

## Egg Drop

Initials/number: \_\_\_\_\_

Teacher: \_\_\_\_\_

Date: \_\_\_\_\_

1. A bike helmet protects a bicycle rider's head, and an egg carton keeps an egg from breaking. What are some other ways that people and things are protected from impacts?

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2. Arrange the following elements of the Engineer Process in order and explain your reasoning.

Test  
Define Problem  
Design Solution

Build  
Refine Solution

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3. A "design constraint" is a requirement a design must meet in order to be successful. For example, a well-designed chair is comfortable to sit in. The constraint should not limit the solution to one kind of design. Which of the following would be a good design constraint for a device that protects an egg?

- a. The device must include an egg carton
- b. The device must have room to hold at least one egg.
- c. The device must be brightly colored
- d. The device should bounce when it hits something.