

Science Curriculum Standards Waseca Jr & Sr High 2015-2016

Grade Level/Course	Enduring Understandings 4-5 (Highlighted areas covered in this course)	Essential Learnings 8 for 1 trimester, 16-20 full year course
Grade 7-Life Science	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING</p> <ul style="list-style-type: none"> - Substrand 1: The Practice of Science <ul style="list-style-type: none"> - Standard 1. Understandings about science - Standard 2. Scientific inquiry and investigation - Substrand 2: The Practice of Engineering <ul style="list-style-type: none"> - Standard 1. Understandings about engineering - Standard 2. Engineering design - Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society <ul style="list-style-type: none"> - Standard 1. Systems - Standard 2. Careers and contributions in science and engineering - Standard 3. Mutual influence of science, engineering and society - Standard 4. The role of mathematics and technology in science and engineering <p>STRAND 2: PHYSICAL SCIENCE</p> <ul style="list-style-type: none"> - Substrand 1: Matter <ul style="list-style-type: none"> - Standard 1. Properties and structure of matter - Standard 2. Changes in matter - Substrand 2: Motion <ul style="list-style-type: none"> - Standard 1. Describing motion - Standard 2. Forces - Substrand 3. Energy <ul style="list-style-type: none"> - Standard 1. Kinds of energy - Standard 2. Energy transformations - Substrand 4. Human Interactions with Physical Systems 	

- Standard 1. Interaction with the environment

STRAND 3: EARTH AND SPACE SCIENCE

- Substrand 1. Earth Structure and Processes
 - Standard 1. Plate tectonics
 - Standard 2. Earth's changing surface
 - Standard 3. Rock sequences and Earth history
- Substrand 2. Interdependence within the Earth System
 - Standard 1. Sources and transfer of energy
 - Standard 2. Weather and climate
 - Standard 3. Materials cycles
- Substrand 3. The Universe
 - Standard 1. Solar system motion
 - Standard 2. Formation of the solar system
 - Standard 3. Age, scale and origin of the universe
- Substrand 4. Human Interactions with Earth Systems
 - Standard 1. Interaction with the environment

STRAND 4: LIFE SCIENCE

- Substrand 1. Structure and Function in Living Systems
 - Standard 1. Levels of organization
 - Standard 2. Cells
- Substrand 2. Interdependence Among Living Systems
 - Standard 1. Ecosystems
 - Standard 2. Flow of energy and matter
- Substrand 3. Evolution in Living Systems
 - Standard 1. Reproduction
 - Standard 2. Variation
 - Standard 3. Biological evolution

	<ul style="list-style-type: none"> - Substrand 4. Human Interactions with Living Systems <ul style="list-style-type: none"> - Standard 1. Interaction with the environment - Standard 2. Health and disease 	
<p>Grade 8--Earth Science</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING</p> <ul style="list-style-type: none"> - Substrand 1: The Practice of Science <ul style="list-style-type: none"> - Standard 1. Understandings about science - Standard 2. Scientific inquiry and investigation - Substrand 2: The Practice of Engineering <ul style="list-style-type: none"> - Standard 1. Understandings about engineering - Standard 2. Engineering design - Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society <ul style="list-style-type: none"> - Standard 1. Systems - Standard 2. Careers and contributions in science and engineering - Standard 3. Mutual influence of science, engineering and society - Standard 4. The role of mathematics and technology in science and engineering <p>STRAND 2: PHYSICAL SCIENCE</p> <ul style="list-style-type: none"> - Substrand 1: Matter <ul style="list-style-type: none"> - Standard 1. Properties and structure of matter - Standard 2. Changes in matter - Substrand 2: Motion <ul style="list-style-type: none"> - Standard 1. Describing motion - Standard 2. Forces - Substrand 3. Energy <ul style="list-style-type: none"> - Standard 1. Kinds of energy - Standard 2. Energy 	

transformations

- Substrand 4. Human Interactions with Physical Systems
 - Standard 1. Interaction with the environment

STRAND 3: EARTH AND SPACE SCIENCE

- Substrand 1. Earth Structure and Processes
 - Standard 1. Plate tectonics
 - Standard 2. Earth's changing surface
 - Standard 3. Rock sequences and Earth history
- Substrand 2. Interdependence within the Earth System
 - Standard 1. Sources and transfer of energy
 - Standard 2. Weather and climate
 - Standard 3. Materials cycles
- Substrand 3. The Universe
 - Standard 1. Solar system motion
 - Standard 2. Formation of the solar system
 - Standard 3. Age, scale and origin of the universe
- Substrand 4. Human Interactions with Earth Systems
 - Standard 1. Interaction with the environment

STRAND 4: LIFE SCIENCE

- Substrand 1. Structure and Function in Living Systems
 - Standard 1. Levels of organization
 - Standard 2. Cells
- Substrand 2. Interdependence Among Living Systems
 - Standard 1. Ecosystems
 - Standard 2. Flow of energy and matter
- Substrand 3. Evolution in Living Systems
 - Standard 1. Reproduction

	<ul style="list-style-type: none"> - Standard 2. Variation - Standard 3. Biological evolution - Substrand 4. Human Interactions with Living Systems <ul style="list-style-type: none"> - Standard 1. Interaction with the environment - Standard 2. Health and disease 	
<p>Grade 9--Physical Science</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING</p> <ul style="list-style-type: none"> - Substrand 1: The Practice of Science <ul style="list-style-type: none"> - Standard 1. Understandings about science - Standard 2. Scientific inquiry and investigation - Substrand 2: The Practice of Engineering <ul style="list-style-type: none"> - Standard 1. Understandings about engineering - Standard 2. Engineering design - Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society <ul style="list-style-type: none"> - Standard 1. Systems - Standard 2. Careers and contributions in science and engineering - Standard 3. Mutual influence of science, engineering and society - Standard 4. The role of mathematics and technology in science and engineering <p>STRAND 2: PHYSICAL SCIENCE</p> <ul style="list-style-type: none"> - Substrand 1: Matter <ul style="list-style-type: none"> - Standard 1. Properties and structure of matter - Standard 2. Changes in matter - Substrand 2: Motion <ul style="list-style-type: none"> - Standard 1. Describing motion - Standard 2. Forces - Substrand 3. Energy 	

- Standard 1. Kinds of energy
- Standard 2. Energy transformations
- Substrand 4. Human Interactions with Physical Systems
 - Standard 1. Interaction with the environment

STRAND 3: EARTH AND SPACE SCIENCE

- Substrand 1. Earth Structure and Processes
 - Standard 1. Plate tectonics
 - Standard 2. Earth's changing surface
 - Standard 3. Rock sequences and Earth history
- Substrand 2. Interdependence within the Earth System
 - Standard 1. Sources and transfer of energy
 - Standard 2. Weather and climate
 - Standard 3. Materials cycles
- Substrand 3. The Universe
 - Standard 1. Solar system motion
 - Standard 2. Formation of the solar system
 - Standard 3. Age, scale and origin of the universe
- Substrand 4. Human Interactions with Earth Systems
 - Standard 1. Interaction with the environment

STRAND 4: LIFE SCIENCE

- Substrand 1. Structure and Function in Living Systems
 - Standard 1. Levels of organization
 - Standard 2. Cells
- Substrand 2. Interdependence Among Living Systems
 - Standard 1. Ecosystems
 - Standard 2. Flow of energy and matter
- Substrand 3. Evolution in Living

	<p>Systems</p> <ul style="list-style-type: none"> - Standard 1. Reproduction - Standard 2. Variation - Standard 3. Biological evolution - Substrand 4. Human Interactions with Living Systems <ul style="list-style-type: none"> - Standard 1. Interaction with the environment - Standard 2. Health and disease 	
<p>Grade 9--Physical Science by Inquiry</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING</p> <ul style="list-style-type: none"> - Substrand 1: The Practice of Science <ul style="list-style-type: none"> - Standard 1. Understandings about science - Standard 2. Scientific inquiry and investigation - Substrand 2: The Practice of Engineering <ul style="list-style-type: none"> - Standard 1: Understandings about engineering - Standard 2. Engineering design - Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society <ul style="list-style-type: none"> - Standard 1. Systems - Standard 2. Careers and contributions in science and engineering - Standard 3. Mutual influence of science, engineering and society - Standard 4. The role of mathematics and technology in science and engineering <p>STRAND 2: PHYSICAL SCIENCE</p> <ul style="list-style-type: none"> - Substrand 1: Matter <ul style="list-style-type: none"> - Standard 1. Properties and structure of matter - Standard 2. Changes in matter - Substrand 2: Motion <ul style="list-style-type: none"> - Standard 1. Describing motion 	

- Standard 2. Forces
- Substrand 3. Energy
 - Standard 1. Kinds of energy
 - Standard 2. Energy transformations
- Substrand 4. Human Interactions with Physical Systems
 - Standard 1. Interaction with the environment

STRAND 3: EARTH AND SPACE SCIENCE

- Substrand 1. Earth Structure and Processes
 - Standard 1. Plate tectonics
 - Standard 2. Earth's changing surface
 - Standard 3. Rock sequences and Earth history
- Substrand 2. Interdependence within the Earth System
 - Standard 1. Sources and transfer of energy
 - Standard 2. Weather and climate
 - Standard 3. Materials cycles
- Substrand 3. The Universe
 - Standard 1. Solar system motion
 - Standard 2. Formation of the solar system
 - Standard 3. Age, scale and origin of the universe
- Substrand 4. Human Interactions with Earth Systems
 - Standard 1. Interaction with the environment

STRAND 4: LIFE SCIENCE

- Substrand 1. Structure and Function in Living Systems
 - Standard 1. Levels of organization
 - Standard 2. Cells
- Substrand 2. Interdependence Among Living Systems
 - Standard 1. Ecosystems
 - Standard 2. Flow of energy

	<p style="text-align: center;">and matter</p> <ul style="list-style-type: none"> - Substrand 3. Evolution in Living Systems <ul style="list-style-type: none"> - Standard 1. Reproduction - Standard 2. Variation - Standard 3. Biological evolution - Substrand 4. Human Interactions with Living Systems <ul style="list-style-type: none"> - Standard 1. Interaction with the environment - Standard 2. Health and disease 	
<p>Grade 10--Biology</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING</p> <ul style="list-style-type: none"> - Substrand 1: The Practice of Science <ul style="list-style-type: none"> - Standard 1. Understandings about science - Standard 2. Scientific inquiry and investigation - Substrand 2: The Practice of Engineering <ul style="list-style-type: none"> - Standard 1. Understandings about engineering - Standard 2. Engineering design - Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society <ul style="list-style-type: none"> - Standard 1. Systems - Standard 2. Careers and contributions in science and engineering - Standard 3. Mutual influence of science, engineering and society - Standard 4. The role of mathematics and technology in science and engineering <p>STRAND 2: PHYSICAL SCIENCE</p> <ul style="list-style-type: none"> - Substrand 1: Matter <ul style="list-style-type: none"> - Standard 1. Properties and structure of matter 	

- Standard 2. Changes in matter
- Substrand 2: Motion
 - Standard 1. Describing motion
 - Standard 2. Forces
- Substrand 3. Energy
 - Standard 1. Kinds of energy
 - Standard 2. Energy transformations
- Substrand 4. Human Interactions with Physical Systems
- Standard 1. Interaction with the environment

STRAND 3: EARTH AND SPACE SCIENCE

- Substrand 1. Earth Structure and Processes
 - Standard 1. Plate tectonics
 - Standard 2. Earth's changing surface
 - Standard 3. Rock sequences and Earth history
- Substrand 2. Interdependence within the Earth System
 - Standard 1. Sources and transfer of energy
 - Standard 2. Weather and climate
 - Standard 3. Materials cycles
- Substrand 3. The Universe
 - Standard 1. Solar system motion
 - Standard 2. Formation of the solar system
 - Standard 3. Age, scale and origin of the universe
- Substrand 4. Human Interactions with Earth Systems
 - Standard 1. Interaction with the environment

STRAND 4: LIFE SCIENCE

- Substrand 1. Structure and Function in Living Systems
 - Standard 1. Levels of organization
 - Standard 2. Cells

	<ul style="list-style-type: none"> - Substrand 2. Interdependence Among Living Systems <ul style="list-style-type: none"> - Standard 1. Ecosystems - Standard 2. Flow of energy and matter - Substrand 3. Evolution in Living Systems <ul style="list-style-type: none"> - Standard 1. Reproduction - Standard 2. Variation - Standard 3. Biological evolution - Substrand 4. Human Interactions with Living Systems <ul style="list-style-type: none"> - Standard 1. Interaction with the environment - Standard 2. Health and disease 	
<p>Chemistry in the Community</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING</p> <ul style="list-style-type: none"> - Substrand 1: The Practice of Science <ul style="list-style-type: none"> - Standard 1. Understandings about science - Standard 2. Scientific inquiry and investigation - Substrand 2: The Practice of Engineering <ul style="list-style-type: none"> - Standard 1. Understandings about engineering - Standard 2. Engineering design - Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society <ul style="list-style-type: none"> - Standard 1. Systems - Standard 2. Careers and contributions in science and engineering - Standard 3. Mutual influence of science, engineering and society - Standard 4. The role of mathematics and technology in science and engineering <p>STRAND 2: PHYSICAL SCIENCE</p> <ul style="list-style-type: none"> - Substrand 1: Matter 	

- Standard 1. Properties and structure of matter
- Standard 2. Changes in matter
- Substrand 2: Motion
 - Standard 1. Describing motion
 - Standard 2. Forces
- Substrand 3. Energy
 - Standard 1. Kinds of energy
 - Standard 2. Energy transformations
- Substrand 4. Human Interactions with Physical Systems
 - Standard 1. Interaction with the environment

STRAND 3: EARTH AND SPACE SCIENCE

- Substrand 1. Earth Structure and Processes
 - Standard 1. Plate tectonics
 - Standard 2. Earth's changing surface
 - Standard 3. Rock sequences and Earth history
- Substrand 2. Interdependence within the Earth System
 - Standard 1. Sources and transfer of energy
 - Standard 2. Weather and climate
 - Standard 3. Materials cycles
- Substrand 3. The Universe
 - Standard 1. Solar system motion
 - Standard 2. Formation of the solar system
 - Standard 3. Age, scale and origin of the universe
- Substrand 4. Human Interactions with Earth Systems
 - Standard 1. Interaction with the environment

STRAND 4: LIFE SCIENCE

- Substrand 1. Structure and Function in Living Systems
 - Standard 1. Levels of

	<ul style="list-style-type: none"> organization <ul style="list-style-type: none"> - Standard 2. Cells - Substrand 2. Interdependence Among Living Systems <ul style="list-style-type: none"> - Standard 1. Ecosystems - Standard 2. Flow of energy and matter - Substrand 3. Evolution in Living Systems <ul style="list-style-type: none"> - Standard 1. Reproduction - Standard 2. Variation - Standard 3. Biological evolution - Substrand 4. Human Interactions with Living Systems <ul style="list-style-type: none"> - Standard 1. Interaction with the environment - Standard 2. Health and disease 	
Chemistry	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING</p> <ul style="list-style-type: none"> - Substrand 1: The Practice of Science <ul style="list-style-type: none"> - Standard 1. Understandings about science - Standard 2. Scientific inquiry and investigation - Substrand 2: The Practice of Engineering <ul style="list-style-type: none"> - Standard 1. Understandings about engineering - Standard 2. Engineering design - Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society <ul style="list-style-type: none"> - Standard 1. Systems - Standard 2. Careers and contributions in science and engineering - Standard 3. Mutual influence of science, engineering and society - Standard 4. The role of mathematics and technology in science and engineering 	

STRAND 2: PHYSICAL SCIENCE

- Substrand 1: Matter
 - Standard 1. Properties and structure of matter
 - Standard 2. Changes in matter
- Substrand 2: Motion
 - Standard 1. Describing motion
 - Standard 2. Forces
- Substrand 3. Energy
 - Standard 1. Kinds of energy
 - Standard 2. Energy transformations
- Substrand 4. Human Interactions with Physical Systems
 - Standard 1. Interaction with the environment

STRAND 3: EARTH AND SPACE SCIENCE

- Substrand 1. Earth Structure and Processes
 - Standard 1. Plate tectonics
 - Standard 2. Earth's changing surface
 - Standard 3. Rock sequences and Earth history
- Substrand 2. Interdependence within the Earth System
 - Standard 1. Sources and transfer of energy
 - Standard 2. Weather and climate
 - Standard 3. Materials cycles
- Substrand 3. The Universe
 - Standard 1. Solar system motion
 - Standard 2. Formation of the solar system
 - Standard 3. Age, scale and origin of the universe
- Substrand 4. Human Interactions with Earth Systems
 - Standard 1. Interaction with the environment

STRAND 4: LIFE SCIENCE

- Substrand 1. Structure and Function

	<p>in Living Systems</p> <ul style="list-style-type: none"> - Standard 1. Levels of organization - Standard 2. Cells - Substrand 2. Interdependence Among Living Systems <ul style="list-style-type: none"> - Standard 1. Ecosystems - Standard 2. Flow of energy and matter - Substrand 3. Evolution in Living Systems <ul style="list-style-type: none"> - Standard 1. Reproduction - Standard 2. Variation - Standard 3. Biological evolution - Substrand 4. Human Interactions with Living Systems <ul style="list-style-type: none"> - Standard 1. Interaction with the environment - Standard 2. Health and disease 	
AP Chemistry	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING</p> <ul style="list-style-type: none"> - Substrand 1: The Practice of Science <ul style="list-style-type: none"> - Standard 1. Understandings about science - Standard 2. Scientific inquiry and investigation - Substrand 2: The Practice of Engineering <ul style="list-style-type: none"> - Standard 1. Understandings about engineering - Standard 2. Engineering design - Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society <ul style="list-style-type: none"> - Standard 1. Systems - Standard 2. Careers and contributions in science and engineering - Standard 3. Mutual influence of science, engineering and society - Standard 4. The role of mathematics and technology 	

in science and engineering

STRAND 2: PHYSICAL SCIENCE

- Substrand 1: Matter
 - Standard 1. Properties and structure of matter
 - Standard 2. Changes in matter
- Substrand 2: Motion
 - Standard 1. Describing motion
 - Standard 2. Forces
- Substrand 3. Energy
 - Standard 1. Kinds of energy
 - Standard 2. Energy transformations
- Substrand 4. Human Interactions with Physical Systems
 - Standard 1. Interaction with the environment

STRAND 3: EARTH AND SPACE SCIENCE

- Substrand 1. Earth Structure and Processes
 - Standard 1. Plate tectonics
 - Standard 2. Earth's changing surface
 - Standard 3. Rock sequences and Earth history
- Substrand 2. Interdependence within the Earth System
 - Standard 1. Sources and transfer of energy
 - Standard 2. Weather and climate
 - Standard 3. Materials cycles
- Substrand 3. The Universe
 - Standard 1. Solar system motion
 - Standard 2. Formation of the solar system
 - Standard 3. Age, scale and origin of the universe
- Substrand 4. Human Interactions with Earth Systems
 - Standard 1. Interaction with the environment

	<p>STRAND 4: LIFE SCIENCE</p> <ul style="list-style-type: none"> - Substrand 1. Structure and Function in Living Systems <ul style="list-style-type: none"> - Standard 1. Levels of organization - Standard 2. Cells - Substrand 2. Interdependence Among Living Systems <ul style="list-style-type: none"> - Standard 1. Ecosystems - Standard 2. Flow of energy and matter - Substrand 3. Evolution in Living Systems <ul style="list-style-type: none"> - Standard 1. Reproduction - Standard 2. Variation - Standard 3. Biological evolution - Substrand 4. Human Interactions with Living Systems <ul style="list-style-type: none"> - Standard 1. Interaction with the environment - Standard 2. Health and disease 	
<p>Physics by Inquiry</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING</p> <ul style="list-style-type: none"> - Substrand 1: The Practice of Science <ul style="list-style-type: none"> - Standard 1. Understandings about science - Standard 2. Scientific inquiry and investigation - Substrand 2: The Practice of Engineering <ul style="list-style-type: none"> - Standard 1. Understandings about engineering - Standard 2. Engineering design - Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society <ul style="list-style-type: none"> - Standard 1. Systems - Standard 2. Careers and contributions in science and engineering - Standard 3. Mutual influence of science, engineering and society 	

- Standard 4. The role of mathematics and technology in science and engineering

STRAND 2: PHYSICAL SCIENCE

- Substrand 1: Matter
 - Standard 1. Properties and structure of matter
 - Standard 2. Changes in matter
- Substrand 2: Motion
 - Standard 1. Describing motion
 - Standard 2. Forces
- Substrand 3. Energy
 - Standard 1. Kinds of energy
 - Standard 2. Energy transformations
- Substrand 4. Human Interactions with Physical Systems
 - Standard 1. Interaction with the environment

STRAND 3: EARTH AND SPACE SCIENCE

- Substrand 1. Earth Structure and Processes
 - Standard 1. Plate tectonics
 - Standard 2. Earth's changing surface
 - Standard 3. Rock sequences and Earth history
- Substrand 2. Interdependence within the Earth System
 - Standard 1. Sources and transfer of energy
 - Standard 2. Weather and climate
 - Standard 3. Materials cycles
- Substrand 3. The Universe
 - Standard 1. Solar system motion
 - Standard 2. Formation of the solar system
 - Standard 3. Age, scale and origin of the universe
- Substrand 4. Human Interactions with Earth Systems
 - Standard 1. Interaction with

	<p style="text-align: center;">the environment</p> <p>STRAND 4: LIFE SCIENCE</p> <ul style="list-style-type: none"> - Substrand 1. Structure and Function in Living Systems <ul style="list-style-type: none"> - Standard 1. Levels of organization - Standard 2. Cells - Substrand 2. Interdependence Among Living Systems <ul style="list-style-type: none"> - Standard 1. Ecosystems - Standard 2. Flow of energy and matter - Substrand 3. Evolution in Living Systems <ul style="list-style-type: none"> Standard 1. Reproduction - Standard 2. Variation - Standard 3. Biological evolution - Substrand 4. Human Interactions with Living Systems <ul style="list-style-type: none"> - Standard 1. Interaction with the environment - Standard 2. Health and disease 	
<p>Physics I</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING Substrand 1: The Practice of Science Standard 1. Understandings about science Standard 2. Scientific inquiry and investigation Substrand 2: The Practice of Engineering Standard 1. Understandings about engineering Standard 2. Engineering design Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society Standard 1. Systems Standard 2. Careers and contributions in science and engineering Standard 3. Mutual influence of science, engineering and society Standard 4. The role of mathematics and technology in science and engineering STRAND 2: PHYSICAL SCIENCE Substrand 1: Matter Standard 1. Properties and structure of matter Standard 2. Changes in matter Substrand 2: Motion Standard 1. Describing motion Standard 2. Forces Substrand 3. Energy Standard 1. Kinds of energy Standard 2. Energy</p>	

	<p>transformations Substrand 4. Human Interactions with Physical Systems Standard 1. Interaction with the environment</p> <p>STRAND 3: EARTH AND SPACE SCIENCE Substrand 1. Earth Structure and Processes Standard 1. Plate tectonics Standard 2. Earth's changing surface Standard 3. Rock sequences and Earth history Substrand 2. Interdependence within the Earth System Standard 1. Sources and transfer of energy Standard 2. Weather and climate Standard 3. Materials cycles</p> <p>Substrand 3. The Universe Standard 1. Solar system motion Standard 2. Formation of the solar system Standard 3. Age, scale and origin of the universe Substrand 4. Human Interactions with Earth Systems Standard 1. Interaction with the environment</p> <p>STRAND 4: LIFE SCIENCE Substrand 1. Structure and Function in Living Systems Standard 1. Levels of organization Standard 2. Cells Substrand 2. Interdependence Among Living Systems Standard 1. Ecosystems Standard 2. Flow of energy and matter Substrand 3. Evolution in Living Systems Standard 1. Reproduction Standard 2. Variation Standard 3. Biological evolution Substrand 4. Human Interactions with Living Systems Standard 1. Interaction with the environment Standard 2. Health and disease</p> <p>Page 1 of 42 May 24, 2010</p>	
<p>Physics II</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING Substrand 1: The Practice of Science Standard 1. Understandings about science Standard 2. Scientific inquiry and investigation Substrand 2: The Practice of Engineering Standard 1. Understandings about engineering Standard 2. Engineering design Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society Standard 1. Systems Standard 2. Careers</p>	

and contributions in science and engineering
Standard 3. Mutual influence of science,
engineering and society Standard 4. The role
of mathematics and technology in science
and engineering STRAND 2: PHYSICAL
SCIENCE Substrand 1: Matter Standard 1.
Properties and structure of matter Standard
2. Changes in matter Substrand 2: Motion
Standard 1. Describing motion Standard 2.
Forces Substrand 3. Energy Standard 1.
Kinds of energy Standard 2. Energy
transformations Substrand 4. Human
Interactions with Physical Systems Standard
1. Interaction with the environment
STRAND 3: EARTH AND SPACE SCIENCE
Substrand 1. Earth Structure and Processes
Standard 1. Plate tectonics Standard 2.
Earth's changing surface Standard 3. Rock
sequences and Earth history Substrand 2.
Interdependence within the Earth System
Standard 1. Sources and transfer of energy
Standard 2. Weather and climate
Standard 3. Materials cycles
Substrand 3. The Universe
Standard 1. Solar system motion
Standard 2. Formation of the solar system
Standard 3. Age, scale and origin of the
universe Substrand 4. Human Interactions
with Earth Systems Standard 1. Interaction
with the environment STRAND 4: LIFE
SCIENCE Substrand 1. Structure and
Function in Living Systems Standard 1.
Levels of organization
Standard 2. Cells
Substrand 2. Interdependence Among Living
Systems Standard 1. Ecosystems
Standard 2. Flow of energy and matter
Substrand 3. Evolution in Living Systems
Standard 1. Reproduction
Standard 2. Variation
Standard 3. Biological evolution
Substrand 4. Human Interactions with Living
Systems Standard 1. Interaction with the
environment Standard 2. Health and disease
Page 1 of 42 May 24, 2010

<p>Limnology</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING Substrand 1: The Practice of Science Standard 1. Understandings about science Standard 2. Scientific inquiry and investigation Substrand 2: The Practice of Engineering Standard 1. Understandings about engineering Standard 2. Engineering design Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society Standard 1. Systems Standard 2. Careers and contributions in science and engineering Standard 3. Mutual influence of science, engineering and society Standard 4. The role of mathematics and technology in science and engineering STRAND 2: PHYSICAL SCIENCE Substrand 1: Matter Standard 1. Properties and structure of matter Standard 2. Changes in matter Substrand 2: Motion Standard 1. Describing motion Standard 2. Forces Substrand 3. Energy Standard 1. Kinds of energy Standard 2. Energy transformations Substrand 4. Human Interactions with Physical Systems Standard 1. Interaction with the environment STRAND 3: EARTH AND SPACE SCIENCE Substrand 1. Earth Structure and Processes Standard 1. Plate tectonics Standard 2. Earth's changing surface Standard 3. Rock sequences and Earth history Substrand 2. Interdependence within the Earth System Standard 1. Sources and transfer of energy Standard 2. Weather and climate Standard 3. Materials cycles Substrand 3. The Universe Standard 1. Solar system motion Standard 2. Formation of the solar system Standard 3. Age, scale and origin of the universe Substrand 4. Human Interactions with Earth Systems Standard 1. Interaction with the environment STRAND 4: LIFE SCIENCE Substrand 1. Structure and Function in Living Systems Standard 1. Levels of organization Standard 2. Cells Substrand 2. Interdependence Among Living Systems Standard 1. Ecosystems</p>	
------------------	--	--

	<p>Standard 2. Flow of energy and matter Substrand 3. Evolution in Living Systems Standard 1. Reproduction Standard 2. Variation Standard 3. Biological evolution Substrand 4. Human Interactions with Living Systems Standard 1. Interaction with the environment Standard 2. Health and disease Page 1 of 42 May 24, 2010</p>	
<p>Ecology</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING Substrand 1: The Practice of Science Standard 1. Understandings about science Standard 2. Scientific inquiry and investigation Substrand 2: The Practice of Engineering Standard 1. Understandings about engineering Standard 2. Engineering design Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society Standard 1. Systems Standard 2. Careers and contributions in science and engineering Standard 3. Mutual influence of science, engineering and society Standard 4. The role of mathematics and technology in science and engineering STRAND 2: PHYSICAL SCIENCE Substrand 1: Matter Standard 1. Properties and structure of matter Standard 2. Changes in matter Substrand 2: Motion Standard 1. Describing motion Standard 2. Forces Substrand 3: Energy Standard 1. Kinds of energy Standard 2. Energy transformations Substrand 4: Human Interactions with Physical Systems Standard 1. Interaction with the environment STRAND 3: EARTH AND SPACE SCIENCE Substrand 1: Earth Structure and Processes Standard 1. Plate tectonics Standard 2. Earth's changing surface Standard 3. Rock sequences and Earth history Substrand 2: Interdependence within the Earth System Standard 1. Sources and transfer of energy Standard 2. Weather and climate Standard 3. Materials cycles Substrand 3: The Universe Standard 1. Solar system motion</p>	

	<p>Standard 2. Formation of the solar system Standard 3. Age, scale and origin of the universe Substrand 4. Human Interactions with Earth Systems Standard 1. Interaction with the environment STRAND 4: LIFE SCIENCE Substrand 1. Structure and Function in Living Systems Standard 1. Levels of organization Standard 2. Cells Substrand 2. Interdependence Among Living Systems Standard 1. Ecosystems Standard 2. Flow of energy and matter Substrand 3. Evolution in Living Systems Standard 1. Reproduction Standard 2. Variation Standard 3. Biological evolution Substrand 4. Human Interactions with Living Systems Standard 1. Interaction with the environment Standard 2. Health and disease Page 1 of 42 May 24, 2010</p>	
<p>Anatomy</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING Substrand 1: The Practice of Science Standard 1. Understandings about science Standard 2. Scientific inquiry and investigation Substrand 2: The Practice of Engineering Standard 1. Understandings about engineering Standard 2. Engineering design Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society Standard 1. Systems Standard 2. Careers and contributions in science and engineering Standard 3. Mutual influence of science, engineering and society Standard 4. The role of mathematics and technology in science and engineering STRAND 2: PHYSICAL SCIENCE Substrand 1: Matter Standard 1. Properties and structure of matter Standard 2. Changes in matter Substrand 2: Motion Standard 1. Describing motion Standard 2. Forces Substrand 3: Energy Standard 1. Kinds of energy Standard 2. Energy transformations Substrand 4: Human Interactions with Physical Systems Standard 1. Interaction with the environment</p>	

	<p>STRAND 3: EARTH AND SPACE SCIENCE Substrand 1. Earth Structure and Processes Standard 1. Plate tectonics Standard 2. Earth's changing surface Standard 3. Rock sequences and Earth history Substrand 2. Interdependence within the Earth System Standard 1. Sources and transfer of energy Standard 2. Weather and climate Standard 3. Materials cycles Substrand 3. The Universe Standard 1. Solar system motion Standard 2. Formation of the solar system Standard 3. Age, scale and origin of the universe Substrand 4. Human Interactions with Earth Systems Standard 1. Interaction with the environment STRAND 4: LIFE SCIENCE Substrand 1. Structure and Function in Living Systems Standard 1. Levels of organization Standard 2. Cells Substrand 2. Interdependence Among Living Systems Standard 1. Ecosystems Standard 2. Flow of energy and matter Substrand 3. Evolution in Living Systems Standard 1. Reproduction Standard 2. Variation Standard 3. Biological evolution Substrand 4. Human Interactions with Living Systems Standard 1. Interaction with the environment Standard 2. Health and disease Page 1 of 42 May 24, 2010</p>	
<p>Geology</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING Substrand 1: The Practice of Science Standard 1. Understandings about science Standard 2. Scientific inquiry and investigation Substrand 2: The Practice of Engineering Standard 1. Understandings about engineering Standard 2. Engineering design Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society Standard 1. Systems Standard 2. Careers and contributions in science and engineering Standard 3. Mutual influence of science, engineering and society Standard 4. The role</p>	

	<p>of mathematics and technology in science and engineering</p> <p>STRAND 2: PHYSICAL SCIENCE</p> <p>Substrand 1: Matter Standard 1. Properties and structure of matter Standard 2. Changes in matter</p> <p>Substrand 2: Motion Standard 1. Describing motion Standard 2. Forces</p> <p>Substrand 3: Energy Standard 1. Kinds of energy Standard 2. Energy transformations</p> <p>Substrand 4: Human Interactions with Physical Systems Standard 1. Interaction with the environment</p> <p>STRAND 3: EARTH AND SPACE SCIENCE</p> <p>Substrand 1: Earth Structure and Processes Standard 1. Plate tectonics Standard 2. Earth's changing surface Standard 3. Rock sequences and Earth history</p> <p>Substrand 2: Interdependence within the Earth System Standard 1. Sources and transfer of energy Standard 2. Weather and climate Standard 3. Materials cycles</p> <p>Substrand 3: The Universe Standard 1. Solar system motion Standard 2. Formation of the solar system Standard 3. Age, scale and origin of the universe</p> <p>Substrand 4: Human Interactions with Earth Systems Standard 1. Interaction with the environment</p> <p>STRAND 4: LIFE SCIENCE</p> <p>Substrand 1: Structure and Function in Living Systems Standard 1. Levels of organization Standard 2. Cells</p> <p>Substrand 2: Interdependence Among Living Systems Standard 1. Ecosystems Standard 2. Flow of energy and matter</p> <p>Substrand 3: Evolution in Living Systems Standard 1. Reproduction Standard 2. Variation Standard 3. Biological evolution</p> <p>Substrand 4: Human Interactions with Living Systems Standard 1. Interaction with the environment Standard 2. Health and disease</p> <p>Page 1 of 42 May 24, 2010</p>	
Astronomy	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING</p> <p>Substrand 1: The Practice of Science Standard 1. Understandings about</p>	

	<p>science Standard 2. Scientific inquiry and investigation Substrand 2: The Practice of Engineering Standard 1. Understandings about engineering Standard 2. Engineering design Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society Standard 1. Systems Standard 2. Careers and contributions in science and engineering Standard 3. Mutual influence of science, engineering and society Standard 4. The role of mathematics and technology in science and engineering STRAND 2: PHYSICAL SCIENCE Substrand 1: Matter Standard 1. Properties and structure of matter Standard 2. Changes in matter Substrand 2: Motion Standard 1. Describing motion Standard 2. Forces Substrand 3. Energy Standard 1. Kinds of energy Standard 2. Energy transformations Substrand 4. Human Interactions with Physical Systems Standard 1. Interaction with the environment STRAND 3: EARTH AND SPACE SCIENCE Substrand 1. Earth Structure and Processes Standard 1. Plate tectonics Standard 2. Earth's changing surface Standard 3. Rock sequences and Earth history Substrand 2. Interdependence within the Earth System Standard 1. Sources and transfer of energy Standard 2. Weather and climate Standard 3. Materials cycles Substrand 3. The Universe Standard 1. Solar system motion Standard 2. Formation of the solar system Standard 3. Age, scale and origin of the universe Substrand 4. Human Interactions with Earth Systems Standard 1. Interaction with the environment STRAND 4: LIFE SCIENCE Substrand 1. Structure and Function in Living Systems Standard 1. Levels of organization Standard 2. Cells Substrand 2. Interdependence Among Living Systems Standard 1. Ecosystems Standard 2. Flow of energy and matter Substrand 3. Evolution in Living Systems Standard 1. Reproduction</p>	
--	--	--

	<p>Standard 2. Variation Standard 3. Biological evolution Substrand 4. Human Interactions with Living Systems Standard 1. Interaction with the environment Standard 2. Health and disease Page 1 of 42 May 24, 2010</p>	
<p>Weather</p>	<p>STRAND 1: NATURE OF SCIENCE AND ENGINEERING Substrand 1: The Practice of Science Standard 1. Understandings about science Standard 2. Scientific inquiry and investigation Substrand 2: The Practice of Engineering Standard 1. Understandings about engineering Standard 2. Engineering design Substrand 3: Interactions Among Science, Technology, Engineering, Mathematics and Society Standard 1. Systems Standard 2. Careers and contributions in science and engineering Standard 3. Mutual influence of science, engineering and society Standard 4. The role of mathematics and technology in science and engineering STRAND 2: PHYSICAL SCIENCE Substrand 1: Matter Standard 1. Properties and structure of matter Standard 2. Changes in matter Substrand 2: Motion Standard 1. Describing motion Standard 2. Forces Substrand 3: Energy Standard 1. Kinds of energy Standard 2. Energy transformations Substrand 4: Human Interactions with Physical Systems Standard 1. Interaction with the environment STRAND 3: EARTH AND SPACE SCIENCE Substrand 1: Earth Structure and Processes Standard 1. Plate tectonics Standard 2. Earth's changing surface Standard 3. Rock sequences and Earth history Substrand 2: Interdependence within the Earth System Standard 1. Sources and transfer of energy Standard 2. Weather and climate Standard 3. Materials cycles Substrand 3: The Universe Standard 1. Solar system motion Standard 2. Formation of the solar system Standard 3. Age, scale and origin of the universe Substrand 4: Human Interactions</p>	

	<p>with Earth Systems Standard 1. Interaction with the environment STRAND 4: LIFE SCIENCE Substrand 1. Structure and Function in Living Systems Standard 1. Levels of organization Standard 2. Cells Substrand 2. Interdependence Among Living Systems Standard 1. Ecosystems Standard 2. Flow of energy and matter Substrand 3. Evolution in Living Systems Standard 1. Reproduction Standard 2. Variation Standard 3. Biological evolution Substrand 4. Human Interactions with Living Systems Standard 1. Interaction with the environment Standard 2. Health and disease Page 1 of 42 May 24, 2010</p>	
--	--	--