

CAPSTONE: 2012 (Enter Name of Capstone)

PHASE 1: DETERMINING THE BIG IDEA

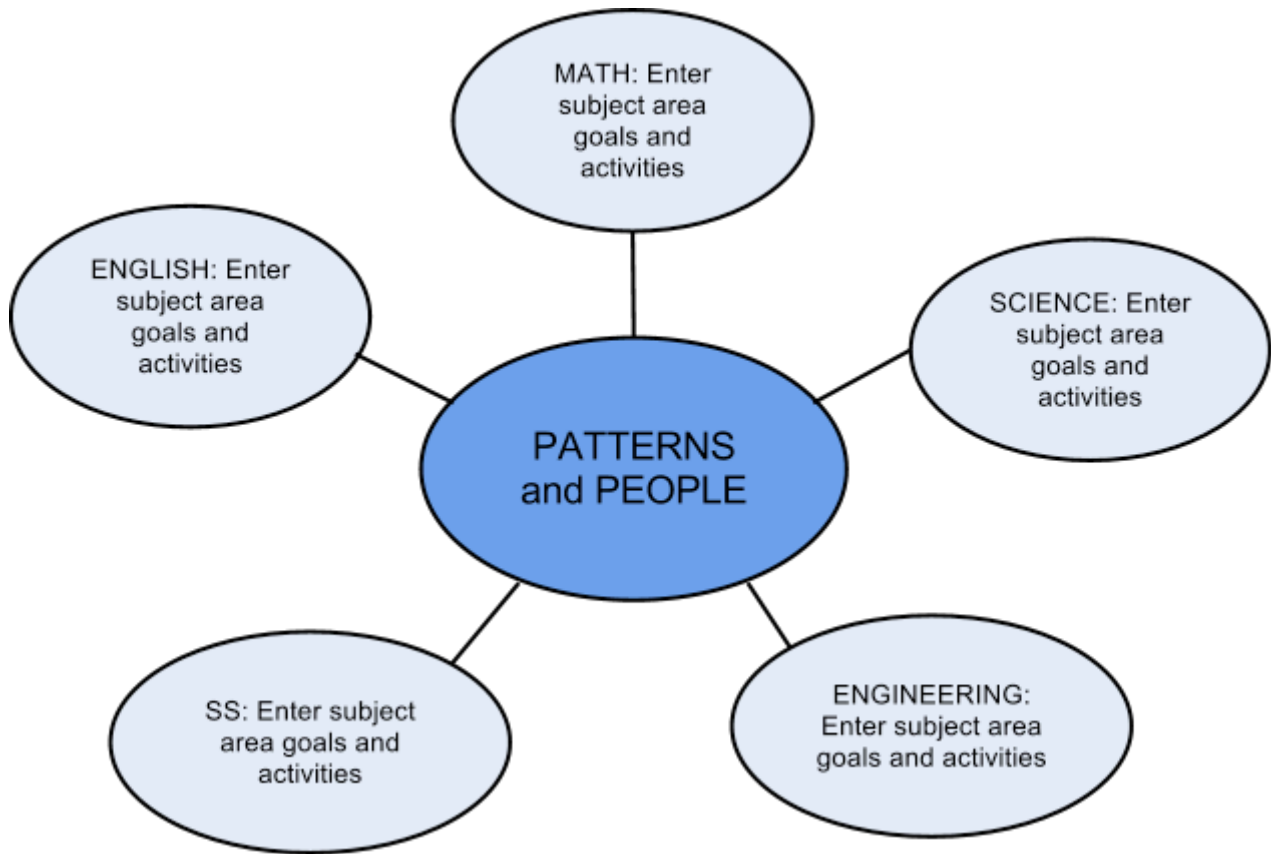
1. **Capstone Big Idea:**

The **big idea** of the capstone is clearly articulated in one of the following forms: concept, theme, theory, issue, problem, process, paradox, perspective



2. Trans-disciplinary Curriculum **Web:**

Identify the team members that will participate on the creation of the Capstone / Big Idea. This should consist of building level disciplines but may extend other grade level courses. (Ex. Government, American History and Government)



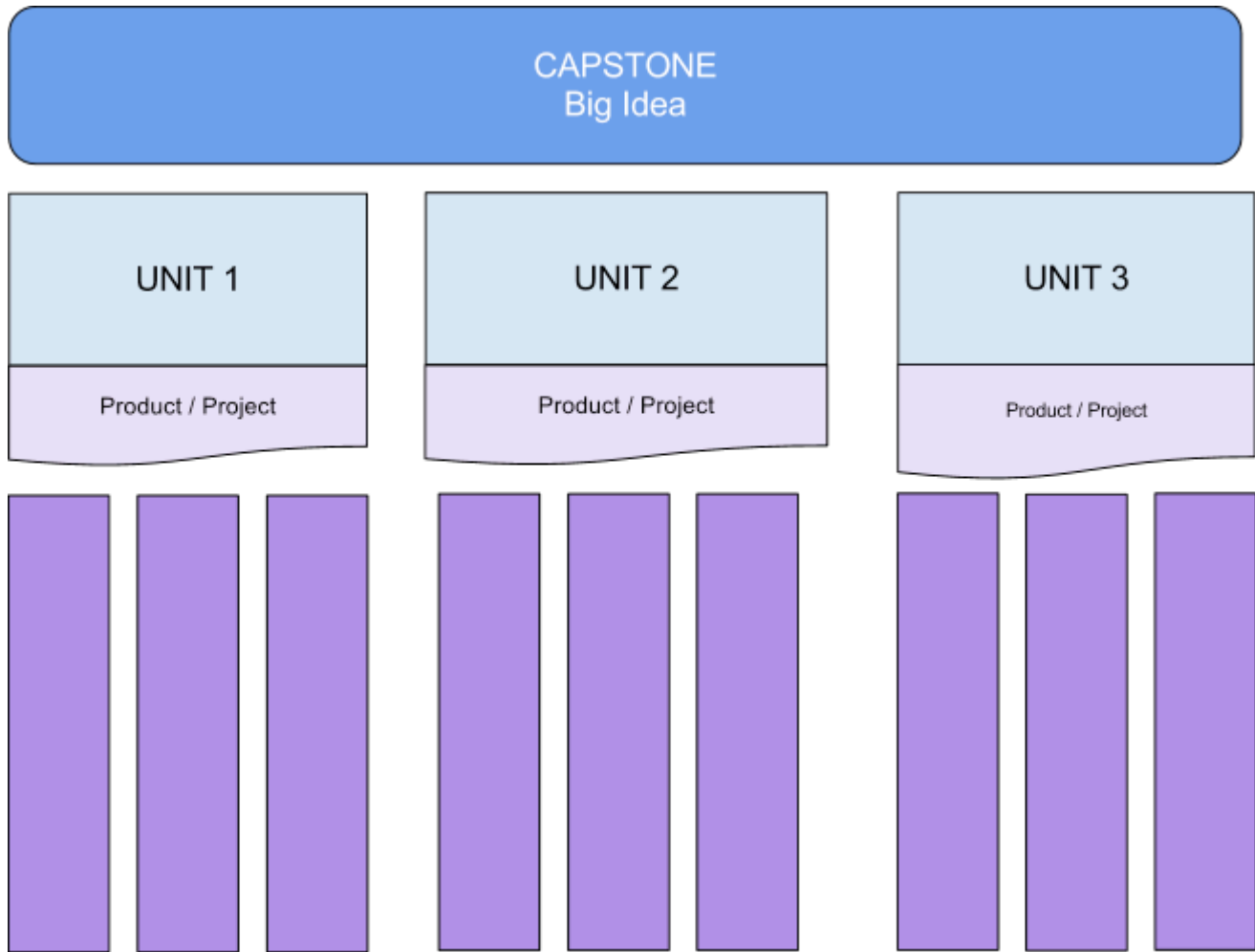
3. Essential Questions

What Essential Questions/ Critical Problem encourages students to uncover/probe deeper into knowledge in all six disciplines? How do we engage our students around the concept of _____? Should be evident in all the Units.

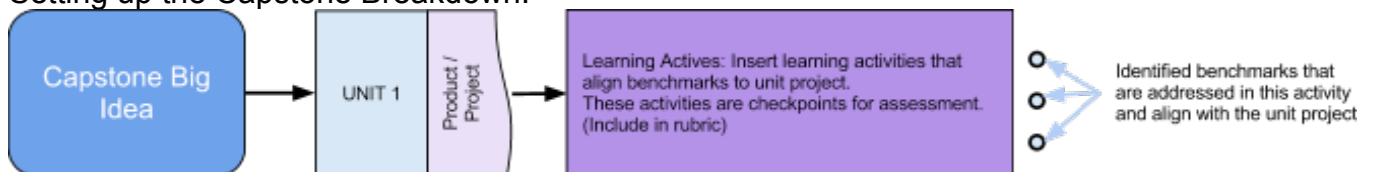
Selected Questions	Questions to consider (Brainstorm)
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4. Capstone Breakdown

Pencil in titles that would break down the Big Ideas into smaller Project Based Units. The units would have individual end products/projects that each has essential questions, specified subject area benchmarks, mastery learning goals, project rubrics, and learning activities.



Setting up the Capstone Breakdown:



5. Subject Matter Goals:

Develop subject matter goals for the capstone. How does your content connect to the big idea?

Example: English Language Arts:

Reading: Reading comprehension on metaphorical light through short fiction

Writing: Display Description Panel, Lesson Plan

Speaking: Lesson Teaching, Timing, Public Speaking

Listening: GE Presentations on light

English Language Arts:

Math Goals:

Science Goals

Engineering Goals

Social Studies Goals

Chinese Goals





PHASE 2: Operationalizing

6. Benchmark Alignment/ Trans-disciplinary Project Based Units

Content Standards and Benchmarks that were identified for the CAPSTONE that have natural disciplinary connections and are overlapping in theme, ideas, topics, etc.

The benchmarks codes will be concatenated together and placed in the first column of the unit rubric.

Example:

Benchmark(s) (Code)	Mastery Learning Goals	Exceeding 4	Mastery 3	Reaching 2	Basic 1
SCI INQR 9-10 A SCI KNWG 9-10 D SCI KNWG 11-12 C		Phase 3	Phase 3	Phase 3	Phase 3

ELA - English Language Arts

Unit Title	Benchmark Code	Benchmark

SCIENCE

Unit Title	Benchmark Code	Benchmark

MATH

UNIT Title	Benchmark Code	Benchmark



ENGINEERING

UNIT Title	Benchmark Code	Benchmark

SOCIAL STUDIES

UNIT	Benchmark Code	Benchmark



7. Creation of **Mastery Learning Goals** - Unit

The identified capstone benchmarks should be operationalized as capstone Mastery Learning Goals that describe clearly the expected student performance aligned to the benchmarks. These Mastery Learning Goals will be plugged into the units' project rubrics.

Mastery Learning Goals = What does it look like when students demonstrate mastery of the benchmarks in the project?

Example:

Benchmark(s) (Code)	Mastery Learning Goals	Exceeding 4	Mastery 3	Reaching 2	Basic 1
SCI INQR 9-10 A SCI KNWG 9-10 D SCI KNWG 11-12 C	Students will apply the processes of scientific investigation/inquiry, citizenship, and social action by creating teaching models, lesson plans, and learning activities to teach a class about light, cells, and the energy pyramid.	Phase 3	Phase 3	Phase 3	Phase 3

8. Unit - Performance Criteria (**Rubrics**):

You can use a holistic rubric or a criterion rubric to measure your performance assessment. Insert your rubric below the samples provided. The scale is an example, but you can design the scale and criteria that best fits your intended outcomes. The capstone's mastery learning goals are deconstructed and represented in a rubric that describes clear, scaffolded performance criteria for the demo of mastery learning, as well as, learning that goes beyond mastery, approaches mastery, or is basic to mastery.

Example:

Benchmark(s) (Code)	Mastery Learning Goals	Exceeding 4	Mastery 3	Reaching 2	Basic 1
SCI INQR 9-10 A SCI KNWG 9-10 D SCI KNWG 11-12 C	Students will apply the processes of scientific investigation/inquiry, citizenship, and social action by creating teaching models, lesson plans, and learning activities to teach a class about light, cells, and the energy pyramid.	Student's reflection assessment explains their role as a student and a citizen of Cleveland within this project. Student's design process document is 100% complete.	Student's reflection assessment explains their role as a student and a citizen of Cleveland within this project. Student's design process document is 90% complete.	Student's reflection assessment explains their role as a student and a citizen of Cleveland within this project. Student's design process document is 70% complete.	Student's reflection assessment explains their role as a student and a citizen of Cleveland within this project. Student's design process document is < 50% complete.

9. **Unit Rubrics**:

Unit rubrics are on a separate google document that is very similar to to Microsoft Excel. Complete the rubric by pasting appropriate information from this document into the google excel document.

LINK: [Patterns and People RUBRIC](#)

Tabs for each unit / project are located at the bottom of page.

Benchmark Code	Mastery Learning Goal (Operationalized Benchmark)	4 Advanced Exemplary Yes Plus	3 Proficient Accomplished Yes	2 Basic Developing Yes, but	1 Beginning No, not yet
SCI INQR 9-10 A SCI KNWG 9-10 D SCI KNWG 11-12 C	Student will create a timeline of historical events for their video by to explain the development of theories and applications of light, as well as OER history, and present to students. The students will also reflect on the trends and patterns of theories and applications of light, research focus applications, and write a 2-page report.	Student's timeline is at least 30% completed and correctly explained and uses pictures, graphs, and other visuals to explain the importance of at least 3 particular principles of light. Report is a 2-page essay which is proof read, with at least one rough draft and completely and correctly all of the major trends and patterns of development related to light with specific examples supporting their argument.	Student's timeline is at least 50% completed and correctly explained and uses pictures, graphs, and other visuals to explain the importance of at least 3 particular principles of light. Report is a 2-page essay which is proof read, with at least one rough draft and completely and correctly all of the major trends and patterns of development related to light with specific examples supporting their argument.	Student's timeline is 30% completed and correctly explained and uses pictures, graphs, and other visuals to explain the importance of at least 3 particular principles of light. Report is a 2-page essay which is proof read, with at least one rough draft and completely and correctly all of the major trends and patterns of development related to light with specific examples supporting their argument.	Student's timeline is less than 30% completed and correctly explained and uses pictures, graphs, and other visuals to explain the importance of at least 3 particular principles of light. Report is a 2-page essay which is proof read, with at least one rough draft and completely and correctly all of the major trends and patterns of development related to light with specific examples supporting their argument.
SS HIST 9-10 SS HIST 9-10 SS GEOG 9-10 SS GEOG 9-10 C, SS PEPL 9-10 C	Students will explain the social, political and economic effects of major historical events in the domestic affairs of the US. Students will analyze the cultural, physical, economic and political characteristics that define regions and the patterns and processes of movement and the ways that contacts between people of different cultures result in exchanges of cultural practices through the creation of a digital timeline.	The student can accurately describe 100% of the events on the timeline without referring to it and can quickly determine which of two events occurred first. An accurate, complete data has been included for all but 1 or 2 events.	The student can accurately describe 90% or more of the events on the timeline without referring to it and can quickly determine which of two events occurred first. An accurate, complete data has been included for all but 2 or 3 events.	The student can describe any events on the timeline if allowed to refer to it and can determine which of two events occurred first. An accurate data has been included for 75% of events.	The student cannot use the timeline effectively to describe events nor to compare events. Dates are inaccurate and/or missing for several events.
ENG W 9-10.9	Analytic Writing in Response to Literature: Thesis Statement		Written piece features a clear thesis statement that describes the textual analysis focus of the paper and provides a clear main idea for the organization of the paper's analysis.	Written piece features a thesis statement that partially describes the textual analysis focus of the paper. The thesis statement does not provide a very clear main idea for the organization of the paper's analysis.	Written piece does not feature a thesis statement.
ENGL 9-12.3	Analytic Writing in Response to Literature: Organization of This Statement		Written piece uses the thesis statement as a guide for the organization of major ideas.	Written piece does not always use the thesis statement as a guide for the organization of	Written piece does not use the thesis statement as a guide for the organization of

PHASE 3: Assessment Development



8. Unit – Assessments & Reflection

Formative assessments of student performance on learning activities are designed into the capstone and units to provide data that determines learning activities and their pacing, as well as, the provision of remediation/extension opportunities - to insure successful performance of the mastery learning goals

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Formative (During project)

Checklists, flowcharts, concept maps, mock/practice, quizzes/tests, Journal, outlines,

Summative (End of Project)

Conference, Gallery Walk, Presentation of Work,

Unit Title	Unit Projects What	Group Assessments (deliverables) Who & How	Individual Assessments (deliverables) Who & How	Product / Performance Assessment (Exhibition of Work) How & Where	Reflection Methods: Journal, discussion, survey, portfolio, focus group Why

10. Resources Needed:

Unit 1:

Facilities / Venues	Equipment	Materials	Purchased Supplies

Unit 2:

Facilities / Venues	Equipment	Materials	Purchased Supplies

Unit 3:

Facilities / Venues	Equipment	Materials	Purchased Supplies

11. Project Time Calendar - Sequencing of Instruction

Project Week: 1

ELA					
SCI					
MATH					
SS					
ENGR					
ECT					

Project Week: 2

ELA					
SCI					
MATH					
SS					
ENGR					
ECT					

Project Week: 3

ELA					
SCI					
MATH					
SS					
ENGR					
ECT					

Project Week: 4

ELA					
SCI					
MATH					
SS					
ENGR					
ECT					

Project Week: 5

ELA					
SCI					
MATH					
SS					
ENGR					
ECT					

Project Week: 6

ELA					
SCI					
MATH					
SS					
ENGR					
ECT					



Project Week: 7

ELA					
SCI					
MATH					
SS					
ENGR					
ECT					

Project Week: 8

ELA					
SCI					
MATH					
SS					
ENGR					
ECT					

Project Week: 9

ELA					
SCI					
MATH					
SS					
ENGR					
ECT					

Project Week: 10

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ELA					
SCI					
MATH					
SS					
ENGR					
ECT					



12. Resources and Links

Articles about Capstone Theme

Description	Link

Project Resources

Description	Link

Others articles, links, resources:

Description	Link

Others:

Description



