Iowa Core Curriculum
K-12 21st Century Skills

Essential Concepts and Skills with Details and Examples

Introduction

As each Iowa student is provided access to essential concepts and meaningful learning experiences in the core academic content areas, it is imperative that we also look to 21st century skills to build capacity in students so they are prepared to lead productive, satisfying lives. According to Ken Kay, president of the Partnership for 21st Century Skills, the 21st century skills set "is the ticket to economic upward mobility in the new economy" (Gewertz, 2007). Business and industry is providing a very clear message that students need the skills to "work comfortably with people from other cultures, solve problems creatively, write and speak well, think in a multidisciplinary way, and evaluate information critically. And they need to be punctual, dependable, and industrious." (Gewertz, 2007).

The Framework for 21st Century Learning stated, "We believe schools must move beyond a focus on basic competency in core subjects to promoting understanding of academic content at much higher levels by weaving 21st century interdisciplinary themes into core subjects" (2007). 21st century skills bridge the knowledge, skills, and dispositions of students from the core academic areas to real life application.

"The primary aim of education is not to enable students to do well in school, but to help them do well in the lives they lead outside of the school."

-Ray McNulty, ICLE
Iowa High School Summit, December 10, 2007

Descriptions of the new global reality are plentiful, and the need for new, 21st century skills in an increasingly complex environment is well documented. In one form or another, authors cite (1) the globalization of economics; (2) the explosion of scientific and technological knowledge; (3) the increasingly international dimensions of the issues we face, i.e. global warming and pandemic diseases; and (4) changing demographic as the major trends that have resulted in a future world much different from the one that many of us faced when we graduated from high school (Friedman, 2005 and Stewart, 2007). The trends are very clear that each Iowa students will need essential 21st century skills to lead satisfying lives in this current reality.

Descriptions of what constitute essential 21st century skills are plentiful as well. In the 2007 session, the Iowa Legislature established the Iowa 21st century framework as:

(1) civic literacy
(2) employability skills
(3) financial literacy
(4) health literacy
(5) technology literacy

Within this 21st century skill framework are the common strands of learning and innovation; communication, information, and technology; and, life and career skills. The development of the Iowa 21st century essential concepts and skills was a collaborative process engaging the expertise of p – 16 educators, business, and industry representatives. Sources used for this work included the 1991 SCANS report, What Work Requires of Schools, and Framework for 21st Century Learning, from the Partnership for 21st Century Skills. The committee surveyed the literature and endeavored to bring together the common elements of these frameworks. The members have outlined the concepts, dispositions and habits of mind believed essential for success in the 21st century.

The reality of building capacity for the 21st century is that we do not know what the work of the future will be like (Darling-Hammond, 2007) or how technology will influence health and financial issues. The challenge is to prepare students to think critically, to engage in mental activity, or habits of mind, that "…use facts to plan, order, and work toward an end; seek meaning or explanations; are self-reflective; and use reason to question claims and make judgments…" (Noddings, 2008). It may be that our task is not only to prepare students to "fit into the future" but to shape it. "…If the complex questions of the future are to be determined… by human beings…making one choice rather than another, we should educate youths - all of them - to join in the conversation about those choices and to influence that future…" (Meier, 2008).

Civic Literacy

NOTE: The Essential Concepts and Skills listed in 21st Century Skills – Civic Literacy are the same as the Essential Concepts and Skills listed in Social Studies – Political Science/Civic Literacy.

High School (9 – 12) Details and Example

Essential Concept and/or Skill: ***Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action.***

- Understand rights, roles, and status of the individual in relation to the general welfare.
- Understand that constitutional democracy requires the participation of an attentive, knowledgeable, and competent citizenry.
- Understand personal, political, and economic rights are secured by constitutional government, the rule of law, checks and balances, an independent judiciary, and a vigilant citizenry.
- Understand ways citizens participate in the political process at local, state, and national levels.
- Understand the importance of becoming knowledgeable about public affairs.
- Understand the importance of voluntarism as a characteristic of American society.

Essential Concept and/or Skill: ***Understand how the government established by the Constitution embodies the enduring values and principles of democracy and republicanism.***

- Understand the central ideas of American constitutional government and how this form of government has shaped the character of American society.
- Understand the role of government in major areas of domestic and foreign policy.

Essential Concept and/or Skill: ***Understand the purpose and function of each of the three branches of government established by the Constitution.***

- Understand the purpose of government and how its powers are acquired, used and justified.
- Understand the necessity of politics and government.
- Understand the purposes, organization, and functions of the legislative, executive, and judicial branches and the independent regulatory agencies.

Essential Concept and/or Skill: ***Understand the differences among the complex levels of local, state and national government and their inherent, expressed, and implied powers.***

- Understand the design and features of the Constitution prevent the abuse of power by aggregating power at the national, state, and local levels and using a system of checks and balances.
- Understand provisions of the Constitution and principles of the constitutional system help to insure a government that will not exceed its limits.
- Understand the limits the United States Constitution places on the powers of the states and on the powers of the national government over state governments.
- Understand the policies of state and local governments provide citizens with ways to monitor and influence the actions of members of government and hold them responsible for their actions.

Essential Concept and/or Skill: ***Understand strategies for effective political action that impact local, state, and national governance.***

- Understand participation in civic and political life can help citizens attain individual and public goals.
- Understand the role of diversity in American life and the importance of shared values, political beliefs, and civic beliefs in an increasingly diverse American society.

Essential Concept and/or Skill: ***Understand how law and public policy are established at the local, state, and national levels of government.***

- Understand the purposes and functions of law.
- Understand the processes by which public policy concerning a local, state, or national issue is formed and carried out.
- Understand issues concerning the relationship between state and local governments and the national government.

Illustration of ***Understand how law and public policy are established at the local, state, and national levels of government*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Students will predict the fate of a piece of proposed legislation based on an assessment of the current political climate, partisan perspectives, public opinion and media coverage.	**Quadrant D** Students analyze a local, state or national issue and prescribe a legislative response that promotes the public interest or general welfare.
Quadrant A Students will be able to create a sequence diagram that shows how a bill becomes a law at the federal and state level as well as how local statutes are established.	**Quadrant B** Students select a current bill that they support and track it through the legislative session.

Essential Concept and/or Skill: ***Understand how various political systems throughout the world define the rights and responsibilities of the individual.***

- Understand ideologies, structures, institutions, processes and political cultures of different political systems in the world.
- Understand the essential characteristics of limited and unlimited governments.

Essential Concept and/or Skill: ***Understand the role of the United States in current world affairs.***

- Understand conditions, actions and motivations that contribute to conflict and cooperation within and among nations.
- Understand the significance of foreign policies and events in the United States' relations with the world.
- Understand the idea of national interest and how it is used as a criterion for shaping American foreign policy.
- Understand the effects that significant world political developments have on the United States.
- Understands the influence that American ideas about rights have had abroad and how other peoples' ideas about rights have influenced Americans.

Middle (6 – 8) Details and Example

Essential Concept and/or Skill: ***Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action.***

- Understand rights, roles and status of the individual in relation to the general welfare.
- Understand issues regarding personal, political, and economic rights.
- Understand what is meant by the "scope and limits" of a right.
- Understand participation in civic and political life can help bring about the attainment of individual and public goals.
- Understand the functions of political leadership and why leadership is a vital necessity in a democracy.
- Understand the importance of voluntarism as a characteristic of American society.

Essential Concept and/or Skill: ***Understand how the government established by the Constitution embodies the principles of democracy and republicanism.***

- Understand the essential ideas of American government that are expressed in the Declaration of Independence, the Constitution, and other documents.
- Understand the concepts of constitutional government as fundamental principles of American democracy.
- Understand the essential characteristics of limited and unlimited governments.
- Understand the basic concepts of a federal system of government.
- Understand values such as individual rights, the common good, self government, justice, equality, diversity, openness and free inquiry, truth, patriotism are fundamental to American public life.
- Understand the type of citizenry needed to establish and maintain constitutional government.

Essential Concept and/or Skill: ***Understand the purpose and function of each of the three branches of government established by the Constitution.***

- Understand the primary responsibilities of each branch of government in a system of shared powers (legislative, executive, judicial) and ways in which each branch shares the powers and functions of the other branches.
- Understand how the legislative, executive, and judicial branches use checks and balances.

Illustration of ***Understand the purpose and function of each of the three branches of government established by the Constitution*** in the ICLE's Rigor and Relevance Framework	
Quadrant C In groups, students create an informative chart that defines the relationship between each of the branches of the federal government—emphasizing similarities and differences. Each chart is displayed in the classroom for a gallery walk, allowing each student to comment on the information found on the charts.	**Quadrant D** In groups, students create a tri-fold board and a corresponding brochure that displays the functions and relationships between the three branches of the U.S. Government. On Constitution Day, September 17th the students take their boards and brochures to a local community gathering place such as a senior center or a mall and present their findings. Students publicize the event in the local paper and on community bulletin boards.
Quadrant A Students read about the three branches of the federal government and complete a corresponding worksheet.	**Quadrant B** Students research the branches of the federal government and create a presentation that gives an overview of the responsibilities of each branch and shows how individuals are affected by the actions of the three branches. The students present their findings to an elementary class studying government.

Essential Concept and/or Skill: ***Understand the similarities and differences among the complex levels of local, state and national government.***

- Understand the relationship between state and local governments and the national government.
- Understand the powers and responsibilities of local, state and national governments.

Essential Concept and/or Skill: ***Understand strategies for effective political action that impacts local, state and national governance.***

- Understand the concept of civic responsibility.
- Understand the importance of political leadership, public service, and a knowledgeable citizenry in American democracy.
- Understand the concept of political leadership in the student's own school, community, state, and the nation.

Essential Concept and/or Skill: ***Understand how laws are established at the local, state and national levels.***

- Understand the concept of public policy.
- Understand the sources, purposes, and functions of law, and the importance of the rule of law for the protection of individual rights and the common good.

Essential Concept and/or Skill: ***Understand how various political systems throughout the world define the rights and responsibilities of the individual.***

- Understand constitutions protect individual rights and promote the common good.
- Understand the essential characteristics of limited and unlimited governments.

Essential Concept and/or Skill: ***Understand the role of the United States in current world affairs.***

- Understand conditions, actions and motivations that contribute to conflict and cooperation within and among nations.
- Understand current foreign policy issues and the means the United States is using to deal with them.

Intermediate (3 – 5) Details and Example

Essential Concept and/or Skill: ***Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action.***

- Understand what it means to be a citizen.
- Understand why civic responsibility is important and know examples of civic responsibility.
- Understand that Congress passes laws to protect individual rights.
- Understand how people can participate in their government.
- Understand what political leaders do and why leadership is necessary in a democracy.
- Understand opportunities for leadership and public service in the student's own classroom, school, community, state, and the nation.
- Understand the importance of voluntarism as a characteristic of American society.

Illustration of ***Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action*** in the ICLE's Rigor and Relevance Framework	
Quadrant C In small groups, students prioritize the rules contained in the school's student handbook. Each group compares their ranking of the rules with other group's rankings. Each group must come to consensus with at least one other group.	**Quadrant D** The students cooperatively develop a classroom belief statement that serves as their classroom constitution, incorporating rules from the school's student handbook. Each student is involved in the creation of the statement using cooperative learning groups, guidelines for success and after a review of the United States Constitution and Bill of Rights.
Quadrant A Students examine the rules in the school handbook and explain reasons for these rules. The teacher facilitates a discussion centered on the students' responsibilities to their class and school. Students summarize their responsibilities in their class notes or journal.	**Quadrant B** In groups, students list and explain the rights and responsibilities of groups and or citizens (e.g. students and adults) in their community. The groups then produce a comprehensive list.

Essential Concept and/or Skill: ***Understand how the government established by the Constitution embodies the enduring values and principles of democracy and republicanism.***

- Understand the fundamental values and principles of American democracy.
- Understand the difference between power and authority.
- Understand fundamental values and principles of American democracy are expressed in documents such as the Declaration of Independence, the Preamble to the United States Constitution, and the Bill of Rights, as well as in American songs, stories, and speeches.
- Understand the costs and benefits of diversity in American society.

Essential Concept and/or Skill: ***Understand the purpose and function of each of the three branches of government established by the U.S. Constitution.***

- Understand that the legislative branch passes laws to protect individual rights.
- Understand that the executive branch carries out and enforces laws to protect individual rights.
- Understand that the judicial branch, headed by the Supreme Court, makes decisions concerning the law that aim to protect individual rights.

Essential Concept and/or Skill: ***Understand the differences among local, state and national government.***

- Understand the roles of local, state and national government and the roles of representative leaders at these levels such as mayor, governor and President.
- Understand major services provided by national, state, and local governments.
- Understand how national, state and local government officials are chosen.

Essential Concept and/or Skill: ***Understand the role of the United States in current world affairs.***

- Understand that the world is divided into many different nations with each one having its own government.
- Understand the major ways nations interact with each other such as trade, diplomacy, cultural contacts, treaties or agreements, and use of military force.
- Understand factors that contribute to cooperation and cause disputes within and among groups and nations.

Primary (K – 2) Details and Example

Essential Concept and/or Skill: ***Understand the basic concepts of government and democracy and that the U.S. Constitution defines the rights and responsibilities of citizens.***

- Understand what the US Constitution is and why it is important.
- Understand the purpose of rules.
- Understand the concept of fairness.
- Understand rights and responsibilities.

Illustration of ***Understand the basic concepts of government and democracy and that the U.S. Constitution defines the rights and responsibilities of citizens*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Students develop a ballot on which they list their rights and responsibilities as students. They vote on the most important rights and responsibilities.	**Quadrant D** The students construct a class constitution identifying the most important rights and responsibilities. The class constitution is displayed next to a copy of the U.S. constitution.
Quadrant A The teacher defines rights and responsibilities, democracy and the Constitution.	**Quadrant B** Students give examples of their rights and responsibilities as members of their school class.

Essential Concept and/or Skill: ***Understand how government affects citizens and how citizens affect government.***

- Understand the purpose of government.
- Understand the characteristics of a good leader.
- Understand respect for other's point of view.
- Understand the concepts of power and authority.

Essential Concept and/or Skill: ***Understand the United States has a role in current world affairs.***

- Understand the world is divided into nations.
- Understand how the nations of the world interact with one another.

Employability Skills

The vision statement developed by the Iowa Core Curriculum 21st Century Skills Committee states: **Each Iowa student will have the academic and social skills as well as the personal characteristics that empower them to be productive, caring, and competent citizens.** This is consistent with the view that good employees may not be good citizens but good citizens always make good employees.

The employability essential concepts and skill sets represent universal content. They (1) contribute to outcomes that are valued for individuals and for society; (2) bring benefits in a wide variety of contexts and apply to multiple areas of life; and (3) are of use to all individuals, deemphasizing competencies of use only in a specific trade, occupation or walk of life. (OECD, 2005*).

Employers are demanding that employees demonstrate the skills to work productively in teams, communicate effectively, think innovatively and solve problems creatively. An overwhelming number of students leave their educational experience unprepared for the world of work. The employability concepts connect content and those dispositions required for success in life beyond school.

According to the Partnership for 21st Century Skills,

> *"…academic and cognitive skills, as essential as they are, are not all that is necessary for a successful life. In our global technological age, young people also need to work with and learn from diverse groups, be flexible in a variety of work and social settings, and be adaptable to changing times. They need to demonstrate leadership and take responsibility for results, show initiative and resourcefulness, and be productive and accountable for their actions."*

Integration of these critical skills across curricular areas will allow students to make the transition from the classroom to their roles as citizens and workers in an increasingly complex and unknown global market. The availability of a knowledgeable and skilled citizenry will enhance the quality of life and result in a profitable economy for Iowa, our nation, and our world.

*The Definition and Selection of Key Competencies, or the DeSeCo, Project. Overview. Organization for Economic Co-operation and Development, 2005

High School (9 – 12) Details and Examples

Essential Concept and/or Skill: ***Communicate and work productively with others, incorporating different perspectives and cross cultural understanding, to increase innovation and the quality of work.***

Work appropriately and productively with others
- Set goals
- Effectively communicate with group and stakeholders
- Demonstrate respectful behavior to group member ideas and opinions
- Manage and resolve conflict when appropriate
- Lead or support when appropriate
- Determine people's strengths and assign roles accordingly
- Contribute to a team by sharing information and expertise
- Agree to disagree in a respectful manner in a group dynamic
- Collaborate effectively with other teams/team members toward a common goal
- Recognize own and other's good efforts

Use different perspectives to increase innovation and the quality of work
- Gather input from all group members
- Capitalize on the diversity of group members
- Accept and provide feedback in a constructive and considerate manner

Use all the appropriate principles of communication effectively
- Listen to understand and appreciate the points of view of others
- Listen for comprehension
- Listen for decision making
- Process information in order to make an informed decision
- Ask appropriate questions in seeking clarification
- Read, understand and create information presented in a variety of forms (e.g. words, charts, graphs, diagrams)
- Follow directions
- Express thoughts and ideas clearly and succinctly
- Use appropriate technology to communicate
- Use appropriate channels of communication (written, verbal, technical, visual)

Illustration of ***Communicate and work productively with others, incorporating different perspectives and cross cultural understanding, to increase innovation and the quality of work*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Pairs of students conduct interviews with five adults and synthesize their results in order to create a top ten list of teamwork qualities. Students then compare and contrast their lists with research on effective teamwork.	**Quadrant D** Group of students identifies, plans, and completes a Service Learning project.
Quadrant A Students brainstorm a list of qualities needed for effective teamwork.	**Quadrant B** Students participate in the "Amazing Maze Activity". The goal of this activity is to move the entire group across grid by a predetermined, but unknown path. (Use masking tape to develop a grid on the floor.) Following the activity, debrief with the students the qualities which were necessary to complete the task. Compare these qualities to the students' previously brainstormed list.

Essential Concept and/or Skill: ***Adapt to various roles and responsibilities and work flexibly in climates of ambiguity and changing priorities.***

Adapt to varied roles, responsibilities, and expectations
- Work independently or as a part of a team
- Learn from mistakes and accept feedback
- Carry out multiple tasks or projects
- Continuously monitor the success of a project or task
- Identify ways to improve project or task
- Consider multiple perspectives and represents a problem in more than one way
- Accept others; tolerant of differences

Work effectively in a climate of ambiguity and changing priorities
- Cope with uncertainty; quickly and calmly change focus and goals as the situation requires
- Demonstrate a sense of comfort with lack of structure
- Remain composed and focused, even under stress
- Adapt to changing requirements and information
- Respond openly and constructively to change
- Approach conflict from win-win perspective

Demonstrate appropriate risk-taking
- Provides innovative and resourceful engagement
- Identifies and suggests alternative ways to achieve goals
- Asks "what if"
- Brainstorms effectively
- Questions assumptions in a non-confrontational manner

Illustration of ***Adapt to various roles and responsibilities and work flexibly in climates of ambiguity and changing priorities*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Students give an extemporaneous speech having selected a random topic out of a basket.	**Quadrant D** Students prepare and participate in a debate.
Quadrant A Students create a storybook describing how to effectively encounter change in the work place.	**Quadrant B** Have students participate in a game of basketball while the teacher continually changes the rules. Debrief with students about how they had to adapt in order to continue playing the game.

Essential Concept and/or Skill: ***Demonstrate leadership skills, integrity, ethical behavior, and social responsibility while collaborating to achieve common goals.***

Use interpersonal skills to influence and guide others toward a goal
- Positively support the work of others
- Facilitate and delegate responsibilities to best accomplish goal(s)
- Build relationships
- Engage in the tasks to accomplish goal
- Know when to listen and when to speak-up
- Maintain an open mind
- Provide constructive feedback

Leverage the strengths of others to accomplish a common goal
- Communicate effectively
- Collaborate effectively
- Appreciate ideas of others
- Facilitate compromise that can lead to group consensus

Demonstrate integrity and ethical behavior
- Accept ownership for actions
- Demonstrate trustworthiness and honesty
- Make decisions based on important core values

Demonstrate mental, physical, and emotional preparedness to accomplish the task
- Organize required materials in a readily accessible format.
- Focus and become energized on the task objectives.

Illustration **: *Demonstrate leadership skills, integrity, ethical behavior, and social responsibility while collaborating to achieve common goals*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Use case study of Enron to evaluate how practices affected employees and the general economy.	**Quadrant D** Students create a code of conduct for their school. Different groups of students are assigned to write different sections of the code. Each group will present their section of the code of conduct to the class. Every person in the class has an assigned stakeholder perspective (teacher, administrator, parent, legislature, etc.) to listen and provide feedback to the group about their code.
Quadrant A Have students develop their own definition of ethics after discussing how students would respond in various ethical dilemmas.	**Quadrant B** Show the video, *Fun with Dick and Jane*. Following the video, have students research corporate codes of conduct and analyze how and why codes of conduct are necessary in outlining guidelines for employees. Also, have students discuss how various stakeholders were impacted by the unethical actions of the characters in the movie.

Essential Concept and/or Skill: ***Demonstrate initiative and self-direction through high achievement and lifelong learning while exploring the ways individual talents and skills can be used for productive outcomes in personal and professional life.***

Perform work without oversight
- Assesses the situation and identify the priority/necessary actions to be taken
- Understand the value of the task in relationship to greater goal
- Understand that incomplete work-- even if excellent--is a failure
- Model self-confidence
- Know how to find and evaluate appropriate resources
- Implement solutions
- Demonstrate commitment to self/group/society

Use time efficiently to manage workload
- Segment task into logical steps with appropriate estimates of time
- Build a timeline to facilitate completion of the task
- Prioritize steps in proper order

Assess one's own mastery of skills
- Understand the task
- Identify the depth and breadth of knowledge to be successful at a task
- Identify and utilize appropriate measure of knowledge

Set and achieve high standards and goals
- Understand incremental steps for acquiring goals
- Create a written plan
- Set realistic goals that match aptitudes
- Engage in activities to improve skills that are relative to goals
- Demonstrate core values
- Constructively evaluate progress and takes corrective action when necessary

Engage in effective problem solving process
- Transfer learning from one domain to another
- Identify partners and resources germane to the situation
- Evaluate and select the best resources in context of the problem, and allocates them appropriately
- Identify root cause of problem
- Detail a course of action in writing with sequence of steps involved
- Implement a solution and makes adjustments when there is need/opportunity for improvement

Illustration **: *Demonstrate initiative and self-direction through high achievement and lifelong learning while exploring the ways individual talents and skills can be used for productive outcomes in personal and professional life*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Students research a career area of interest based on their Choices Interest Inventory results and write a paper outlining the key points for career choices.	**Quadrant D** Student designs questions and conduct an interview of a local business leader while participating in a job shadow experience.
Quadrant A Take the Choices Interest Inventory.	**Quadrant B** Students locate and arrange for a guest speaker from their career area of interest to present to their class.

Essential Concept and/or Skill: ***Demonstrate productivity and accountability by meeting high expectations.***

Deliver quality job performance on time

- Recognize and understand required standards needed for successful completion
- Set goals and establish timelines to reach required standards
- Establish assessment checkpoints throughout work processes
- Identify quality control issues and makes needed adjustments to correct problems
- Take initiative to see job completed without compromising quality
- Reassess process on a regular basis to identify any opportunities for improvement
- Demonstrate ethical behavior and works responsibly, reliably, and collaboratively with others

Demonstrate accountability for individual performance

- Come to work regularly and is on time all of the time
- Stay productive when on the job
- Take initiative to help others when own work is completed
- Accept responsibility for errors and corrects errors
- Learn from mistakes
- Follow through with work assignments
- Demonstrate willingness to work overtime
- Demonstrate flexibility to crosstrain

Illustration **: *Demonstrate productivity and accountability by meeting high expectations*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Students create a presentation over the impact of absenteeism and its cost to the economy.	**Quadrant D** Using Quality Tools and Process students work with local employer to help resolve absenteeism issues.
Quadrant A Students brainstorm a list of consequences that could result from absenteeism on the job.	**Quadrant B** Students develop role plays describing how to effectively demonstrate accountability on the job.

Middle (6 – 8) Details and Example

Essential Concept and/or Skill: ***Communicate and work productively with others, considering different perspectives, and cultural views to increase the quality of work.***

Work appropriately and productively with others.
- Set and evaluate goals.
- Effectively communicate with group.
- Demonstrate respectful behavior to group member ideas and opinions.
- Manage and resolve conflict as appropriate.
- Understand roles in group interaction.
- Identify their own strengths and determines how their strengths will work toward the group goal.
- Contribute to a team by expressing ideas.
- Respect other's ideas in a group dynamic.
- Collaborate with others toward a common goal.
- Acknowledge own and other's good efforts.

Use different perspectives to increase innovation and the quality of work.
- Gather input from all group members.
- Understand the opinions and feelings of others.
- Accept and provide feedback in a constructive and considerate manner.

Use appropriate principles of communication effectively.
- Listen to understand and appreciate the points of view of others.
- Listen to understand the ideas of others
- Process information in order to make an informed decision.
- Ask appropriate questions in seeking clarification.
- Read, understand and create information in a variety of forms.
- Follow directions.
- Contribute by expressing ideas.
- Use appropriate technology to communicate.
- Use appropriate channels of communication.

Illustration **: *Communicate and work productively with others, considering different perspectives, and cultural views to increase the quality of work*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Students research a successful team or group of people who work together, i.e. sports team, government body, or groups of entrepreneurs. Using this team/group, students create an essay presentation or infomercial about what made this team successful. Explore personal qualities the group members possess, how the team capitalized on the strengths, talents, and ideas of group members and strategies the team used to communicate with their group in a productive and positive manner.	**Quadrant D** Student teams develop instructional presentations using a variety of communication channels that demonstrate to their parents how to use a piece of technology. Team members will outline the process and members will self-identify their strongest skill and select which part of the presentation development they will lead.
Quadrant A Students create a poster describing the personal qualities they feel are essential to being a productive team member.	**Quadrant B** Working with a team, students assemble a 50-75 piece puzzle without speaking to each other. Following the activity, students separately analyze the experience from their point of view. They list what they personally did to overcome the communication barriers and which communication channels they prefer.

Essential Concept and/or Skill: ***Adapt and adjust to various roles and responsibilities in an environment of change.***

Adapt to varied roles, responsibilities, and expectations.
- Work well independently and with a team.
- Accept and own mistakes as a part of learning.
- Carry out tasks and projects to completion.
- Understand that projects or tasks can be broken down into stages and assessed throughout.
- Identify effective strategies to improve project or task.
- Listen to other points of view.
- Accept and appreciate diversity.

Work effectively in a climate of ambiguity and changing priorities.
- Accept that change occurs frequently.
- Understand focus may need to change as circumstances in the situation change.
- Recognize the need for different levels of structure.
- Identify appropriate responses to stress.
- Adapt to changing requirements and information.
- Demonstrate openness and respond constructively to change.
- Understand conflict resolution from win-win perspective.

Demonstrate appropriate risk-taking.
- Embrace innovation.
- Identify and suggest alternative ways to achieve goals.
- Asks ’What if?’
- Understand brainstorming as a free exchange of ideas.
- Weigh pros and cons of others’ suggestions.

Essential Concept and/or Skill: ***Demonstrate leadership, integrity, ethical behavior, and social responsibility in all environments.***

Use interpersonal skills to influence and guide others toward a goal.
- Positively support the work of others.
- Build relationships.
- Understand roles and responsibilities needed to accomplish goals.
- Use active listening and speaking skills.
- Understand the benefits of constructive feedback vs. criticism.

Leverage the strengths of others to accomplish a common goal.
- Communicate clearly.
- Collaborate on structured tasks.
- Show sensitivity to others' views and ideas.
- Understand how to create consensus.

Demonstrate integrity and ethical behavior.
- Take ownership for actions.
- Demonstrate trustworthiness and honesty in all environments.
- Demonstrate the use of core values.

Demonstrate mental, physical, and emotional preparedness to accomplish the task.
- Keep own materials organized and gathers materials needed for the task.
- Prepare for and focuses on the task with enthusiastic anticipation.

Essential Concept and/or Skill: ***Demonstrate initiative, self-direction, creativity, and entrepreneurial thinking while exploring individual talents and skills necessary to be successful.***

Perform work without oversight.
- Assess the task and identify the priority/necessary actions to be taken.
- Understand the task's relationship to greater goal.
- Understand that incomplete work-- even if excellent--is not acceptable.
- Understand the importance of self-confidence.
- Find appropriate resources.
- Implement solutions.
- Demonstrate commitment to self/group/society.

Use time efficiently to manage workload.
- Segment task into logical steps.
- Build a timeline to facilitate completion of the task.
- Prioritize steps in proper order.

Assess mastery of skills.
- Analyze the task.
- Identify the breadth of knowledge to be successful at a task.
- Effectively share knowledge at appropriate times.

Set and achieve high standards and goals.
- Identify incremental steps for acquiring goals.
- Set short-term and long-term goals.
- Create a written plan toward accomplishing goals.
- Choose to engage in activities to improve skills that are relative to goals.
- Demonstrate core values.
- Evaluate progress and seek assistance to take corrective action when necessary when working toward accomplishing goals.

Engage in effective problem solving process.
- Transfer learning from one content area to another.
- Identify key partners and resources relevant to the situation/problem.
- Evaluate and select the resources in context of the problem.
- Implement the problem solving process, including identifying potential causes of problem.
- Identify a course of action in writing with sequence of steps involved in order to solve the problem.
- Implement solution.

Essential Concept and/or Skill: ***Demonstrate productivity and accountability while aspiring to meet high expectations.***

Deliver quality job performance on time.
- Know that quality means meeting high expectations, including timeliness.
- Make revisions based on self-analysis.
- Work with commitment until the expectations are met.
- Make needed adjustments to prevent problems.
- Do not compromise ethical behavior and responsibility.

Demonstrate accountability for individual performance.
- Demonstrate individual responsibility to be present and on time for all activities.
- Stay productive when completing work.
- Are willing to help others when own work is completed.
- Accept responsibility for and correct their errors.
- Learn from mistakes and creates solutions.
- Follow through with assigned work within a group.

Intermediate (3 – 5) Details and Example

Essential Concept and/or Skill: ***Communicate and work productively with others emphasizing collaboration and cultural awareness to produce quality work.***

Work appropriately and productively with others.
- Set appropriate goals.
- Articulate thoughts and ideas clearly in writing and speaking.
- Demonstrate respectful behavior to group members.
- Exhibit appropriate behavior when faced with conflict.
- Identify strengths and weaknesses.
- Interact positively as a team member.
- Respect other's ideas.
- Cooperate with others in a group setting.
- Acknowledge quality efforts of self and others.

Use different perspectives to increase innovation and the quality of work.
- Generate ideas with group members.
- Recognize the opinions and feelings of others.
- Appropriately accept constructive feedback.

Use appropriate principles of communication effectively.
- Are active listeners.
- Use information to make decisions.
- Ask appropriate questions.
- Read, understand and create information in a variety of forms.
- Follow directions.
- Use technology to communicate.
- Use various channels of communication.
- Express ideas.

Essential Concept and/or Skill: ***Adjust to various roles and responsibilities and understand the need to be flexible to change.***

Adapt to varied roles, responsibilities, and expectations.
- Work well independently and with others.
- Understand and accept mistakes as a natural part of learning.
- Complete tasks and projects.
- Identify the stages needed to complete a project or task.
- Develop an awareness of effective strategies to improve project or task completion.
- Listen with an open mind.
- Accept and appreciate diversity.

Works effectively in a climate of ambiguity and changing priorities.
- Understand that change occurs frequently.
- Demonstrate flexibility in adapting to change.
- Recognize different levels of structure.
- Work under pressure.
- Understand the need to adapt to changing requirements and information.
- Are open to change.
- Understand how to approach handling conflict using a win-win perspective.

Demonstrate appropriate risk-taking.
- Consider alternative or new ways to complete tasks.
- Identify alternative ways to achieve goals.
- Understand when to ask ‘What if?’
- Approach brainstorming with an open mind.
- Determine pros and cons of others’ suggestions.

Essential Concept and/or Skill: ***Practice leadership skills, and demonstrate integrity, ethical behavior, and social responsibility in all activities.***

Use interpersonal skills to influence and guide others toward a goal.
- Provide positive encouragement to others on their work.
- Relate positively to others.
- Understand methods to influence others towards goals.
- Understand how to listen to others and to share own ideas.
- Accept and offer constructive comments.

Leverage the strengths of others to accomplish a common goal.
- Demonstrate listening, speaking and questioning skills.
- Work as a member of a team to complete tasks.
- Acknowledge views and ideas of others.
- Understand the value of compromise.

Demonstrate integrity and ethical behavior.
- Take responsibility for own actions.
- Demonstrate trustworthiness and honesty.
- Identify important core values.

Demonstrate mental, physical, and emotional preparedness to accomplish the task.
- Identify and organizes materials required for the task.
- Show willingness to prepare and stays focused on task.

Essential Concept and/or Skill: ***Demonstrate initiative, creativity, self-direction, and entrepreneurial thinking to produce successful outcomes.***

Perform work without oversight.
- Assess the task and identify actions that must be taken.
- Understand cause-effect relationship in completing sequential steps.
- Understand that incomplete work is not acceptable.
- Understand the importance of self-confidence.
- Know how to access resources.
- Formulate solutions.
- Demonstrate commitment to self/group/society.

Use time efficiently to manage workload
- Segment task into steps.
- With guidance, create timelines to facilitate completion of tasks.
- With guidance, prioritize steps in proper order.

Assess mastery of skills.
- Understand the task.
- Identify skills needed to be successful at the task.
- Know when to share knowledge appropriately.

Set and achieve high standards and goals.
- Understand and write incremental steps toward accomplishing goals.
- Set short-term goals.
- Engage in activities to improve skills that are relative to goals.
- Explore core values of personal importance.
- Evaluate progress toward accomplishing goals.

Engage in effective problem solving process.
- With assistance, transfer and make connections learning from one content area to another.
- Understand the importance of key partners and resources in solving problems.
- Evaluate the resources in context of the problem.
- Apply problem solving techniques to various situations.
- Identify a course of action in order to solve the problem.
- Implement solution with follow-up.

Essential Concept and/or Skill: ***Demonstrate productivity and accountability by producing quality work.***

Deliver quality job performance on time.

- Produce quality work in a timely manner.
- Make revisions in work based on self-analysis and/or recommendations.
- Work with commitment to produce a quality product.
- Demonstrate ethical behavior and responsibility.

Demonstrate accountability for individual performance.

- Come to activities/work consistently and on time.
- Are prepared for all activities/work.
- Stay actively engaged when completing work.
- Are able to edit their work.
- Learn from mistakes.
- Are reliable co-workers in a group setting.

Illustration **:** ***Demonstrate productivity and accountability by producing quality work*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Students will apply a rubric instrument created by project/display evaluators to others" projects/displays, supplying constructive comments and recommendations for improvements.	**Quadrant D** Students will create and publish a workable rubric instrument that could be used to evaluate work completed by a worker in a specific career area chosen by the student. Students will be prepared to present and discuss the importance of each of the performance areas addressed in the rubric.
Quadrant A Students will produce a list and describe qualities that would make a project or display outstanding.	**Quadrant B** Students will choose a career area that interests them, and produce a list of skills, habits, and duties that assure success in that career area.

Primary (K – 2) Details and Example

Essential Concept and/or Skill: ***Communicate and work appropriately with others to complete tasks.***

Work appropriately and productively with others.
- Set goals.
- Demonstrate good listening skills.
- Share thoughts and ideas with others.
- Work positively and effectively with others.
- Exhibit appropriate behavior in various situations.
- Identify behaviors that cause conflict.
- Exhibit positive self-concept.
- Describe the concept of community.
- Respect others.
- Cooperate with others.
- Acknowledge own and other's good efforts.

Use different perspectives to increase innovation and the quality of work.
- Generate ideas with assistance.
- Are aware of others' feelings and opinions.
- Appropriately accept constructive feedback.

Use all the appropriate principles of communication effectively.
- Listen to others.
- Ask appropriate questions.
- Read, understand and create information in a variety of forms.
- Follow directions.
- Use technology to communicate.
- Use various channels of communication.
- Express ideas.

Essential Concept and/or Skill: ***Recognize different roles and responsibilities and is open to change.***

Adapt to varied roles, responsibilities, and expectations.
- Work independently.
- Work with others.
- Understand mistakes are not wrong/bad.
- Complete tasks and activities.
- Follow predetermined stages/steps needed to complete an activity or task.
- With teacher guidance, collaboratively generate strategies to improve an activity or task.
- Listen attentively.
- Respect others ideas.
- Accept and respect others.

Work effectively in a climate of ambiguity and changing priorities.
- Become aware that change occurs.
- Adapt to change with minimal guidance.
- Adjust to changes in structured environment.
- Understand pressure exists.
- Work toward conflict resolution.

Demonstrate appropriate risk-taking.
- Are open to consider new ideas or alternative ways to complete tasks.
- Work to achieve goals.
- Understand the purpose of “what if” questions.
- Share ideas with an open mind.
- Support others’ suggestions.

Essential Concept and/or Skill: ***Learn leadership skills and demonstrate integrity, ethical behavior, and social responsibility.***

Use interpersonal skills to influence and guide others toward a goal.
- Compliment others' work.
- Initiate positive interactions with classmates.
- Identify the concept of goal.
- Use appropriate group communication skills.
- Listen to others.
- Accept constructive suggestions in a positive way.

Leverage the strengths of others to accomplish a common goal.
- Communicate ideas and thoughts.
- Share tasks necessary to complete a group task.
- Understand others may have different ideas and opinions.
- Understand the concept of compromise.

Demonstrate integrity and ethical behavior.
- Understand taking responsibility for own actions.
- Understand the importance of telling the truth.
- Understand the concepts of character and core values.

Demonstrate mental, physical, and emotional preparedness to accomplish the task.
- Understand the concept of being organized.
- Stay on task until the task is completed.

Illustration **:** ***Learn leadership skills and demonstrate integrity, ethical behavior, and social responsibility*** in the ICLE's Rigor and Relevance Framework	
Quadrant C The class will analyze a list of characteristics of class pets and their care and decide which animal would make the best pet. Students will design a poster to tell others about the pet and how to treat animals. The teacher will lead a discussion on comparing and contrasting how to treat all living things.	**Quadrant D** Given the idea of a class pet the students will conduct research and evaluate which pet would be the best to have. Using the pet of their choice they will research how to treat living things and how to care responsibly for their pet. Students will be given opportunities to demonstrate being responsible for caring for the class pet. The students will create a chart to record caretaking activities.
Quadrant A The students are told they are getting a class pet. The teacher will present information on the care of rabbits and how to treat living things. The students will answer questions based on information they learned including being responsible and treating animals appropriately and with respect.	**Quadrant B** Choosing an animal the student likes, the student will make a list of what they know about that animal and how animals should be treated. The students will write in a journal how to be responsible for an animal and how they would care for a class pet.

Essential Concept and/or Skill: ***Develop initiative and demonstrate self-direction in activities.***

Perform work without oversight.
- Ask questions to clarify and accomplish a task.
- Understand how to follow sequential steps to complete a task.
- Learn that incomplete work is not acceptable.
- Understand the importance of self-confidence.
- Identify resources and how to access them.
- Learn to formulate solutions.
- Understand the importance of commitment to self and group.

Use time efficiently to manage workload.
- Follow logical steps.
- Follow a provided timeline.
- With guidance, prioritize steps in proper order.

Assess mastery of skills.
- Identifies the task
- Becomes aware of skills needed to complete the task
- Shares knowledge

Set and achieve high standards and goals.
- Understand what a goal is.
- Articulate a personal goal.
- Engage in guided activities to improve skills that are relative to goals.
- Are aware of the concept of core values.
- Determine rate of progress toward goals.

Engage in effective problem solving process.
- Become aware of the connections between the classroom and the world around them.
- Become aware of resources and partners that may be useful in solving problems.
- Practice problem solving techniques.
- Generate potential solutions to the problem.
- Implement solution.

Essential Concept and/or Skill: ***Work productively and are accountable for their actions.***

Deliver quality job performance on time.
- Recognize quality work.
- Demonstrate a sense of timeliness.
- Stay on task until work is completed.
- Understand concept of ethical behavior in producing work.

Demonstrate accountability for individual performance.
- Are punctual in daily activities.
- Seek help only when appropriate.
- Stay on task when completing work.
- Correct errors when directed.
- Learn from mistakes.
- Understand concept of individual and group roles.

Financial Literacy

Financial literacy is closely connected to an individual's emotional, personal, social, economic, and employment success. An individual needs to understand the basics of money management, and use financial resources appropriately to function well in society at a personal, professional, business and community level. In a broader sense, students need to identify and discuss significant economic issues, important to society and to the world. They should practice examining the consequences of change in economic conditions and public policies. (The enGauge 21st Century Skills, 2003)

As society changes, the skills needed to deal with the complexities of life also change. The meaning of skills like financial literacy may change to reflect context, or current realities. Financial **literacy**, however, is about empowerment, the ability *"…to access, manage, integrate, evaluate, and create information in order to function in a knowledge society…"* (ICT Literacy Panel, 2002)

The vision articulated by the Iowa Core Curriculum 21st Century Skills Committee states: **Each student in Iowa's schools will learn financial literacy concepts, enabling them to succeed in a complex global environment.** The essential concepts and skill sets for financial literacy address the requirements outlined in Iowa legislation Senate File 2216. They also reflect broader, universal skills that cultivate critical thinking and responsible citizenship. They provide us the framework and knowledge to be proactive. When we accept responsibility for our actions because they have consequences for other people as well as for our personal success, we will also understand what it means to solve the problems and face the collective challenges of an increasingly diverse and interconnected world. (OECD, 2005*)

*The Definition and Selection of Key Competencies, or the DeSeCo, Project. Overview. Organization for Economic Co-operation and Development, 2005

High School (9 – 12) Details and Example

Essential Concept and/or Skill: ***Demonstrate financial responsibility and planning skills to achieve financial goals for a lifetime of financial health.***

Develop short- and long-term financial goals.

- Understand the concept of setting short-term (next six months) and long-term (beyond six months) goals.
- Evaluate the role short- and long-term goals play in financial success. Assess the impact of goal setting on personal financial success.
- Describe the impact of goal setting on personal financial success.

Understand needs versus wants.

- Explain the difference between needs and wants. Analyze their own needs and wants to determine importance (prioritize).
- Develop plans to achieve their most important needs and wants.
- Explore individual decisions made as a consumer and distinguish between fact and opinion in advertising.

Illustration of ***Demonstrate financial responsibility and planning skills to achieve financial goals for a lifetime of financial health*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Prepare a list of short-term goals and a budget to achieve those goals. Prepare a list of long-term goals and a budget for achieving these goals. Determine the financial instruments needed for each. Explain how to measure success or lack of success over a given period of time.	**Quadrant D** Using a lifestyle of your choice, develop short- and long-term goals for acquiring assets and other lifestyle items of choice. How much money will you need as income to afford this lifestyle? Write a justification for the use of credit, how you will use it, and how you plan to repay it.
Quadrant A Define a spending plan and list the key points to consider when developing a personal spending plan.	**Quadrant B** Explain why a spending plan will, or will not, help you live within your current means.

Essential Concept and/or Skill: ***Manage money effectively by developing spending plans and selecting appropriate financial instruments to maintain positive cash flow.***

Develop a realistic spending plan for financial independence.
- Understand the concept of developing a spending plan that promotes living within one's means.
- Evaluate spending plans that promote maintaining a larger income than expenditures.
- Develop and assess impact of different spending plans to make informed choices.
- Describe the impact of global issues on financial planning.

Understand various sources of compensation.
- Identify various types of income (e.g., allowances, salary, hourly wage, commission, benefits, gross and net income.)
- Compare various compensation options to determine which best fits individual needs.
- Explain how income affects lifestyle and spending choices.

Understand financial instruments.
- Understand the responsibility of maintaining accounts using financial instruments such as checking accounts, debit cards, and ATM cards.
- Demonstrate the ability to reconcile personal records with financial institution's records.
- Differentiate between interest-bearing and noninterest-bearing accounts.

Recognize the impact of fees and charges.
- Identify options for online financial transactions (buying, making payments, transfers, etc.).
- Understand the distribution of resources.
- Identify options for distributing resources.
- Analyze short- and long-term benefits of different resource allocation opportunities.
- Create a personal spending plan to include savings, spending, giving, and/or investing consistent with their financial goals.

Illustration of ***Manage money effectively by developing spending plans and selecting appropriate financial instruments to maintain positive cash flow*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Compare three different spending plans to determine which is most effective and which is most realistic. Identify the strengths and limitations of each plan.	**Quadrant D** Using your present income, develop a realistic spending plan to be able to acquire an item of your choice without going into debt. Write a justification for why this plan is the best option.
Quadrant A Define a spending plan and list the key points to consider when developing a personal spending plan.	**Quadrant B** Explain why a spending plan will, or will not, help you live within your current means.

Essential Concept and/or Skill: ***Make informed and responsible decisions about incurring and repaying debt to remain both creditworthy and financially secure.***

Identify responsible credit card management.
- Compare and contract offers of credit card, instant loan, and introductory offers (low rate introductory, startup fees, and fixed rate).
- Explain credit card features, including annual fees, interest rates, and incentives.
- Understand implications of making minimum payments, late payments, and late fees.

Understand different types of debt.
- Understand the types of debt consumers encounter.
- Compare loan terms and rates to determine best choice.
- Identify the impact of loans on a personal financial plan, such as auto, student, credit card, major purchase.
- Identify asset-producing debt versus living expense debt.

Understand rights and responsibilities of borrowers.
- Identify factors considered for qualifying for and securing a loan (i.e., what makes a person a good or bad credit risk).
- Understand the meaning of a credit score and how it is used to negotiate better loan options. Identify the steps in checking their own credit score and making corrections if needed.
- Explain the potential consequences for not meeting the requirements of the agreement (i.e., payment amount, due dates, insurance, taxes, etc.).
- Explain an individual's rights and responsibilities under consumer protection laws.

Illustration of ***Make informed and responsible decisions about incurring and repaying debt to remain both creditworthy and financially secure*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Compare three different credit cards--features, incentives, fees, interest. Complete an Internet search for offers of credit cards--identify differences in features and hidden fees, as appropriate.	**Quadrant D** After comparing various credit card offers, select a credit card that best meets your expected needs. Determine how and when you will use the card and describe when it is better to use a credit card than cash.
Quadrant A Assume that you have a credit card that charges 9% interest. You've charged $650. The minimum payment due is $25. How long will it take you to pay off the $650 if you make only minimum payments?	**Quadrant B** Using credit card offers to at least three different companies, list the advantages and disadvantages of each card. From this information, determine which is the best option for you.

Essential Concept and/or Skill: ***Evaluate and identify appropriate risk management options, including types of insurance, non-insurance, and identity protection.***

Establish strategies for protection of identity.

- Describe the importance of protecting their identity.
- Distinguish legitimate from fraudulent solicitations.
- Understand the impact of technology on personal security.
- Identify important identification numbers and explain when they should or should not be shared.
- Explain ways to protect their identity.

Recognize different types of insurance.

- Explain different types of insurance and identify the appropriate need for each.
- Determine appropriate options available to reduce the cost of premiums.

Recognize different types of noninsurance protection.

- Explain importance of legal and written documentation to protect individuals.
- Identify types of documentation used by individuals to prevent personal and financial loss. Analyze the types of protection available and their appropriate use.

Illustration of ***Evaluate and identify appropriate risk management options, including types of insurance, non-insurance, and identity protection*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Interview an adult to ask the following: What specific steps does he or she take to protect their identity and how do they distinguish legitimate from fraudulent solicitations. Then interview a student to learn how he or she is protecting their identity and compare their responses to those of the adult. What differences did you notice? Similarities?	**Quadrant D** Using a variety of sources, research various aspects of identity theft and determine what steps should be taken to protect against identity theft. Prepare a five-minute presentation to inform peers on the importance of self-protection against identify theft. Explain how they are protecting their identity and what they have done to help recognize fraudulent offers and solicitations.
Quadrant A Describe identity theft, the ways an individual can have an identity stolen, and why it is important to immediately report the theft to appropriate entities. List different ways your identity can be stolen. List ways that an employee's identity can be stolen.	**Quadrant B** List all the important types of numbers that you currently have that should be protected. Share any experience you or someone you know has had with scams or fraudulent activities.

Essential Concept and/or Skill: ***Assess the value, features, and planning processes associated with savings, investing, and asset building, and apply this knowledge to achieve long-term financial security with personal and entrepreneurial goals in a global market.***

Recognize investment options.
- Assess the many factors that influence financial planning. Explain the importance of savings.
- Explain the impact of short- and long-term financial goals for asset building.
- Outline the process of adjusting the financial plan to accommodate changes in funds.
- Describe the importance of adjusting goals over a lifetime as well as preparing for retirement and estate planning.

Distinguish investment options.
- Distinguish between the various types of investment options.
- Understand the power of compounding interest.

Understand the relationship between investment risk and return.
- Identify the level of risk involved with investment options.
- Explore the potential returns related to investment options.
- Explain the concept of wealth building.

Illustration of ***Assess the value, features, and planning processes associated with savings, investing, and asset building, and apply this knowledge to achieve long-term financial security with personal and entrepreneurial goals in a global market*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Compare two long-term savings plan scenarios (offering different interest rates, length of time, amount contributed at different times). Determine which option offers a greater return. Then interview a student to learn how he or she is protecting their identity and compare their responses to those of the adult. What differences did you notice? Similarities?	**Quadrant D** Create a comprehensive savings plan based on current income and needs. Use information you gather from a local financial institution or online to determine the most appropriate savings plan that fits your needs the best. List the reason why you believe this is the best choice for you based on your short- and long-term goals.
Quadrant A Explain the importance of having a savings and setting short- and long-term goals.	**Quadrant B** Students explain why they would want to have savings. Describe short- and long-term goals they currently have. Explain how these goals will change once they are out of school.

Essential Concept and/or Skill: ***Understand human, cultural, and societal issues related to financial literacy, and practice legal and ethical behavior.***

Recognize the local, state, national, and international impact of personal financial habits and actions.
- Analyze the complexity of financial transactions as a member of the international community.
- Evaluate the interconnectedness of the production of goods and services at the local to international levels.

Demonstrate responsible financial behaviors, at the personal, local, state, national, and international levels.
- Manage personal and professional financial interactions following legal and ethical guidelines.
- Respect the rights and responsibilities of others in financial interactions.
- Practice responsible financial behaviors within an international financial environment.

Middle (6 – 8) Details and Example

Essential Concept and/or Skill: ***Model the process of financial planning based on personal prioritization of wants and needs.***

Develop short-term and long-term financial goals.
- Define the steps in the goal-setting process.
- Explain the relationship between goal setting and achievement.
- Create goals according to a prioritization of wants and needs that are specific, realistic, and measurable.

Understanding needs vs. wants.
- Identify expenditures as needs or wants.
- Describe persuasive strategies used by peers, media, and businesses to influence society (in decision making).

Essential Concept and/or Skill: ***Create an effective spending plan using informed decision-making skills.***

Develop a realistic spending plan for financial independence.
- Describe the concept of a spending plan.
- Explain the advantage of spending less than you have.
- Explain the short- and long-term consequences of over spending.
- Recognize the impact of global issues on financial planning.

Understand various sources of compensation.
- Describe potential sources of income for middle school students.
- Identify factors to consider when analyzing different methods of compensation.
- Explain how income can affect goals.

Understand the distribution of resources.
- Explain factors that impact savings and spending plans.
- Describe expenses that employees might have.

Understand financial instruments.
- Identify possible financial accounts.
- Recognize that fees or charges may be attached to accounts.
- Recognize the importance of keeping accurate records.

Essential Concept and/or Skill: ***Recognize appropriate uses of credit and its impact on an individual's financial security.***

Identify responsible credit management.
- Identify the various types of credit card companies available and the features of each (interest rates, annual fees, limits, reward system).
- Explain appropriate and inappropriate use of credit cards.
- Explain how use of credit cards can help or hurt a budget.

Understand different types of debt.
- Identify the types of purchases that generally require a loan.
- Demonstrate the ability to calculate the cost of borrowing money.

Understand rights and responsibilities as borrowers.
- Explain that a borrower needs to have assets to use as security for a loan.
- Explain an individual's rights and responsibilities as a consumer.
- Explain the concept of a credit rating.

Illustration of ***Recognize appropriate uses of credit and its impact on an individual's financial security*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Select an item with its identified cost from a list. Determine the final cost of the item if a credit card is used and only a minimum balance is paid monthly. How long would it take to pay off the balance? Write a justification for using this method, not using credit at all, or for using the credit method and paying more than the minimum amount due.	**Quadrant D** Identify an item you would like to have--one where using credit would be appropriate. Select 3 credit sources and compare the amount needed to pay off the debt using each source. Determine which credit source you feel would be best for your situation and assess the long-term impact on your financial situation. Rank the importance of this purchase against other needs and wants that you have.
Quadrant A From a list of expenditures, select two and explain how credit could be used to purchase both (credit card, on account, loan, etc.)	**Quadrant B** Select an item you would like to have that costs more than you have. List possible sources of funding and give the pros and cons of each source. Identify which source would be the easiest to pay off and why.

Essential Concept and/or Skill: ***Evaluate various risks to personal identity and create a plan for ongoing protection.***

Establish strategies for protection of identity.
- Recognize that a personal identity needs to be protected.
- Recognize the impact of technology on personal security.

Recognize different types of insurance.
- Explain why an individual needs various types insurance.
- Identify factors to consider when deciding the type of and amount of insurance.

Recognize different types of non-insurance protection.
- Identify types of documents that can serve as legal protection.
- Explain the potential hazards of inappropriate or missing documentation.

Essential Concept and/or Skill: ***Evaluate possible options for investing as a means to attain one's goals.***

Recognize investment options.
- Explain how saving is needed for investing.
- Explain the relationship between investing and potential entrepreneurship goals.
- Explain the difference between saving and investing.

Distinguish investment options.
- Explain various options for investing money.
- Understand the effect of interest and percentage rates on investments.

Understand the relationship between investment risk and return.
- Explain how an investment differs from a savings account in potential risks and return.
- Explain the importance of a personal budget and goals in the investing process.

Essential Concept and/or Skill: ***Demonstrate ethical financial decision making skills and assess how these decisions might impact the broader community.***

Recognize the local, state, national, and international impact of personal financial habits and actions.
- Realize that financial habits and actions have broad impact beyond the local community.
- Identify the factors that impact the production of goods and services beyond the local area.

Demonstrate responsible financial behaviors, at the personal, local, state, national, and international levels.
- Identify the importance of legal and ethical actions in financial behaviors.
- Explain how unethical behavior negatively impacts the broader community.
- Explain the importance of ethical behavior in building trust.

Intermediate (3 – 5) Details and Example

Essential Concept and/or Skill: ***Create long and short term goals based on a prioritization of wants and needs.***

Develop short-term and long-term financial goals.
- Distinguish between short- and long-term goals.
- Explain the importance of goal setting, how to prioritize those goals, and the need for both short- and long-term goals.
- Create a timely, attainable goal.

Understanding needs vs. wants.
- Explain difference between wants and needs.
- Explain prioritization factors to consider when determining expense-related decisions.

Essential Concept and/or Skill: ***Recognize how one's personal career choice and attitude can impact financial planning decisions.***

Develop a realistic spending plan for financial independence.
- Illustrate that career choice, education and skills, and economic conditions affect income.
- Determine own attitudes and behaviors toward spending, saving, and investing.
- Recognize sources of money (earned or gifted).

Understand various sources of compensation.
- Recognize multiple sources of income as well as alternative sources (family members, neighbors, friends for jobs or gifts).
- Recognize other types of compensation (bartering, trading).

Understand the distribution of resources.
- Explain the benefits of savings versus spending.
- Describe the impact of spending on savings.

Understand financial instruments.
- Identify the different ways to pay for items (cash, check, credit, and debit).
- Explain how non-cash methods of payment still require adequate funds.

Essential Concept and/or Skill: ***Identify the concept of debt and an individual's responsibility for that debt.***

Identify responsible credit management.
- Recognize the uses of credit.
- Identify appropriate times to use credit.

Understand different types of debt.
- Recognize that borrowing is a debt to be repaid.
- Explain the role of interest regarding debt.

Understand rights and responsibilities as borrowers.
- Recognize the importance of repaying a debt.
- Explain potential consequences for not returning a borrowed item.
- Explain the positive consequences of repaying debt on time.

Essential Concept and/or Skill: ***Recognize common risks to one's identity and demonstrate the ability to protect that identity.***

Establish strategies for protection of identity.
- Explain what it means to have a personal financial identity stolen.
- Identify ways of protecting their identity.

Recognize different types of insurance.
- Describe what insurance is and why it is important.
- Describe the impact of losses, financial and non-financial.

Recognize different types of non-insurance protection.
- Recognize the importance of written documentation and other types of protection available for students.
- Explain the various people who provide protection and the roles they play.

Illustration of ***Recognize common risks to one's identity and demonstrate the ability to protect that identity*** in the ICLE's Rigor and Relevance Framework	
Quadrant C After looking at the many ways an identity can be stolen, draw a picture or cartoon representation of how people can protect their identity.	**Quadrant D** Since much of identity theft occurs through discarded mail or receipts, develop a persuasive speech to convince your family members to properly dispose of personal documents. Create a poster to support the speech that can be displayed in your home.
Quadrant A Explain what an identity is and why it should be protected.	**Quadrant B** Complete an Internet search regarding identity theft. Make a chart of the different ways an identity can be stolen and the areas where you see your family or people you know are negligent in protecting their identity.

Essential Concept and/or Skill: ***Determine the importance of saving/investing in relation to future needs.***

Recognize investment options.
- Identify various ways to save.
- Explain the importance of saving in relation to future needs.

Distinguish investment options
- Identify various options for saving/investing.

Understand the relationship between investment risk and return.
- Explain how an investment can grow in value.
- Explain how an investment might decrease in value.

Essential Concept and/or Skill: ***Recognize that spending choices differ between groups of people and settings.***

Recognize the local, state, national, and international impact of personal financial habits and actions.
- Recognize that different people have different needs, wants, and financial priorities
- Explain how one's actions impact others.

Demonstrate responsible financial behaviors, at the personal, local, state, national, and international levels.
- Recognize consequences for both good and bad decisions.
- Recognize that an individual's behavior impacts the decisions and consequences of the broader community.

Primary (K – 2) Details and Example

Essential Concept and/or Skill: ***Demonstrate the ability to set goals based on wants and needs.***

Develop short-term and long-term financial goals.
- Define goals.
- Identify a personal goal.
- Identify a group/team goal.

Understanding needs vs. wants.
- Define wants and needs.
- Know the importance of needs and wants.

Illustration of ***Demonstrate the ability to set goals based on wants and needs*** in the ICLE's Rigor and Relevance Framework	
Quadrant C The student will compare characteristics of wants and needs. Each student will create a chart to represent three ways that they are the same and three ways that they are different.	**Quadrant D** Students will interview 2 family members or neighbors to determine their top 2 wants and needs. They will compare the responses and explain why the lists might be similar or different from personal wants and needs.
Quadrant A Each student will define wants and give three examples and define needs and give three examples.	**Quadrant B** Each student will sort pictures cards into categories of personal wants and needs. She/He will select the most important want and need in their life right now.

Essential Concept and/or Skill: ***Identify monetary resources and distribution options for those resources.***

Develop a realistic spending plan for financial independence.
- Describe the exchange of goods and services as part of the monetary system.
- Identify the outcome of spending money.

Understand various sources of compensation.
- Recognize sources of income for children such as allowances and gifts.

Understand the distribution of resources.
- Explain spending versus savings.
- Recognize that items cost money.

Understand financial instruments.
- Distinguish different types of money (bills, coins).
- Identify the values of each type of money.

Essential Concept and/or Skill: ***Demonstrate an understanding of the concept of credit.***

Identify responsible credit management.
- Discuss the meaning of credit.

Understand different types of debt.
- Recognize the concept of the money behind the credit.

Understand rights and responsibilities as borrowers.
- Explain that a borrowed item needs to be returned.
- Demonstrate that if loaned, an item should be returned.

Essential Concept and/or Skill: ***Develop awareness that each person has an identity.***

Establish strategies for protection of identity.
- Describe what an identity is.
- Recognize that everyone has an identity.

Recognize different types of insurance.
- Recognize ways people can lose possessions.
- Demonstrate ways to protect possessions.
- Recognize the consequences of loss.

Recognize different types of non-insurance protection.
- Explain how written notes, emails, or phone calls between school and home can help prevent misinformation.
- Recognize the role of adults in providing safety.

Essential Concept and/or Skill: ***Recognize various ways to save and the reasons individuals decide to save.***

Recognize investment options.
- Identify the value of saving.

Distinguish investment options.
- Explain the difference between a piggy bank and financial institutions.

Understand the relationship between investment risk and return.
- Explain that something loaned may or may not be returned.

Essential Concept and/or Skill: ***Distinguish between appropriate spending choices.***

Recognize the local, state, national, and international impact of personal financial habits and actions.
- Recognize that the Internet connects people around the world.
- Recognize that people come from various cultures, backgrounds, and home situations.

Demonstrate responsible financial behaviors, at the personal, local, state, national, and international levels.
- Recognize that individuals have choices in spending and saving.
- Explain that there are appropriate behaviors and expectations for different settings.

Health Literacy

Health literacy, considered a 21st Century theme by the Partnership for 21st Century Skills, is, “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” (Nielsen-Bohlman, 2004). A health literate person is able to make appropriate decisions about their health as he or she progresses through life, as health care changes, and as societal norms change. The benefits of being health literate influence the full range of life’s activities—home, school, work, society and culture (Zarcadoolas, 2005).

Lack of physical activity and exercise, poor nutritional choices, increased violence, increased substance abuse and other high risk behaviors are serious threats to living a healthy, active life. The essential concepts and skill sets for health literacy provide a framework for building capacity among Iowa’s students to think critically about the decisions that affect health status for themselves, their families and their communities. Learning the concepts will form the knowledge base for the development of attitudes and habits of mind that will lead students to take responsibility for their personal health status. This proactive approach will have profound effects on families and society.

The essential concepts reflect the belief that children need to assess media messages at young ages and then develop critical evaluation skills as they intellectually, emotionally and socially mature (Zarcadoolas, 2005). Children must also take an active role in accessing and appropriately using information which affects their health (Nutbeam, 2000, St. Leger, 2001). Therefore, it is important to integrate the essential concepts and skill sets for health literacy across content areas, providing relevant contexts, problem based and service learning experiences. This will provide students opportunities to practice systemic thinking and problem solving processes that will lead to the creative solutions and proactive policies necessary to enhance health status in an interconnected, global society.

High School (9 – 12) Details

Essential Concept and/or Skill: ***Demonstrate functional health literacy skills to obtain, interpret, understand and use basic health concepts to enhance personal, family, and community health.***

Use concepts related to health promotion and disease prevention.
- Predict influence of risk and protective factors.
- Describe the interrelationships of the wellness dimensions: physical, emotional, intellectual, environmental, social, and spiritual.
- Use knowledge of impact of genetics/family history to make informed decisions.
- Contribute to personal/family quality of life through proper prevention/management of health crises, i.e., injury, depression, chronic illness.
- Evaluate the impact of health care access (cost, knowledge, insurance, transportation) on health status.
- Describe how the prevention and control of health problems are influenced by research and medical advances.
- Describe the historical impact of disease and other health problems on contemporary health practices.
- Explain the impact of personal health behaviors on the functioning of body systems.
- Explain how personal choices impact health maintenance and disease prevention.
- Understand preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance and stress reduction.

Analyze influencing factors on health enhancing behaviors.
- Explain how family, peers, cultural practices and attitudes influence health.
- Evaluate the impact of media, technology, research and medical advances on health.
- Understand impact of national and international public health and safety issues on personal and family health status.

Essential Concept and/or Skill: ***Synthesize interactive literacy and social skills to establish and monitor personal, family and community goals related to all aspects of health.***

Demonstrate communication skills to enhance health and increase safety.
- Communicate effectively to enhance health of self and others.
- Employ effective conflict management strategies. Utilize methods of obtaining help for self and offer assistance to others.
- Demonstrate ways to communicate care, consideration, empathy, and respect for self and others.

Advocate for personal, family and community health.
- Promote health messages to meet health needs of a target audience.
- Influence and support others to make positive health choices.
- Collaborate with others to improve family and community health.
- Employ the effective communication methods to accurately express health information and ideas.
- Engage in media and legislative advocacy efforts to promote positive health for self and others.
- Advocate for healthy, violence-free behaviors by using knowledge of the dynamics of power and position.

Essential Concept and/or Skill: ***Apply critical literacy/thinking skills related to personal, family and community wellness.***

Demonstrate decision-making skills.
- Evaluate healthy and unhealthy alternatives in decision-making.
- Evaluate effectiveness of health-related decisions.
- Employ ethical practices when making health-related decisions.
- Use knowledge of relevant terminology, (i.e., deductible, co-pay, catastrophic, coverage) to ask questions and make decisions about health benefits.
- Seek multiple perspectives when asking for assistance to make health-related decisions.
- Consider immediate and long-term impact on individual, family, community and environment when making health-related decisions.

Demonstrate goal-setting skills.
- Evaluate health status and develop goals to enhance health.
- Engage in an ongoing cycle of goal-setting, implementation, evaluation and readjustment to enhance health status.

Essential Concept and/or Skill: ***Use media literacy skills to analyze media and other influences to effectively manage health risk situations and advocate for self and others.***

Analyze the influence of family, peers, health professionals, culture, media, technology, and other health factors.
- Employ appropriate responses to negative and positive health influences.
- Analyze the role of public health policies in prevention and maintenance of school and community health.
- Analyze how cultural diversity enriches and challenges health behaviors.
- Analyze how information from the community, family and peers influences health.
- Determine reliability, accuracy, dependability of health information sources.
- Recognize and reject messages that could lead to bullying or violence.

Access valid information, products and services.
- Evaluate factors that influence selection of health products and services.
- Consider preferred provider status as well as other relevant insurance provisions and/or restrictions when accessing and choosing professional health services.

Essential Concept and/or Skill: ***Demonstrate behaviors that foster healthy, active lifestyles for individuals and the benefit of society.***

Achieve and maintain health-enhancing level of physical activity.
- Assess and monitor current physical health to meet fitness goals.
- Engage in activities to maintain appropriate levels of cardiovascular endurance, muscular, strength/flexibility, and body composition.

Practice preventive health behaviors.
- Engage in appropriate stress-management strategies that enhance health.
- Engage in behaviors that promote risk avoidance.
- Identify factors that influence healthy eating.
- Establish healthy eating behaviors.
- Engage in behaviors that promote positive mental and emotional health for the individual, family and community.

Middle (6 – 8) Details and Example

Essential Concept and/or Skill: ***Demonstrate functional health literacy skills to obtain, interpret, understand and use basic health concepts to enhance personal, family and community health.***

Know and use concepts related to health promotion and disease prevention.
- Anticipate the influence of risk and protective factors.
- Describe the interrelationships of the wellness dimensions: physical, emotional, intellectual, environmental, social, sexual and spiritual wellness during adolescence.
- Evaluate the impact of genetics/family history with personal health decisions.
- Demonstrate skills necessary for proper prevention/management of health crises. i.e. injury, depression, chronic illness.
- Explain how appropriate health care can promote personal health.
- Recognize prevention and control of health problems are influenced by research and medical advances.
- Recognize the historical impact of disease and other health problems.
- Evaluate the impact of personal health behaviors on the functioning of body systems.
- Develop healthy personal choices to promote health maintenance and disease prevention.
- Develop preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance and stress reduction.

Analyze influencing factors on health enhancing behaviors.
- Describe how diverse families, peers, cultural practices and attitudes influence health.
- Articulate how media, technology, research and medical advances impact health.
- Articulate how national and international public health and safety issues affect personal and family health status.

Essential Concept and/or Skill: ***Utilize interactive literacy and social skills to establish personal, family, and community health goals.***

Demonstrate social and communication skills to enhance health and increase safety.
- Apply appropriate communication skills to enhance health of self and others.
- Utilize effective conflict management strategies.
- Demonstrate proper methods of obtaining help for self and others.
- Generate ways to communicate care, consideration, empathy and respect for self and others.

Advocate for personal, family and community health.
- Develop a health message to meet the health needs of a target audience.
- Model how to influence and support others to make positive health choices.
- Collaborate to improve family and community health.
- Articulate effective communication methods to accurately express health information and ideas.
- Recognize media and legislative advocacy efforts to promote positive health for self and others.
- Identify power structures that support advocacy of a healthy, violence-free environment.

Essential Concept and/or Skill: ***Apply critical literacy/thinking skills related to personal, family and community wellness.***

Demonstrate decision making skills.
- Apply skills needed to make healthy decisions.
- Analyze the effectiveness of health-related decisions.
- Describe the ethical factors that influence health related decisions.
- Integrate the roles of individual, family, community and cultures when making health related decisions.
- Demonstrate how health related decisions impact individual, family, community and environment.

Demonstrate goal setting skills.
- Implement goals to enhance personal health and track its achievement.

Essential Concept and/or Skill: ***Integrate media literacy skills to analyze media and other influences to effectively manage personal, family and community health situations.***

Analyze the influence of family, peers, health professionals, culture, media, technology, and other health factors.
- Demonstrate appropriate responses to negative and positive health influences.
- Discuss the role of public health policies in prevention and maintenance of school and community health.
- Determine how cultural diversities enrich and challenge health behaviors.
- Analyze how information influences health.
- Determine reliability, accuracy, dependability of health information sources.
- Describe the techniques used by print and non-print media sources.

Access valid information, products and services.
- Differentiate factors that influence the selection of health products and services.
- Not applicable.

Illustration of ***Integrate media literacy skills to analyze media and other influences to effectively manage personal, family and community health situations*** in the ICLE's Rigor and Relevance Framework	
Quadrant C The student will select one print advertisement or commercial that encourages unhealthy behavior. S(He) will compose a letter to the company that produces the product promoted in the adverstisement. The letter will minimally include a justification of three reasons to request the ad or commercial be taken off the market.	**Quadrant D** Each student will create either a health related print advertisement or commercial utilizing at least one advertisement technique. The ad or commercial must encourage middle school students to engage in a health enhancing behavior. Ads will be posted throughout the school and commercials viewed during homeroom and shared with elementary classes.
Quadrant A The student will be provided materials to view and define print examples of various media techniques used to influence consumers.	**Quadrant B** Student will bring a favorite magazine to critique health related magazine advertisements and commercials. The students will consider the following criteria: • Describe the ad/commercial • State the advertising technique(s) used • Identify the target audience • Discuss the effectiveness of the ad/commercial

Essential Concept and/or Skill: ***Demonstrate behaviors that foster healthy, active lifestyles for individuals and the benefit of society.***

Achieve and maintain health enhancing level of physical activity.
- Develop, implement and evaluate goals for physical health.
- Engage in activities to improve cardio-vascular and muscular strength and endurance, flexibility, and body composition.

Practice preventive health behaviors.
- Practice appropriate and effective stress management.
- Analyze risk factors and make healthy choices.
- Implement a plan reflecting healthy food choices.
- Implement behaviors that contribute to holistic wellness for individuals, families and communities.

Intermediate (3 – 5) Details and Example

Essential Concept and/or Skill: ***Obtain, interpret, understand and use basic health concepts to enhance personal, family, and community health.***

Know and use concepts related to health promotion and disease prevention.
- Describe the influence of risk and protective factors.
- Identify examples of physical, emotional, intellectual, environmental, social, sexual and spiritual wellness during childhood.
- Analyze how heredity, environment and personal health are related.
- Explain proper prevention/management of health crises.
- Identify where to find help with health care when needed.
- Describe the impact of personal health behaviors on the functioning of body systems.
- Identify how personal choices impact health and disease prevention.
- Describe preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance and stress reduction.

Analyze influencing factors on health enhancing behaviors.
- Describe how diverse families, peers, cultural practices and attitudes influence health related decisions.
- Describe how media, technology, research and medical advances impact health.
- Recognize how national and international public health and safety issues affect personal and family health status.

Essential Concept and/or Skill: ***Utilize interactive literacy and social skills to establish personal family, and community health goals.***

Demonstrate social and communication skills that enhance health and increase safety.
- Demonstrate appropriate verbal and nonverbal communication skills to enhance health of self and others.
- Practice strategies to manage or resolve conflict.
- State methods of obtaining help for self and others.
- Demonstrate ways to communicate care, consideration, empathy and respect for self and others.

Advocate for personal, family and community health.
- Identify personal, family and community health needs.
- Demonstrate how to influence and support others to make positive health choices.
- Describe ways to improve family and community health.
- Articulate effective communication related to health care practices.
- Use assertive communications skills to consistently advocate for a healthy, violence-free environment.

Illustration of ***Utilize interactive literacy and social skills to establish personal family, and community health goals*** in the ICLE's Rigor and Relevance Framework	
Quadrant C The students will work in cooperative groups to create "conflict" scenarios. The students will develop a script for the scenario that demonstrates the steps of conflict resolution. The student will videotape the scripted conflicts to share with other classes.	**Quadrant D** Students will serve as trained conflict managers for younger students, modeling the resolution process and guiding younger students to an agreeable solution.
Quadrant A The students will discuss the specific steps of conflict resolution.	**Quadrant B** Working in small groups, the students will demonstrate knowledge of conflict resolution strategies by role-playing teacher created scenarios based upon playground and principal referrals.

Essential Concept and/or Skill: ***Demonstrate critical literacy/thinking skills related to personal, family, and community wellness.***

Demonstrate decision making skills.
- Explain different approaches to making decisions.
- Describe the effectiveness of health-related decisions.
- Demonstrate the ability to seek assistance when making health related decisions.
- Recognize that health related decisions have an impact on individual, family, community, and environment.

Demonstrate goal-setting skills.
- Develop goals to enhance health status.

Essential Concept and/or Skill: ***Recognize that media and other influences affect personal, family and community health.***

Analyze the influence of family, peers, health professionals, culture, media, technology, and other health factors.
- Demonstrate appropriate responses to negative and positive health influences.
- Recognize public health policies that aid in the prevention and maintenance of school and community health.
- Describe the influence of cultural diversities on health behaviors.
- Explain how information from school and family influences health.
- Identify characteristics of valid health information sources.
- Recognize the techniques used by print and non-print media sources.

Access valid information, products and services.
- Identify factors that influence the selection of health products and services.

Essential Concept and/or Skill: ***Demonstrate behaviors that foster healthy, active lifestyles for individuals and the benefit of society.***

Achieve and maintain health enhancing level of physical activity.
- Identify personal physical strengths and weaknesses.
- Engage in physical activities to improve fitness components.

Practice preventive health behaviors.
- Demonstrate appropriate and effective stress management.
- Assess risk factors that contribute to healthy choices.
- Choose healthy foods.
- Demonstrate behaviors that contribute to holistic wellness for individuals, families and communities.

Primary (K – 2) Details and Example

Essential Concept and/or Skill: ***Understand and use basic health concepts to enhance personal, family, and community health.***

Know and use concepts related to health promotion and disease prevention.

- Identify ways to be healthy.
- Recognize multiple dimensions of wellness.
- Describe how physical, emotional, social, and environmental factors influence personal health.
- Identify ways to prevent illness and injury.
- Know when and how to ask for help with health care.
- Identify the impact of personal health behaviors on the functioning of body systems.
- Recognize that personal health behaviors influence an individual's well being.
- List preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance and stress reduction.

Analyze influencing factors on health enhancing behaviors.

- Identify positive and negative effects of media and technology upon health practices and choices.

Illustration of ***Understand and use basic health concepts to enhance personal, family, and community health*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Working in cooperative groups, students will create a list of responses to stressful life events. Students will distinguish between positive and negative stress management strategies. Each small group will develop skits that model positive stress management strategies to share with classmates.	**Quadrant D** Each student will interview family members about stress management strategies that are typically practiced. Students will develop a communication tool (ie: brochure, poster, flier, etc.) that could be posted at home to remind family members of positive stress management strategies.
Quadrant A Students will view and discuss a teacher demonstration explaining the concept of stress.	**Quadrant B** As a class students will discuss personal stressors and strategies for managing personal stress.

Essential Concept and/or Skill: ***Understand and use interactive literacy and social skills to enhance personal, family, and community health.***

Demonstrate social and communication skills to enhance health and increase safety.
- Demonstrate verbal and nonverbal ways to express wants, needs, and feelings appropriately.
- Choose effective conflict management strategies.
- Show how to ask for help.
- Identify ways to communicate care, consideration, empathy and respect for self and others.

Advocate for personal, family and community health.
- Identify personal health needs.
- Articulate ways to influence and support others to make positive health choices.
- Identify ways to improve family and community health.
- Recognize mean and violent acts and demonstrate appropriate responses.

Essential Concept and/or Skill: ***Recognize critical literacy/thinking skills related to personal, family and community wellness.***

Demonstrate decision making skills.
- Understand the interrelationships between decisions, choices and consequences.
- Recognize the effectiveness of health-related decisions.
- Recognize the need to ask for assistance when making health-related decisions.
- Identify that health related decisions have an impact on individual, family, community, and environment.

Demonstrate goal-setting skills.
- Set personal goals.

Essential Concept and/or Skill: ***Identify influences that affect personal health and the health of others.***

Analyze the influence of family, peers, health professionals, culture, media, technology, and other health factors.
- Identify negative and positive health practices.
- Describe how culture influences personal health choices.
- Identify trusted adults/professionals who can help.

Access valid information, products and services.
- Selects appropriate products for minor injuries or illnesses.

Essential Concept and/or Skill: ***Demonstrate behaviors that foster healthy, active lifestyles for individuals and the benefit of society.***

Achieve and maintain health enhancing level of physical activity.
- Practice fitness skills.
- Practice basic health enhancing physical behaviors.

Practice preventive health behaviors.
- Identify stress and stress relievers.
- Identify risk behaviors and practice healthy choices.
- Identify healthy foods.
- Identify behaviors that contribute to total wellness for individuals, families and communities.

Technology Literacy

Each Iowa student will be empowered with the technological knowledge and skills to learn effectively and live productively.

This vision, developed by the Iowa Core Curriculum 21st Century Skills Committee, reflects the fact that Iowans in the 21st century live in a global environment marked by a high use of technology, giving citizens and workers the ability to collaborate and make individual contributions as never before. Iowa's students live in a media-suffused environment, marked by access to an abundance of information and rapidly changing technological tools useful for critical thinking and problem solving processes. Therefore, technological literacy supports preparation of students as global citizens capable of self-directed learning in preparation for an ever-changing world.

Regardless of current realities, **literacy** in any context is defined as the ability "…to access, manage, integrate, evaluate, and create information in order to function in a knowledge society…" (ICT Literacy Panel, 2002) "….When we teach only for facts … (specifics)… rather than for how to go beyond facts, we teach students how to get out of date." (Sternberg, 2008) This statement is particularly significant when applied to technology literacy. The Iowa essential concepts for technology literacy reflect broad, universal processes and skills.

Although it is important that current technologies be integrated into all teachers' classroom practices and all students' experiences, it is also important to understand the broader implications of the transforming influence of technology on society. For example, creativity, innovation and systemic thinking are requirements for success in this environment. Technology is changing the way we think about and do our work. It has changed our relationships with information and given us access to resources, economic and professional, that were unimaginable just a few years ago

Technological advances also present societal challenges. It is essential that students have a deep understanding of technology literacy concepts in order to deal with technology's challenges and implications. It is also essential that educators partner with "…digital natives"…, teaching ways to mediate the challenges, and to realize the potential of technology literacy. (Palfrey and Gasser, 2008)

NOTE: The technology literacy essential concepts and skills are from the International Society for Technology in Education's National Educational Technology Standards for Students.

High School (9 – 12) Details and Examples

Essential Concept and/or Skill: ***Demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.***

Apply existing knowledge to generate new ideas, products, or processes.

- Students design, develop, create, and/or test self-generated digital learning objects that are accessible by as many users as possible, and demonstrate knowledge and skills related to curriculum content.

Create original works as a means of personal or group expression.

- Students individually or collaboratively create media-rich products to be displayed, published, or performed for a variety of audiences.

Use models and simulations to explore complex systems and issues.

- Students employ curriculum-specific, technology-based simulations to aid them in understanding complex, real-world systems. Simulation studies include formulating problems, developing models, running models, and analyzing outputs that help predict behaviors and outcomes.

Identify trends and forecast possibilities.

- Students investigate complex global issues, make informed choices based on capabilities and limitations of technology systems, resources, and services, and apply this learning to personal and workplace needs.

Illustration of ***Demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology*** in the ICLE's Rigor and Relevance Framework	
Preface to Activity: It is 2010 and energy prices have continued to skyrocket. It has become obvious, that in order to live comfortably, the students' family group needs to have a plan to supply their own personal power needs. Students consider new technologies their friend in this endeavor.	
Quadrant C Student groups follow their plan of investigation and create a model (physical, mathematical, etc.) to test the efficacy of their chosen power supply under various conditions. Run your model and analyze your data.	**Quadrant D** As a group, create a means to publish findings and share with others. An explanation of how the family group will use the power supply should be the framework for published works. Because works will appear on a class Web site, they must meet accessibility guidelines. Evaluation of the risks and benefits of your power supply method must be included.
Quadrant A As a small "family" group, students conduct an online search to find different means of supplying personal-use power. Before beginning work, as a class, generate a list of keywords to help in online searching. Digital research notes are required and Web sites are to be noted. Teacher note: Possible key search words: (solar power, nano solar, wind turbine, geothermal, hydrogen fuel cell, generators, ethanol)	**Quadrant B** The family group should choose a personal power supply method that is both sustainable and technologically innovative. The group formulates a plan for investigation to discover how technology will enhance the generation and/or use of their chosen power supply method. The plan should include investigation of both the capabilities and the limitations of the technology services.

Essential Concept and/or Skill: ***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.

- Using technology, students interact and collaborate with peers, experts, and others to contribute to a content-related, media-rich knowledge base by compiling, synthesizing, producing, and disseminating information, models, and other creative works.

Communicate information and ideas effectively to multiple audiences using a variety of media and formats.

- Students use technology tools and resources, including distance and distributed education, for effectively exchanging information with a variety of audiences in an array of media-rich formats.

Develop cultural understanding and global awareness by engaging with learners of other cultures.

- Students use a variety of existing online tools and emerging technologies for communicating with and learning about people of other cultures. Students investigate, communicate, and understand cultural norms manifested in music, literature, painting and sculpture, and theater and film, resulting in greater global awareness.

Appropriately contribute to project teams to produce original works or solve problems.

- Students share knowledge and skills with local or distance teams of peers, experts, or others using technological tools and resources to create collaborative works and/or innovative sustainable solutions.

Illustration of ***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*** in the ICLE's Rigor and Relevance Framework	
Preface to Activity: Health care for students and their families has evolved in recent decades to include global interactions and options in many medical fields. X-rays are read by radiologists in countries across the world while patients sleep; pace-maker patients download data from their devices by telephone; surgeons perform procedures using robotic tools; diabetics report blood sugar levels to research facilities by e-mail, etc. Telemedicine is the use of telecommunications technology for medical diagnosis and patient care when the provider and client are separated by distance.	
Quadrant C Listen to all of the podcasts created by classmates; compile digital notes over the information presented; and create a comprehensive list of telemedicine examples. Using your notes and lists, compare traditional medicine with telemedicine, identifying the strengths and weaknesses of each and what effect the use of telemedicine might have on the future of health care.	**Quadrant D** Go to Wikipedia and read "About Wikipedia." Read for understanding about the structure of this free online encyclopedia and how you can add to its wealth of knowledge. As a small group, students contribute to the Wikipedia page for telemedicine. Student group analyzes the information given on the Wikipedia telemedicine page and determines what other information could be added to the page from their research and study. Group then writes a collaborative piece to be added to the telemedicine page. Before publishing the work, students choose a panel of reviewers and give rationale for their choices. Finally, have work reviewed by the chosen panel, edit work as necessary, and publish the piece on the Wikipedia telemedicine page.
Quadrant A As a class, generate keywords and questions you could use to research the concept of telemedicine. As a small group, investigate telemedicine using the keywords and questions generated by your class. **Teacher notes:** Possible investigation questions: What is telemedicine? What are examples of telemedicine happening around the world? How could telemedicine be used to enhance health care in students' foreseeable future?	**Quadrant B** As a small group, interview health experts about the uses of telemedicine in their areas of care. The experts can be from the local area, from across the country, or from around the world. Create a podcast to be uploaded on to the class Web site sharing your interview information.

Essential Concept and/or Skill: ***Apply digital tools to gather, evaluate, and use information.***

Plan strategies to guide inquiry.

- Students design a process which establishes criteria for selecting digital tools and resources to use for in-depth investigation of a real-world task and justify the selection based on efficiency and effectiveness.

Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.

- Students model legal and ethical behaviors when using information and technology by properly selecting, acquiring, and citing resources for research, information analysis, problem solving, and decision making in content learning.

Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.

- Students access information efficiently and effectively, evaluate information critically and competently, and use digital information and tools accurately and creatively for the issue or problem at hand.

Process data and report results.

- Students use technological tools to select, organize, and analyze data, convert that information into easily understood knowledge, and effectively convey the results to an intended audience.

Illustration of ***Apply digital tools to gather, evaluate, and use information*** in the ICLE's Rigor and Relevance Framework	
Preface to Activity: A group of business leaders are collectively looking to relocate their businesses to a community with a larger potential employee base. The students' community wants this group to relocate to their area. Students are asked to research the types of skills desired in potential employees; discover how the community can meet those needs; and present their findings to a board of community members.	
Quadrant C Produce and implement an online survey for community members using a free online survey tool to determine what skills they perceive they possess. Compare the results of your survey to the findings of your research on the specific skills the business group is looking for. Indicate specific skills that are prevalent in your community and skills that are not as common. Report your findings to the community group via the local Chamber of Commerce listserv. Evaluate the online survey and digital organizational tool to see they produced the information you needed to present useful information.	**Quadrant D** Based on the comparison of your research and community survey, determine employability strengths and weaknesses of potential employees in your community. Find areas (skills) where there are ample potential employees and where there is a deficit of potential employees. Develop a digital marketing campaign to attract potential employees with skills in areas of deficit to your community. An aspect of that campaign needs to include retaining current community members so as not to lose that bank of potential employees. Using any digital resources available, create an effective campaign that can be included on the community Web site or uploaded to YouTube! or other online resources to reach a wider audience. Or send the campaign to the group of business leaders to demonstrate what the community has to offer and is willing to do to attract their businesses.
Quadrant A Define "employability" and create a list of employability skills based on current research and information available from various resources, including but not limited to, print material, the Internet, industry publications/Web sites, and interviews with business leaders. Write an article to be included on the community Web site detailing your findings to inform the public.	**Quadrant B** Create a digital organizational tool to help you in your research to discover what specific skills are required for employees in each of the industries in the business group. Conduct your research and complete the organizational tool in a manner that allows you to report your findings to the community board in a concise and effective manner.

Essential Concept and/or Skill: ***Demonstrate critical thinking skills using appropriate tools and resources to plan and conduct research, manage projects, solve problems and make informed decisions.***

Identify and define authentic, real-world problems and significant questions for investigation.

- Students identify global issues and analyze capabilities and limitations of current and emerging technology resources in order to develop and refine investigatible questions.

Plan and manage activities to develop a solution or complete a project

- Students effectively use multiple technologies and resources to develop a systematic plan for conducting research in order to assess potential sustainable solutions, or to develop a complete product to demonstrate knowledge and skills.

Collect and analyze data to identify trends, solutions, or make informed decisions.

- Students use technology to gather appropriate data, analyze its application to a task, and assess its effectiveness in order to design, develop, and test possible solutions that assist students in making decisions.

Use multiple processes and diverse perspectives to explore alternative solutions.

- Students use multiple perspectives to analyze and evaluate information from a variety of technological resources. Students critically assess numerous solutions and investigate them from differing viewpoints.

Essential Concept and/or Skill: ***Understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.***

Advocate and practice safe, legal, and responsible use of information and technology at an age-appropriate level.

- Students use technology efficiently and in a manner that does not harm them or others. Their choices demonstrate and advocate for legal and ethical behaviors among peers, family, and community regarding the use of technology and information. Students understand the concept of acceptable use of copyrighted materials, and how disregarding intellectual property affects others.

Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.

- Students willingly and routinely use online resources to meet needs for collaboration, research, publication, communication, and productivity. Evidence for a positive attitude includes a proclivity to help others with the use of technology in their learning.

Demonstrate personal responsibility for lifelong learning.

- Students use their skills to identify capabilities and limitations of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. They use this knowledge to make informed choices among technology systems, resources, and services.

Exhibit leadership for digital citizenship.

- Students use their skills to identify capabilities and limitations of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. They use this knowledge to make informed choices among technology systems, resources, and services.

Illustration of ***Understand human, cultural, and societal issues related to technology and practice legal and ethical behavior*** in the ICLE's Rigor and Relevance Framework	
Preface to Activity: Intellectual property rights are a major issue because the Internet makes sharing information so easy.	
Quadrant C Analyze the factors affecting the price of recorded music. Assess the importance, validity, or limitations of each factor, and hypothesize how the cost of each factor could be minimized to reduce the final cost for the consumer.	**Quadrant D** You and your friends have organized a band and decided to sell your recordings. Describe the steps you would take to accomplish this goal and make the music available to others for purchase. Identify several steps you could take to ensure that your digital rights are protected and your profits from your recordings are maximized.
Quadrant A Create a report providing an overview of the current laws regarding the duplication and distribution of recorded music.	**Quadrant B** Create an overview of the current methods for legally obtaining music.

Essential Concept and/or Skill: ***Demonstrate a sound understanding of technology concepts, systems and operations.***

Understand and use technology systems
- Students adapt to evolving technology systems and apply them for everyday use. They also interpret the underlying structure of the system so it can be used for multiple purposes and applied to unique situations.

Select and use applications effectively and productively
- Students select and apply technology tools for research, information analysis, problem solving, and decision making. Students use technology tools and resources for managing and communicating personal and professional information (e.g., finances, schedules, addresses, purchases, correspondence).

Troubleshoot systems and applications.
- Students utilize a working knowledge of technology or technological support services to identify a problem/issue and its solution.

Transfer current knowledge to learning of new technologies.
- Students apply what they know of one technology to intuitively utilize other technologies.

Illustration of ***Demonstrate a sound understanding of technology concepts, systems and operations*** in the ICLE's Rigor and Relevance Framework	
Preface to Activity: Intellectual property rights are a major issue because the Internet makes sharing information so easy.	
Quadrant C Evaluate the effectiveness of two different CAD programs. Use two of them to draw the layout of your classroom and determine which program is more suitable and why.	**Quadrant D** Locate several examples of personal budgets and identify at least one positive and one negative aspect to each one. Select a potential career for yourself as you enter the job market, including a reasonable salary based on where you would like to live. Use examples of budgets you located to create your own budget based on your anticipated needs. Justify each expense in your budget. Do the same for a second budget reflecting where you would like to be 10 years later.
Quadrant A Teach a lesson to a group of elementary students demonstrating how to use a spreadsheet program. Utilize the elementary students' knowledge of word processing programs to teach them the basics of the spreadsheet program.	**Quadrant B** Research several careers you are interested in and report the average salary, market demand, and education requirements of each one.

Middle (6 – 8) Details and Example

Essential Concept and/or Skill: ***Demonstrate creative thinking in the design and development of innovative technology products and problem solving.***

- Design, develop, create, and/or test digital technology products.
- Individually or collaboratively create media-rich products and display, publish, or perform them for a variety of audiences.
- Use simulations to help understand complex, real-world systems, identify problems, develop models, and analyze the output.
- Investigate global issues and make informed choices based on knowledge of technology systems, resources, and services.

Essential Concept and/or Skill: ***Collaborate with peers, experts, and others using interactive technology.***

- Interact and collaborate with peers, experts, and others using technology.
- Contribute to a content knowledge base by creating, producing, and sharing information, models, and other creative works.
- Efficiently use technology tools and resources for communication and to access remote information and exchange it with a variety of audiences.
- Engage in learning activities with learners from other countries and/or cultures using telecommunication tools to create, produce, and share information, models, and other projects with a global or cultural focus.
- Share knowledge and skills with local or distant teams of peers, experts, or others using technology tools and resources to create group works and/or innovative solutions.

Essential Concept and/or Skill: ***Plan strategies utilizing digital tools to gather, evaluate, and use information.***

- Create a plan for the use of digital tools and resources to investigate a real-world issue.
- Locate, organize, analyze, evaluate, and synthesize information from a variety of sources and media and use this information in a legal and ethical manner.
- Evaluate resources in terms of their usefulness and validity for research.
- Use technological tools to select data and organize it into a format that is easily understood by others.

Essential Concept and/or Skill: ***Use critical thinking skills to conduct research, solve problems, and make informed decisions using appropriate technological tools and resources.***

- Identify real-world issues and analyze technological resources for developing and refining questions for investigation.
- Effectively use multiple technological resources to develop a systematic plan for conducting research. Develop possible solutions or a complete product to demonstrate knowledge and skills.
- Use technology to gather, analyze, and assess data and its effectiveness to design, develop and test possible solutions that assist students in making decisions.
- Analyze and evaluate information from a variety of perspectives and resources in order to assess multiple solutions and investigate them from differing viewpoints.

Essential Concept and/or Skill: ***Understand the legal and ethical issues of technology as related to individuals, cultures, and societies.***

- Use technology efficiently and in a manner that does not harm them or others.
- Demonstrate awareness of legal and ethical responsibilities when using copyrighted material, and how a disregard of legal and ethical responsibilities affects others.
- Use online resources to work with others to complete a task and accept responsibility for the results.
- Identify capabilities of contemporary technology resources.
- Develop examples of how technology systems and services can assist them in pursuing personal interests.

Essential Concept and/or Skill: ***Understand the underlying structure and application of technology systems.***

- Utilize technology for everyday use and understand how technology systems can be applied to various situations.
- Select and use technology applications to conduct research, solve problems and produce finished products.
- Identify the source of a problem with technology, and, if necessary, the appropriate support personnel needed.
- Apply knowledge of technology to explore other technologies and be able to identify commonalities among them.

Illustration of ***Understand the underlying structure and application of technology systems*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Use a CADD program to design a piece of wooden furniture, providing sufficient details for a carpenter to construction the furniture item.	**Quadrant D** In a group, design a self-sufficient space colony that can support a population of 1000 humans. Use CADD software to design a 3-D model of the colony, and create a multimedia presentation of the colony plan.
Quadrant A Following the teacher demonstration, students will use the basic functions of a CADD program.	**Quadrant B** Using basic CADD functions, create a simple model to share with the class.

Intermediate (3 – 5) Details and Example

Essential Concept and/or Skill: ***Use technology resources to create original products, identify patterns and problems, make predictions, and propose solutions.***

- Demonstrate creative thinking to generate new ideas and products using a variety of technology tools and resources.
- Create and share new ideas, products, and processes related to curriculum content.
- Work individually and collaboratively to create, display, publish, or perform media-rich products.
- Use models and simulations to identify problems and propose solutions.
- Use technology resources to gather and depict data, recognize trends, and project outcomes.

Illustration of ***Use technology resources to create original products, identify patterns and problems, make predictions, and propose solutions*** in the ICLE's Rigor and Relevance Framework	
Quadrant C Choose two music-making technology tools and compare and contrast their uses. Identify the strengths and weaknesses of each.	**Quadrant D** Choose a music-making technology tool to create an original composition or live performance to share with the class.
Quadrant A Given a list of music-making technology tools, students will look up information online, write a report using text, images, and links to online sources.	**Quadrant B** Conduct a survey of students to identify and report what tools they use to create music (i.e., Guitar Hero, Garage Band). Using technology, create a chart to show the data.

Essential Concept and/or Skill: ***Use interactive technologies in a collaborative group to produce digital presentations or products in a curricular area.***

- Use a variety of technology tools to work collaboratively with others inside and outside the classroom.
- Use telecommunication tools efficiently to communicate information and ideas to multiple audiences.
- Access remote information using technology.
- Engage in learning activities with learners from other countries and/or cultures
- Appropriately contribute to project teams to produce original works or solve problems using technology.

Essential Concept and/or Skill: ***Utilize digital tools and resources to investigate real-world issues, answer questions, or solve problems.***

- Create a plan or process that utilizes digital tools and resources to investigate and answer issues, questions, or problems.
- Locate, organize, and ethically use information from a variety of sources and media.
- Access information for specific purposes, and assess the validity of the information source.
- Identify, select, and organize data. Discuss and describe the results.

Essential Concept and/or Skill: ***Use technological resources to develop and refine questions for investigation.***

- Choosing from a variety of real-world issues and/or problems, use technological resources to develop and refine questions for investigation.
- Use technological resources to conduct research and complete a project.
- Identify trends or solutions or assist students in making decisions.
- Identify and explore diverse perspectives and processes to find multiple solutions to problems.

Essential Concept and/or Skill: ***Understand and practice appropriate, legal, and safe uses of technology for lifelong learning.***

- Demonstrate awareness of the dangers of sharing personal information with others.
- Demonstrate an understanding of what electronic theft and plagiarism are and why they are harmful.
- Identify the positive values of using technology to accomplish tasks.
- Use technology to explore and pursue personal interests.
- Show others how to use new technologies, and use technology in a way that assists, rather than prevents, others from learning.

Essential Concept and/or Skill: ***Understand technology hardware and software system operations and their application.***

- Use everyday technology processes, hardware, and software
- Select the most efficient and appropriate technology tool for a specific task.
- Begin to identify the source of a problem with technology, and, if necessary, identify the appropriate support personnel.
- Apply prior knowledge of technologies to new technologies.

Primary (K – 2) Details and Example

Essential Concept and/or Skill: ***Use technology to create projects, identify patterns, and make predictions.***

- Use a variety of digital tools and media-rich resources to create projects.
- Use technology to illustrate and communicate original ideas related to curriculum content.
- Create multimedia products with support from teachers, family members, and/or student partners for the purpose of display, publication and/or performance.
- Use technology resources to identify problems, help recognize and describe patterns, make predictions and/or propose solutions.

Essential Concept and/or Skill: ***Use a variety of technology tools and media-rich resources to work collaboratively with others.***

- In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area.
- Use technology resources for communicating and sharing ideas with others.
- Participate in learning activities with or about learners from other countries and/or cultures.

Essential Concept and/or Skill: ***Utilize predetermined digital resources and tools to answer questions or solve problems.***

- Follow a plan of action to guide inquiry by using predetermined digital resources.
- Locate and organize information from a variety of sources and media.
- Review provided resources, explain why they are or are not useful, and use information appropriately.
- Identify, read, and report data from charts, graphs, and other sources.

Illustration of ***Utilize predetermined digital resources and tools to answer questions or solve problems*** in the ICLE's Rigor and Relevance Framework	
Preface to Activity: The community is examining the possibility of building a new zoo in their town. They want the students to provide information on which animals the children of the community think should be included in the zoo.	
Quadrant C Groups are assigned a traditional zoo animal. Using a variety of resources, both print and digital, each group researches the given animal and it's habitat. Create a description of the animal, what it's habitat should include, and why the animal is a good choice for the new zoo.	**Quadrant D** As a group, chose an animal to be included in the new zoo. Learn about the animal. Compose a description of why it would be a good choice for the zoo. Design a habitat, either on paper, with a drawing program, or in a 3D format (diarama), for the animal to live in at the zoo. Be sure to include all the things in the habitat the animal will need to survive. Also include any special requirements that might be necessary for viewing the animal at the zoo (an aquarium, an enclosed cage, etc.)
Quadrant A Using a variety of print and digital resources provided by the teacher, research an animal and write a report about the animal that could be included in the zoo. The report includes predetermined information.	**Quadrant B** Using a variety of print and digital resources provided by the teacher, research an animal of choice and create a product to demonstrate what has been learned about the animal and why it would be a good choice for the zoo.

Essential Concept and/or Skill: ***Use technological resources to investigate given questions or problems.***

- Use a variety of technology resources to explore questions or problems.
- Use technology to decide what information to locate and how to use that information to complete a project.
- Collect and explain data to identify commonalities or solutions to problems.
- Explore the different ways that problems may be solved.

Essential Concept and/or Skill: ***Understand and practice appropriate and safe uses of technology.***

- Understand that stealing information and things others have created is the same as stealing tangible items.
- Be aware of why it is unsafe for students to provide others with information about themselves.
- Demonstrate awareness of the importance of communicating with adults about things that might concern them.
- Understand why technology is useful in helping them complete a task.
- Use technology to explore personal interests.
- Demonstrate to others how to use technology tools in ways that assist, rather than prevent, others from learning.

Essential Concept and/or Skill: ***Understand basic technology hardware and software and their application.***

- Choose the most appropriate technology tool for a given task.
- Demonstrate a basic knowledge of how technology is supposed to function and know when it is not working properly.
- Know when to seek adult assistance for technology problems.
- Explore new technologies using existing skills and knowledge.