

8s3 8s2	3. Demonstrate an understanding of the basic structure and function of plant and animal cells and cell processes 2. Investigate functions and processes of plant and animal cells			
	1	2	3	4
	Shows little understanding of the basic structure, function, and processes of plant and animal cells.	Shows some understanding of the basic structure, function, and processes of plant and animal cells.	Shows considerable understanding of the basic structure, function, and processes of plant and animal cells.	Shows a high degree of understanding of the basic structure, function, and processes of plant and animal cells.
<b>Knowledge and Understanding</b> (Subject - specific content acquired in each grade (knowledge), and the comprehension of its meaning and significance (understanding))				
8s12 8s16 8s13 8s13 8s14 8s15 8s17	<ul style="list-style-type: none"> <li>identifies with many errors the postulates of the cell theory</li> <li>identifies with many errors unicellular organisms and multicellular organisms</li> <li>identifies with many errors structures and organelles in cells</li> <li>explains with many errors the basic functions of structures and organelles in cells</li> <li>compares with many errors the structure and function of plant and animal cells</li> <li>explain with many errors the processes of diffusion &amp; osmosis and their roles within a cell</li> <li>describes with many errors the organization of cells into tissues, organs, and systems</li> </ul>	<ul style="list-style-type: none"> <li>identifies with some errors the postulates of the cell theory</li> <li>identifies with some errors unicellular organisms and multicellular organisms</li> <li>identifies with some errors structures and organelles in cells</li> <li>explains with some errors the basic functions of structures and organelles in cells</li> <li>compares with some errors the structure and function of plant and animal cells</li> <li>explain with some errors the processes of diffusion &amp; osmosis and their roles within a cell</li> <li>describes with some errors the organization of cells into tissues, organs, and systems</li> </ul>	<ul style="list-style-type: none"> <li>identifies with few errors the postulates of the cell theory</li> <li>identifies with few errors unicellular organisms and multicellular organisms</li> <li>identifies with few errors structures and organelles in cells</li> <li>explains with few errors the basic functions of structures and organelles in cells</li> <li>compares with few errors the structure and function of plant and animal cells</li> <li>explain with few errors the processes of diffusion &amp; osmosis and their roles within a cell</li> <li>describes with few errors the organization of cells into tissues, organs, and systems</li> </ul>	<ul style="list-style-type: none"> <li>identifies with no errors the postulates of the cell theory</li> <li>identifies with no errors unicellular organisms and multicellular organisms</li> <li>identifies with no errors structures and organelles in cells</li> <li>explains with no errors the basic functions of structures and organelles in cells</li> <li>compares with no errors the structure and function of plant and animal cells</li> <li>explain with no errors the processes of diffusion &amp; osmosis and their roles within a cell</li> <li>describes with no errors the organization of cells into tissues, organs, and systems</li> </ul>
<b>Thinking and Investigation</b> (Use of critical/creative thinking processes, skills, and strategies: Creativity, Application of prior knowledge/skills) i.e. webs, model				
8s6	<ul style="list-style-type: none"> <li>uses critical/creative thinking processes, skills, and strategies with limited effectiveness</li> <li>with much assistance follows established safety procedures for investigating ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>uses critical/creative thinking processes, skills, and strategies with some effectiveness</li> <li>with some assistance follows established safety procedures for investigating ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>uses critical/creative thinking processes, skills, and strategies with considerable effectiveness</li> <li>with no assistance follows established safety procedures for investigating ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>uses critical/creative thinking processes, skills, and strategies with a high degree of effectiveness</li> <li>with no assistance follows established safety procedures for investigating ecosystems</li> </ul>
<b>Communication</b> (Expression and organization of ideas and information in oral, visual, and/or written forms)				
8s11	Student expresses and organizes ideas and information using a variety of forms with limited effectiveness	Student expresses and organizes ideas and information using a variety of forms with some effectiveness	Student expresses and organizes ideas and information using a variety of forms with considerable effectiveness	Student expresses and organizes ideas and information using a variety of forms with a high degree of effectiveness
8s10	Student uses vocabulary and terminology of the discipline with limited effectiveness in oral and written communication	Student uses vocabulary and terminology of the discipline with some effectiveness in oral and written communication	Student uses vocabulary and terminology of the discipline with considerable effectiveness in oral and written communication	Student uses vocabulary and terminology of the discipline with a high degree of effectiveness in oral and written communication
<b>Application</b> (Transfer of knowledge and skills to unfamiliar contexts: Creativity, Application of prior knowledge and skills)				
8s7 8s16 8s8 8s13 8s9	<ul style="list-style-type: none"> <li>uses a microscope correctly and safely with many errors to find and observe components of plant and animal cells</li> <li>compares with many errors the way unicellular/ multicellular organisms meet their basic needs</li> <li>prepares with many errors dry- and wet-mount slides of a variety of objects for use with a microscope</li> <li>designs, constructs and interprets with many errors a model cell to illustrate the basic structure and function of plant and animal cells</li> <li>use scientific inquiry/experimentation skills with many errors to investigate the processes of osmosis and diffusion</li> </ul>	<ul style="list-style-type: none"> <li>uses a microscope correctly and safely with some errors to find and observe components of plant and animal cells</li> <li>compares with some errors the way unicellular/ multicellular organisms meet their basic needs</li> <li>prepares with some errors dry- and wet-mount slides of a variety of objects for use with a microscope</li> <li>designs, constructs and interprets with some errors a model cell to illustrate the basic structure and function of plant and animal cells</li> <li>use scientific inquiry/experimentation skills with some errors to investigate the processes of osmosis and diffusion</li> </ul>	<ul style="list-style-type: none"> <li>uses a microscope correctly and safely with few errors to find and observe components of plant and animal cells</li> <li>compares with few errors the way unicellular/ multicellular organisms meet their basic needs</li> <li>prepares with few errors dry- and wet-mount slides of a variety of objects for use with a microscope</li> <li>designs, constructs and interprets with few errors a model cell to illustrate the basic structure and function of plant and animal cells</li> <li>use scientific inquiry/experimentation skills with few errors to investigate the processes of osmosis and diffusion</li> </ul>	<ul style="list-style-type: none"> <li>uses a microscope correctly and safely with no errors to find and observe components of plant and animal cells</li> <li>compares with no errors the way unicellular/ multicellular organisms meet their basic needs</li> <li>prepares with no errors dry- and wet-mount slides of a variety of objects for use with a microscope</li> <li>designs, constructs and interprets with no errors a model cell to illustrate the basic structure and function of plant and animal cells</li> <li>use scientific inquiry/experimentation skills with no errors to investigate the processes of osmosis and diffusion</li> </ul>

8s1	1. Assess the impact of cell biology on individuals, society, and the environment			
	1	2	3	4
	Shows little understanding of impacts of human activities and technologies on the environment and evaluates ways of controlling these impacts.	Shows some understanding of impacts of human activities and technologies on the environment and evaluates ways of controlling these impacts.	Shows considerable understanding of impacts of human activities and technologies on the environment and evaluates ways of controlling these impacts.	Shows a high degree of understanding of impacts of human activities and technologies on the environment and evaluates ways of controlling these impacts.
<b>Knowledge and Understanding</b> (Subject - specific content acquired in each grade (knowledge), and the comprehension of its meaning and significance (understanding))				
8s4	<ul style="list-style-type: none"> <li>identifies with many errors the role of selected technologies in enhancing our understanding of cells and cellular processes</li> </ul>	<ul style="list-style-type: none"> <li>identifies with some errors the role of selected technologies in enhancing our understanding of cells and cellular processes</li> </ul>	<ul style="list-style-type: none"> <li>identifies with few errors the role of selected technologies in enhancing our understanding of cells and cellular processes</li> </ul>	<ul style="list-style-type: none"> <li>identifies with no errors the role of selected technologies in enhancing our understanding of cells and cellular processes</li> </ul>
8s5	<ul style="list-style-type: none"> <li>identifies with many errors some of the beneficial and harmful effects of cell biology</li> </ul>	<ul style="list-style-type: none"> <li>identifies with some errors some of the beneficial and harmful effects of cell biology</li> </ul>	<ul style="list-style-type: none"> <li>identifies with few errors some of the beneficial and harmful effects of cell biology</li> </ul>	<ul style="list-style-type: none"> <li>identifies with no errors some of the beneficial and harmful effects of cell biology</li> </ul>
<b>Thinking and Investigation</b> (Use of critical/creative thinking processes, skills, and strategies: Creativity, Application of prior knowledge/skills) i.e. webs, model				
8s6	<ul style="list-style-type: none"> <li>uses critical/creative thinking processes, skills, and strategies with limited effectiveness</li> <li>with much assistance follows established safety procedures for investigating ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>uses critical/creative thinking processes, skills, and strategies with some effectiveness</li> <li>with some assistance follows established safety procedures for investigating ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>uses critical/creative thinking processes, skills, and strategies with considerable effectiveness</li> <li>with no assistance follows established safety procedures for investigating ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>uses critical/creative thinking processes, skills, and strategies with a high degree of effectiveness</li> <li>with no assistance follows established safety procedures for investigating ecosystems</li> </ul>
<b>Communication</b> (Expression and organization of ideas and information in oral, visual, and/or written forms)				
8s11	Student expresses and organizes ideas and information using a variety of forms with limited effectiveness	Student expresses and organizes ideas and information using a variety of forms with some effectiveness	Student expresses and organizes ideas and information using a variety of forms with considerable effectiveness	Student expresses and organizes ideas and information using a variety of forms with a high degree of effectiveness
8s10	Student uses vocabulary and terminology of the discipline with limited effectiveness in oral and written communication	Student uses vocabulary and terminology of the discipline with some effectiveness in oral and written communication	Student uses vocabulary and terminology of the discipline with considerable effectiveness in oral and written communication	Student uses vocabulary and terminology of the discipline with a high degree of effectiveness in oral and written communication
<b>Application</b> (Transfer of knowledge and skills to unfamiliar contexts: Creativity, Application of prior knowledge and skills)				
8s4	<ul style="list-style-type: none"> <li>examines and assess with many errors the role and impact of technologies in enhancing our understanding of cells and cellular processes</li> </ul>	<ul style="list-style-type: none"> <li>examines and assess with some errors the role and impact of technologies in enhancing our understanding of cells and cellular processes</li> </ul>	<ul style="list-style-type: none"> <li>examines and assess with few errors the role and impact of technologies in enhancing our understanding of cells and cellular processes</li> </ul>	<ul style="list-style-type: none"> <li>examines and assess with no errors the role and impact of technologies in enhancing our understanding of cells and cellular processes</li> </ul>
8s5	<ul style="list-style-type: none"> <li>assess with many errors the potential that our understanding of cells and cell processes has for both beneficial and harmful effects on human health and the environment, taking different perspectives into account</li> </ul>	<ul style="list-style-type: none"> <li>assess with some errors the potential that our understanding of cells and cell processes has for both beneficial and harmful effects on human health and the environment, taking different perspectives into account</li> </ul>	<ul style="list-style-type: none"> <li>assess with few errors the potential that our understanding of cells and cell processes has for both beneficial and harmful effects on human health and the environment, taking different perspectives into account</li> </ul>	<ul style="list-style-type: none"> <li>assess with no errors the potential that our understanding of cells and cell processes has for both beneficial and harmful effects on human health and the environment, taking different perspectives into account</li> </ul>