Unit Quarter _____ (quarter timeframe): _____ (name of unit)
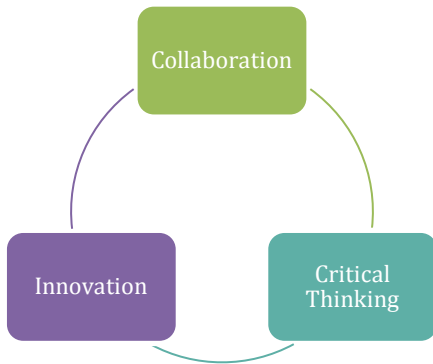
Learning Target Topics

Collaboration: Working with other people on a project or problem to achieve a shared goal.

Critical Thinking: Accessing, using, and applying information and knowledge.

Innovation: Using creative thinking to construct something new and valuable.

Grade Level	11th Grade	Unit Length	___ Weeks (length of unit)
Industry Partner	Identify the business or higher education partner. Should also list the names of the contact(s) at the business partner and their contact information.		
Unit Overview	The Unit Overview will summarize the unit. It will include the basic premise for the unit and introduce the major goal(s) for the unit. The overview should be written in such a way that the reader gets a clear sense of this units STEM purpose. Think of this section as if it were the abstract for your thesis or a research article that you are reading.		
Unit Essential Issue	This is the theme or central idea for the unit. This can be in one of the following forms: • Question: *How do we central idea?* • Problem: *Design/solve central idea.* • Strand: *The STEM topic for this unit is central idea.*		
Kick Off Event	This section will be used to describe the event that begins the unit. This event should be the initial meeting between the student teams and the industry partner. The description will include what general information the industry partner shares with the student teams.		
Culminating Events	This section will be used to describe the projects (performance tasks) involved in this unit. If you have multiple projects, each project will be described. If your unit has project(s) that will span several days or days in different weeks, the description will need to provide information regarding each phase of the project. The description will also include how the students will be grouped. This Culminating Events section will ultimately inform the reader about what is to be assessed and evaluated throughout the unit.		
Common Assessment	This section will include the rubric used for the unit PBL. One rubric should be from the Association of American Colleges and Universities for Critical Thinking or Creative Thinking. The other rubric should be the Chattanooga State Community College rubric for Work Ethic.		

CRITICAL THINKING VALUE RUBRIC

for more information, please contact value@aacu.org

Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		Benchmark
	4	3	2	1
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence *Selecting and using information to investigate a point of view or conclusion*	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

CREATIVE THINKING VALUE RUBRIC

for more information, please contact value@aacu.org

Definition

Creative thinking is both the capacity to combine or synthesize existing ideas, images, or expertise in original ways and the experience of thinking, reacting, and working in an imaginative way characterized by a high degree of innovation, divergent thinking, and risk taking.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		Benchmark
	4	3	2	1
Acquiring Competencies *This step refers to acquiring strategies and skills within a particular domain.*	Reflect: Evaluates creative process and product using domain-appropriate criteria.	Create: Creates an entirely new object, solution or idea that is appropriate to the domain.	Adapt: Successfully adapts an appropriate exemplar to his/her own specifications.	Model: Successfully reproduces an appropriate exemplar.
Taking Risks *May include personal risk (fear of embarrassment or rejection) or risk of failure in successfully completing assignment, i.e. going beyond original parameters of assignment, introducing new materials and forms, tackling controversial topics, advocating unpopular ideas or solutions.*	Actively seeks out and follows through on untested and potentially risky directions or approaches to the assignment in the final product.	Incorporates new directions or approaches to the assignment in the final product.	Considers new directions or approaches without going beyond the guidelines of the assignment.	Stays strictly within the guidelines of the assignment.
Solving Problems	Not only develops a logical, consistent plan to solve problem, but recognizes consequences of solution and can articulate reason for choosing solution.	Having selected from among alternatives, develops a logical, consistent plan to solve the problem.	Considers and rejects less acceptable approaches to solving problem.	Only a single approach is considered and is used to solve the problem.
Embracing Contradictions	Integrates alternate, divergent, or contradictory perspectives or ideas fully.	Incorporates alternate, divergent, or contradictory perspectives or ideas in a exploratory way.	Includes (recognizes the value of) alternate, divergent, or contradictory perspectives or ideas in a small way.	Acknowledges (mentions in passing) alternate, divergent, or contradictory perspectives or ideas.
Innovative Thinking *Novelty or uniqueness (of idea, claim, question, form, etc.)*	Extends a novel or unique idea, question, format, or product to create new knowledge or knowledge that crosses boundaries.	Creates a novel or unique idea, question, format, or product.	Experiments with creating a novel or unique idea, question, format, or product.	Reformulates a collection of available ideas.
Connecting, Synthesizing, Transforming	Transforms ideas or solutions into entirely new forms.	Synthesizes ideas or solutions into a coherent whole.	Connects ideas or solutions in novel ways.	Recognizes existing connections among ideas or solutions.

TERM:	COURSE:		STUDENT NAME:				
ASSESSMENT:							
			Capstone (4)	Milestone (3)	Milestone (2)	Benchmark (1)	Undeveloped (0)

TEAMWORK:

Delegating and accepting responsibility, demonstrating leadership					
Adapting to change with flexibility	Comments:				
Cooperating and working well with others, showing assertiveness when needed					
Showing a desire to improve, facilitating group self-evaluation of work					
Seeking and supporting consensus, and working to resolve conflict					
Celebrating successes of teammates and helping them remediate weaknesses					

INTEGRITY:

Interacting honestly in relationships with others					
Being honest about work created independently and by others	Comments:				
Avoiding and reporting harmful or unethical behaviors					
Showing respect and being supportive in interactions with others (including those from different ethnic, cultural, economic, and gender groups)					
Demonstrating loyalty and trustworthiness to others and to the institution, keeping all appropriate confidences					

PRODUCTIVITY:

Using time effectively; balancing work, studies, external responsibilities, and leisure					
Showing initiative and enthusiasm to exceed expectations	Comments:				
Following directions; demonstrating self-discipline to meet deadlines and expectations					
Giving and receiving feedback willingly					
Requesting and using help willingly					
Showing dedication to hard work, success, accuracy, and excellence					

PROFESSIONALISM:

Acting dependable, responsibly, and reliably					
Arriving punctually, ready to work	Comments:				
Maintaining a neat and organized appearance and work environment					
Respecting my own property and the property of others					
Respecting and adhering to the chain of command, and following regulations					

Capstone (4) Student consistently demonstrates exceptional behaviors that will stand out in the work place.
Milestone (3) Student consistently demonstrates behaviors of a good employee in a normal work environment.
Milestone (2) Student demonstrates emerging behaviors but needs improvement in quality and consistency.
Benchmark (1) Student demonstrates a desire to exhibit the behaviors but requires educational opportunities to develop skills.
Undeveloped (0) Student demonstrates below average behaviors and lack of awareness. Training in employable skills is required in order to contribute to a normal work environment.