

ISTAR Grade 4 Science Performance Level Descriptors (PLDs)

Developing Proficiency	Meeting Proficiency	Exceeding Proficiency
<p>A student performing at a Developing Proficiency level demonstrates emerging skills in introductory science concepts and terms. He/she is able to:</p>	<p>A student performing at a Meeting Proficiency level demonstrates proficient skills in basic science concepts and terms. He/she has all of the knowledge and skills shown under Developing Proficiency and is also able to:</p>	<p>A student performing at an Exceeding Proficiency level demonstrates exemplary skills in applying science concepts and terms. He/she has all of the knowledge and skills shown under Developing Proficiency and Meeting Proficiency and is also able to:</p>
<p>Physical Science:</p> <ul style="list-style-type: none"> • identify when a light is on in a dark room. • identify that electric devices contain at least one circuit. 	<p>Physical Science:</p> <ul style="list-style-type: none"> • describe that light usually travels in a straight line. • describe that electric devices will only work when at least one circuit is complete. • identify when a circuit is/is not complete. 	<p>Physical Science:</p> <ul style="list-style-type: none"> • explain that light usually travels in a straight line unless it is being reflected, refracted or diffracted. • explain how to fix a circuit to make it complete, allowing the electric device to work.
<p>Earth Science:</p> <ul style="list-style-type: none"> • identify that plants need sun, soil or water. • identify that animals need food, water or shelter. • identify that earth materials can be changed. • identify natural agents of wind and water. • identify that Earth has natural resources. • identify one method to extend natural resources. 	<p>Earth Science:</p> <ul style="list-style-type: none"> • identify that plants need sun, soil and water. • identify that animals need food, water and shelter. • identify that wind and water reshape Earth's surface by erosion and deposition. • describe that natural resources are limited. • identify that reducing, reusing and recycling are all methods of extending natural resources. • identify which materials can be recycled. 	<p>Earth Science:</p> <ul style="list-style-type: none"> • explain why plants need sun, soil and water. • explain why animals need food, water and shelter. • identify how specific examples of wind or water have reshaped Earth's surface. • predict how specific examples of wind or water will reshape a certain landform over time. • predict where a natural resource will last the longest/shortest time given an appropriate scenario. • identify ways that given materials can be reused. • identify ways to reduce the use of limited natural resources.
<p>Life Science:</p> <ul style="list-style-type: none"> • identify that plants grow. • match one or more traits that a parent and its offspring have in common. • identify characteristics of plants and animals. 	<p>Life Science:</p> <ul style="list-style-type: none"> • measure plant growth over time and record the measurements accurately. • describe that plant growth depends on the amount of sunlight and water the plant receives. • identify one or more traits that are passed from parent to offspring. • describe that some traits may be advantageous for survival. • describe that plants and animals have different characteristics based on their natural environments. 	<p>Life Science:</p> <ul style="list-style-type: none"> • predict a difference in plant growth for two of the same plants when the plants are given different amounts of water or sunlight. • explain the difference in plant growth for two of the same plant when the plants are given different amounts of water or sunlight. • identify one or more traits that have been passed down from parent to offspring that are advantageous for survival. • explain why certain traits are advantageous for survival.

		<ul style="list-style-type: none"> • predict what natural environment a plant or animal lives in based on one or more of its characteristics that make the plant or animal well-suited to that environment. • explain why a characteristic makes a plant or animal well-suited to its natural environment.
<p>Science, Engineering and Technology:</p> <ul style="list-style-type: none"> • identify a ruler, a balance and a thermometer. • identify different forms of transportation. 	<p>Science, Engineering and Technology:</p> <ul style="list-style-type: none"> • identify that rulers measure length, balances measure mass, and thermometers measure temperature. • identify whether a particular form of transportation is designed to be used on land, in air, in water or in space. 	<p>Science, Engineering and Technology:</p> <ul style="list-style-type: none"> • use a ruler to measure length, use a balance to measure mass, and use a thermometer to measure temperature. • identify a feature or features of a particular form of transportation that show that it is designed to be used on land, in air, in water or in space.
<p>The Nature of Science:</p> <ul style="list-style-type: none"> • identify what will happen next in a given situation. • identify that there are tools that can be used to take measurements. 	<p>The Nature of Science:</p> <ul style="list-style-type: none"> • identify a prediction. • express a simple scientific prediction. • identify commonly used scientific tools that are used to make observations and measurements during investigations. 	<p>The Nature of Science:</p> <ul style="list-style-type: none"> • make a scientific prediction as part of a specific investigation. • explain why a commonly used scientific tool is used to make a particular observation or measurement.
<p>The Design Process</p> <ul style="list-style-type: none"> • identify that problems exist. • identify that problems can be solved. • identify some materials that could be used to solve a problem. 	<p>The Design Process</p> <ul style="list-style-type: none"> • identify a problem in a given scenario. • identify a solution in a given scenario. • select all the materials necessary to solve a given problem. 	<p>The Design Process</p> <ul style="list-style-type: none"> • identify the most important problem that needs to be solved in a given scenario. • select the best solution to a given problem. • describe that problems can be solved using science and engineering. • explain why the materials selected to solve a given problem can be used to solve the problem and why those materials are the most appropriate for that purpose.