

Pro-Core Science Blueprints 2022–23
No Changes from 2021–22

Science Grade 2 (33 Total Points – 7 Anchor Questions)

Domain	Pro-Core Code	Ohio Content Statement	Number of Points	
			Standard	Domain
Earth and Space Science	1	2.ESS.1 The atmosphere is primarily made up of air.	3 – 4*	10 (33.3%)**
	2	2.ESS.2 Water is present in the atmosphere.	3 – 4*	
	3	2.ESS.3 Long- and short-term weather changes occur due to changes in energy.	3 – 4*	
Physical Science	4	2.PS.1 Forces change the motion of an object.	10	10 (33.3%)**
Life Science	5	2.LS.1 Living things cause changes on Earth.	4 – 6*	10 (33.3%)**
	6	2.LS.2 All organisms alive today result from their ancestors, some of which may be extinct. Not all kinds of organisms that lived in the past are represented by living organisms today.	4 – 6*	
Pre-Requisite	7	Pre-Requisite Content (1 ESS, 1 PS, 1 LS) Click here for more details about the Pre-Requisite Standards for Grade 2.	3	3 (9.1%)***

*Ranges leave flexibility for 2-point questions. The total number of points for the Topic should equal the number indicated.

**% of grade level material

***% of total test

DoK/CD Goals for each test (Matches State %)

T	0 – 5 points (~0 – 15% total)
D	4 – 8 points (~10 – 25% total)
C	10 – 17 points (~30 – 50%)
R	8 – 14 points (~25 – 40%)

Goals for difficulty ranges (p-value) for Form C

0.10 – 0.19	1 – 3 points (~ 5%)
0.20 – 0.29	2 – 5 points (~10%)
0.30 – 0.39	3 – 7 points (~15%)
0.40 – 0.49	5 – 8 points (~20%)
0.50 – 0.59	5 – 8 points (~20%)
0.60 – 0.69	3 – 7 points (~15%)
0.70 – 0.79	2 – 5 points (~10%)
0.80 – 0.89	1 – 3 points (~ 5%)

Question Type Goals for each test

Multiple Choice	Not more than 20 points (60%)
Technology Enhanced	At least 14 points (40%)

Pro-Core Science Blueprints 2022–23

No Changes from 2021–22

Science Grade 3 (33 Total Points – 7 Anchor Questions)

Domain	Pro-Core Code	Ohio Content Statement	Number of Points	
			Standard	Domain
Earth and Space Science	1	3.ESS.1 Earth’s nonliving resources have specific properties.	3 – 4*	10 (33.3%)**
	2	3.ESS.2 Earth’s resources can be used for energy.	3 – 4*	
	3	3.ESS.3 Some of Earth’s resources are limited.	3 – 4*	
Physical Science	4	3.PS.1 All objects and substances in the natural world are composed of matter.	3 – 4*	10 (33.3%)**
	5	3.PS.2 Matter exists in different states, each of which has different properties.	3 – 4*	
	6	3.PS.3 Heat, electrical energy, light, sound and magnetic energy are forms of energy.	3 – 4*	
Life Science	7	3.LS.1 Offspring resemble their parents and each other.	3 – 4*	10 (33.3%)**
	8	3.LS.2 Individuals of the same kind differ in their inherited traits. These differences give some individuals an advantage in surviving and/or reproducing.	3 – 4*	
	9	3.LS.3 Plants and animals have life cycles that are part of their adaptations for survival in their natural environment.	3 – 4*	
Pre-Requisite	10	Pre-Requisite Content (1 ESS, 1 PS, 1LS). Click here for more details about the Pre-Requisite Standards for Grade 3.	3	3 (9.1)***
Form A Only	Grade 2 Anchors	These questions allow psychometric comparisons with the prior year to help inform growth measures. They are not included in students’ scores.	7	7 (21%)

*Ranges leave flexibility for 2-point questions. The total number of points for the Topic should equal the number indicated.

** % of grade level material

***% of total test

DoK/CD Goals for each test (Matches State %)

T	0 – 5 points (~0 – 15% total)
D	4 – 8 points (~10 – 25% total)
C	10 – 17 points (~30 – 50% total)
R	8 – 14 points (~25 – 40% total)

Goals for difficulty ranges (p-value) for Form C

0.10 – 0.19	1 – 3 points (~ 5%)
0.20 – 0.29	2 – 5 points (~10%)
0.30 – 0.39	3 – 7 points (~15%)
0.40 – 0.49	5 – 8 points (~20%)
0.50 – 0.59	5 – 8 points (~20%)
0.60 – 0.69	3 – 7 points (~15%)
0.70 – 0.79	2 – 5 points (~10%)
0.80 – 0.89	1 – 3 points (~ 5%)

Question Type Goals for each test

Multiple Choice	Not more than 20 points (60%)
Technology Enhanced	At least 14 points (40%)

Pro-Core Science Blueprints 2022–23

No Changes from 2021–22

Science Grade 4 (33 Total Points – 7 Anchor Questions)

Domain	Pro-Core Code	Ohio Content Statement	Number of Points	
			Standard	Domain
Earth and Space Science	1	4.ESS.1 Earth’s surface has specific characteristics and landforms that can be identified.	3 – 4*	10 (33.3%)**
	2	4.ESS.2 The surface of Earth changes due to weathering.	3 – 4*	
	3	4.ESS.3 The surface of Earth changes due to erosion and deposition.	3 – 4*	
Physical Science	4	4.PS.1 When an object is broken into smaller pieces, when a solid is dissolved in a liquid, or when matter changes state (solid, liquid, gas), the total amount of matter remains constant.	4 – 6*	10 (33.3%)**
	5	4.PS.2 Energy can be transferred from one location to another or can be transformed from one form to another.	4 – 6*	
Life Science	6	4.LS.1 Changes in an organism’s environment are sometimes beneficial to its survival and sometimes harmful.	4 – 6*	10 (33.3%)**
	7	4.LS.2 Fossils can be compared to one another and to present day organisms according to their similarities and differences.	4 – 6*	
Pre-Requisite	8	Pre-Requisite Content (1 ESS, 1 PS, 1LS). Click here for more details about the Pre-Requisite Standards for Grade 4.	3	3 (9.1%)**
Form A Only	Grade 3 Anchors	These questions allow psychometric comparisons with the prior year to help inform growth measures. They are not included in students’ scores.	7	7 (21%)

*Ranges leave flexibility for 2-point questions. The total number of points for the Topic should equal the number indicated.

** % of grade level material

***% of total test

DoK/CD Goals for each test (Matches State %)

T	0 – 5 points (~0 – 15% total)
D	4 – 8 points (~10 – 25% total)
C	10 – 17 points (~30 – 50% total)
R	8 – 14 points (~25 – 40% total)

Goals for difficulty ranges (p-value) for Form C

0.10 – 0.19	1 – 3 points (~ 5%)
0.20 – 0.29	2 – 5 points (~10%)
0.30 – 0.39	3 – 7 points (~15%)
0.40 – 0.49	5 – 8 points (~20%)
0.50 – 0.59	5 – 8 points (~20%)
0.60 – 0.69	3 – 7 points (~15%)
0.70 – 0.79	2 – 5 points (~10%)
0.80 – 0.89	1 – 3 points (~ 5%)

Question Type Goals for each test

Multiple Choice	Not more than 20 points (60%)
Technology Enhanced	At least 14 points (40%)

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No Changes from 2021–22

Science Grade 5 (33 Total Points – 7 Anchor Questions)

Domain	Pro-Core Code	Ohio Content Statement	Number of Points		State Points (56 Total)
			Standard	Domain	
Earth and Space Science	1	5.ESS.1 The solar system includes the sun and all celestial bodies that orbit the sun. Each planet in the solar system has unique characteristics.	2 – 3*	8 (26.7%)	15 – 17 (25% – 32%)
	2	5.ESS.2 The sun is one of many stars that exist in the universe.	2 – 3*		
	3	5.ESS.3 Most of the cycles and patterns of motion between Earth and the sun are predictable.	2 – 3*		
Physical Science	4	5.PS.1 The amount of change in movement of an object is based on the mass of the object and the amount of force exerted.	5 – 6*	11 (36.7%)	19 – 21 (32% – 40%)
	5	5.PS.2 Light and sound are forms of energy that behave in predictable ways.	5 – 6*		
Life Science	6	5.LS.1 Organisms perform a variety of roles in an ecosystem.	5 – 6*	11 (36.7%)	19 – 21 (32% – 40%)
	7	5.LS.2 All of the processes that take place within organisms require energy.	5 – 6*		
Pre-Requisite	8	Pre-Requisite Content (1 ESS, 1 PS, 1LS). Click here for more details about the Pre-Requisite Standards for Grade 5.	3	3 (9.1%)**	No Pre-Requisite Questions on the State Test
Form A Only	Grade 4 Anchors	These questions allow psychometric comparisons with the prior year to help inform growth measures. They are not included in students' scores.	7	7 (21%)	

*Ranges leave flexibility for 2-point questions. The total number of points for the Topic should equal the number indicated.
 ** % of grade level material
 ***% of total test

DoK/CD Goals for each test (Matches State %)

T	0 – 5 points (~0 – 15% total)
D	4 – 8 points (~10 – 25% total)
C	10 – 17 points (~30 – 50% total)
R	8 – 14 points (~25 – 40% total)

Goals for difficulty ranges (p-value) for Form C

0.10 – 0.19	1 – 3 points (~ 5%)
0.20 – 0.29	2 – 5 points (~10%)
0.30 – 0.39	3 – 7 points (~15%)
0.40 – 0.49	5 – 8 points (~20%)
0.50 – 0.59	5 – 8 points (~20%)
0.60 – 0.69	3 – 7 points (~15%)
0.70 – 0.79	2 – 5 points (~10%)
0.80 – 0.89	1 – 3 points (~ 5%)

Question Type Goals for each test

Multiple Choice	Not more than 20 points (60%)
Technology Enhanced	At least 14 points (40%)

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No Changes from 2021–22

Science Grade 6 (33 Total Points – 7 Anchor Questions)

Domain	Pro-Core Code	Ohio Content Statement/Standard	Number of Points	
			Standard	Domain
Earth and Space Science	1	6.ESS.1 Minerals have specific, quantifiable properties.	2 – 3*	10 (33.3%)**
	2	6.ESS.2 Igneous, metamorphic and sedimentary rocks have unique characteristics that can be used for identification and/or classification.	2 – 3*	
	3	6.ESS.3 Igneous, metamorphic and sedimentary rocks form in different ways.	2 – 3*	
	4	6.ESS.4 Soil is unconsolidated material that contains nutrient matter and weathered rock.	2 – 3*	
	5	6.ESS.5 Rocks, minerals and soils have common and practical uses.	1 – 2*	
Physical Science	6	6.PS.1 All matter is made up of small particles called atoms.	2 – 3*	10 (33.3%)**
	7	6.PS.2 Changes of state are explained by a model of matter composed of particles that are in motion.	2 – 3*	
	8	6.PS.3 There are two categories of energy: kinetic and potential.	2 – 3*	
	9	6.PS.4 An object’s motion can be described by its speed and the direction in which it is moving.	2 – 3*	
Life Science	10	6.LS.1 Cells are the fundamental unit of life.	2 – 3*	10 (33.3%)**
	11	6.LS.2 All cells come from pre-existing cells.	2 – 3*	
	12	6.LS.3 Cells carry on specific functions that sustain life.	2 – 3*	
	13	6.LS.4 Living systems at all levels of organization demonstrate the complementary nature of structure and function.	2 – 3*	
Pre-Requisite	14	Pre-Requisite Content (1 ESS, 1 PS, 1 LS). Click here for more details about the Pre-Requisite Standards for Grade 6.	3	3 (9.1%***)
Form A Only	Grade 5 Anchors	These questions allow psychometric comparisons with the prior year to help inform growth measures. They are not included in students’ scores.	7	7 (21%)

*Ranges leave flexibility for 2-point questions. The total number of points for the Domain should equal the number indicated.

** % of grade level material

***% of total test

DoK/CD Goals for each test (Matches State %)

T	0 – 5 points (~0 – 15% total)
D	4 – 8 points (~10 – 25% total)
C	10 – 17 points (~30 – 50% total)
R	8 – 14 points (~25 – 40% total)

Goals for difficulty ranges (p-value) for Form C

0.10 – 0.19	1 – 3 points (~ 5%)
0.20 – 0.29	2 – 5 points (~10%)
0.30 – 0.39	3 – 7 points (~15%)
0.40 – 0.49	5 – 8 points (~20%)
0.50 – 0.59	5 – 8 points (~20%)
0.60 – 0.69	3 – 7 points (~15%)
0.70 – 0.79	2 – 5 points (~10%)
0.80 – 0.89	1 – 3 points (~ 5%)

Question Type Goals for each test

Multiple Choice	Not more than 20 points (60%)
Technology Enhanced	At least 14 points (40%)

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No Changes from 2021–22

Science Grade 7 (33 Total Points – 7 Anchor Questions)

Domain	Pro-Core Code	Ohio Content Statement	Number of Points	
			Standard	Domain
Earth and Space Science	1	7.ESS.1 The hydrologic cycle illustrates the changing states of water as it moves through the lithosphere, biosphere, hydrosphere, and atmosphere.	1 – 3*	10 (33.3%)**
	2	7.ESS.2 Thermal energy transfers in the ocean and the atmosphere contribute to the formation of currents, which influence global climate patterns.	1 – 3*	
	3	7.ESS.3 The atmosphere has different properties at different elevations and contains a mixture of gases that cycle through the lithosphere, biosphere, hydrosphere and atmosphere.	1 – 3*	
	4	7.ESS.4 The relative patterns of motion and positions of Earth, the moon and the sun cause solar and lunar eclipses, tides and phases of the moon.	1 – 3*	
	5	7.ESS.5 The relative positions of Earth and the sun cause patterns we call seasons	1 – 3*	
Physical Science	6	7.PS.1 Elements can be organized by properties.	2 – 3*	10 (33.3%)**
	7	7.PS.2 Matter can be separated or changed, but in a closed system, the number and types of atoms remains constant.	2 – 3*	
	8	7.PS.3 Energy can be transformed or transferred but is never lost.	2 – 3*	
	9	7.PS.4 Energy can be transferred through a variety of ways.	2 – 4*	
Life Science	10	7.LS.1 Energy flows and matter is transferred continuously between one organism to another and between organisms and their physical environments.	4 – 6*	10 (33.3%)**
	11	7.LS.2 In any particular biome, the number, growth and survival of organisms and populations depend on biotic and abiotic factors.	4 – 6*	
Pre-Requisite	12	Pre-Requisite Content (1 ESS, 1 PS, 1LS). Click here for more details about the Pre-Requisite Standards for Grade 7.	3	3 (9.1%)***
Form A Only	Grade 6 Anchors	These questions allow psychometric comparisons with the prior year to help inform growth measures. They are not included in students' scores.	7	7 (21%)

*Ranges leave flexibility for 2-point questions. The total number of points for the Topic should equal the number indicated.

** % of grade level material

***% of total test

DoK/CD Goals for each test (Matches State %)

T	0 – 5 points (~0 – 15% total)
D	4 – 8 points (~10 – 25% total)
C	10 – 17 points (~30 – 50% total)
R	8 – 14 points (~25 – 40% total)

Goals for difficulty ranges (p-value) for Form C

0.10 – 0.19	1 – 3 points (~ 5%)
0.20 – 0.29	2 – 5 points (~10%)
0.30 – 0.39	3 – 7 points (~15%)
0.40 – 0.49	5 – 8 points (~20%)
0.50 – 0.59	5 – 8 points (~20%)
0.60 – 0.69	3 – 7 points (~15%)
0.70 – 0.79	2 – 5 points (~10%)
0.80 – 0.89	1 – 3 points (~ 5%)

Question Type Goals for each test

Multiple Choice	Not more than 20 points (60%)
Technology Enhanced	At least 14 points (40%)

Pro-Core Science Blueprints 2022–23

No Changes from 2021–22

Science Grade 8 (33 Total Points – 7 Anchor Questions)

Domain	Pro-Core Code	Ohio Content Statement	Number of Points		State Points (56 Total)
			Standard	Domain	
Earth and Space Science	1	8.ESS.1 The composition and properties of Earth’s interior are identified by the behavior of seismic waves.	2 – 4*	12 (40%)*	21 – 23 (38% – 43%)
	2	8.ESS.2 Earth’s lithosphere consists of major and minor tectonic plates that move relative to each other.	2 – 4*		
	3	8.ESS.3 A combination of constructive and destructive geologic processes formed Earth’s surface.	2 – 4*		
	4	8.ESS.4 Evidence of the dynamic changes of Earth’s surface through time is found in the geologic record.	2 – 4*		
Physical Science	5	8.PS.1 Objects can experience a force due to an external field such as magnetic, electrostatic, or gravitational fields.	4 – 5*	9 (30%)	16 – 18 (29% – 33%)
	6	8.PS.2 Forces can act to change the motion of objects.	4 – 5*		
Life Science	7	8.LS.1 Diversity of species, a result of variation of traits, occurs through the process of evolution and extinction over many generations. The fossil records provide evidence that changes have occurred in number and types of species.	2 – 4*	9 (30%)	16 – 18 (29% – 33%)
	8	8.LS.2 Every organism alive today comes from a long line of ancestors who reproduced successfully every generation.	2 – 4*		
	9	8.LS.3 The characteristics of an organism are a result of inherited traits received from parent(s).	2 – 4*		
Pre-Requisite	10	Pre-Requisite Content (1 ESS, 1 PS, 1LS). Click here for more details about the Pre-Requisite Standards for Grade 8.	3	3 (9.1%)* **	No Pre-Requisite Questions on the State Test
Form A Only	Grade 7 Anchors	These questions allow psychometric comparisons with the prior year to help inform growth measures. They are not included in students’ scores.	7	7 (21%)	

*Ranges leave flexibility for 2-point questions. The total number of points for the Topic should equal the number indicated.

** % of grade level material

***% of total test

DoK/CD Goals for each test (Matches State %)

T	0 – 5 points (~0 – 15% total)
D	4 – 8 points (~10 – 25% total)
C	10 – 17 points (~30 – 50% total)
R	8 – 14 points (~25 – 40% total)

Goals for difficulty ranges (p-value) for Form C

0.10 – 0.19	1 – 3 points (~ 5%)
0.20 – 0.29	2 – 5 points (~10%)
0.30 – 0.39	3 – 7 points (~15%)
0.40 – 0.49	5 – 8 points (~20%)
0.50 – 0.59	5 – 8 points (~20%)
0.60 – 0.69	3 – 7 points (~15%)
0.70 – 0.79	2 – 5 points (~10%)
0.80 – 0.89	1 – 3 points (~ 5%)

Question Type Goals for each test

Multiple Choice	Not more than 20 points (60%)
Technology Enhanced	At least 14 points (40%)

Pro-Core Science Blueprints 2022–23

No Changes from 2021–22

High School Physical Science (40 Total Points – 8 Anchor Questions)

Topic	Pro-Core Code	Ohio Subtopic	Number of Points		State Points (56 total)
			Subtopic	Topic	
Study of Matter	1	PS.M.1 Classification of matter	1 – 3*	10 – 11 (27-30%)**	15 – 17 (26.8% – 30.4%)
	2	PS.M.2 Atoms	1 – 3*		
	3	PS.M.3 Periodic trends of the elements	1 – 3*		
	4	PS.M.4 Bonding and compounds	1 – 3*		
	5	PS.M.5 Reactions of matter	1 – 3*		
Energy and Waves	6	PS.EW.1 Conservation of energy	1 – 3*	10 – 11 (27-30%)**	15 – 17 (26.8% – 30.4%)
	7	PS.EW.2 Transfer and transformation of energy (including work)	1 – 3*		
	8	PS.EW.3 Waves	1 – 3*		
	9	PS.EW.4 Thermal energy	1 – 3*		
	10	PS.EW.5 Electricity	1 – 3*		
Forces and Motion	11	PS.FM.1 Motion	3	10 – 11 (27-30%)**	15 – 17 (26.8% – 30.4%)
	12	PS.FM.2 Forces	3		
	13	PS.FM.3 Dynamics (how forces affect motion)	4		
The Universe	14	PS.U.1 History of the universe	1 – 3*	5 – 6 (13-16%)**	7 – 9 (12.5% – 16.1%)
	15	PS.U.2 Galaxies	1 – 3*		
	16	PS.U.3 Stars	1 – 3*		
Pre-Requisite	17	Pre-Requisite Content (1 SM, 1 EW, 1FM). Click here for more details about the Pre-Requisite Standards for Physical Science.	3	3 (7.5%)***	Not on the State Test
Form A Only	Grade 8 Anchors	These questions allow psychometric comparisons with the prior year to help inform growth measures. They are not included in students' scores.	8	8 (20%)	

*Ranges leave flexibility for 2-point questions. The total number of points for the Topic should equal the number indicated.

** % of grade level material

***% of total test

DoK/CD Goals for each test (Matches State %)

T	0 – 6 points (~0 – 15% total)
D	4 – 10 points (~10 – 25% total)
C	12 – 20 points (~30 – 50% total)
R	10 – 16 points (~25 – 40% total)

Goals for difficulty ranges (p-value) for Form C

0.10 – 0.19	1 – 4 points (~ 5%)
0.20 – 0.29	2 – 6 points (~10%)
0.30 – 0.39	4 – 8 points (~15%)
0.40 – 0.49	6 – 10 points (~20%)
0.50 – 0.59	6 – 10 points (~20%)
0.60 – 0.69	4 – 8 points (~15%)
0.70 – 0.79	2 – 6 points (~10%)
0.80 – 0.89	1 – 4 points (~ 5%)

Question Type Goals for each test

Multiple Choice	Not more than 24 points (60%)
Technology Enhanced	At least 16 points (40%)

Pro-Core Science Blueprints 2022–23

No Changes from 2021–22

High School Biology (40 Total Points – 8 Anchor Questions)

Topic	Pro-Core Code	Ohio Subtopic	Number of Points		State Points (56 total)
			Subtopic	Topic	
Heredity	1	B.H.1 Cellular genetics	1 – 3*	9 (25%)**	13 – 15 (23% – 28%)
	2	B.H.2 Structure and function of DNA in cells	1 – 3*		
	3	B.H.3 Genetic mechanisms and inheritance	1 – 3*		
	4	B.H.4 Mutations	1 – 2*		
	5	B.H.5 Modern genetics	1 – 2*		
Evolution	6	B.E.1 Mechanisms	6 – 7*	9 (25%)**	13 – 15 (23% – 28%)
	7	B.E.2 Speciation	2 – 3*		
Diversity & Interdependence of Life	8	B.DI.1 Biodiversity	3 – 4*	9 (25%)**	13 – 15 (23% – 28%)
	9	B.DI.2 Ecosystems	3 – 4*		
	10	B.DI.3 Loss of diversity	2 – 3*		
Cells	11	B.C.1 Cell structure and function	4 – 5*	9 (25%)**	13 – 15 (23% – 28%)
	12	B.C.2 Cellular processes	4 – 5*		
Pre-Requisite	13	Pre-Requisite Content (1 H, 1 E, 1 D, 1 C). Click here for more details about the Pre-Requisite Standards for Biology.	4	4 (9.1%)***	No Pre-Requisite Questions on the State Test
Form A Only	Physical Science Anchors	These questions allow psychometric comparisons with the prior year to help inform growth measures. They are not included in students' scores.	8	8 (20.5%)	

*Ranges leave flexibility for 2-point questions. The total number of points for the Topic should equal the number indicated.

** % of grade level material

***% of total test

DoK/CD Goals for each test (Matches State %)

T	0 – 6 points (~0 – 15% total)
D	4 – 10 points (~10 – 25% total)
C	12 – 20 points (~30 – 50% total)
R	10 – 16 points (~25 – 40% total)

Goals for difficulty ranges (p-value) for Form C

0.10 – 0.19	1 – 4 points (~ 5%)
0.20 – 0.29	2 – 6 points (~10%)
0.30 – 0.39	4 – 8 points (~15%)
0.40 – 0.49	6 – 10 points (~20%)
0.50 – 0.59	6 – 10 points (~20%)
0.60 – 0.69	4 – 8 points (~15%)
0.70 – 0.79	2 – 6 points (~10%)
0.80 – 0.89	1 – 4 points (~ 5%)

Question Type Goals for each test

Multiple Choice	No more than 24 points (60%)
Technology Enhanced	At least 16 points (40%)

Pro-Core Science Blueprints 2022–23

No Changes from 2021–22

High School Chemistry (40 Total Points – 8 Anchor Questions)

Topic	Pro-Core Code	Ohio Subtopic	Number of Points	
			Subtopic	Topic
Structure and Properties of Matter	1	C.PM.1 Atomic structure	3 – 4*	23 (62.2%)**
	2	C.PM.2 Periodic table	3 – 4*	
	3	C.PM.3 Chemical bonding	3 – 4*	
	4	C.PM.4 Representing compounds	4 – 5*	
	5	C.PM.5 Quantifying matter	2 – 3*	
	6	C.PM.6 Intermolecular forces of attraction	3 – 4*	
Interactions of Matter	7	C.IM.1 Chemical reactions	6 – 7*	14 (37.8%)**
	8	C.IM.2 Gas laws	2 – 3*	
	9	C.IM.3 Stoichiometry	4 – 5*	
Pre-Requisite	10	Pre-Requisite Content (2 PM, 1 IM). Click here for more details about the Pre-Requisite Standards for Chemistry.	3	3 (7.5%)***
Form A Only	Biology Anchors	These questions allow psychometric comparisons with the prior year to help inform growth measures. They are not included in students' scores.	8	8 (20%)

*Ranges leave flexibility for 2-point questions. The total number of points for the Topic should equal the number indicated.

**% of grade level material

***% of total test

DoK/CD Goals for each test (Matches State %)

T	0 – 6 points (~0 – 15% total)
D	4 – 10 points (~10 – 25% total)
C	12 – 20 points (~30 – 50% total)
R	10 – 16 points (~25 – 40% total)

Goals for difficulty ranges (p-value) for Form C

0.10 – 0.19	1 – 4 points (~ 5%)
0.20 – 0.29	2 – 6 points (~10%)
0.30 – 0.39	4 – 8 points (~15%)
0.40 – 0.49	6 – 10 points (~20%)
0.50 – 0.59	6 – 10 points (~20%)
0.60 – 0.69	4 – 8 points (~15%)
0.70 – 0.79	2 – 6 points (~10%)
0.80 – 0.89	1 – 4 points (~ 5%)

Question Type Goals for each test

Multiple Choice	Not more than 24 points (60%)
Technology Enhanced	At least 15 points (40%)