

# Unit 8: Newtons Law

Content Area: **Template**  
Course(s):  
Time Period:  
Length:  
Status: **Published**

## State Mandated Topics Addressed in this Unit

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N/A	N/A

## Unit Name

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## Learning Objectives

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- How do humans take advantage of naturally occurring variation among organisms?
- How do humans use genetic engineering?
- How do scientists study and work with specific genes?
- What are the ethical issues raised by genetic engineering?

## Essential Skills

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- Define the friction force and distinguish between static and kinetic friction.
- Describe how the weight and the mass of an object are related.
- Determine force that produces equilibrium when three forces act on an object.
- Explain interaction pairs of forces and how they are related by Newton's third law
- Explain the meaning of Newton's first law and describe an object in equilibrium.
- Explain the tension in ropes and strings in terms of Newton's third law.
- Recognize Newton's second law of motion and use it to solve motion problems.

## Standards

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SCI.HS-PS2-1

Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration.

## **Instructional Tasks/Activities**

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- • Exit Cards (answer to daily objective questions)
- • Homework
- • Section Review Questions
- • Study Guide Packets
- • Vocabulary flash cards or map (word, picture, sentence, example)
- Common assessment chapter test
- Common assessment quiz
- Constructed response
- Do now's and/or exit slips
- Graphic organizers or models
- Guided practice
- Homework
- Individual, small, and large group work
- Laboratory investigations within small groups
- Review Activity

## **Assessment Procedure**

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- Flashcards and/or drill and practice
- Inquiry based activities with reflective discussion
- Laboratory groups
- Lecture with note taking or guided notes
- Online models and simulators
- Power point presentations
- Whole and small group discussions

## **Recommended Technology Activities**

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- Appropriate Content Specific Online Resource
- Chromebook
- Copy/Paste Content Specific Link Here
- Copy/Paste Content Specific Link Here
- Copy/Paste Content Specific Link Here
- Gimkit
- GoGuardian
- Google Classroom
- Google Docs
- Google Forms

- Google Slides
- Kahoot
- MagicSchool AI
- Other- Specified in Lesson
- Quiziz
- Screencastify

## **Accommodations & Modifications & Differentiation**

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Accommodations and Modifications should be used to meet individual needs. Their IEP and 504 plans should be used in addition to the following suggestions.

## **Gifted and Talented**

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- Compare & Contrast
- Conferencing
- Debates
- Jigsaw
- Peer Partner Learning
- Problem Solving
- Structured Controversy
- Think, Pair, Share
- Tutorial Groups

## **Instruction/Materials**

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- alter format of materials (type/highlight, etc.)
- color code materials
- eliminate answers
- extended time
- extended time
- large print
- modified quiz
- modified test
- Modify Assignments as Needed
- Modify/Repeat/Model directions
- necessary assignments only
- Other (specify in plans)

- other- named in lesson
- provide assistance and cues for transitions
- provide daily assignment list
- read class materials orally
- reduce work load
- shorten assignments
- study guide/outline
- utilize multi-sensory modes to reinforce instruction

## **Environment**

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- alter physical room environment
- assign peer tutors/work buddies/note takers
- assign preferential seating
- individualized instruction/small group
- modify student schedule (Describe)
- other- please specify in plans
- provide desktop list/formula

## **Honors Modifications**

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## **Resources**

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- Resource 1
- Resource 2
- Resource 3
- Resource 4
- Resource 5