

Activity Post-Quiz **Answer Key**

1. Why do engineers use models?

Engineers use models to be able to simplify complex problems, to help them visualize and understand things that are too big or too small to make or see in their real-world sizes, and to test different ideas in controlled environments and sometimes less expensively than at full size.

2. How did this model help you understand algae?

(Answers will vary.) This model helped me understand algae because I could see, feel and taste differences in the structures of the algae cells. Because I could feel the cell wall, I now understand that biological systems engineers view the cell wall as a barrier to things that are easy to digest (juice, akin to oil and starch for biofuels) as well as a fuel source (because I could eat the cell wall, too).

3. How could you make this model more realistic?

(Answers will vary.) Other parts of the algae cell could be better represented. For example, make the juice in the middle more realistic by adding small pieces of fruit, vegetables or candy to represent oil vessels, starch granules and cell organelles.