DRAFT: 21ˢᵗ Century Skills, OCM BOCES

Skill	Novice	Emerging	Proficient	Exemplary
Global competence *Recognizes how culture and conditions impact perspective, investigates the world beyond the immediate environment, and translates ideas and findings into appropriate actions to improve conditions*	• Identifies different cultural views exist but views the world primarily through one's own perspective for a given problem/ situation and suggests an idea/action accordingly	• Compares cultural differences on a variety of dimensions for a given problem/ situation but one's solutions are primarily through own cultural perspective	• Compares cultural differences on a variety of dimensions for a given problem/situation, recognizes how culture shapes perspective, and translates that into appropriate ideas and actions	• Investigates cultural differences on a variety of dimensions for a given problem/situation, recognizes how culture shapes perspective, creates appropriate ideas and actions, and articulates the potential impact of those actions
Social responsibility *Contributes to the improvement of the local, national, and global community through empathy, ethical choices, shared responsibility and action*	• Demonstrates shared awareness and respond to an established cause or an immediate need	• Identifies a shared need and take appropriate action based on personal interest, integrity and commitment	• Develops and/or contributes to a shared plan of action based on personal interest, integrity, and commitment to influence others' awareness of a cause	• Initiates and sustains ongoing commitment to a cause through communication, creating solutions, and influencing others' actions.
Critical Thinking *Analyzes information, ideas, and possibilities to develop a point of view, draw conclusions and make predictions.*	• Uses current and prior knowledge to establish a comparison, develop point of view, and attempt to explain it concretely	• Identifies current and prior knowledge to establish and develop a point of view, make predictions, and clarify reasoning	• Analyzes abstract ideas/ patterns by distinguishing credible evidence to predict implications and defend perspectives	• Evaluates abstract ideas/ patterns by using credible evidence to predict implications, justify/modify perspectives, and apply to other situations

Problem-Solving *Systematically identifies, evaluates and determines viable and appropriate solutions.*	• Given a problem, selects the appropriate procedure/ structure and carry the steps out to arrive at a solution	• Within a given set of parameters, identifies a problem, selects and applies an appropriate procedure/ structure to determine a viable solution	• Independently identifies a complex problem and its underlying assumptions and applies a relevant procedure/ structure to determine viable and appropriate solution(s)	• Independently identifies a complex problem and its underlying assumptions, applies a relevant procedure/ structure, creates viable and appropriate solution(s) and consider possible ramifications
Creative and innovative thinking *Generates original ideas, unique solutions, or new associations of existing ideas for an aesthetic or practical purpose*	• Identifies an idea/approach within a guided structure to address a problem or complete a task that are an extension of an existing idea/approach	• Generates novel ideas, stories, and models that either are not fully developed or mimic something/ someone else	• Generates and extends a novel or unique idea, question, format or product to create new knowledge or knowledge that solves an existing need/problem, and/or evokes an aesthetic response	• Creates a novel or unique idea, question, format or product that crosses multidisciplinary boundaries and makes new associations to solve an existing or anticipated need/problem and/or evokes an aesthetic response
Information and media literacy *Access and evaluate information and sources critically; apply information to complete the task in an ethical and legal manner*	• Accesses, identifies and reports sources to complete a task without consideration of its relevance, bias, appropriateness, or attribution	• Accesses and identifies sources and asks questions to identify missing information before applying that information with some consideration of relevance, bias, appropriateness or attribution	• Accesses and evaluates sources in order to determine its relevance, bias, appropriateness • Uses that knowledge to seek information and alternate points of view • Organizes information to draw inferences and conclusions with appropriate attribution	• Accesses and evaluates sources based on accuracy, authority, and point of view • Resolves conflicting evidence or clarifies reasons for differing interpretations of information and ideas • Organizes information to draw inferences and conclusions with appropriate attribution

Collaboration *Interacts with diverse groups to reach workable solutions while displaying flexibility and willingness to understand alternate points of view*	• Engages in dialogue among diverse members of the group that is characterized by uneven participation and a narrow viewpoint that compromises a workable solution	• Engages in dialogue among diverse members of the group characterized by respect and cooperation but one viewpoint dominates which impacts the solution	• Engages in dialogue among diverse members of the group characterized by respect, cooperation, and openness to divergent viewpoints that results in a workable solution	• Engages in dialogue and capitalizes on the diversity of the group to expand ideas and uses the creative tension to develop a shared ownership of a solution.
Initiative and self-direction *Identify an area of focus; establish goal(s); organize and sustain effort in service of goal(s); monitor and adjust accordingly to complete in a timely manner.*	• Selects area of focus and achievable goals with significant teacher input • Organizes and carries out plan with significant teacher scaffolding in a timely manner.	• Independently selects area of focus that inspires but needs teacher assistance to translate focus into achievable goals • Organizes and carries out plan with occasional support and redirection in a timely manner.	• Independently selects area of focus that motivates learning and develops concrete, achievable goals • Independently organizes and carries out plan to achieve goals in a timely manner	• Independently selects area of focus that motivates learning and develops concrete, challenging, and achievable goals • Independently organizes and sustains focus through seeking feedback and incorporating that into their work in a timely manner
Communication *Communicates ideas effectively mindful of audience, purpose, and medium*	• Conveys basic information without consideration of audience, clarity of purpose, and medium • Uses visual aids and/or supporting details/evidence that are tangential or distracting	• Conveys basic information using features of the medium without consideration of audience and clarity of purpose • Uses visual aids and/or supporting details/evidence in a limited manner	• Uses the features of a medium to convey information to an audience to achieve a desired result • Uses visual aids and/or supporting details/evidence that explains one's thinking in a predictable manner	• Deliberately uses the features of a medium to convey sophisticated information based on knowledge of audience to achieve a desired result • Uses visual aids/supporting details/evidence that illuminate the content

Stages	Learning and Teaching
Early	• (CORE) Students master core subjects through demonstration of fundamental knowledge and skills. • (CONTEXT) Instruction references real world context, but it is generally isolated from the work students are expected to do. • (SKILLS) Learning skills are emphasized in certain activities or tasks (i.e. collaboration, initiative and self direction) but are typically isolated events. • (TOOLS) Students and teachers use basic technology tools to seek information (i.e. web search) and communicate (i.e. Power Point, email).
Transitional	• (CORE) Students master core subjects through demonstration of fundamental knowledge and skills and an expanded core (global awareness, financial literacy, etc). • (CONTEXT) Instruction contains real world context through the identification of examples and problems and students are expected to incorporate that in their work. • (SKILLS) Learning skills are included on a regular basis in activities and tasks so that students have the opportunity to work and receive feedback on those skills • (TOOLS) Students and teachers use more sophisticated tools to seek information (i.e. databases) and collaborate /communicate in an interactive manner.
Contemporary	• (CORE) Students master an expanded core in a contemporary context through a thematic interdisciplinary approach . • (CONTEXT) Instruction is grounded in real world problems, challenges, and situations and students are expected to immerse themselves in tackling/exploring those problems, challenges, and situations. • (SKILLS) Learning skills are incorporated into the desired results / objectives of units, courses, and programs and students have substantive opportunities to reflect on their progress over time on those skills. • (TOOLS) Students and teachers constantly use technology tools to access and communicate information to model situations, manage complexity, solve problems, and think critically and creatively.

Stages	Learning and Teaching: Assessment
Early	- Academic success is focused on the mastery of core subject content. - Teaching focuses on student mastery of core subject knowledge and improving student performance. - Students, teachers, and parents collaborate on how to raise student achievement through mastery of core subject content. - Narrow set of technology tools are embedded in the assessments .
Transitional	- Students begin to be assessed on their mastery of core content and application of learning skills. - Teaching focuses on formative and summative student assessment results to improve teaching efficacy. - Students, teachers, and parents collaborate to monitor student progress in achieving core subject content as well as learning skills. - Assessments require a more meaningful use of technology in well-known formats (i.e. WebQuests, YouTube, Excel).
Contemporary	- Student performance is measured by the extent to which they can apply/transfer their learning in core subjects and 21st century skills to complex problems, challenges, and situations. - Teaching focuses on common formative assessments that provide good information to both teacher and student about how to adjust instruction to be successful. - Students drive conversations with the teacher(s) and parents about what progress they have made in achieving learning goals, and set next steps. - Assessments require 21st century tools both well-known and cutting edge formats to measure and motivate student learning.

Developmental Stages	Learning and Teaching: Pedagogy and Professional Development
Early	- The teacher acts as a provider of knowledge, a subject matter expert and a role model for teaching. - Teachers primarily use direct instruction with some opportunities for discussion and student initiated problem solving. - Teachers occasionally integrate 21st Century learning skills with content when teaching. - Professional development primarily supports the development of content knowledge and teaching strategies. - Professional development occasionally integrates the application of 21st Century learning skills into teaching strategies. - Professional development offerings are primarily face-to-face interaction with little use of technology.
Transitional	- The teacher acts as a subject matter expert, a facilitator of learnig and a role model for both teaching and learning. - Teachers often use adaptable and flexible teaching strategies that integrate 21st century skills with content - Teachers frequently integrate 21st century learning tools into their teaching and student assignments - Professional development focuses on the application of 21st Century learning skills and tools into teaching. - Professional development occasionally integrates the application of contemporary context and content into teaching strategies and curriculum. - Professional development offerings increasingly integrate 21st century tools both in the delivery and content.
Contemporary	- Teachers act as facilitators, resources, and partners for teaching and learning. - All teachers use adaptable and flexible teaching and learning strategies that integrate 21st century skills with content - All teachers act as role models in the application and use of 21st century learning tools. - Professional development supports the application of 21st century skills and tools to address real world problems, challenges, and situations. - Professional development offerings are delivered through a blended model and make extensive use of 21st century tools for delivery, content, and collaboration.

Stages	Leading and Managing: Planning & Allocating Resources, Technology, Infrastructure and System Integration
Early	- Technology planning primarily addresses current infrastructure and equipment requirements. - Technology planning rarely addresses curriculum and instructional needs. - Few student and teacher performance metrics are linked to resource management decisions. - Few services or operations are connected and there is a significant overlap in workload. - Technology support is erratic and takes several weeks for requests to be met. - Technology is rarely updated and individual technology needs are not consistently met.
Transitional	- Technology planning addresses both current infrastructure and equipment requirements as well as future needs with an emphasis on equity of access. - Technology planning adequately addresses current curriculum and instructional needs. - Resource allocation and management planning incorporate student and teacher performance metrics. - A process is underway to integrate school/district services and operations to minimize overlap in workload. - Technology support is available on a regular basis and problems are handled within a few days. - Technology is refreshed every five to seven years.
Contemporary	- District resource allocation and infrastructure plans are structured to provide students, parents, teachers, and administrators with equitable, ongoing access to 21st century tools and technology whether in school or off site. - Technology planning addresses and anticipates current and future curriculum and instructional needs. - Resource allocation and management planning addresses current student and teacher performance metrics as well as future needs. - All district services and operations are connected and there is seamless integration of departments. - There is a process for handling technology support, problems are addressed within 24 hours. - Technology is refreshed every three to four years.

Stages	Leading and Managing: Knowledge & Skills
Early	• Leaders rarely demonstrate effective use of technology in management of their schools or districts and use data-driven decision-making. • Leaders make limited use of 21st century tools and rely on others to do it for them.
Transitional	• Leaders are proficient in the use of 21st century tools in order to manage schools or districts and use data-driven decision-making. • Leaders demonstrate effective use of 21st century tools.
Contemporary	• Leaders regularly use 21st century tools and data-driven decision making, and continually seek more effective ways to manage a school or district. • Leaders always demonstrate effective use of 21st century learning tools and act as role models in the usage.

Stages	Leading and Managing: District Leadership, Policy and Support
Early	• Educational policymaking focuses on content mastery and administrative process.
Transitional	• Policymaking focuses on the integration of 21st century learning skills and tools into content.
Contemporary	• Policymaking focuses on the integration of 21st century learning skills and tools into all aspects of curriculum, assessment, instruction and operations.

Stages	Leading and Managing: Accountability
Early	• Schools, districts, and state education agencies are evaluated on student achievement in core subjects on state exams. • Leaders quantify the achievement gap and are identifying ways in which to close it. • Leaders are evaluated based on student outcomes and their ability to manage curriculum, assessment, and instruction in order to raise achievement.
Transitional	• Schools, districts, and state education agencies are evaluated on student achievement through the integration of learning skills and 21st century tools into core subjects on state exams. • Leaders are committed to reduce the achievement gap. • Leaders are evaluated based on student outcomes and teacher quality and their ability to manage core content and the introduction of 21st century skills and tools to raise achievement.

Contemporary	- All schools, districts, and state education agencies are evaluated on student achievement of 21st century skills as evidenced by their performance on state exams as well as their application to real world problems, challenges, and situations. - All leaders realize a consistent narrowing of the achievement gap. - All leaders, schools, and districts are evaluated based on student outcomes and teacher quality that reflect 21st century learning skills and tools to raise achievement.

Stages	Leading and Managing: Vision
Early	- Leaders create vision for student achievement that focus on the mastery of content. - Leaders encourage their school/district to explore how 21st century skills and tools can be incorporated into learning, teaching, and administering.
Transitional	- Leaders create vision for student achievement that focus on mastery of content in addition to addressing 21st century learning skills and tools. - Leaders initiate plans to have their school/district to integrate 21st century skills and tools into learning, teaching, and administering.
Contemporary	- All leaders make the integration of 21st century skills and tools the focus of their overall vision for the achievement of all students. - All leaders promote, facilitate, and direct their schools/districts to integrate 21st century skills and tools into every aspect of learning, teaching, and administering.

Stages	Partnering: Parents
Early	- Parents are apprised of their child's mastery of core subjects and occasionally meet with teachers to evaluate their child's progress. - Schools and districts use traditional tools, such as newsletters and meetings, to facilitate dialogue among parents and teachers.
Transitional	- Parents work with teachers to evaluate their child's mastery of core subjects and they engage in initial conversations about 21st century learning skills and tools. - Schools and districts are beginning to use 21st century tools to facilitate dialogue among parents, teachers, and students.

Contemporary (Partnering Parents)	• Parents, students and teachers collaborate to enable each child to obtain an education that includes the mastery of core subjects and 21st century learning skills and tools. • All schools and districts use 21st century tools to facilitate ongoing dialogue among parents, teachers, and students.

Stages	Partnering: Community
Early	• Schools and districts work together with community and youth organizations to facilitate mastery of core content and interpersonal skills. • Schools provide some students with before and after-school access to technology.
Transitional	• Schools and districts work together with community and youth organizations to promote the acquisition of 21st century skills. • Schools and community programs work together to provide many students with before and after-school access to technology.
Contemporary	• Community programs support learner mastery of 21st century skills and coordinate with schools to promote strategies that reinforce 21st century skills. • Schools and community programs work together to provide seamless access to technology for every student.

Stages	Partnering: Business
Early	• K-12 and private sector partners rarely work together to address student preparation for success in the workplace. • Few K-12 students are mentored in the development of workplace skills or have access to internships and other programs that provide 21st century context.
Transitional	• K-12 and private sector partners collaborate to address student preparation for the workplace include mastery of 21st century skills and tools. • Some K-12 students are mentored in the development of workplace skills or have access to internships and other programs that provide 21st century context.
Contemporary	• K-12 and private sector partners collaborate to address student preparation for the workplace, including mastery of 21st century skills and tools, and engage in ongoing dialogue to assess its effectiveness as well as anticipate future needs and trends. • Most K-12 students are mentored in the development of workplace skills and have access to internships and other programs that provide interaction with business.

Performance Tasks and College, Career, and Citizen Ready Continuum

	Performance Task	Non-Negotiable	Optional
1	*Problem/Solution*- Identifies and defines a problem and generates a possible solutions (or solution paths), evaluates the viability of each solution, and offers a recommendation.	• problem solving • critical thinking • communication	• creativity / innovation • social responsibility • information literacy • collaboration
2	*Inquiry/Investigation*- Systematically develop questions and pursue an explanation/pattern based on, but not limited to, known information.	• critical thinking • problem solving • initiative and self-direction • information literacy	• creativity/innovation • communication • collaboration • social responsibility
3	*Source/Comparative Analysis*- Analyze data, information, artifacts, and/or textual evidence to develop an explanation, interpretation, and/or determine impact.	• critical thinking • information literacy	• communication • collaboration
4	*Critique/Self-Analysis*- Evaluate a given text, performance, or problem based on established criteria	• critical thinking • communication	• initiative and self-direction • collaboration • problem-solving • information literacy
5	*Debate, Panel, Role Play*- Present and participate in a debate, panel, or role play to provide information, gain insight and/or promote a particular point of view	• critical thinking • communication	• social responsibility • information literacy • collaborat
6	*Performance / Product* Generate a performance/product using visual, multimedia, sound, writing, and /or speech to demonstrate understanding and/or communicate creative intent	• critical thinking • communication • initiative and self direction	• information literacy • collaboration • creativity/innovation
7	*Modeling/Simulation*- Given a model or set of criteria/data/experiences, create representations to illustrate/predict outcomes or to deepen understanding	• problem-solving • critical thinking • creativity/ innovation	• communication • collaboration • information literacy

8	*Correspondence/Interviews*- Appropriately communicates and/or responds to an idea, point of view, concern, request or proposal to an audience to achieve a desired result	• communication • critical thinking	• collaboration • social responsibility • information literacy
9	*Persuasive statement*- Develop an argument/artifact using supporting information and persuasive techniques to promote a particular point of view and/or cause action	• communication • critical thinking	• creativity/ innovation • social responsibility • collaboration • information literacy
10	*Portfolio/Reflection*- Collect work over time to demonstrate mastery in one or more modes of expression/College, Career, Citizen-Ready skills, reflect on growth, and/or set goals	• communication • critical thinking • initiative and self direction	• creativity/ innovation

Recurring Transfer Tasks for Library Media

Transfer Task	Definition	AASL	College, Career and Citizen-Ready Skill	Example (Elementary)	Example (Secondary)
Create an annotated bibliography	• Collects and identifies resources using an established format for citations. • Written/visual entries include description, analysis, or evaluation of content designed to answer questions and for a specific audience.	AASL 1. Inquire, think critically, and gain knowledge. AASL 2. Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge. AASL 3. Share knowledge and participate ethically and productively as members of our democratic society.	Communication Critical Thinking Problem-Solving Ethical citizenship	List of books to recommend for a friend to read on a specific topic. Citation consists of author/ title and brief description.	Annotated bibliography of resources to support both sides of an argument. Citation consists of approved citation format, brief description of content, and analysis of why the resource is useful for the task.
Set up a creative, novel, or innovative question(s) to pursue	• Poses a higher order question(s) for which there is no straightforward answer and potentially more than one answer.	AASL 1. Inquire, think critically, and gain knowledge.	Critical Thinking Problem solving Creative/Innovative Thinking Productivity	Develop questions related to the use of natural resources for energy in general.	Create a set of questions to interview students in another country about popular culture topics.

Set up a creative, novel, or innovative question(s) to pursue (Cont.)	• Includes rationale for the pursuit of this question.				
Conduct research to answer questions or explore topics	• Selects, uses, and synthesizes a resource(s) to answer questions or explore a given topic. • Communicates findings and new knowledge in expository writing or oral presentations.	AASL 1. Inquire, think critically, and gain knowledge. AASL 2. Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge. AASL 3. Share knowledge and participate ethically and productively as members of our democratic society.	Critical thinking Problem solving Digital Literacies Ethical Citizenship Productivity	How does the use of resources in Virginia affect the way people live in each of the regions? Collect information from multiple resources (print, electronic, pictures, interview). Identify patterns and draw conclusions.	How does the use of resources in three countries on three different continents affect the way people live in each of the regions? Collect information from multiple resources (print, electronic, pictures, interview). Identify patterns and draw conclusions
Build and use a collection of information resources for life-long learning	• Reads for pleasure and to gain knowledge. • Selects resources.	AASL 1. Inquire, think critically, and gain knowledge.	Digital literacy Productivity Critical thinking Communication	Create a list in Destiny around a topic of personal interest	Use social bookmarking tools to build a collection of resources around your career pathway.

Build and use a collection of information resources for life-long learning (Cont.)	• Evaluates usefulness of resources. • Sets up a structure or organizational scheme. • Regularly updates resources. • Interacts with resources.	AASL 4. Pursue Personal and Aesthetic Growth			
Conduct research to persuade an audience	• Understands the principles of persuasion and applies them to a specific audience. • Understands audience and tailors research to support persuasive arguments.	AASL 1. Inquire, think critically, and gain knowledge. AASL 2. Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge. AASL 3. Share knowledge and participate ethically and productively as members of our democratic society.	Critical thinking Creative/innovative Digital literacies Communication Productivity	Create a multimedia presentation to share your conclusions with your audience (e.g, where should Aunt Lucy move? What should the farmer do about his insect problem?)	Participate in a debate via video conferencing to argue views about representative democracies