

The 21st Century Classroom

21st Century Skills are a combination of cognitive processes and the technologies that enable individuals to leverage these processes for the greatest impact. The 21st Century classroom is one that is student-centered, project based and focused on creating life-long learners.

Research & Information Fluency	Problem Solving & Critical Thinking	Collaboration & Communication	Creativity & Innovation
<p>Teacher:</p> <ul style="list-style-type: none"> ▪ creates structures, provides opportunities, and assesses student performances <p>Students:</p> <ul style="list-style-type: none"> ▪ select appropriate digital tools to assemble, evaluate, and utilize information. ▪ apply varied research skills to find and evaluate resources. ▪ use information and resources to accomplish real-world tasks. 	<p>Teacher:</p> <ul style="list-style-type: none"> ▪ creates structures, provides opportunities, and assesses student performances <p>Students:</p> <ul style="list-style-type: none"> ▪ use multiple resources to plan, design, and execute real-world problems. ▪ use technology to collaborate and solve authentic problems. ▪ develop and answer open-ended questions using higher order thinking skills 	<p>Teacher:</p> <ul style="list-style-type: none"> ▪ creates structures, provides opportunities, and assesses student performances <p>Students:</p> <ul style="list-style-type: none"> ▪ Initiate communication in real and non-real time. ▪ communicate and collaborate with learners of diverse cultural backgrounds. ▪ form collaborative teams to solve real-world problems and create original works. 	<p>Teacher:</p> <ul style="list-style-type: none"> ▪ creates structures, provides opportunities, and assesses student performances <p>Students:</p> <ul style="list-style-type: none"> ▪ apply critical thinking, research methods, and communication tools to create original work. ▪ collaborate effectively with an audience beyond the classroom to create original work.

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	Developing	Approaching	Ideal/Target
<p>Teacher:</p> <ul style="list-style-type: none"> limits instruction to specific content. makes connections to existing knowledge. 	<p>Teacher:</p> <ul style="list-style-type: none"> provides instruction to accommodate a range of learning styles, interests, and capabilities. prompts students to identify trends, make predictions and think skillfully. <p>Students:</p> <ul style="list-style-type: none"> make connections to existing knowledge create products following teacher direction. 	<p>Teacher:</p> <ul style="list-style-type: none"> creates a student-centered environment. provides opportunities for students to demonstrate collaborating, communication, and critical thinking skills. establishes group norms to facilitate effective collaboration. <p>Students:</p> <ul style="list-style-type: none"> identify trends and make predictions independently. apply existing knowledge to create ideas and products. 	<p>Teacher:</p> <ul style="list-style-type: none"> creates structures, provides opportunities, and assesses student performances <p>Students:</p> <ul style="list-style-type: none"> apply critical thinking, research methods, and communication tools to create original work. collaborate effectively with an audience beyond the classroom to create original work.

Creativity and innovation ultimately lead to new products, perspectives and insights. Modern tools that augment and accelerate creativity and innovation are flexible and varied. Examples of such powerful tools are included in the Research & Information Fluency and Communication and Collaboration sections of this document.

***How to Use This Document:** Each chart title reflects essential 21st Century skills and collectively embodies a vision of instruction in technology-rich classrooms. Columns are snapshots of student and teacher behaviors in various stages of classroom development. Each column increases in degree of student-centered focus. A progression occurs between columns with the most desired behaviors in the right hand column.*

COMMUNICATION & COLLABORATION

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

Entry	Developing	Approaching	Ideal/Target
<p>Teacher:</p> <ul style="list-style-type: none"> disseminates information with limited student interaction. initiates communication opportunities. <p>Students:</p> <ul style="list-style-type: none"> work independently to create individual products. 	<p>Teacher:</p> <ul style="list-style-type: none"> creates structures for student communication within the classroom. provides opportunities for students to work in groups on products and projects. <p>Students:</p> <ul style="list-style-type: none"> communicate using a variety of techniques. work in groups to create products. 	<p>Teacher:</p> <ul style="list-style-type: none"> models effective communication. Provides opportunities for students to make global connections. establishes group norms to facilitate effective collaboration. <p>Students:</p> <ul style="list-style-type: none"> communicate with audiences within and beyond the classroom. frequently collaborate to create products. 	<p>Teacher:</p> <ul style="list-style-type: none"> creates structures, provides opportunities, and assesses student performances <p>Students:</p> <ul style="list-style-type: none"> Initiate communication in real and non-real time. communicate and collaborate with learners of diverse cultural backgrounds. form collaborative teams to solve real-world problems and create original works.
<p>Technologies that foster communication and collaboration include electronic messaging, multimedia publishing, video conferencing, shared authoring tools, and social networking applications.</p>			

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CRITICAL THINKING & PROBLEM SOLVING

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

Entry	Developing	Approaching	Ideal/Target
<p>Teacher:</p> <ul style="list-style-type: none"> disseminates information with limited real world connections. places little emphasis on helping students think analytically, make decisions, and solve problems. 	<p>Teacher:</p> <ul style="list-style-type: none"> provides direct instruction on critical thinking and problem solving skills. creates opportunities for students to solve basic problems. <p>Students:</p> <ul style="list-style-type: none"> uses resources including technology to make decisions and solve problems. 	<p>Teacher:</p> <ul style="list-style-type: none"> incorporates problem and project based learning into instruction. utilizes open-ended question and emphasizes higher order thinking skills. guides and encourages the use of appropriate resources to solve authentic problems. <p>Students:</p> <ul style="list-style-type: none"> use technology and work independently to solve problems. engage in open-ended learning experiences that require higher order thinking skills. 	<p>Teacher:</p> <ul style="list-style-type: none"> creates structures, provides opportunities, and assesses student performances <p>Students:</p> <ul style="list-style-type: none"> use multiple resources to plan, design, and execute real-world problems. use technology to collaborate and solve authentic problems. develop and answer open-ended questions using higher order thinking skills

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 are flexible, varied and include simulation and data visualization software in addition to the tools included in the Research & Information Fluency and Communication and Collaboration sections.

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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 decisions and create products.

Entry	Developing	Approaching	Ideal/Target
<p>Teacher:</p> <ul style="list-style-type: none"> provides print resources for research and information acquisition. directs student use of electronic resources. 	<p>Teacher:</p> <ul style="list-style-type: none"> evaluates electronic resources for appropriateness and effectiveness. utilizes school databases for enhanced research and information acquisition. <p>Students:</p> <ul style="list-style-type: none"> locate and acquire information using provided resources. 	<p>Teacher:</p> <ul style="list-style-type: none"> plans and implements strategies to guide student investigation. instructs students on the acquisition, evaluation, and ethical use of information. <p>Students:</p> <ul style="list-style-type: none"> develop questions to guide research. apply research methods to find and evaluate resources. select information from a variety of digital resources and databases. 	<p>Teacher:</p> <ul style="list-style-type: none"> creates structures, provides opportunities, and assesses student performances <p>Students:</p> <ul style="list-style-type: none"> select appropriate digital tools to assemble, evaluate, and utilize information. apply varied research skills to find and evaluate resources. use information and resources to accomplish real-world tasks.

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

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