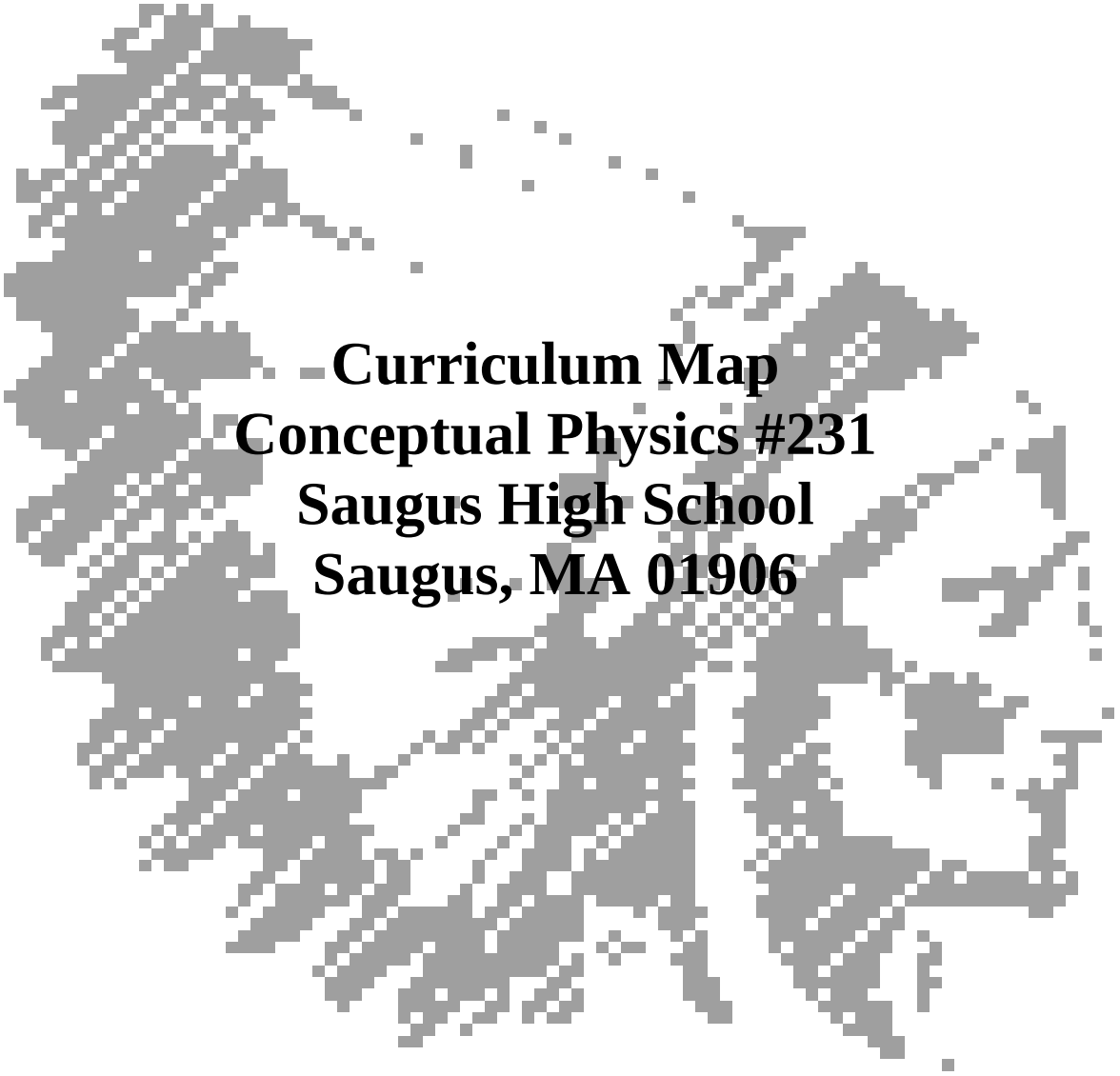

Curriculum Map
Conceptual Physics #231
Saugus High School
Saugus, MA 01906

Week 1

Performance Standards

The students will:

Unit/Topic./Lesson

Introduction
Physics – The Basic Science

Objectives (Students Will...)

- **Explain** why physics is the basic science
- **Outline** scientific methods
- **Distinguish** among observations, facts, hypotheses, laws, and principles
- **Describe** circumstances under which a hypothesis or law must be changed or abandoned
- **Distinguish** between the everyday meaning and the scientific meaning of *theory* and **explain** why the refinement of theories is a strength in science
- **Distinguish** between a hypothesis that is scientific and one that is not
- **Distinguish** between science and technology

Essential Question

What is physics?

Labs/Demonstrations/Handouts

Handout: Syllabus

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 1
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 1 Review
Chapter 1 Problems

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 2

Performance Standards

Physics 1.1 – **Distinguish** between vector quantities (such as displacement, velocity, acceleration, weight, and linear momentum) and scalar quantities (such as distance, speed, energy, mass, and work).

Physics 1.2 – **Distinguish** between displacement, distance, velocity, speed, and acceleration. **Solve** problems involving displacement, distance, velocity, speed, and constant acceleration.

Physics 1.3 – **Create** and **interpret** graphs of 1-dimensional motion, such as position vs. time, distance vs. time, speed vs. time, velocity vs. time, and constant acceleration vs. time

Unit/Topic./Lesson

Linear Motion
Relative motion
Speed
Velocity

Objectives (Students Will...)

Explain the idea that motion is relative
Define speed and **distinguish** between instantaneous speed and average speed
Distinguish between speed and velocity, and **describe** how to tell whether a velocity is changing
Define acceleration and give examples of its units
Describe the motion of free fall
Describe the motion of an object thrown straight up and allowed to fall until it hits the ground
Determine the speed and the distance fallen at any time after an object is dropped from rest, when air resistance is negligible

Essential Question

What is the difference between speed, velocity, and acceleration?

Labs/Demonstrations/Handouts

Lab: Whirligigs
Demos: Free fall

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 2
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 2 Review
Chapter 2 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 2 worksheets
Lab Report

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 3

Performance Standards

Physics 1.1 – **Distinguish** between vector quantities (such as displacement, velocity, acceleration, weight, and linear momentum) and scalar quantities (such as distance, speed, energy, mass, and work).

Physics 1.2 – **Distinguish** between displacement, distance, velocity, speed, and acceleration. **Solve** problems involving displacement, distance, velocity, speed, and constant acceleration.

Physics 1.3 – **Create** and **interpret** graphs of 1-dimensional motion, such as position vs. time, distance vs. time, speed vs. time, velocity vs. time, and constant acceleration vs. time

Unit/Topic./Lesson

Linear Motion
Acceleration
Air resistance

Objectives (Students Will...)

Explain how graphs can be used to describe relationships among time, distance, and speed
Describe how air resistance affects the motion of falling objects
Explain why acceleration is a rate of a rate

Essential Question

What is a vector?

Labs/Demonstrations/Handouts

Lab: How fast?

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 2
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 2 Review
Chapter 2 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 2 worksheets
Lab Report

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 4

Performance Standards

Physics 1.1 – **Distinguish** between vector quantities (such as displacement, velocity, acceleration, weight, and linear momentum) and scalar quantities (such as distance, speed, energy, mass, and work).

Physics 1.2 – **Distinguish** between displacement, distance, velocity, speed, and acceleration. **Solve** problems involving displacement, distance, velocity, speed, and constant acceleration.

Unit/Topic./Lesson

Projectile motion
Vectors
Scalars

Objectives (Students Will...)

Distinguish between a vector quantity and a scalar quantity, and **give** examples of each
Draw vector diagrams for velocities and **use** the parallelogram method to find the resultant of two vectors that have different directions
Given a vector, **resolve** it into horizontal and vertical components

Essential Question

At which point in its path does a projectile have minimum speed?

Labs/Demonstrations/Handouts

Lab: Merrily we roll along
Demos: Projectiles

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 3
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 3 Review
Chapter 3 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 3 worksheets
Lab Report

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 5

Performance Standards

Physics 1.1 – **Distinguish** between vector quantities (such as displacement, velocity, acceleration, weight, and linear momentum) and scalar quantities (such as distance, speed, energy, mass, and work).

Physics 1.2 – **Distinguish** between displacement, distance, velocity, speed, and acceleration. **Solve** problems involving displacement, distance, velocity, speed, and constant acceleration.

Unit/Topic./Lesson

Projectile motion
Parallelogram method (components and resultants)
Satellites

Objectives (Students Will...)

For a projectile, **describe** the changes in the horizontal and vertical components of its velocity, when air resistance is negligible
Explain why a projectile moves equal distances horizontally in equal time intervals, when air resistance is negligible
Describe satellites as fast-moving projectiles

Essential Question

What is a projectile?

Labs/Demonstrations/Handouts

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 3
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 3 Review
Chapter 3 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 3 worksheets
Test: Chapter 2 & 3

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 6

Performance Standards

Physics 1.1 – **Distinguish** between vector quantities (such as displacement, velocity, acceleration, weight, and linear momentum) and scalar quantities (such as distance, speed, energy, mass, and work).

Physics 1.4 – **Demonstrate** an operational understanding of Newton's three laws of motion.

Physics 1.5 – **Use** a free-body force diagram to show forces acting on a system consisting of a pair of interacting objects. For a diagram of only co-linear forces, **determine** the net force acting on a system and between the objects.

Unit/Topic./Lesson

Newton's 1st Law of Motion – Inertia
Galileo – ramps
Inertia
Net force
Equilibrium
Vector addition of forces

Objectives (Students Will...)

Describe Aristotle's concepts of natural and violent motion
Describe Copernicus' idea about Earth's motion
Describe Galileo's contribution to the science of motion
State Newton's first law of motion
Distinguish among mass, volume, and weight, and their units of measurement
Explain how something that is not connected to the ground is able to keep up with the moving Earth
Explain why a clothesline or wire that can easily support an object when strung vertically may break when strung horizontally and supporting the same object
Describe how the angle between vectors affects their resultant vector

Essential Question

What is Newton's first law of motion?

Labs/Demonstrations/Handouts

Demo: Newton's 1st law

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 4
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 4 Review
Chapter 4 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 4 worksheets

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 7

Performance Standards

Physics 1.1 – **Distinguish** between vector quantities (such as displacement, velocity, acceleration, weight, and linear momentum) and scalar quantities (such as distance, speed, energy, mass, and work).

Physics 1.2 – **Distinguish** between displacement, distance, velocity, speed, and acceleration. **Solve** problems involving displacement, distance, velocity, speed, and constant acceleration.

Physics 1.4 – **Demonstrate** an operational understanding of Newton's three laws of motion.

Physics 1.5 – **Use** a free-body force diagram to show forces acting on a system consisting of a pair of interacting objects. For a diagram of only co-linear forces, **determine** the net force acting on a system and between the objects.

Physics 1.6 – **Describe** a simple model for frictional force, including static and kinetic friction

Unit/Topic./Lesson

Newton's 2nd Law of Motion – Force and Acceleration
Force causes acceleration
Mass resists acceleration
Newton's 2nd Law a=F/m
Friction
Pressure
Free fall and Newton's 2nd Law
Falling and air resistance

Objectives (Students Will...)

State the relationship between acceleration and net force
State the relationship between acceleration and mass
State and **explain** Newton's second law of motion
Describe the effect of friction on stationary and on moving objects
Distinguish between force and pressure
Explain why the acceleration of an object in free fall does not depend upon the mass of the object
Describe the effect of air resistance on a falling object

Essential Question

What is Newton's third law of motion?

Labs/Demonstrations/Handouts

Labs: Friction

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 5
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 5 Review
Chapter 5 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 5 worksheets
Lab report

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 8

Performance Standards

Physics 1.1 – **Distinguish** between vector quantities (such as displacement, velocity, acceleration, weight, and linear momentum) and scalar quantities (such as distance, speed, energy, mass, and work).

Physics 1.4 – **Demonstrate** an operational understanding of Newton's three laws of motion.

Physics 1.5 – **Use** a free-body force diagram to show forces acting on a system consisting of a pair of interacting objects. For a diagram of only co-linear forces, **determine** the net force acting on a system and between the objects.

Unit/Topic./Lesson

Newton's 3rd Law of Motions – Action and Reaction
Forces and interactions
Identifying action and reaction (ex: gun, rocket)
Action and reaction cancel?

Objectives (Students Will...)

Define force as part of an interaction
State Newton's third law of motion
Given an action force, **identify** the reaction force
Explain why the acceleration caused by an action force and by a reaction force do not have to be equal
Explain why an action force is not cancelled by the reaction force
Describe the horse-cart problem
Explain why you cannot touch without being touched

Essential Question

What is Newton's third law of motion?

Labs/Demonstrations/Handouts

Demo: Newton's 3rd Law (fan cart)

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 6
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 6 Review
Chapter 6 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 6 worksheets
Test: Chapter 4, 5 & 6

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 9

Performance Standards

Physics 1.1 – **Distinguish** between vector quantities (such as displacement, velocity, acceleration, weight, and linear momentum) and scalar quantities (such as distance, speed, energy, mass, and work).

Physics 2.5 – **Interpret** and provide examples that linear momentum is the product of mass and velocity and can be conserved (law of conservation of momentum). **Calculate** the momentum of an object.

Unit/Topic./Lesson

Momentum
Impulse – large time vs. large force (ex: bungee jump)
Bouncing
Conservation of momentum (ex: gun)
Collisions (elastic/inelastic)

Objectives (Students Will...)

Define momentum
Define impulse and describe how it affects changes in momentum
Explain why an impulse is greater when an object bounces than when the same object comes to a sudden stop
State the law of conservation of momentum
Distinguish between an elastic collision and an inelastic collision
Give an example of how the vector nature of momentum affects the law of conservation of momentum

Essential Question

What is momentum?

Labs/Demonstrations/Handouts

Demo: Collisions

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 7
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 7 Review
Chapter 7 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 7 worksheets

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 10

Performance Standards

Physics 2.1 – **Interpret** and provide examples that illustrate the law of conservation of energy.

Physics 2.2 – **Interpret** and provide examples of how energy can be converted from gravitational potential energy to kinetic energy and vice versa.

Physics 2.3 – **Describe** both conceptually and quantitatively how work can be expressed as a change in mechanical energy.

Physics 2.4 – **Describe** both conceptually and quantitatively the concept of power as work done per unit time.

Unit/Topic./Lesson

Energy
Work
Power
Mechanical energy
Potential energy
Kinetic energy
Conservation of energy
Efficiency

Objectives (Students Will...)

Define and **describe** work
Define and **describe** power
Define mechanical energy
Define potential energy
Define kinetic energy and **describe** the work-energy theorem
State the law of conservation of energy

Essential Question

What is energy?

Labs/Demonstrations/Handouts

Lab: Muscle up
Demo: Simple machines

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 8
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 8 Review
Chapter 8 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 8 worksheets
Lab report

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 11

Performance Standards

Physics 2.1 – **Interpret** and provide examples that illustrate the law of conservation of energy.

Physics 2.2 – **Interpret** and provide examples of how energy can be converted from gravitational potential energy to kinetic energy and vice versa.

Physics 2.3 – **Describe** both conceptually and quantitatively how work can be expressed as a change in mechanical energy.

Physics 2.4 – **Describe** both conceptually and quantitatively the concept of power as work done per unit time.

Unit/Topic./Lesson

Energy
Efficiency

Objectives (Students Will...)

Describe simple machines and mechanical advantage
Explain why no machine can have an efficiency of 100%
Describe the role of energy in living organisms

Essential Question

What are simple machines?

Labs/Demonstrations/Handouts

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 8
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 8 Review
Chapter 8 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 8 worksheets
Test: Chapter 7 & 8

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 12

Performance Standards

Physics 1.8 – Describe conceptually the forces involved in circular motion.

Unit/Topic./Lesson

Circular motion
Rotational speed
Centripetal force
Centrifugal force
Simulated gravity

Objectives (Students Will...)

Distinguish between *rotate* and *revolve*
Describe rotational speed
Give examples of centripetal force
Describe the motion of an object if the centripetal force acting on a string ceases
Explain why centrifugal force is "fictitious"
Describe how a simulated gravitational acceleration can be produced

Essential Question

What type of force causes an object to follow a circular path?

Labs/Demonstrations/Handouts

Lab: Round and Round we go

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 9
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 9 Review
Chapter 9 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 9 worksheets
Lab report

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 13

Performance Standards

Unit/Topic./Lesson

Center of gravity
Center of mass

Objectives (Students Will...)

Describe center of gravity
Describe center of mass
Describe how to find the center of gravity of an irregularly shaped object
Describe how to predict whether an object will topple
Distinguish among stable equilibrium, unstable equilibrium, and neutral equilibrium
Give examples of how people are affected by their centers of gravity

Essential Question

Where is the center of mass in a donut?

Labs/Demonstrations/Handouts

Demo: Toppling, beaker

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 10
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 10 Review
Chapter 10 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 10 worksheets

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 14

Performance Standards

Physics 1.8 – Describe conceptually the forces involved in circular motion.

Physics 2.5 – Interpret and provide examples that linear momentum is the product of mass and velocity and is always conserved (law of conservation of momentum). Calculate the momentum of an object.

Unit/Topic./Lesson

Rotational mechanics
Torque
Balancing torques

Objectives (Students Will...)

Define and **describe** torque
Describe the condition required for one torque to balance another
Given the location of the center of gravity of an object and the position and direction of the forces on it, **tell** whether the forces will produce rotation

Essential Question

What is torque?

Labs/Demonstrations/Handouts

Lab: Torque Feeler activity/Keeping in balance
Demo: Conservation of angular momentum

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 11
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources
-

Assessment Activities

Chapter 11 Review
Chapter 11 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 11 worksheets
Lab report

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 15

Performance Standards

Physics 1.8 – Describe conceptually the forces involved in circular motion.

Physics 2.5 – Interpret and provide examples that linear momentum is the product of mass and velocity and is always conserved (law of conservation of momentum). Calculate the momentum of an object.

Unit/Topic./Lesson

Rotational mechanics
Rotational inertia
Angular momentum

Objectives (Students Will...)

Describe on what the rotational inertia of an object depends
Give examples of how a gymnast changes the rotational inertia of the body in order to change the spin rate (
Define angular momentum and **describe** the conditions under which it (a) remains the same and (b) changes
Give an example in which rotational speed changes but angular momentum does not

Essential Question

What is rotational inertia?

Labs/Demonstrations/Handouts

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 11
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 11 Review
Chapter 11 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 11 worksheets
Test: Chapter 9, 10 & 11

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 16

Performance Standards

Physics 1.7 – Describe Newton's law of universal gravitation in terms of the attraction between two objects, and the distance between them.

Unit/Topic./Lesson

Universal gravitation
Falling apple/moon/earth
Newton's Law of Universal Gravitation
Inverse square law

Objectives (Students Will...)

Explain Newton's idea of why the apple falls to Earth
Explain why the moon does not fall to Earth
Explain how Earth is falling
State Newton's law of universal gravitation
Explain the significance of an inverse-square law
Explain the connection between gravitation and the idea that the universe may stop expanding and begin to contract

Essential Question

What is Newton's law of universal gravitation?

Labs/Demonstrations/Handouts

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 12
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 12 Review
Chapter 12 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 12 worksheets

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 17

Performance Standards

Physics 1.7 – Describe Newton's law of universal gravitation in terms of the attraction between two objects, and the distance between them.

Unit/Topic./Lesson

Gravitational interactions
Gravitational fields
Gravitational field inside a planet (jumping through)
Ocean tides
Black holes

Objectives (Students Will...)

Describe the gravitational field outside Earth
Describe the gravitational field inside Earth
Explain why an astronaut in Earth orbit seems weightless even though there is a gravitational force
Explain ocean tides
Give examples of tides other than those in water
Describe black holes

Essential Question

What is a gravitational field?

Labs/Demonstrations/Handouts

Demo: Weight and weightlessness

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 13
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 13 Review
Chapter 13 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 13 worksheets

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster

Week 18

Performance Standards

Physics 1.7 – Describe Newton's law of universal gravitation in terms of the attraction between two objects, and the distance between them.

Physics 1.8 – Describe conceptually the forces involved in circular motion.

Physics 2.1 –Interpret and provide examples that illustrate the law of conservation of energy.

Physics 2.2 – Interpret and provide examples of how energy can be converted from gravitational potential energy to kinetic energy and vice versa.

Unit/Topic./Lesson

Satellite motion
Earth satellites
Circular orbits
Elliptical orbits
Energy conservation
Escape speed

Objectives (Students Will...)

Explain how the speed of a satellite in circular orbit around Earth is related to the distance an object falls in the first second due to gravity
Explain why the force of gravity does not cause a change in the speed of a satellite in circular orbit
Describe how the speed of a satellite changes in different portions of an elliptical orbit
Apply the law of conservation of energy to **describe** changes in the PE and KE of a satellite in different portions of an elliptical orbit
Determine the vertical speed required to ensure a projectile can "escape" Earth

Essential Question

What is a satellite?

Labs/Demonstrations/Handouts

Teacher Resources

- Hewitt Conceptual Physics (1997) Chapter 14
- Content Outline WS
- Transparency Activity WS
- Enrichment/reinforcement WS

Media Resources

- Power Point Presentations
- Virtual Labs CD-ROM
- Internet labs and resources

Assessment Activities

Chapter 14 Review
Chapter 14 Problems
Plug & Chug, Think &Explain, Think & Solve
Chapter 14 worksheets
Test: Chapter 12, 13 & 14

Completion date:

Completed by:

Comments: ***Alternative Evaluation:***
Paper, Project, Poster