



OKLAHOMA
Education



Oklahoma Grade 5 Science
Performance Level Descriptor Tables

Advanced

Students demonstrate superior performance on challenging subject matter. In addition to demonstrating a broad and in-depth understanding and application of all skills at the Proficient level, students scoring at the Advanced level typically:

- analyze scale, proportion, quantity and patterns when performing computational thinking to complex data as it pertains to the distribution of water on Earth, conservation of matter, and Earth's relationship with the Sun, Moon, and stars.
- predict, modify, and extend complex models at various scales to analyze the movement of matter and energy between organisms, ecosystems, and Earth's systems and analyze the outcomes of these interactions.
- analyze and compare evidence, data, and models to engage in argument to explain the cause-and-effect relationships between an object and Earth's gravity, how scale and proportion affect the apparent brightness of the Sun and other stars, and/or how plants use matter (chiefly air and water) to grow.
- observe and measure phenomena to interpret and evaluate patterns that classify materials based on properties or describe complex cause-and-effect relationships when mixing substances within an investigation framework.
- combine and compare multiple pieces of information to explain the impacts of human activities on Earth's systems and how solutions can be designed to protect Earth's resources and environment.

Proficient

Students demonstrate mastery over grade-level appropriate subject matter and readiness for the next grade level. Students scoring at the Proficient level typically:

- apply scale, proportion, quantity, and/or patterns when performing computational thinking to data as it pertains to the distribution of water on Earth, conservation of matter, and Earth's relationship with the Sun, Moon, and stars.
- describe, use, and/or develop basic models at various scales to explain the movement of matter and energy between organisms, ecosystems, and Earth's systems and explain the outcomes of these interactions.
- use evidence, data, and/or models to engage in argument to explain the cause-and-effect relationships between an object and Earth's gravity, how scale and proportion affect the apparent brightness of the Sun and other stars, or how plants use matter (chiefly air and water) to grow.
- observe and measure phenomena to identify patterns that classify materials based on properties or describe cause-and-effect relationships when mixing substances within an investigation framework.
- combine or explain information about the impacts of human activities on Earth's systems and how solutions can be designed to protect Earth's resources and environment.

Basic

Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.
Students scoring at the Basic level typically:

- recognize scale, proportion, quantity, or patterns when performing basic computations with data as it pertains to the distribution of water on Earth, conservation of matter, and/or Earth's relationship with the Sun, Moon, and stars.
- identify basic models to represent common features of matter and/or energy, ecosystems, and/or Earth's systems.
- identify evidence, data, or models to distinguish relationships between an object and Earth's gravity, how basic scale and proportion affect the brightness of the Sun and other stars, or how plants use air and water.
- observe or measure phenomena to recognize patterns of materials or identify basic relationships when mixing substances within an investigation framework.
- identify or describe the impacts of human activities on Earth's systems and solutions that protect Earth's resources and environment.

Below Basic

Students scoring **Below Basic** have not demonstrated they can perform at the Basic level. Students scoring at the Below Basic level should be given comprehensive science instruction. Students scoring at the Basic level typically:

- recognize scale, proportion, quantity, or patterns when performing basic computations with data as it pertains to the distribution of water on Earth, conservation of matter, and/or Earth's relationship with the Sun, Moon, and stars.
- identify basic models to represent common features of matter and/or energy, ecosystems, and/or Earth's systems.
- identify evidence, data, or models to distinguish relationships between an object and Earth's gravity, how basic scale and proportion affect the brightness of the Sun and other stars, or how plants use air and water.
- observe or measure phenomena to recognize patterns of materials or identify basic relationships when mixing substances within an investigation framework.
- identify or describe the impacts of human activities on Earth's systems and solutions that protect Earth's resources and environment.

PS1.2 ESS1.2 ESS2.2	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
<p>Using Mathematics and Computational Thinking; Analyzing and Interpreting Data</p> <p>DCI</p> <ul style="list-style-type: none"> PS1.A Structures and Properties of Matter PS1.B Chemical Reactions ESS1.B Earth and the Solar System ESS2.C The Roles of Water in Earth's Surface Processes <p>CCC</p> <ul style="list-style-type: none"> Scale, Proportion, and Quantity Patterns 		<p>Students scoring at the Basic level typically recognize scale, proportion, quantity, or patterns when performing basic computations with data as it pertains to the distribution of water on Earth, conservation of matter, and/or Earth's relationship with the Sun, Moon, and stars.</p>	<p>Students scoring at the Proficient level typically apply scale, proportion, quantity, and/or patterns when performing computational thinking to data as it pertains to the distribution of water on Earth, conservation of matter, and Earth's relationship with the Sun, Moon, and stars.</p>	<p>Students scoring at the Advanced level typically analyze scale, proportion, quantity and patterns when performing computational thinking to complex data as it pertains to the distribution of water on Earth, conservation of matter, and Earth's relationship with the Sun, Moon, and stars.</p>

PS1.1 PS3.1 LS2.1 ESS2.1 LS2.2	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
Developing and Using Models DCI <ul style="list-style-type: none"> PS1.A Structure and Properties of Matter PS3.D Energy in Chemical Processes and Everyday Life LS1.C Organization of Matter and Energy Flow in Organisms LS2.A Interdependent Relationships in Ecosystems LS2.B Cycles of Matter and Energy Transfer in Ecosystems ESS2.A Earth Materials and Systems CCC <ul style="list-style-type: none"> Scale, Proportion, and Quantity Energy and Matter Systems and System Models 		Students scoring at the Basic level typically identify basic models to represent common features of matter and/or energy, ecosystems, and/or Earth's systems.	Students scoring at the Proficient level typically describe, use, and/or develop basic models at various scales to explain the movement of matter and energy between organisms, ecosystems, and Earth's systems and explain the outcomes of these interactions.	Students scoring at the Advanced level typically predict, modify, and extend complex models at various scales to analyze the movement of matter and energy between organisms, ecosystems, and Earth's systems and analyze the outcomes of these interactions.

ho . LS1.1 ESS1.1	Below Basic: Student have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
<p>Engaging in Argument from Evidence</p> <p>DCI</p> <ul style="list-style-type: none"> • PS2.B Types of Interactions • LS1.C Organization for Matter and Energy Flow in Organisms • ESS1.A The Universe and Its Stars <p>CCC</p> <ul style="list-style-type: none"> • Cause and Effect • Energy and Matter • Scale, Proportion, and Quantity 		<p>Students scoring at the Basic level typically identify evidence, data, or models to distinguish relationships between an object and Earth's gravity, how basic scale and proportion affect the brightness of the Sun and other stars, or how plants use air and water.</p>	<p>Students scoring at the Proficient level typically use evidence, data, and/or models to engage in argument to explain the cause-and-effect relationships between an object and Earth's gravity, how scale and proportion affect the apparent brightness of the Sun and other stars, or how plants use matter (chiefly air and water) to grow.</p>	<p>Students scoring at the Advanced level typically analyze and compare evidence, data, and models to engage in argument to explain the cause-and-effect relationships between an object and Earth's gravity, how scale and proportion affect the apparent brightness of the Sun and other stars and/or how plants use matter (chiefly air and water) to grow.</p>

PS1.3 PS1.4	Below Basic: Student have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
<p>Planning and Carrying out Investigations</p> <p>DCI</p> <ul style="list-style-type: none"> PS1.A Structure and Properties of Matter PS1.B Chemical Reactions <p>CCC</p> <ul style="list-style-type: none"> Patterns Cause and Effect 		<p>Students scoring at the Basic level typically observe or measure phenomena to recognize patterns of materials or identify basic relationships when mixing substances within an investigation framework.</p>	<p>Students scoring at the Proficient level typically observe and measure phenomena to identify patterns that classify materials based on properties or describe cause-and-effect relationships when mixing substances within an investigation framework.</p>	<p>Students scoring at the Advanced level typically observe and measure phenomena to interpret and evaluate patterns that classify materials based on properties or describe complex cause-and-effect relationships when mixing substances within an investigation framework.</p>

ESS3.1	Below Basic: Student have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
<p>Obtaining, Evaluating, and Communicating Information DCI</p> <ul style="list-style-type: none"> ESS3 Earth and Human Activity <p>CCC</p> <ul style="list-style-type: none"> Systems and System Models 		<p>Students scoring at the Basic level typically identify or describe the impacts of human activities on Earth's systems and solutions that protect Earth's resources and environment.</p>	<p>Students scoring at the Proficient level typically combine or explain information about the impacts of human activities on Earth's systems and how solutions can be designed to protect Earth's resources and environment.</p>	<p>Students scoring at the Advanced level typically combine and compare multiple pieces of information to explain the impacts of human activities on Earth's systems and how solutions can be designed to protect Earth's resources and environment.</p>



OKLAHOMA
Education



Oklahoma Grade 8 Science
Performance Level Descriptor Tables

Advanced

Students demonstrate superior performance on challenging subject matter. In addition to demonstrating a broad and in-depth understanding and application of all skills at the Proficient level, students scoring at the Advanced level typically:

- evaluate, revise, or predict a model involving: the relationship between gene structure and protein structure; the effect of reproduction on genetic variation; cyclic patterns in relation to the position of the Earth, Sun, and Moon; the role of gravity within galaxies and the solar system.
- evaluate or modify investigations about: stability and change of forces and motion; the effect of fields on force interactions.
- analyze, infer, relate, or identify complex relationships within a system to construct or evaluate explanations for: the effect of environmental and genetic factors on growth; the common ancestry of organisms based on patterns in anatomy or the chronological order of fossils; the effect of trait variation in populations on natural selection.
- modify the solution to a problem with new information involving energy transfer, forces, and motions in systems where objects collide.
- evaluate, develop, or apply reasoning to support or refute new arguments or counterarguments about how: the structures of plants and behaviors of animals affect the likelihood of successful reproduction; gravitational interactions depend on the masses of interacting objects in a system.
- revise questions about data based on new evidence to determine factors that affect the strength of electric and magnetic forces.
- analyze mathematical representations to: describe patterns in wave models to show the relationship between amplitude and energy; explain how natural selection affects the distribution of traits in populations.
- evaluate data to: compare patterns of embryological similarities between species; identify how patterns in the fossil record indicate the history of life on Earth; determine the scale properties of objects in the solar system.
- compare competing claims or scientific explanations to communicate how: humans affect trait inheritance through artificial selection; the structure and function of digital signals contributes to those signals reliably transmitting information.

Proficient

Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.

Students scoring at the Proficient level typically:

- develop or use a model to describe: the relationship between gene structure and protein structure; the effect of reproduction on genetic variation; cyclic patterns in relation to the position of the Earth, Sun, and Moon; the role of gravity within galaxies and the solar system.
- identify, describe, or explain how to: design investigations about stability and change of forces and motion; conduct and evaluate investigations about the effect of fields on force interactions.
- identify, describe, or compare evidence to construct explanations for: the effect of environmental and genetic factors on growth; the common ancestry of organisms based on patterns in anatomy or the chronological order of fossils; the effect of trait variation in populations on natural selection.
- design or revise a solution to a problem involving energy transfer, forces, and motions in systems where objects collide.
- use reasoning to show that evidence supports or refutes arguments about how: the structures of plants and behaviors of animals affect the likelihood of successful reproduction; gravitational interactions depend on the masses of interacting objects in a system.
- use reasoning to develop questions about data to determine factors that affect the strength of electric and magnetic forces.
- use mathematical representations to: describe patterns in wave models to show the relationship between amplitude and energy; explain how natural selection affects the distribution of traits in populations.
- analyze and interpret data to: compare patterns of embryological similarities between species; identify how patterns in the fossil record indicate the history of life on Earth; determine the scale properties of objects in the solar system.
- gather, use, synthesize, or integrate information to communicate and support claims about how: humans affect trait inheritance through artificial selection; the structure and function of digital signals contributes to those signals reliably transmitting information.

Basic

Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.

Students scoring at the Basic level typically:

- identify or describe basic components or concept(s) of a model involving: the relationship between gene structure and protein structure; the effect of reproduction on genetic variation; cyclic patterns in relation to the position of the Earth, Sun, and Moon; the role of gravity within galaxies and the solar system.
- identify or describe basic steps or processes within investigations about: stability and change of forces and motion; the effect of fields on force interactions.
- identify or describe basic relationships shown in evidence of: the effect of environmental and genetic factors on growth; the common ancestry of organisms based on patterns in anatomy or the chronological order of fossils; the effect of trait variation in populations on natural selection.
- identify or describe basic relationships in a design solution involving energy transfer, forces, and motions in systems where objects collide.
- identify evidence that supports arguments about how: the structures of plants and behaviors of animals affect the likelihood of successful reproduction; gravitational interactions depend on the masses of interacting objects in a system.
- determine factors that affect the strength of electric and magnetic forces.
- identify components of mathematical representations to: describe patterns in wave models to show the relationship between amplitude and energy; explain how natural selection affects the distribution of traits in populations.
- use data to: recognize patterns of embryological similarities between species; identify how patterns in the fossil record indicate the history of life on Earth; determine the scale properties of objects in the solar system.
- describe information to support claims about how: humans affect trait inheritance through artificial selection; the structure and function of digital signals contributes to those signals reliably transmitting information.

Below Basic

Students scoring **Below Basic** have not demonstrated they can perform at the Basic level. Students scoring at the Below Basic level should be given comprehensive science instruction. Students scoring at the Basic level typically:

- identify or describe basic components or concept(s) of a model involving: the relationship between gene structure and protein structure; the effect of reproduction on genetic variation; cyclic patterns in relation to the position of the Earth, Sun, and Moon; the role of gravity within galaxies and the solar system.
- identify or describe basic steps or processes within investigations about: stability and change of forces and motion; the effect of fields on force interactions.
- identify or describe basic relationships shown in evidence of: the effect of environmental and genetic factors on growth; the common ancestry of organisms based on patterns in anatomy or the chronological order of fossils; the effect of trait variation in populations on natural selection.
- identify or describe basic relationships in a design solution involving energy transfer, forces, and motions in systems where objects collide.
- identify evidence that supports arguments about how: the structures of plants and behaviors of animals affect the likelihood of successful reproduction; gravitational interactions depend on the masses of interacting objects in a system.
- determine factors that affect the strength of electric and magnetic forces.
- identify components of mathematical representations to: describe patterns in wave models to show the relationship between amplitude and energy; explain how natural selection affects the distribution of traits in populations.
- use data to: recognize patterns of embryological similarities between species; identify how patterns in the fossil record indicate the history of life on Earth; determine the scale properties of objects in the solar system.
- describe information to support claims about how: humans affect trait inheritance through artificial selection; the structure and function of digital signals contributes to those signals reliably transmitting information.

LS3.1 LS3.2 ESS1.1 ESS1.2	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
Develop and Use Models DCI <ul style="list-style-type: none"> LS3.A Inheritance of Traits LS1.B Growth and Development of Organisms LS3.B Variation of Traits ESS1.A The Universe and Its Stars CCC <ul style="list-style-type: none"> Structure and Function Cause and Effect Patterns Systems and System Models 		Students scoring at the Basic level typically identify or describe basic components or concept(s) of a model involving: the relationship between gene structure and protein structure; the effect of reproduction on genetic variation; cyclic patterns in relation to the position of the Earth, Sun, and Moon; the role of gravity within galaxies and the solar system.	Students scoring at the Proficient level typically develop or use a model to describe: the relationship between gene structure and protein structure; the effect of reproduction on genetic variation; cyclic patterns in relation to the position of the Earth, Sun, and Moon; the role of gravity within galaxies and the solar system.	Students scoring at the Advanced level typically evaluate, revise, or predict a model involving: the relationship between gene structure and protein structure; the effect of reproduction on genetic variation; cyclic patterns in relation to the position of the Earth, Sun, and Moon; the role of gravity within galaxies and the solar system.

PS2.2 PS2.5	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
Planning and Carrying Out Investigations DCI <ul style="list-style-type: none"> PS2.A Forces and Motion PS2.B Types of Interactions CCC <ul style="list-style-type: none"> Cause and Effect Stability and Change 		Students scoring at the Basic level typically identify or describe basic steps or processes within investigations about: stability and change of forces and motion; the effect of fields on force interactions.	Students scoring at the Proficient level typically identify, describe, or explain how to: design investigations about stability and change of forces and motion; conduct and evaluate investigations about the effect of fields on force interactions.	Students scoring at the Advanced level typically evaluate or modify investigations about: stability and change of forces and motion; the effect of fields on force interactions.

LS1.5 LS4.2 LS4.4	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
<p>Constructing Explanations</p> <p>DCI</p> <ul style="list-style-type: none"> LS1.B Growth and Development of Organisms LS4.A Evidence of Common Ancestry and Diversity LS4.B Natural Selection <p>CCC</p> <ul style="list-style-type: none"> Cause and Effect Patterns 		<p>Students scoring at the Basic level typically identify or describe basic relationships shown in evidence of: the effect of environmental and genetic factors on growth; the common ancestry of organisms based on patterns in anatomy or the chronological order of fossils; the effect of trait variation in populations on natural selection.</p>	<p>Students scoring at the Proficient level typically identify, describe, or compare evidence to construct explanations for: the effect of environmental and genetic factors on growth; the common ancestry of organisms based on patterns in anatomy or the chronological order of fossils; the effect of trait variation in populations on natural selection.</p>	<p>Students scoring at the Advanced level typically analyze, infer, relate, or identify complex relationships within a system to construct or evaluate explanations for: the effect of environmental and genetic factors on growth; the common ancestry of organisms based on patterns in anatomy or the chronological order of fossils; the effect of trait variation in populations on natural selection.</p>

PS2.1	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
Designing Solutions DCI <ul style="list-style-type: none"> PS2.A Forces and Motion CCC <ul style="list-style-type: none"> Systems and System Models 		Students scoring at the Basic level typically identify or describe basic relationships in a design solution involving energy transfer, forces, and motions in systems where objects collide.	Students scoring at the Proficient level typically design or revise a solution to a problem involving energy transfer, forces, and motions in systems where objects collide.	Students scoring at the Advanced level typically modify the solution to a problem with new information involving energy transfer, forces, and motions in systems where objects collide.

LS1.4 PS2.4	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
Engaging in Argument from Evidence DCI <ul style="list-style-type: none"> LS1.B Growth and Development of Organisms PS2.B Types of Interactions CCC <ul style="list-style-type: none"> Cause of Effect Systems and System Models 		Students scoring at the Basic level typically identify evidence that supports arguments about how: the structures of plants and behaviors of animals affect the likelihood of successful reproduction; gravitational interactions depend on the masses of interacting objects in a system.	Student scoring at the Proficient level typically use reasoning to show that evidence supports or refutes arguments about how: the structures of plants and behaviors of animals affect the likelihood of successful reproduction; gravitational interactions depend on the masses of interacting objects in a system.	Students scoring at the Advanced level typically evaluate, develop, or apply reasoning to support or refute new arguments or counterarguments about how: the structures of plants and behaviors of animals affect the likelihood of successful reproduction; gravitational interactions depend on the masses of interacting objects in a system.

PS2.3	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
<p>Asking Questions</p> <p>DCI</p> <ul style="list-style-type: none"> PS2.B Types of Interactions <p>CCC</p> <ul style="list-style-type: none"> Cause and Effect 		<p>Students scoring at the Basic level typically determine factors that affect the strength of electric and magnetic forces.</p>	<p>Students scoring at the Proficient level typically use reasoning to develop questions about data to determine factors that affect the strength of electric and magnetic forces.</p>	<p>Students scoring at the Advanced level typically revise questions about data based on new evidence to determine factors that affect the strength of electric and magnetic forces.</p>

PS4.1 LS4.6	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
Using Mathematics and Computational Thinking DCI <ul style="list-style-type: none"> PS4.A Wave Properties LS4.C Adaptation CCC <ul style="list-style-type: none"> Patterns Cause and Effect 		Students scoring at the Basic level typically identify components of mathematical representations to: describe patterns in wave models to show the relationship between amplitude and energy; explain how natural selection affects the distribution of traits in populations.	Students scoring at the Proficient level typically use mathematical representations to: describe patterns in wave models to show the relationship between amplitude and energy; explain how natural selection affects the distribution of traits in populations.	Students scoring at the Advanced level typically analyze mathematical representations to: describe patterns in wave models to show the relationship between amplitude and energy; explain how natural selection affects the distribution of traits in populations.

LS4.1 LS4.3 ESS1.3	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
<p>Analyzing and Interpreting Data</p> <p>DCI</p> <ul style="list-style-type: none"> LS4.A Evidence of Common Ancestry and Diversity ESS1.B Earth and the Solar System ETS1: Interdependence of Science, Engineering, and Technology <p>CCC</p> <ul style="list-style-type: none"> Patterns Scale, Proportion, and Quantity 		<p>Students scoring at the Basic level typically use data to: recognize patterns of embryological similarities between species; identify how patterns in the fossil record indicate the history of life on Earth; determine the scale properties of objects in the solar system.</p>	<p>Students scoring at the Proficient level typically analyze and interpret data to: compare patterns of embryological similarities between species; identify how patterns in the fossil record indicate the history of life on Earth; determine the scale properties of objects in the solar system.</p>	<p>Students scoring at the Advanced level typically evaluate data to: compare patterns of embryological similarities between species; identify how patterns in the fossil record indicate the history of life on Earth; determine the scale properties of objects in the solar system.</p>

LS4.5 PS4.3	Below Basic: Students have not demonstrated they can perform at the Basic level.	Basic: Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level.	Proficient: Students demonstrate mastery over appropriate grade-level subject matter and readiness for the next grade level.	Advanced: Students demonstrate superior performance on challenging subject matter.
<p>Obtaining, Evaluating, and Communication of Evidence</p> <p>DCI</p> <ul style="list-style-type: none"> • LS4.B Natural Selection • ETS2.A Interdependence of Science, Engineering, and Technology • PS4.C Information Technologies and Instrumentation <p>CCC</p> <ul style="list-style-type: none"> • Structure and Function • Cause and Effect 		<p>Students scoring at the Basic level typically describe information to support claims about how: humans affect trait inheritance through artificial selection; the structure and function of digital signals contributes to those signals reliably transmitting information.</p>	<p>Students scoring at the Proficient level typically gather, use, synthesize, or integrate information to communicate and support claims about how: humans affect trait inheritance through artificial selection; the structure and function of digital signals contributes to those signals reliably transmitting information.</p>	<p>Students scoring at the Advanced level typically compare competing claims or scientific explanations to communicate how: humans affect trait inheritance through artificial selection; the structure and function of digital signals contributes to those signals reliably transmitting information.</p>