

## RESEARCH & INFORMATION FLUENCY

In the 21st Century classroom, students find, navigate through, and evaluate large amounts of information. Teachers provide guided and independent research opportunities for students to make informed, ethical decisions and create products.

	Entry (1)	Developing (2-3)	Approaching (4-5)	Ideal / Target (6-7)
TEACHER	<p>Provides resources for research and information acquisition.</p> <p>Directs student use of limited / pre-selected information sources.</p> <p>States topic and questions to be researched.</p>	<p>Directly instructs on search techniques and analysis of various information sources.</p> <p>Directly instructs on how to determine the authority and accuracy of sources.</p>	<p>Models strategies to guide student investigation.</p> <p>Designs challenges that promote synthesis of resources to address an authentic task.</p> <p>Supports students as they acquire, evaluate, and apply information.</p>	<p>Facilitates and formatively assesses authentic tasks where students are engaged in research and using information fluently.</p>
STUDENTS	<p>Acquire information using provided resources.</p> <p>Follow teacher direction to complete class assignments.</p> <p>Respond to, but do not extend teacher prompt.</p>	<p>Apply search techniques demonstrated by teacher.</p> <p>Determine accuracy and authority of information sources using provided checklist or digital tool.</p> <p>Respond to class assignments that prompt analysis of information.</p>	<p>Construct questions to guide research.</p> <p>Select the most appropriate digital tools and information sources.</p> <p>Assemble and organize information to address authentic tasks.</p>	<p>Assemble and synthesize information to address authentic tasks.</p> <p>Use tools to powerfully display and interact with information.</p>

Modern tools that promote research and information fluency include search engines, databases, social bookmarking, push/ pull technologies and organizational structures and strategies.

# COMMUNICATION & COLLABORATION

In a 21st Century classroom, students communicate and collaborate ethically and effectively to reach a common goal or create a product. The teacher uses a variety of communication methods, structures student interaction in groups, and engages students in collaborative projects.

	Entry (1)	Developing (2-3)	Approaching (4-5)	Ideal / Target (6-7)
TEACHER	<p>Provides information and assignment expectations with limited student interaction.</p> <p>Directs communication opportunities that promote student comprehension.</p>	<p>Directly instructs on use of approved communication methods and associated digital tools.</p> <p>Provides opportunities and structures for students to work in groups on class assignments.</p> <p>Defines structures for student communication within the classroom.</p>	<p>Models a range of communication methods and digital tools.</p> <p>Designs challenges that promote collaboration within and beyond the classroom to address an authentic task.</p> <p>Teaches students how to collaborate purposefully without direct supervision.</p>	<p>Facilitates and formatively assesses authentic tasks where students are engaged in meaningful communication and purposeful collaboration.</p>
STUDENTS	<p>Work in small groups toward a common product without collaborating.</p>	<p>Work in teacher-selected groups with defined roles to accomplish class assignments.</p> <p>Use digital tools to communicate to complete class assignments.</p>	<p>Establish group norms, form teams, and organize roles to address an authentic task.</p> <p>Use appropriate digital tools to facilitate collaboration.</p>	<p>Select appropriate digital tools to communicate and collaborate with peers and experts, regardless of time zone or physical distances.</p> <p>Reflect on their roles as communicators and collaborators and set goals for future growth.</p>

Technologies that foster communication and collaboration include electronic messaging, multimedia publishing, video conferencing, blogs, wikis, discussion boards, etc.

## CRITICAL THINKING & PROBLEM SOLVING

Students will extend knowledge and skills in practical ways to solve real world problems. The teacher provides the activities, experiences, and feedback needed for students to develop questioning, critical thinking and problem solving skills.

	Entry (1)	Developing (2-3)	Approaching (4-5)	Ideal / Target (6-7)
TEACHER	<p>Directs questioning and follow-up student responses.</p> <p>Provides class assignments that emphasize recall and comprehension.</p>	<p>Directly instructs on effective questioning, critical thinking and/or problem solving strategies, and use of associated digital tools.</p> <p>Requires students to think critically and/or solve problems on class assignments.</p>	<p>Models a range of critical thinking and/or problem solving strategies and associated digital tools.</p> <p>Designs instruction that promotes solutions to authentic tasks.</p> <p>Supports students as they engage challenges and problems purposefully.</p>	<p>Facilitates and formatively assesses authentic tasks where students are engaged in meaningful questioning, critical thinking and problem solving.</p>
STUDENTS	<p>Respond to, but do not justify their answers to teacher-initiated questions.</p> <p>Work on class assignments through recollection of knowledge.</p>	<p>Respond to higher order questions.</p> <p>Elaborate on critical thinking or problem solving practices when prompted.</p> <p>Apply digital tools to think critically and solve problems in class assignments.</p>	<p>Generate and respond to purposeful questions.</p> <p>Justify decision-making and/or problem-solving practices.</p> <p>Apply digital tools to think critically and solve open-ended authentic tasks that require higher order thinking skills.</p>	<p>Select the most appropriate digital tools, as well as questioning, critical thinking and problem solving strategies to solve authentic tasks.</p> <p>Reflect on their roles as critical thinkers and/or problems solvers and set goals for future growth.</p>

Critical thinking and problem solving require specific behaviors that ultimately lead to insights and quality decisions. Modern tools that encourage and promote thinking critically and solving problems include simulation and data visualization software in addition to the tools included in the Research & Information Fluency and Communication and Collaboration sections.

# CREATIVITY & INNOVATION

In the 21st Century classroom, students develop original ideas and create products by applying critical thinking, research methods, communication tools, and collaborative processes. Teachers provide experiences that allow students to create unique ideas and products.

	Entry (1)	Developing (2-3)	Approaching (4-5)	Ideal / Target (6-7)
TEACHER	<p>Directs a learning environment with limited options for student choice or creativity.</p> <p>Provides class assignments that emphasize student product over process.</p>	<p>Directly instructs to accommodate a limited range of learning styles, interests, and abilities.</p> <p>Includes connections between subject matter and contemporary issues and/or new ideas in class assignments.</p>	<p>Models strategic risk taking, creativity and craftsmanship.</p> <p>Designs opportunities for students to synthesize research, communicate/ collaborate, apply critical thinking skills to address an authentic task.</p>	<p>Develops, facilitates and assesses a learning environment where students are engaged in creativity and innovation.</p>
STUDENTS	<p>Respond to teacher direction to complete class assignments.</p> <p>Work on standard products following teacher direction.</p>	<p>Work on class assignments that blend technology and limited aspects of personal choice to generate new ideas and products.</p> <p>Question, summarize and make predictions on existing knowledge using provided digital tools.</p>	<p>Analyze trends and make predictions that inspire new solutions to authentic tasks.</p> <p>Create meaningful, original work within the assignment parameters.</p>	<p>Synthesize existing and self-generated knowledge to create new ideas and products within and beyond assignment parameters.</p> <p>Choose strategic risks that support innovation.</p> <p>Reflect on the creative/innovative process and set goals for future growth.</p>

Creativity and innovation ultimately lead to new products, perspectives and insights. Modern tools that augment and accelerate creativity and innovation are flexible and varied.