

## Science Practices:

### Systems and System Models

- Models can be used to represent systems and their interactions—such as inputs, processes and outputs—and energy and matter flows within systems.
- Students will be using a model of Newton’s Third law, that demonstrates that there is an equal and opposite force to every reaction. As the amount of force applied by the egg car increase, the equal and opposite force from the wall is also increasing which in turn will break the egg.

## Engineering Practices:

### Constructing Explanations and Designing Solutions

- Constructing explanations and designing solutions in 6–8 builds on K–5 experiences and progresses to include constructing explanations and designing solutions supported by multiple sources of evidence consistent with scientific ideas, principles, and theories.
- Apply scientific ideas or principles to design an object, tool, process or system.
- Students will be designing a solution to minimize the amount of force that is being transferred to the egg from the collision.

## Prior Knowledge:

Students will have completed the motion unit, in which they have studied reference point, measuring motion, and calculating speed. This unit will next unit will focus on forces and Newton’s laws as they are used to describe force.