

Senior Capstone Project

The Senior Capstone Project is designed to challenge learners by providing a true culminating activity to graduating Thomaston High School students. To this end, students will be challenged to work deeply within our school's Academic Expectations and Student Competencies, and students are required to fulfill their obligations to earn required credit for the project by successfully completing the following prospectus:

Proposal: Student identifies a thesis, topic, issue, or problem to be addressed; determines essential questions to be answered; designs methods of investigation or research; and describes the final form of the project.

Problem Solving: Student clarifies the problem, issue, or thesis; brainstorms and creates divergent approaches; gathers information through field studies, lab work, or research; analyzes results of the information gathered; and decides on the best approach.

Preparation for Public Presentation: Student organizes findings; determines effective modes of communicating results; produces video, spreadsheets, photographs, artwork, choreography, and/or synopsis pamphlets; and practices for the presentation.

Public Presentation: Student communicates project findings or results to the committee through two modes of communication and answers questions from the committee/audience.

Areas of Evaluation:

- Curricular Knowledge and Skills
- Research
- Effective Communication
- Use of Technology
- Organization and Technicalities
- Interpersonal Skills
- Constructing Understanding from Old and New Knowledge
- Commitment
- Breaking Down Problems into Discrete Parts
- Developing Defensible Conclusions and Judgments
- Engaging in the Creative Process
- Answering a Call to Citizenship in a Global Society

Unit One: Proposal

Unit Pacing: 4 weeks

Unit Overview:

Students identify a thesis topic, issue, or problem to be addressed; determine major controlling/focus questions and major subsequent essential questions to be answered; design methods of investigation and/or research; project or describe final form of project; and begin an online journal. The student also considers the type of technology appropriate to the project, acquires a technical advisor, and schedules and conducts a Milestone I meeting. Research begins and students organize their findings and create a Works Cited section for future use.

Compelling Questions:

1. What type of project can I focus on that is actionable and can provide something of importance for the community?
2. How can I engage in the creative process using: conceptual ability, connections, curiosity and exploration, technical skill, intellectual risk taking, and reflection and refinement?

Priority Learning Targets

1. T21.CC.9-12.3 I seek to learn from others by embracing differences in opinion, perspective, and background.
2. T21.CTPS.-12.2 I analyze situations in order to determine multiple points of view and what is explicit, implicit, and left uncertain.
3. T21.SDR.9-12.2 I set personal short-term and long-term goals and pursue them through actionable plans that yield specific results.
4. T21.CIM.9-12.1 I strategically consider and develop possibilities, methods, and outcomes in order to create and pursue new and worthwhile ideas.
5. T21.MIT.9-12.1 I critically evaluate information and media, understanding that content is intentionally constructed for different reasons and audiences and is interpreted differently by consumers.
6. I engage in the creative process using: conceptual ability, connections, curiosity and exploration, technical skill, intellectual risk taking, and reflection and refinement.

Unit Two: Problem Solving

Unit Pacing: 4 weeks

Unit Overview:

Students begin to immerse themselves in problem solving, lab/field work, as well as continued research. Some students will still be completing their Milestone I meetings. Often, students will find themselves diversifying their project as they begin to analyze the scope and sequence of their yearlong plan. Students will also be working on "Show and Tells," which are focused around a theme and used to practice communication skills for a required length of time. The Show and Tells are peer assessed and teacher assessed. Journals become the focus of revealing the everyday activities involved with the project to the Senior Project Teacher. Closing out the marking period, students will complete a Mid-Year Report identifying how the project originated, what changes were made, and where the project will head during semester two. At this point, the student should be comfortable engaging in weekly communications with the

Technical Advisor. Students will also be preparing for their Milestone II, which is a fifteen minute presentation to the class, identifying how the project unfolded during semester one and where the project is headed for the next couple of months. The presentation is videotaped so students can assess their own presentation skills and formulate ideas on how to become better communicators.

Compelling Questions:

1. What researchable sources are available to inform and support my project?
2. How can I solve problems using: problem clarification, divergent thinking, convergent thinking, problem solution, and evaluation?

Priority Learning Targets

1. T21.CC.9-12.1 I propel conversations by listening attentively and by thoughtfully posing and responding to questions.
2. T21.CTPS.-12.3 I analyze how parts of a whole interact with each other to produce overall outcomes in complex systems.
3. T21.SDR.9-12.1 I gather and use feedback to reflect on my growth and to address areas for continued improvement.
4. T21.CIM.9-12.2 I embrace trying and failing as an opportunity to learn and understand that success is not always linear.
5. T21.MIT.9-12.2 I responsibly manage my use of media and my treatment of information as to preserve and protect mine and others' identities, following legal, ethical, and safe usage guidelines.
6. I solve problems using: problem clarification, divergent thinking, convergent thinking, problem solution, and evaluation.

Unit Three: Preparation for Public Presentation

Unit Pacing: 4 weeks

Unit Overview:

Students begin to focus on the synthesis and analysis phase of their projects. Daily participation, evidence of work, and journals are now becoming a habit. Students will be reflecting on their acquired research to complete the "Snapshot Assessment," which allows the students to highlight the best research that has steered their project. Research and lab/field work continues and events have been formalized. One more Show and Tell will also be completed. During the Milestone III meeting, preliminary paperwork for closure of the project will be completed and an outline for the student's vision of the final presentation will be completed. The Technical Advisor must be present for the Milestone III meeting. Show and Tell 3 will be given either in a written or oral format in which the student will reflect on how he or she answered the call to citizenship in the Senior Project Classroom and in dealing with staff, their Technical Advisor, and the community.

Compelling Questions:

1. How can I defend conclusions and judgments using: structure, critical stance, insight and argument, evidence, defense, evaluation, and fluency?

2. How can I best present this project to an audience?

Priority Learning Targets

1. T21.CC.9-12.2-I articulate my thoughts and ideas effectively for a range of purposes (inform, instruct, persuade, etc.) and audiences.
2. T21.CTPS.-12.4 I develop and pursue strategic plans through which I utilize resources, including technology to solve problems.
3. T21.SDR.9-12.3 I manage my own time effectively and acquire and utilize the resources I need in order to meet my goals and be successful.
4. T21.CIM.9-12.2 I embrace trying and failing as an opportunity to learn and understand that success is not always linear.
5. T21.MIT.9-12.3 I strategically select and utilize media tools to create media products through which I share my ideas and knowledge.
6. I defend conclusions and judgments using: structure, critical stance, insight and argument, evidence, defense, evaluation, and fluency.

Unit Four: Public Presentation

Unit Pacing: 4 weeks

Unit Overview:

Students will begin to organize their thoughts to create a plan for their final presentation. The final Show and Tell will be given either in a written or oral format and all money issues, paperwork, and events will be buttoned up and assessed. ALL students must complete a budget, which must be in Excel or Google Sheets format. The final Works Cited page will have at least twenty sources, using a variety of types of sources (books, websites, databases etc.). Students will complete their yearlong journey by choosing a presentation date and time. The Final Presentation will be the Milestone IV meeting, for which the Technical Advisor must be present. All presentations are open to the public, students, administrators, and parents to attend. In addition to the Final Presentation, students must participate in the Senior Project Expo, where they will share their project with the community.

Compelling Questions:

1. How can I answer a call to citizenship using: awareness, respect, participation and collaboration, and leadership?
2. How best can I present my final project?

Priority Learning Targets

1. T21.CC.9-12.4-I aid my and other's' success by demonstrating flexibility, commitment, care, and responsibility.
2. T21.CTPS.-12.1-I create strong arguments by establishing logical claims supported by evidence.
3. T21.SDR.9-12.4-I seek out and take advantage of opportunities to grow towards college and career readiness.
4. T21.CIM.9-12.3-I act on creative ideas and possibilities to make tangible and useful contributions.

5. T21.MIT.9-12.4-I use technology ethically and legally as a tool for research, production, publishing, and collaboration.

6. I answer a call to citizenship using: awareness, respect, participation and collaboration, and leadership.