

Edmore Public School
706 Main St, Edmore, ND 58330

Physical Science Lesson Plan

Dates:

February 19 - 23, 2024

Time and Period:

10:30 - 11:22 AM, Third Period

Performance Standard:

HS-PS3-1

Create a mathematical model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.

HS-PS3-2

Develop and use models to illustrate that energy is associated with motion and relative position of particles (objects).

HS-PS3-3

Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy

Monday, February 19

Topic	Project: Egg Engineering - Planning
Objectives	Apply concepts of momentum, impulse, force and energy in designing a carrier/contraption that will prevent an egg from breaking when dropped from a certain height
Bell Ringer	What reduces the impact forces of a crash?
Procedure / Instructional Delivery	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
Assessment	Project: Egg Engineering Lab Report

Tuesday, February 20

Topic	Project: Egg Engineering - Making
Objectives	Apply concepts of momentum, impulse, force and energy in designing a carrier/contraption that will prevent an egg from breaking when dropped from a certain height
Bell Ringer	How do Newton's Laws of Motion apply to your egg drop project?
Procedure /	Guided Practice, Interactive Discussion, Hands - on / Laboratory

Instructional Delivery	Activity
Assessment	Project: Egg Engineering Lab Report

Wednesday, February 21

Topic	Project: Egg Engineering - Testing
Objectives	Apply concepts of momentum, impulse, force and energy in designing a carrier/contraption that will prevent an egg from breaking when dropped from a certain height
Bell Ringer	Based on the impulse equation, in order for an egg to survive an impact, should the collision take a longer time or a shorter time?
Procedure / Instructional Delivery	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
Assessment	Project: Egg Engineering Lab Report

Thursday, February 22

Topic	Project: Egg Engineering - Completion of Post Lab Report
Objectives	Apply concepts of momentum, impulse, force and energy in designing a carrier/contraption that will prevent an egg from breaking when dropped from a certain height
Bell Ringer	How does reducing speed reduce impact force?
Procedure / Instructional Delivery	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity
Assessment	Project: Egg Engineering - Completion of Post Lab Report

Friday, February 23

Topic	Project: Egg Engineering - Construction of Presentation
Objectives	Apply concepts of momentum, impulse, force and energy in designing a carrier/contraption that will prevent an egg from breaking when dropped from a certain height
Bell Ringer	How is a change in momentum evident in your egg drop?
Procedure / Instructional Delivery	Guided Practice, Interactive Discussion, Hands - on / Laboratory Activity

Assessment

Project: Egg Engineering - Construction of Presentation