. Create a device that applies the principles of linear motion, displacement, velocity and acceleration.
10. Create an organized portfolio of engineering concepts.

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