

Level	Course	Anchor Standard	Standard	Sub-Standard	SubSubStandard	Standard Code	Standards
EL4	SCI	FM	01	00	0	EL4-SCI.FM.01.00.0	Demonstrate an understanding of the factors that effect the motion of an object (friction, work, resistance, lubrication.)
EL4	SCI	FM	01	A	0	EL4-SCI.FM.01.A.0	Apply Hebrews 3:4 to this essential standard.
EL4	SCI	FM	02	00	0	EL4-SCI.FM.02.00.0	Define and apply Newton's Laws of Motion
EL4	SCI	FM	02	A	0	EL4-SCI.FM.02.A.0	Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. (Newton's Laws of Motion)
EL4	SCI	FM	02	A	a	EL4-SCI.FM.02.A.a	Observe that balanced forces do not affect an object's motion (need to clarify that balanced forces means no change in forces acting on an object.)
EL4	SCI	FM	02	A	b	EL4-SCI.FM.02.A.b	Describe how unbalanced forces acting on an object changes its speed (faster/slower), direction of motion, or both (need to clarify that unbalanced forces means any change in forces acting on an object.)
EL4	SCI	FM	02	B	0	EL4-SCI.FM.02.B.0	Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. (Newton's Laws of Motion)
EL4	SCI	FM	02	B	a	EL4-SCI.FM.02.B.a	Classify different types of motion [straight line, curved, vibrating (back and forth.)]
EL4	SCI	FM	02	B	b	EL4-SCI.FM.02.B.b	Describe an object's motion in terms of distance, direction, and time.
EL4	SCI	FM	02	C	0	EL4-SCI.FM.02.C.0	Use evidence to construct an explanation relating the speed of an object to the energy of that object. (Newton's Laws)
EL4	SCI	FM	02	C	a	EL4-SCI.FM.02.C.a	Predict how the change in speed of an object (i.e., faster/slower/remains the same) is affected by the amount of force applied to an object and the mass of the object.
EL4	SCI	FM	02	D	0	EL4-SCI.FM.02.D.0	Ask questions and predict outcomes about the changes in energy that occur when objects collide. (Newton's Laws)
EL4	SCI	FM	02	E	0	EL4-SCI.FM.02.E.0	Apply Hebrews 3:4 to this essential standard.
EL4	SCI	FM	03	00	0	EL4-SCI.FM.03.00.0	Investigate how work can be done using simple machines.
EL4	SCI	FM	03	A	0	EL4-SCI.FM.03.A.0	Manipulate objects using simple machines (pulley, inclined plane, wedge, screw, lever, wheel and axle.)

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EL4	SCI	FM	04	00	0	EL4-SCI.FM.04.00.0	Determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.
EL4	SCI	FM	04	A	0	EL4-SCI.FM.04.A.0	Hypothesize and observe the effects of an electrostatic force (static electricity) on the motion of objects (attract or repel.)
EL4	SCI	FM	04	B	0	EL4-SCI.FM.04.B.0	Define and demonstrate magnetism as a force that can push or pull other objects without touching them.
EL4	SCI	FM	04	C	0	EL4-SCI.FM.04.C.0	Conclude magnets attract and repel each other and certain materials.
EL4	SCI	FM	04	D	0	EL4-SCI.FM.04.D.0	Apply Hebrews 3:4 to this essential standard.
EL4	SCI	FM	05	00	0	EL4-SCI.FM.05.00.0	Create a simple design problem that can be solved by applying scientific ideas about magnets.
EL4	SCI	FM	05	A	0	EL4-SCI.FM.05.A.0	Make observations about magnets using simple tools and equipment.
EL4	SCI	FM	05	B	0	EL4-SCI.FM.05.B.0	Apply Hebrews 3:4 to this essential standard.
EL4	SCI	ME	01	00	0	EL4-SCI.ME.01.00.0	Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.
EL4	SCI	ME	01	A	0	EL4-SCI.ME.01.A.0	Demonstrate an understanding of the properties of light and sound as forms of energy.
EL4	SCI	ME	01	B	0	EL4-SCI.ME.01.B.0	Construct and diagram a complete electric circuit by using a source (e.g., battery), means of transfer (e.g., wires), and receiver (e.g., resistance bulbs, motors, fans.)
EL4	SCI	ME	01	C	0	EL4-SCI.ME.01.C.0	Observe and describe the evidence of energy transfer in an (open, closed, series, or parallel) electrical circuit (e.g., lit bulb, moving motor, fan) relative to a switch.
EL4	SCI	ME	01	D	0	EL4-SCI.ME.01.D.0	Summarize the evidence of energy transformations (temperature change, light, sound, motion, and magnetic effects) that occur in electrical circuits.
EL4	SCI	ME	01	E	0	EL4-SCI.ME.01.E.0	Apply Romans 1:20 to this essential standard.
EL4	SCI	ME	02	00	0	EL4-SCI.ME.02.00.0	Interpret a model to describe that matter is made of particles too small to be seen.

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EL4	SCI	ME	02	A	0	EL4-SCI.ME.02.A.0	Describe how changes in state (i.e., freezing/melting, condensating/evaporating/boiling) provide evidence that matter is made of particles too small to be seen.
EL4	SCI	ME	02	E	0	EL4-SCI.ME.02.E.0	Apply Romans 1:20 to this essential standard.
EL4	SCI	ME	03	00	0	EL4-SCI.ME.03.00.0	Make observations and measurements to identify materials based on their properties.
EL4	SCI	ME	03	A	0	EL4-SCI.ME.03.A.0	Classify types of materials (e.g., water, salt, sugar, iron filings, salt water) into ōlikeö substances (materials that have specific physical properties) or mixtures of substances by using their characteristic properties.
EL4	SCI	ME	03	B	0	EL4-SCI.ME.03.B.0	Classify matter as a solid, a liquid, or a gas, as it exists at room temperature, using physical properties (i.e., volume, shape, ability to flow.)
EL4	SCI	ME	03	C	0	EL4-SCI.ME.03.C.0	Model ways to separate the components of a mixture/solution by their properties (i.e., sorting, filtration, magnets, screening.)
EL4	SCI	ME	03	D	0	EL4-SCI.ME.03.D.0	Apply Romans 1:20 to this essential standard.
EL4	SCI	ME	04	00	0	EL4-SCI.ME.04.00.0	Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.
EL4	SCI	ME	04	A	0	EL4-SCI.ME.04.A.0	Calculate that the total mass of a material, such as water, remains constant whether it is together, in parts, or in a different state.
EL4	SCI	ME	04	B	0	EL4-SCI.ME.04.B.0	Apply Romans 1:20 to this essential standard.
EL4	SCI	ME	05	00	0	EL4-SCI.ME.05.00.0	Conduct an investigation to determine whether the mixing of two or more substances results in new substances.
EL4	SCI	ME	05	A	0	EL4-SCI.ME.05.A.0	Observe and describe how mixtures are made by combining solids or liquids, or a combination of these.
EL4	SCI	ME	05	B	0	EL4-SCI.ME.05.B.0	Distinguish between the components in a mixture/solution (e.g., trail mix, conglomerate rock, salad, soil, salt water.)
EL4	SCI	ME	05	C	0	EL4-SCI.ME.05.C.0	Identify water as a solvent that dissolves materials (Do NOT assess the term solvent.)

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EL4	SCI	ME	05	D	0	EL4-SCI.ME.05.D.0	Apply Romans 1:20 to this essential standard.
EL4	SCI	SI	01	00	0	EL4-SCI.SI.01.00.0	Create a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
EL4	SCI	SI	02	00	0	EL4-SCI.SI.02.00.0	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
EL4	SCI	SI	03	00	0	EL4-SCI.SI.03.00.0	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.