



World Vision Academy Physics 11-12

Curriculum Overview

Physics 11	<p>Physics 11 explores the world of motion and energy. It is designed to build students' knowledge of core physics concepts. The course focuses on four big ideas. An object's motion can be predicted, analyzed and described. Forces influence the motion of an object. Energy is found in different forms, is conserved, and has the ability to do work. Mechanical waves transfer energy but not matter. Physics 11 emphasizes real-life applications and helps students connect their learning to the world around them.</p> <p>Big Ideas:</p> <ul style="list-style-type: none">• Unit 1: Predicting, analyzing and describing motion• Unit 2: Forces influence the motion of an object• Unit 3: Properties and forms of energy• Unit 4: Properties and interaction of waves
Physics 12	<p>Physics 12 explores the world of motion and fields. It is designed to build on the knowledge the student gained in physics 11. The course focuses on four big ideas. Measurements of motion depends on our frame of reference. Forces can cause linear and circular motion. Momentum is conserved within a closed isolated system. Forces and energy interactions occur within fields. Physics 12 emphasizes real-life applications and helps students connect their learning to the world around them</p> <p>Big Ideas:</p> <ul style="list-style-type: none">• Unit 1: Relative motion and Einstein's theory of relativity• Unit 2: Properties of forces and factors that affect them• Unit 3: Momentum, impulses and their effects on objects• Unit 4: Introduction to gravitational, electric, magnetic and electromagnetic fields

Students develop and strengthen essential transferable skills by going through physics courses. Students should reflect on their learning progress with guidance from their parents.