

SCIENCE AND TECHNOLOGY – *Understanding Life Systems*

Grade 1

1. assess the role of humans in maintaining a healthy environment.

In science, *[Name]* discusses the ways in which animals and humans live together on Earth. During *[specific task, such as a nature walk in the yard]*, *[Name]* witnessed how people impact animals' homes.

Grade 2

1. assess ways in which animals have an impact on society and the environment, and ways in which humans have an impact upon animals and the places where they live.

Grade 3

1. assess ways in which plants have an impact on society and the environment, and ways in which human activity has an impact on plants and plant habitats.

Grade 4

1. analyse the effects of human activities on habitats and communities.

Grade 5

1. analyse the impact of human activities and technological innovations on human health.

Grade 6

1. assess human impacts on biodiversity, and identify ways of preserving biodiversity.

Grade 7

1. assess the impacts of human activities and technologies on the environment, and evaluate ways of controlling these impacts.

[Name] investigated the impact that human activity has on the issue of *[specific issue, such as the widening of highways, or recycling]*. *[He/she]* presented *[his/her]* findings through a *[specific evidence, such as written report, podcast, pamphlet]*.

[Name] would benefit from the use of a graphic organizer when conducting research. This will help *[him/her]* organize *[his/her]* ideas and information, and draw more relevant conclusions about a topic.

Grade 8

[Name] investigated the impact of cell biology on individuals, society, and the environment,

<p>1. assess the impact of cell biology on individuals, society, and the environment.</p>	<p>focusing on <i>[specific issue, such as the use of the electron microscope, the use of dyes]</i>. <i>[He/she]</i> presented <i>[his/her]</i> findings through a <i>[specific evidence, such as written report, podcast, pamphlet]</i>.</p>	
<p>Grade 1 2. investigate needs and characteristics of plants and animals, including humans.</p> <p>Grade 2 2. investigate similarities and differences in the characteristics of various animals.</p> <p>Grade 3 2. investigate similarities and differences in the characteristics of various plants, and ways in which the characteristics of plants relate to the environment in which they grow.</p>	<p><i>[Name]</i> understands the basic elements that plants and animals need to survive (i.e., food, water, shelter, etc.).</p> <p><i>[Name]</i> is able to discuss why certain plants grow in certain environments. This was demonstrated during <i>[specific task, such as his/her report on a cactus plant]</i>.</p>	<p><i>[Name]</i> continues to learn about what animals and plants need to survive. Further discussion or time spent in nature will help <i>[Name]</i> better understand these needs.</p>
<p>Grade 4 2. investigate the interdependence of plants and animals within specific habitats and communities.</p> <p>Grade 5 2. investigate the structure and function of the major organs of various human body systems.</p> <p>Grade 6 2. investigate the characteristics of living things, and classify diverse organisms according to specific characteristics.</p>		
<p>Grade 7 2. investigate interactions within the environment, and identify factors that affect the balance between different components of an ecosystem.</p> <p>Grade 8 2. investigate functions and processes of plant and animal cells.</p>		

<p>Grade 1 3. demonstrate an understanding of the basic needs and characteristics of plants and animals, including humans.</p> <p>Grade 2 3. demonstrate an understanding that animals grow and change and have distinct characteristics.</p> <p>Grade 3 3. demonstrate an understanding that plants grow and change and have distinct characteristics.</p>	<p><i>[Name]</i> understands that animals grow and change and are built or adapted to suit their environment (e.g., polar bears have thick fur).</p> <p><i>[Name]</i> understands what plants need to survive. This was demonstrated during <i>[specific task, such as our class project of growing bean plants]</i>.</p>	
<p>Grade 4 3. demonstrate an understanding of habitats and communities and the relationships among the plants and animals that live in them.</p> <p>Grade 5 3. demonstrate an understanding of the structure and function of human body systems and interactions within and between systems.</p> <p>Grade 6 3. demonstrate an understanding of biodiversity, its contributions to the stability of natural systems, and its benefits to humans.</p>		
<p>Grade 7 3. demonstrate an understanding of interactions between and among biotic and abiotic elements in the environment.</p> <p>Grade 8 3. demonstrate an understanding of the basic structure and function of plant and animal cells and cell processes.</p>	<p><i>[Name]</i> <i>[specific evidence, such as made a model of an aquatic ecosystem]</i>. <i>[He/she]</i> identified the biotic and abiotic components of <i>[his/her]</i> ecosystem and the interactions between these.</p> <p><i>[Name]</i> <i>[specific evidence, such as made a model of an animal cell]</i>. <i>[He/she]</i> identified the structures of <i>[his/her]</i> cell and the function of those structures. <i>[He/she]</i> described the differences and similarities between this cell and other types of cells.</p>	<p><i>[Name]</i> had difficulty distinguishing between biotic and abiotic components. Regular review of class notes and participation in class discussions will help reinforce concepts for <i>[Name]</i>.</p> <p><i>[Name]</i> had difficulty recalling the function of the structures of plant and animal cells. Regular review of class notes and participation in class discussions will help reinforce concepts for <i>[Name]</i>.</p>

