1. **What is engineering?**

   Engineering is using science and mathematics to solve problems that improve the world around us.

   *(for the pre-quiz)* For instance, engineers design skateboards, traffic lights, power plants, airplanes, computers, phones, roller coasters, spacecraft, games, materials, skyscrapers, chemicals, medicines, replacement body parts, etc.

   *(for the post-quiz)* Additional examples: Engineers design toasters, robots, light bulbs, air conditioning, surgical tools, software, snowboards, shoes, ships, radar, oil rigs, and nanotechnology and pollution solutions.

2. **List some examples of design challenges.**

   Possible answers are unlimited!

   *(for the pre-quiz)* Examples: designing more energy-efficient cars, bridges to get across rivers, alarm clocks to wake us up, and even software, trips and events!

   *(for the post-quiz)* Examples: designing water treatment plants, highway bridges and tunnels, factory assembly lines, and even vacations and picnics!