

Science Standards: Physics

Any standard highlighted in yellow has been determined by our WCSd teachers, district and state content experts as essential for students to master.			
Standard 1 Students will understand how to measure, calculate, and describe the motion of an object in terms of position, time, velocity, and acceleration.			
Refer to PWT CFA Learning Targets	Academic Vocabulary displacement, distance, delta, speed, velocity, frame of reference, direction or compass, magnitude, position, time, momentum, mass, impulse, instantaneous, acceleration, units (i.e. Standard & SI)	Questions Stems How does position affect energy?	Possible Assessments Currently we have common question stems stored in our District Schoology account. We are in process of moving the stems into PS Learning.
Standard 2 Students will understand the relation between force, mass, and acceleration.			
Learning Targets Refer to PWT CFA Learning Targets	Academic Vocabulary force, free-body diagram, vector diagram, normal force, weight, gravity force, applied force, friction force, elastic force, tension, compression, air resistance, drag, buoyant force, free fall, g, units (i.e. Standard & SI)	Questions Stems Explain how an increase in friction affects speed.	Possible Assessments Currently we have common question stems stored in our District Schoology account. We are in process of moving the stems into PS Learning.
Standard 3 Students will determine both the voltage and current in electrical circuits.			
Learning Targets Refer to PWT CFA Learning Targets	Academic Vocabulary voltage, current, resistance, series circuit, parallel circuit, amperage, multimeter, power, ohm's law, charge, electron, direct current, alternating current	Questions Stems what is an electrons role in electricity?	Possible Assessments Currently we have common question stems stored in our District Schoology account. We are in process of moving the stems into PS Learning.
Standard 4 Students will calculate and report both energy and efficiency of a system.			

<p><u>Learning Targets</u></p> <p>Refer to PWT CFA Learning Targets</p>	<p><u>Academic Vocabulary</u></p> <p>energy, kinetic energy, gravitational potential energy, elastic potential energy, work, conservation, efficiency, work-energy theorem, transformation, spring constant</p>	<p><u>Questions Stems</u></p> <p>What does work mean?</p>	<p><u>Possible Assessments</u></p> <p>Currently we have common question stems stored in our District Schoology account. We are in process of moving the stems into PS Learning.</p>
<p>Standard 5 Students observe, analyze, and report characteristics of waves.</p>			
<p><u>Learning Targets</u></p> <p>Refer to PWT CFA Learning Targets</p>	<p><u>Academic Vocabulary</u></p> <p>wave, period, frequency, wavelength, amplitude, oscilloscope, voltage, voltage drop, electromagnetic radiation, Doppler effect, red/blue shift, resonance, phase</p>	<p><u>Questions Stems</u></p> <p>How is the Doppler effect used for weather?</p>	<p><u>Possible Assessments</u></p> <p>Currently we have common question stems stored in our District Schoology account. We are in process of moving the stems into PS Learning.</p>
<p>Standard 6 Students will measure changes in thermal properties (heating and cooling).</p>			
<p><u>Learning Targets</u></p> <p>Refer to PWT CFA Learning Targets</p>	<p><u>Academic Vocabulary</u></p> <p>conduction, convection, radiation, heat, melting, boiling, heat flow, thermometer, specific heat, Kelvin, Celsius, Fahrenheit, absolute zero, internal energy, solid, liquid, gas, plasma,</p>	<p><u>Question Stems</u></p> <p>How does temperature affect matter?</p>	<p><u>Possible Assessments</u></p> <p>Currently we have common question stems stored in our District Schoology account. We are in process of moving the stems into PS Learning.</p>