



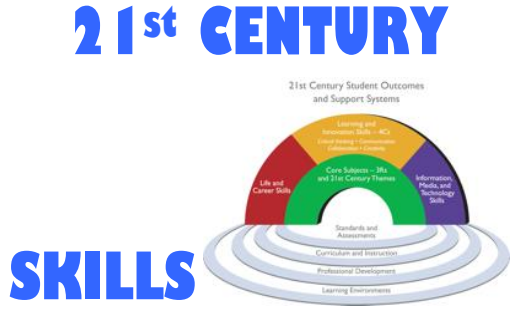


<p>www.nextgenscience.org/</p>  <p>NEXT GENERATION SCIENCE STANDARDS For States, By States</p>	<p>www.k12.wa.us/CoreStandards/</p>   <p>COMMON CORE STATE STANDARDS INITIATIVE PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER</p>		<p>http://www.careertech.org/career-ready-practices</p>  <p>CCTC Common Career Technical Core</p>	<p>http://www.p21.org/storage/documents/1._p21_framework_2-pager.pdf</p>  <p>21st CENTURY SKILLS</p>
<p>Science and Engineering Practices</p> <p>S1. Asking questions (for science) and defining problems (for engineering)</p> <p>S2. Developing and using models</p> <p>S3. Planning and carrying out investigations</p> <p>S4. Analyzing and interpreting data</p> <p>S5. Using mathematics and computational thinking</p> <p>S6. Constructing explanations (for science) and designing solutions (for engineering)</p> <p>S7. Engaging in argument from evidence</p> <p>S8. Obtaining, evaluating, and communicating information</p>	<p>Mathematical Practices</p> <p>M1. Make sense of problems and persevere in solving them</p> <p>M2. Reason abstractly and quantitatively</p> <p>M3. Construct viable arguments and critique the reasoning of others</p> <p>M4. Model with mathematics</p> <p>M5. Use appropriate tools strategically</p> <p>M6. Attend to precision</p> <p>M7. Look for and make use of structure</p> <p>M8. Look for and express regularity in repeated reasoning</p>	<p>English Language Arts Practices/Portraits</p> <p>E1. They demonstrate independence</p> <p>E2. They build strong content knowledge</p> <p>E3. They respond to the varying demands of audience, task, purpose, and discipline</p> <p>E4. They comprehend as well as critique</p> <p>E5. They value evidence</p> <p>E6. They use technology and digital media strategically and capably</p> <p>E7. They come to understanding other perspectives and cultures</p>	<p>Career Ready Practices</p> <ol style="list-style-type: none"> 1. Act as a responsible and contributing citizen and employee. 2. Apply appropriate academic and technical skills. 3. Attend to personal health and financial well being. 4. Communicate clearly, effectively and with reason. 5. Consider the environmental, social and economic impacts of decisions. 6. Demonstrate creativity and innovation. 7. Employ valid and reliable research strategies. 8. Utilize critical thinking to make sense of problems and persevere in solving them. 9. Model integrity, ethical leadership and effective management. 10. Plan education and career path aligned to personal goals. 11. Use technology to enhance productivity. 12. Work productively in teams while using cultural/global competence. 	<p>Skills</p> <p>1. Learning & Innovation Creativity and innovation Critical thinking and problem solving Communication and collaboration</p> <p>2. Information, Media and Technology Information literacy Media literacy Information, communications and technology literacy</p> <p>3. Life and Career Flexibility and adaptability Initiative and self-direction Social and cross-cultural skills Productivity and accountability Leadership and responsibility</p> <p>Core Subjects and 21st Century Themes</p> <p>Global awareness Financial, economic, business and entrepreneurial literacy Civic literacy Health literacy Environmental literacy</p>



Disciplinary Core Ideas

PHYSICAL SCIENCES

PS1: Matter and Its Interactions

PS2: Motion and Stability: Forces and Interactions

PS3: Energy

PS4: Waves and Their Applications in Technologies for Information Transfer

LIFE SCIENCES

LS1: From Molecules to Organisms: Structures and Processes

LS2: Ecosystems: Interactions, Energy, and Dynamics

LS3: Heredity: Inheritance and Variation of Traits

LS4: Biological Evolution: Unity and Diversity

EARTH AND SPACE SCIENCES

ESS1: Earth's Place in the Universe

ESS2: Earth's Systems

ESS3: Earth and Human Activity

ENGINEERING, TECHNOLOGY, AND APPLICATIONS OF SCIENCE

ETS1: Engineering Design

ETS2: Links Among Engineering, Technology, Science, and Society

Science and Engineering Practices

1. Asking Questions (for science) and Defining Problems (for engineering)
2. Developing and Using Models
3. Planning and Carrying Out Investigations
4. Analyzing and Interpreting Data
5. Using Mathematics and Computational Thinking
6. Constructing Explanations (for science) and Designing Solutions (for engineering)
7. Engaging in Argument from Evidence
8. Obtaining, Evaluating, and Communicating Information

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Crosscutting Concepts

1. Patterns
2. Cause and Effect: Mechanisms and Explanation
3. Scale, Proportion, and Quantity
4. Systems and System Models
5. Energy and Matter: Flows, Cycles, and Conservation
6. Structure and Function
7. Stability and Change