



Fiji Year 11 Physics

EP Curriculum Map

1. Mechanics

1.1 Measurements

Content Learning Outcome	Lessons
P11.1.1 Conduct appropriate experiments and apply the skills and scientific method.	Measuring Length, Volume and Time

1.2 Relationships

Content Learning Outcome	Lessons
P11.1.2 Use elementary algebra in graphical analysis of data with linear and inverse variation.	<i>At this time, we do not cover this content learning outcome.</i>

1.3 Vectors

Content Learning Outcome	Lessons
P11.1.3 Perform vector analysis in one and two dimensions.	<i>At this time, we do not cover this content learning outcome.</i>

1.4 Forces

Content Learning Outcome	Lessons
P11.1.4 Solve problems that involve application of Newton's laws of motion	Weight and Mass Introduction to Forces Balanced and Unbalanced Forces Calculating Net Force Friction as a Force Hooke's Law Lab Activity

1.5 Moments

Content Learning Outcome	Lessons
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P11.1.5 Use principle of moments in applications of the rule to lever and simple equilibrium

[Torque](#)
[The Turning Effect](#)

Investigation: A Lever as a Simple Machine

[Levers](#)
[Student Worksheet PDF](#)
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[Laboratory Technician Guide PDF](#)
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1.6 Kinematics

Content Learning Outcome	Lessons
P11.1.6 Use knowledge and understanding of the basic definitions, concepts, and graphical techniques in the study of uniformly accelerated rectilinear motion.	Speed Acceleration Distance-Time Graphs Speed-Time Graphs

1.7 Projectile Motion

Content Learning Outcome	Lessons
P11.1.7 Apply the idea of simultaneous motion in two dimensions under the action of the constant accelerating force of gravity.	<i>At this time, we do not cover this content learning outcome.</i>

2. Energy

2.1 Work, Power And Energy

Content Learning Outcome	Lessons
P11.2.1 Use basic concepts of work, energy and power in applications of the law of conservation of energy to real life examples.	Investigating Work in Everyday Activities Energy, Work, and Power Energy Calculations Investigation: Energy in Skate Parks Investigation - Energy in Skate Parks Student Worksheet PDF Lab Report Material PDF Teacher Guide PDF Editable Documents - Word (.docx)

2.2 Alternative Energy Sources



Content Learning Outcome	Lessons
P11.2.2 Describe several energy sources, distinguishing between renewable and non-renewable sources of energy and assess the needs, benefits, distribution, pollution, and cost associated with society's use of energy.	Sources of Energy Fossil Fuels as a Resource Solar Energy Wind Turbines Water Power The Enhanced Greenhouse Effect

3. Fluid Statics

3.1 Density

Content Learning Outcome	Lessons
P11.3.1 Apply the concept of density to floating and sinking. Apply knowledge and understanding of the basic properties of fluid at rest.	Density

3.2 Pressure

Content Learning Outcome	Lessons
P11.3.2 Describe the basic principles of pressure and use these principles to solve practical problems.	Pressure Pressure and Thermal Expansion

4. Heat Energy

4.1 Temperature

Content Learning Outcome	Lessons
P11.4.1 Explain how a physical property which varies with temperature may be used for the measurement of temperature and state examples of such properties.	Measurement of Temperature

4.2 Heat

Content Learning Outcome	Lessons
P11.4.2 Apply knowledge of heat as a form of energy and its effects on matters	Conduction Convection Radiation Consequences of Energy Transfer



4.3 Expansion Of Matter

Content Learning Outcome	Lessons
P11.4.3 Explain some of the everyday applications and consequences of thermal expansion.	Simple Kinetic Model Solids Liquids Gases

4.4 Change Of States

Content Learning Outcome	Lessons
P11.4.4 Show understanding of the relationship between state of matter and energy.	Changing State

5. Light

5.1 Rays And Reflections

Content Learning Outcome	Lessons
P11.5.1 Show understanding of the phenomena of rectilinear propagation and reflection of light and their applications.	Light Comparing Shadows Analyzing Technology that Uses Properties of Light Plane Mirrors and Reflection Curved Mirrors Ray Diagrams Investigation: Laws of Reflection Law of Reflection Student Worksheet PDF Lab Report Material PDF Teacher Guide PDF Laboratory Technician Guide PDF Editable Documents - Word (.docx)

5.2 Refractions

Content Learning Outcome	Lessons
P11.5.2 Show understanding of the phenomena of refraction, and dispersion of light and their applications.	Refraction Snell's Law Lenses Drawing Ray Diagrams Light in Natural Phenomena



[Bionic Eyes](#)

Investigation: Refraction

[Refraction](#)

[Student Worksheet PDF](#)

[Lab Report Material PDF](#)

[Teacher Guide PDF](#)

[Laboratory Technician Guide PDF](#)

[Editable Documents - Word \(.docx\)](#)

6. Waves

6.1 Wave

Content Learning Outcome	Lessons
P11.6.1 Solve problems relating to waves and explain physical phenomena, concepts and principles relating to waves	Introduction to Waves Transverse and Longitudinal Waves Light as a Wave Colour

6.2 Sound Waves

Content Learning Outcome	Lessons
P11.6.2 Show understanding of how sound wave in air is reflected.	Sound

7. Electrostatics

7.1 Charge

Content Learning Outcome	Lessons
P11.7.1 Learn and apply the concepts of electrostatic charge.	Static Charge Electric Charge Static Electricity Investigation: Static Electricity Static Electricity Student Worksheet PDF Teacher Guide PDF Laboratory Technician Guide PDF Editable Documents - Word (.docx)



7.2 Electric Field

Content Learning Outcome	Lessons
P11.7.2 Apply knowledge and develop skills in the concept of electric fields	<i>At this time, we do not cover this content learning outcome.</i>

8. Current Electricity

8.1 Electricity

Content Learning Outcome	Lessons
P11.8.1 Apply Ohm's Law and to show understanding of the nature of electric current to simple electric circuits.	Electricity Electrical Conductors and Insulators Circuits in Series Circuits in Parallel Class Experiment: Designing Simple Circuits Investigation: Ohm's Law Ohm's Law Student Worksheet PDF Lab Report Material PDF Teacher Guide PDF Laboratory Technician Guide PDF Editable Documents - Word (.docx)

8.2 Domestic Electricity

Content Learning Outcome	Lessons
P11.8.2 Apply knowledge about electricity consumption of common appliances found at home.	Determining Energy Consumption of Appliances Investigate Electricity Consumption Data Dangers of Electricity

9. Electromagnetism

9.1 Magnetic Substances

Content Learning Outcome	Lessons
P11.9.1 Show understanding of properties of Magnetic Substances.	Magnetism Magnetic Fields



9.2 Magnetism

Content Learning Outcome	Lessons
P11.9.2 Demonstrate understanding of magnetism and field created by magnets.	Examples of Magnetic Fields Activity: Building an Electromagnet Building an Electromagnet Student Worksheet PDF Lab Report Material PDF Teacher Guide PDF Editable Documents - Word (.docx) Laboratory Technician Guide PDF

9.3 Motor Effect

Content Learning Outcome	Lessons
P11.9.3 Explain how a current-carrying conductor in a magnetic field experiences a force and its application.	Electromagnetic Effects Motors

9.4 Electromagnetic Induction

Content Learning Outcome	Lessons
P11.9.4 Shows that a changing magnetic field can induce an e.m.f. in a circuit.	Electromagnetic Induction Generators Alternating Current