# Social Studies

Innovation and National Curriculum/Standards Alignment



## U.S. History Standards

### ERA 6: The Development of the Industrial United States (1870-1900)

Standard 1A: The student understands the connections among industrialization, the advent of the modern corporation and material well-being.

#### Grades 5-12

- Explain how organized industrial research produced technological breakthroughs, especially the Bessemer steel process, conversion to electrical power and telephonic communication, and how these innovations transformed the economy, work processes and domestic life.
- Evaluate the careers of prominent industrial and financial leaders.

#### Grades 9-12

- Examine how industrialization made consumer goods more available, increased the standard of living for most Americans and redistributed wealth.
- Compare the ascent of new industries today with those of a century ago.

## Geography Standards

### Content Standard 4: Human Systems

#### Grades K-12

All students should:

- Understand the patterns and networks of economic interdependence on Earth's surface. (11)

### Content Standard 5: Environment and Society

#### Grades K-12

All students should:

- Understand how human actions modify the physical environment. (14)
- Understand how physical systems affect human systems. (15)
- Understand the changes that occur in the meaning, use, distribution and importance of resources. (16)

## Economics Standards

### Content Standard 14: Profit and Entrepreneur

#### Grades 5-8

Entrepreneurs are people who take the risks of organizing productive resources to make goods and services. Profit is an important incentive that leads entrepreneurs to accept the risks of business failure.

- Entrepreneurs compare the expected benefits of entering a new enterprise with the expected costs. (1)
- Entrepreneurs organize resources to produce goods and services because they expect to earn profits. (2)

# Social Studies

Innovation and National Curriculum/Standards Alignment



- Entrepreneurs (as well as other sellers) earn profits when the revenues they receive from selling the products they sell are greater than the costs of production. (3)
- Entrepreneurs (as well as other sellers) incur losses when the revenues they receive from selling the products they sell do not cover the costs of production. (4)
- In addition to profits, entrepreneurs respond to other incentives, including the opportunity to be their own boss, the chance to achieve recognition and the satisfaction of creating new products or improving existing ones. In addition to financial losses, other disincentives to which entrepreneurs respond include the responsibility, long hours and stress of running a business. (5)

### Grades 9-12

Entrepreneurs are people who take the risks of organizing productive resources to make goods and services. Profit is an important incentive that leads entrepreneurs to accept the risks of business failure.

- Entrepreneurial decisions affect job opportunities. (1)
- Entrepreneurial decisions are influenced by government tax and regulatory policies. (2)

## Content Standard 14: Economic Growth

### Grades 5-8

Investment in factories, machinery and new technology, and in the health, education and training of people, can raise future standards of living.

- Technological change results from an advance in knowledge leading to new and improved goods and services and better ways of producing them. (3)
- Increases in productivity result from advances in technology or increases in physical or human capital. (4)

### Grades 9-12

Investment in factories, machinery and new technology, and in the health, education and training of people, can raise future standards of living.

- The rate of productivity increase in an economy is strongly affected by the incentives that reward successful innovation and investments (in research and development, and in physical and human capital). (5)

## Sources:

Index of Standards, Council for Economic Education

www.councilforeconed.org/ea/standards/

National Standards for History, National Center for History in the Schools

www.nchs.ucla.edu/Standards/

National Geography Standards, National Geographic Society

www.nationalgeographic.com/xpeditions/standards/

# 21st-Century Skills

Innovation and National Curriculum/Standards Alignment



## Learning and Innovation Skills

### Creativity and Innovation

*Think Creatively*

- Use a wide range of idea creation techniques (such as brainstorming).
- Create new and worthwhile ideas (both incremental and radical concepts).
- Elaborate, refine, analyze and evaluate one's own ideas in order to improve and maximize creative efforts.

*Work Creatively with Others*

- Develop, implement and communicate new ideas to others effectively.
- Be open and responsive to new and diverse perspectives; incorporate group input and feedback into the work.
- Demonstrate originality and inventiveness in work, and understand the real-world limits to adopting new ideas.
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical processes with small successes and frequent mistakes.

### Critical Thinking and Problem Solving

*Use Systems Thinking*

- Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems.

*Make Judgments and Decisions*

- Synthesize and make connections between information and arguments.
- Interpret information and draw conclusions based on the best analysis.
- Reflect critically on learning experiences and processes.

*Solve Problems*

- Solve different kinds of unfamiliar problems in both conventional and innovative ways.

### Communication and Collaboration

*Communicate Clearly*

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts.

*Collaborate with Others*

- Demonstrate the ability to work effectively and respectfully with diverse teams.
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal.
- Assume shared responsibility for collaborative work, and value the individual contributions made by each team member.

# 21st-Century Skills

Innovation and National Curriculum/Standards Alignment



## Information, Media and Technology Skills

### Information Literacy

*Access and Evaluate Information*

- Evaluate information critically and competently.

*Use and Manage Information*

- Use information accurately and creatively for the issue or problem at hand.

### Information and Communications Technology (ICT) Literacy

*Apply Technology Effectively*

- Use technology as a tool to research, organize, evaluate and communicate information.
- Use digital technologies (computers, PDAs, media players, GPS, etc.), communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy.

## Life and Career Skills

### Flexibility and Adaptability

*Be Flexible*

- Incorporate feedback effectively.
- Deal positively with praise, setbacks and criticism.

### Initiative and Self-Direction

*Be Self-Directed Learners*

- Reflect critically on past experiences in order to inform future progress.

### Social and Cross-Cultural Skills

*Interact Effectively with Others*

- Know when it is appropriate to listen and when to speak.
- Conduct self in a respectable, professional manner.

*Work Effectively in Diverse Teams*

- Respect cultural differences, and work effectively with people from a range of social and cultural backgrounds.
- Respond open-mindedly to different ideas and values.
- Leverage social and cultural differences to create new ideas and increase both innovation and quality of work.

# 21st-Century Skills

Innovation and National Curriculum/Standards Alignment



### Leadership and Responsibility

*Guide and Lead Others*

- Use interpersonal and problem-solving skills to influence and guide others toward a goal.
- Leverage strengths of others to accomplish a common goal.
- Inspire others to reach their very best via example and selflessness.
- Demonstrate integrity and ethical behavior in using influence and power.

*Be Responsible to Others*

- Act responsibly with the interests of the larger community in mind.

## Source:

Framework for 21st-Century Learning, Partnership for 21st-Century Skills (P21)

www.p21.org/overview/skills-framework/351

# Educational Technology

Career & Technical Education (CTE)

Innovation and National Curriculum/Standards Alignment

Grades 5-12

## Educational Technology Standards

### Creativity and Innovation (1)

Students demonstrate creative thinking, construct knowledge and develop innovative products and processes using technology.

- Apply existing knowledge to generate new ideas, products or processes. (A)
- Create original works as a means of personal or group expression. (B)

### Communication and Collaboration (2)

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

- Interact, collaborate and publish with peers, experts or others, employing a variety of digital environments and media. (A)
- Contribute to project teams to produce original works or solve problems. (D)

### Critical Thinking, Problem Solving and Decision Making (4)

Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources.

- Identify and define authentic problems and significant questions for investigation. (A)
- Plan and manage activities to develop a solution or complete a project. (B)
- Collect and analyze data to identify solutions and/or make informed decisions. (C)
- Use multiple processes and diverse perspectives to explore alternative solutions. (D)

### Digital Citizenship (5)

Students understand human, cultural and societal issues related to technology and practice legal and ethical behavior.

- Exhibit a positive attitude toward using technology that supports collaboration, learning and productivity. (B)
- Demonstrate personal responsibility for lifelong learning. (C)

## Source:

Technology Standards, International Society for Technology in Education (ISTE)

www.iste.org/standards.aspx

---

## Career and Technical Education (CTE)

The Association for Career and Technical Education (ACTE) has compiled profiles of each state's CTE standards, which can be found at www.acteonline.org/profiles.aspx.

# Science

Innovation and National Curriculum/Standards Alignment

Grades 5-12

## Science Standards

### Content Standard 5: Science and Technology

Grades 5-12

- Abilities of technological design
- Understandings about science and technology

### Content Standard 6: Personal and Social Perspectives

Grades 5-8

- Populations, resources and environments
- Risks and benefits
- Science and technology in society

Grades 9-12

- Personal and community health
- Natural resources
- Environmental quality
- Natural and human-induced hazards
- Science and technology in local, national and global challenges

### Content Standard 7: History and Nature of Science

Grades 5-8

- Science as a human endeavor
- Nature of science
- History of science

Grades 9-12

- Science as a human endeavor
- Nature of scientific knowledge
- Historical perspectives

## Source:

National Science Education Standards, National Committee on Science Education Standards and Assessment and National Research Council

www.nap.edu/html/nses/

# English Language Arts

Innovation and National Curriculum/Standards Alignment

Grades 5-12

## English Language Arts Standards

### Standard 2. Understanding the Human Experience

Students read a wide range of literature from many periods in many genres to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience.

### Standard 7. Researching and Communicating

Students conduct research on issues and interests by generating ideas and questions and by posing problems. They gather, evaluate and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.

### Standard 11. Participating in Society

Students participate as knowledgeable, reflective, creative and critical members of a variety of literacy communities.

## Source:

Standards for the English Language Arts, National Council of Teachers of English and International Reading Association
www.ncte.org/standards