

Grade 9, 10

Distance Learning Module 5: Week of: April 27- May 1

Conceptual Physics - Modified from [Unit #1 - Forces and Motion Unit Part 1](#)

Targeted Goals from Stage 1: Desired Results

Content Knowledge: Newton's second law accurately predicts changes in the motion of macroscopic objects.

Vocabulary: mass, weight, buoyancy, buoyant force, density, Newton's Laws of Motion, gravity, acceleration, Isaac Newton, Albert Einstein, hovercraft, friction, Archimedes Principle, Quantum Mechanics, probability

Skills: Students will be able to examine information/data/evidence to make inferences and identify possible underlying assumptions, patterns, and relationships.

Expectation:

| Description of Task (s): | Resources and Materials: | Daily Checks (Return to Google Classroom or snapshots from a cell phone) |
|---|---|--|
| Monday: Students will be able to explain Newton's 3 Laws of Motion and give examples of each kind in daily life | Newton's Laws Sorting Activity | Newton's Laws Exit Slip |
| Tuesday: Students will be able to begin forming ideas about forces and motion and how they interact by observing a Hovercraft in motion. | Hovercraft Demonstration Video What is a Hovercraft Reading and questions #1-6 | Submit Hovercraft Questions in Google Classroom |
| Wednesday: Students will be able to describe how Archimedes Principle explains how the buoyant force of water and density | Phet interactive Buoyancy Activity Phet Interactive Buoyancy/Archimedes | Submit Archimedes Principle Activity to Google Classroom |

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| determines whether a specific object will sink or float | Principle Activity | |
| Thursday: Students will be able to explain how submerging an object in water provides an opposing buoyancy force to gravity by analyzing data of objects suspended in water | Buoyant Force Video Introduction and Data Determining Buoyant Force Lab | Submit Determining Buoyant Force Lab Activity with questions #1-4 attached submitted to Google Classroom |
| Friday: Students will be able to explain advances in the science of physics since the time of Isaac Newton, to Einstein, to the present day. | The Elegant Universe Movie | The Elegant Universe Exit Slip |

Week criteria for success (attach student checklists or rubrics):

Students will submit all work to Google classroom and work will demonstrate effort and completeness

Student work submissions will contain at least a 75% level of content proficiency

Supportive resources and tutorials for the week (plans for re-teaching):

Unit 1 Part 1: Forces Review Guide

Physical Science Concepts in Action Chapter 13.3 Buoyancy Force

Physical Science Concepts in Action Glossary

Newton's Laws Notes