

Oklahoma School Testing Program: Grade 5 Science

Performance Level Descriptors

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:

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| <ul style="list-style-type: none">• Analyze scale, proportion, quantity and patterns when performing computational thinking to complex data as it pertains to 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.• Describe complex cause and effect relationships when mixing substances within an investigation framework. | <ul style="list-style-type: none">• 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 phenomenon to interpret and evaluate patterns that classify materials based on properties. |
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Proficient

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

Students scoring at the **Proficient** level typically:

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| <ul style="list-style-type: none">• 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.• Apply scale, proportion, quantity, and/or patterns when performing computational thinking to data as it pertains to distribution of water on Earth, conservation of matter, and Earth's relationship with the sun, moon, and stars. | <ul style="list-style-type: none">• 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 phenomenon to identify patterns that classify materials based on properties.• Describe cause and effect relationships when mixing substances within an investigation framework. |
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Oklahoma School Testing Program: Grade 5 Science

Performance Level Descriptors

Basic

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

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| <ul style="list-style-type: none">• Identify basic models to represent common features of matter and/or energy, ecosystems, and/or Earth's systems.• Recognize scale, proportion, quantity, or patterns when performing basic computations with data as it pertains to distribution of water on Earth, conservation of matter, and/or Earth's relationship with the sun, moon, and stars. | <ul style="list-style-type: none">• 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 phenomenon to recognize patterns of materials. Students can identify basic relationships when mixing substances within an investigation framework. |
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Below Basic

Students have not performed at least at the **Basic** level.

Oklahoma School Testing Program: Grade 8 Science

Performance Level Descriptors

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:

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| <ul style="list-style-type: none">• Evaluate, revise, or develop a model from evidence, or apply models to complex concepts involving conservation of matter in chemical reactions, patterns in the structure and function of waves, or stability and change at varying scales in Earth's systems.• Design, evaluate, or modify investigations about stability and change of forces and motion, or analyze and draw conclusions from patterns in data about common ancestry and diversity of organisms, the geologic history of Earth, or natural hazards. | <ul style="list-style-type: none">• Modify, synthesize, or apply a design solution, or evaluate evidence of relationships within a design solution in various systems involving energy transfer in chemical reactions or forces in collisions.• Analyze, infer, relate, or identify complex relationships within a system to construct or evaluate explanations for evidence of anatomy and common ancestry of organisms, or aspects of Earth systems including geologic history, materials and processes, natural resources, or human impacts on those systems using the concept of patterns in cause and effect relationships or the concept of scale and proportion. |
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Proficient

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

Students scoring at the **Proficient** level typically:

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| <ul style="list-style-type: none">• Make predictions about, describe, develop, or use a given model involving conservation of matter in chemical reactions, patterns in the structure and function of waves, or stability and change at varying scales in Earth's systems.• Identify, describe, or explain how to plan or perform investigations about stability and change of forces and motion, or identify and apply patterns in data about common ancestry and diversity of organisms, the geologic history of Earth, or natural hazards. | <ul style="list-style-type: none">• Use, describe, or explain a design solution, or identify evidence of relationships within a design solution in various systems involving energy transfer in chemical reactions or forces in collisions.• Construct explanations by identifying, describing, or comparing evidence of anatomy and common ancestry of organisms, or aspects of Earth systems including geologic history, materials and processes, natural resources, or human impacts on those systems using the concept of patterns in cause and effect relationships or the concept of scale and proportion. |
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Oklahoma School Testing Program: Grade 8 Science

Performance Level Descriptors

Basic

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

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| <ul style="list-style-type: none">• Identify or describe basic components or concept(s) of a model involving conservation of matter in chemical reactions, patterns in the structure and function of waves, or stability and change at varying scales in Earth's systems.• Identify or describe basic steps or processes within investigations about stability and change of forces and motion, or identify and define patterns in data about common ancestry and diversity of organisms, the geologic history of Earth, or natural hazards. | <ul style="list-style-type: none">• Identify components of a design solution or describe simple relationships within a design solution in various systems involving energy transfer in chemical reactions or forces in collisions.• Identify or describe basic relationships shown in evidence of anatomy and common ancestry of organisms, or aspects of Earth systems, including geologic history, materials and processes, natural resources, or human impacts on those systems using the concept of patterns in cause and effect relationships or the concept of scale and proportion. |
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Below Basic

Students have not performed at least at the **Basic** level.