



Physics Semester 2 Final Assessment Blueprint

Year: 2024-2025

Method of Delivery: Online

Subject: Science

Test Window May 12-22

Resources

[Physics Curriculum Map](#)

Standards At-A Glance

Standard	Number of Items	Standard Description
HS.P4U1.10	2	Construct an explanation about the relationships among the frequency, wavelength, and speed of waves traveling in various media, and their applications to modern technology.
SCI.9-12.HS.P2U1.5	1	Construct an explanation for a field's strength and influence on an object (electric, gravitational, magnetic).
SCI.9-12.HS.P4U1.8	3	Engage in argument from evidence that the net change of energy in a system is always equal to the total energy exchanged between the system and the surroundings.
SCI.9-12.HS+C.P1U1.6	1	Construct an explanation, design a solution, or refine the design of a chemical system in equilibrium to maximize production.
SCI.9-12.HS+Phy.P3U1.2	1	Develop and use mathematical models of Newton's law of gravitation and Coulomb's law to describe and predict the gravitational and electrostatic forces between objects.
SCI.9-12.HS+Phy.P3U1.4	2	Engage in argument from evidence regarding the claim that the total momentum of a system is conserved when there is no net force on the system.
SCI.9-12.HS+Phy.P4U1.6	3	Analyze and interpret data to quantitatively describe changes in energy within a system and/or energy flows in and out of a system.
SCI.9-12.HS+Phy.P4U1.8	1	Use mathematics and computational thinking to explain the relationships between power, current, voltage, and resistance.
SCI.9-12.HS-PS2-2	4	Use mathematical representations to support the claim that the total momentum of a system of objects is conserved when there is no net force on the system.
SCI.9-12.HS-PS2-4	6	Use mathematical representations of Newton's Law of Gravitation and Coulomb's Law to describe and predict the gravitational and electrostatic forces between objects.
SCI.9-12.HS-PS3-1	3	Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.
SCI.9-12.HS-PS3-5	3	Develop and use a model of two objects interacting through electric or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction.

* Some items are tagged to more than one standard.

Depth of Knowledge

DOK	Number of Items
Level 1: Recall	5
Level 2: Skill/Concept	22
Level 3: Strategic Thinking	3

Item Types Included

Type	Number of Items	Description
IC	2	Inline Choice - Select the correct response from one or more dropdown menus within the question
MC	28	Multiple Choice - Select one answer