

# CAPSTONE PROJECT



## YOU WILL WORK WITH YOUR ADVISOR TO COMPLETE AN INDEPENDENT PROJECT WHICH

- synthesizes your learning from the electives in your career academy
- demonstrates your command of core 21<sup>st</sup> century skills in a real-world context

## CAPSTONE REQUIREMENTS

1. Create a proposal of the project of your choice dealing with one of the themes in your career pathway.
2. Design and produce a related rigorous, student-driven project.
3. Include a bibliography of 10-20 sources with which you created your project.
4. Write a reflection of 3-4 pages that identifies how your project demonstrates your command of core 21<sup>st</sup> century skills.
5. Present your project to an audience consisting of teachers, administrators, parents and community participants.



<b>CAPSTONE TIMELINE</b>		
<b>Problem Solving Step</b>	<b>Advisor Check-in</b>	<b>Sub-goals</b>
<b>Define the problem</b>	<b>March of junior year</b>	1. Capstone assignment assembly with advisors
	<b>June of junior year</b>	2. Selection of Theme/Focus
	<b>September of senior year</b>	3. Capstone Proposal
<b>Identify and implement a strategy</b>	<b>October</b>	4. Exploratory research - What Is Your Working Central Question?
	<b>November</b>	5. Selection of presentation method(s)
<b>Evaluate progress toward the goal</b>	<b>December</b>	6. Researching and creating (stage 1)
	<b>January</b>	7. Researching and creating (stage 2)
<b>Solution and Reflection</b>	<b>February</b>	8. Finalize the presentation
	<b>March</b>	9. Make the presentation
	<b>March (post meeting)</b>	10. Write the self-assessment reflection.



## Step 1:

# **CAPSTONE ASSEMBLY**

---

To support your successful completion of this project, you will be matched with a faculty member who will serve as your capstone advisor. This advisor will meet with you regularly and help guide your learning experience. At the capstone assembly in March, during MCAS testing, you will get the chance to meet your advisor and review the Capstone Handbook. The assembly marks a very important beginning to your capstone project. At the assembly you will:

- Meet and speak with your advisor
- Get a hardcopy of the Capstone Handbook
- Review the 10-steps to completing the capstone project
- See ‘examples’ of capstone projects in your career academy
- Have time to ask questions
- Review the career pathways schedules
  - Students with pathways will receive suggestions of which courses to take for senior year
  - Students who have not yet selected a career pathway will review all of the pathways in their academy and receive suggestions of what courses they should take their senior year. They should select a pathway by the end of the 2 hour session and have that choice recorded by their advisor.
- Learn how to access the project online and contact your advisor
- Be encouraged to sign up for the WHS 21 Facebook page for links, helpful articles, and guidance

Note: Attendance at the meeting is mandatory. If a student misses the meeting they will have a mandatory makeup session scheduled after school.

Step 2:

**SELECTION OF THEME OR FOCUS**



What is your career pathway?

What electives do you plan to take in your career pathway?

Your capstone should take one of the themes that are common to your pathway electives and build a real world project out of that theme. Which theme will you select for your capstone? (Refer to the capstone project website for a full listing of the possible themes by pathway. If you wish to explore a theme that is not listed, it must be approved by your capstone advisor.)

How will your chosen electives help speak to this theme?



Step 3:  
**CAPSTONE PROPOSAL**

---

Student Name \_\_\_\_\_  
Project Advisor \_\_\_\_\_  
Career Pathway \_\_\_\_\_

My project idea focuses on a theme/career pathway where I may sustain my interest and complete documented research where I will include 10-20 sources. It offers an aspect of new learning and growth for me as I incorporate the 7 core skills. I understand that my project must have audio/visual evidence and that I will give a presentation of my work in front of a panel of invited individuals.

Breaking your project into definable steps will make the process much easier for you. Setting up a timeline will help you begin and assist you in continuing to make progress throughout the time allotted for the project. Figuring out how much this project is going to cost may keep you from running into problems later in the project. If you put some time and effort into planning at the beginning, you will find the process of completing your project much easier to handle.

**1. My Project Title:**

**2. My goal (s) for this project:**

**3. My strategy to accomplish the project:**

**4. For my oral presentation, I plan to use the following materials:**

**5. I acknowledge that I will focus my project on the use of the following 7 core skills: written and oral communication, strategic reading, research, problem-solving, collaboration and technology. Please check box for acknowledgement.**

**Student Signature**  **Date**

**Parent Signature**  **Date**

**For Advisor**

**Project:** Approved Rejected (circle one)

**Reason Rejected:**

**Project Advisor Signature**

**Date**



Step 3:  
**CAPSTONE PROPOSAL**

## Parent/Guardian Acknowledgement Form

To the parents/guardians of \_\_\_\_\_:

The Senior Capstone Project will provide enormous benefits for your child now and for the future. Successful completion of the Senior Capstone Project is a valuable tool in determining their mastery of the education content they have learned over the past twelve years, as well as providing them the opportunity to learn and practice critical 21<sup>st</sup> Century skills that they will need for their future endeavors.

As a parent/guardian of a student at Weymouth High School, I am aware that my son/daughter is required to successfully complete a Senior Capstone Project in order to graduate with his/her class in June according to School Committee policy. If he/she fails to meet this graduation requirement, he/she will have the opportunity to complete the capstone project (a research paper, 15-20 pages), in one of the following manners:

- Attend evening school\* from March until May or
- Attend summer school\* after his/her classmates graduate and receive his/her diploma at a later date.
- Return to school in the fall to complete Capstone Project

\*Applicable fees apply

I fully understand that this project selection decision is made independently of the staff and administration of the high school, but is subject to approval. I understand that if the fieldwork is a product, it must be physically present at school as part of the Senior Capstone Project presentation. If the fieldwork is a service or activity, it must be documented by photos or video. This project selection and approval is student and parent-centered. ***I therefore assume all responsibility for any risks and costs that might be inherent in the project chosen.***

Finally, I know that if my son/daughter decides **not** to use original work on any component of his/her research paper, fieldwork, product, or portfolio, he/she will have to complete an entirely new project and submit a new portfolio by (need date) in order to be eligible to graduate with his/her classmates and receive his/her diploma on June 11 in accordance with School Committee policy.

Parent/Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent/Guardian E-mail : \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Step 4:

# EXPLORATORY RESEARCH

---

## What Is Your Working Central Question?

**Introduction:** The first step in choosing a capstone project is to develop a working central question. When doing so you should select a theme from the career academy pathway that interests you. Since your capstone project requires that you give your opinion, you should try to select areas of interest that you feel passionate about. Your central question will be the focus of your research. You should start with a general question that requires more than just a yes/no answer. You will be required to do preliminary research based on the central question. You will be required to submit this question and a list of your sources to advisors before your capstone project can be approved. Your central question does not need to be super complex but it does need to be researchable, related to your career pathway, and readily useable for a capstone project which would include visual, oral/audio, and written presentation that demonstrates the depth of the core 21<sup>st</sup> century skills you have learn during your years here at Weymouth High.

### Central Question Examples:

- Example 1: A student in the Math Academy might concentrate on data analysis.  
Central question: "Can data analysis be used to calculate the effects of pollution on the weather in New England?"
- Example 2: A student in the Humanities Academy might concentrate on teaching.  
Central Question: "Can lessons that involve hands-on learning more effectively help young children learn?"

### Central Question Check List.

- The Central Question addresses a theme from your academy.
- The Central Question requires more than a yes/no answer.
- The Central Question has been researched and a list of sources in current MLA format(5-10 resources) is included with submission.
- The Central Question can be expressed as a capstone project which will demonstrate the depth of learned 21<sup>st</sup> Century skills by the student or students.
- The Central Question submission includes a preliminary description of how the student/students plan to address the capstone project which will answer said question.
- The Central Question submission includes the audience which will benefit most from this project (e.g. fields of study, professionals, community).
- The Central Question submission identifies any preconceived beliefs and what you will do to ensure your research results is not effected by bias in your analysis, interpretation of results, and implementation of the capstone outcome.
- The Central Question includes an explanation of why you feel it is important.

## Step 4:

**JOURNAL OF PROGRESS**

---

The Capstone Project is an exciting and dynamic assignment that calls upon you to use the skills you have acquired at Weymouth High School in a real world project of your choice. To help you stay on task, be accountable for your scheduled timeline, and effectively reflect on your experiences, you will keep a Journal of Progress during the time you work on the project. The journal of progress will be a quick and efficient way to show your advisor exactly where you are in the process, and moreover, will serve as an invaluable resource when you write your final reflection at the end of the year.

- Each journal entry should be dated and titled based upon the part of the process in which you are currently working.
- Entries should be made bi-weekly to keep the most accurate records possible for both you and your advisor.
- The **first** entry each week should address what you anticipate for the week including:
  - What you plan to accomplish by the end of the week
  - Your needs, including time, space, materials, and personal contacts
  - Any obstacles you anticipate
- The **second** entry each week should include the following:
  - A summary of your progress for that week
  - An explanation of what core skills you employed during your work

The Journal of Progress will be used in steps 4-8 of the Capstone Timeline.

It is strongly suggested, that the Journal of Progress should be typed and sent to your advisor by the 15<sup>th</sup> of every month starting in October of senior year.

Progress reports for the 2<sup>nd</sup> term will have a pass/fail grade indicating the completion of the journal of progress.

The collaboration grade will be negatively affected if deadlines are not met in regards to completing journal of progress.



Step 5:  
**SELECTION OF PRESENTATION METHOD**

Describe how you will present your capstone to your advisor and the attendees at the capstone fair.

Describe how your presentation plan will allow you to showcase your mastery of each of the core 21<sup>st</sup> century skills

Core 21 <sup>st</sup> Century Skill	Description of how the presentation of your project will help you showcase your mastery of this 21 <sup>st</sup> century skill
Strategic Reading	(Suggestion: Strategic reading of your research)
Written Communication	(Suggestion: Self Assessment Reflection)

<p>Research</p>	<p>(Suggestion: Research done to answer the central working question)</p>
<p>Problem Solving</p>	<p>(Suggestion: Following the steps to complete the capstone project)</p>
<p>Technology</p>	<p>(Suggestions: Website, Prezi presentation, PowerPoint presentation etc.)</p>
<p>Collaboration</p>	<p>(Suggestions: Work in a group of 2 to 3, collaborate with your advisor etc.)</p>
<p>Oral Communication</p>	

Step 6:

**RESEARCHING AND CREATING - STAGE 1**

---

**December:**

- Show 10-20 sources in current MLA format
- Continue Journal Entries
  - Show progression of the use of 21<sup>st</sup> century skills
- Meeting with advisor:
  - Discuss research and creation process
  - Create checklist of the skills achieved so far (as shown in journal)
  - Establish plan to address skills not yet demonstrated
  - Advisor initials Journal



## Step 7:

# **RESEARCHING AND CREATING - STAGE 2**

---

## **January:**

- Continue Journal Entries
- Begin creation process of presentation product
  - Submit updated description of product
- Review and revise list of the use of 21<sup>st</sup> century skills
  - Provide checklist, show evidence (EXPLICIT)
- Meeting with advisor:
  - Discuss project creation progress
  - Advisor initials checklist of 21<sup>st</sup> century skills & Journal



## Step 8:

# **FINALIZING THE PRESENTATION**

---

As the presentation date approaches, you want to make sure you have documented all experiments, experiences, and meetings with experts. Your journal of progress will help you make sure you followed through on all aspects of your project. Once you conclude the research phase, you must put your project into a presentation format. You are encouraged to utilize a presentation method and format that best demonstrates your skills and talents, as well as highlights your Senior Capstone Project. Project presentation may vary according to your pathway. While many students will opt for a multi-media presentation format, others may prefer a spoken presentation approach. If your project includes some form of performing arts, you may even choose to perform some portion of your presentation. Your advisor could help you discover the best presentation method.

Presentation will include the following:

- Finalized sources in current MLA format.
  - Completed journal of progress.
  - Finalized checklist of all seven core skills.
  - Visual documentation of process.

\*Any multi-media equipment needed for the presentation must be secured at least two (2) weeks prior to your scheduled presentation.



## Step 9: **MAKING THE PRESENTATION**

---

### **Time**

You should plan to explain your project as attendees of career fair circulate and approach your station. You should be prepared to answer questions that may be asked by any of the individuals assessing the project.

### **Professionalism**

**Appearance:** You should be dressed appropriately for your presentation.

Ladies, you can wear a dress, a skirt/blouse, or dress pants/blouse.

Gentlemen, you need to wear a button down shirt, a tie and dress pants.

**Attendance:** You *need to* arrive at least 30 minutes prior to your presentation. ***Copies of your presentation in electronic format must have been sent to your Capstone Advisor.*** You *must* make sure that all electronic equipment is set up and working before presentations start.

### **Presentation**

Whatever your method of presentation, you should begin by introducing yourself and your Senior Capstone Project. After introducing yourself and your Senior Capstone advisor, it will be appropriate to thank teachers, advisors, mentors, and the people who assess your project for taking the time to do so. Your goal is to provide the audience with a clear and concrete sense of what you did and what you gained from the experience.

**Organization:** Speak in a coherent line of thinking and a logical order for the project. The visual aid should be organized and arranged to show that logical order. Tell a synopsis of the “story” from beginning to end.

**Clarity:** Speak confidently and in a manner that is easy to hear and understand. For the presentation, YOU ARE THE EXPERT. You are the one that has invested the energy and countless hours into the Senior Capstone Project. The audience is there to listen and is truly interested in what you accomplished and the lessons learned.

**Delivery:** Be enthusiastic. Explain why you selected this project and engage the audience in their interest in your experience. Your display(s) should also be engaging and capture the attention of the audience.

**Content:** Reflect on the experience and show evidence of what you learned. Show evidence of all 7 core skills. Show the progression you achieved throughout the project. Be prepared to be asked

questions that may require you to expand on your responses. Demonstrate that you have done some analysis of your experience. Show a depth of understanding of the topic. Your presentation or display should also include components of your self evaluation (reflection paper).

**Work Product:** Be sure to bring, display and incorporate resulting work product into your discussion and presentation. This will be extremely interesting to the reviewers and will provide evidence of real-life and practical results from your efforts.

**Presentation Skills/Speaking Skills:** You may be nervous about speaking in front of an audience; once again, you are the expert and have invested a significant amount of time and energy in this project. Speak clearly and at an appropriate pace. Make eye contact with your audience. Stand straight and show your confidence and enthusiasm for what you have achieved. This is a huge accomplishment and you should be proud of yourself!



## Step 10:

# WRITE THE SELF-ASSESSMENT REFLECTION

---

Congratulations on successfully completing and presenting your Capstone Project! The last requirement of the Capstone Project is to reflect on the process by writing a three to four page reflection on your process and product addressing the following questions. When you turn in your reflection to your advisor, please make sure you include your name, academy, advisor's name and the title of your project on the first page. As you begin to draft your final reflection, consider how you might respond to the following questions.

- The WHS Capstone is a unique and demanding challenge. In completing it, what did you learn about your subject? Your skill set? Yourself? How is your project relevant to you, the school or the community-at-large?
- What skills do you feel you have mastered? Which do you need to still work on?
- Thinking about the whole process and your finished product, what are you most proud of?
- What was a difficulty you encountered and how did you solve the problem?
- What is one thing about your approach to your project that you wish you could change? Why?
- What is one thing about your finished project you wish you could change? Why?
- How accurately did you answer your central question? Did your central question change at all during the course of your project? Why?
- How effectively did the presentation method you chose work for presenting your project in a clear and engaging manner? Why was it effective? Would you change your presentation method now if you could? Why?
- What source from your research helped you the most? (or least?).
- What advice would you give to a student who will be completing their Capstone Project next year?