**Tower Masters Research Worksheet (Gr3-5) Answer Key**

1. **Define:**

**Engineer:** An engineer is a person who applies his or her understanding of science and mathematics to create something to solve a problem that helps people and benefits our world.

**Civil engineer**: A civil engineer is a person who designs buildings as well as bridges, dams and other structures.

1. **Compare and contrast observations:** List features that are common to the world’s tallest towers.

1. Taller towers are larger at the base than at the top.

2. Taller towers have antennas.

3. Taller towers are shaped like triangles rather than rectangles.

1. **What is the engineering design process?**

The **engineering design process** isa series of steps that guides engineers as they design and redesign structures and other inventions without wasting a lot of money, time and materials.

Ask:

Identify needs and constraint

Research the problem

Improve:

Redesign as needed

**Engineering Design Process**

Imagine:

Develop possible solutions

Test and evaluate prototype

Plan:

Select a promising solution

Create:

Build a prototype