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Module 2

Planning My Unit

Description: In this module, you begin planning your unit by identifying the standards you want to target. From those standards, you create learning objectives and find important concepts from which to build your Curriculum-Framing Questions. After exploring strategies for ongoing assessment, you draft an assessment timeline and then create an assessment that will help you gauge student needs by assessing their prior knowledge at the beginning of your unit.

Activity 1: Addressing Standards

Students who work on projects make choices about content, process, and how they show what they have learned. This does not mean, however, that they learn whatever they like. Their learning experiences must ensure they meet content standards and benchmarks.

In a project-based or student-centered learning environment, students show they are meeting standards through products or performances. These demonstrations of learning complement traditional standards-based tests and quizzes. Instead of just recalling information, students apply new knowledge in meaningful ways to solve engaging problems. Projects ask students to use knowledge to convince others that they really understand material that quizzes and short answer tests only suggest they understand (Wiggins, 1998).

In this era of accountability and performance, projects must be built around standards to ensure that students learn appropriate content and skills. Some teachers see projects as diversions, end-of-unit activities, or extensions after students complete assignments, lectures, and tests. However, in standards-based projects, students delve deeply into the content and apply their learning to real-world experiences. Teachers organize their instruction around questions that connect student interests to curriculum standards.

The first step in project design is to identify the standards you want your students to meet by the end of your unit. And then from those standards, you derive learning objectives and meaningful questions. In this activity, you create a draft set of standards and objectives.

If you are planning to work with one or more teachers on your Unit Portfolio, you can work together to complete this activity.

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Step 1: Identifying Standards

To lay the foundation for good project planning, look at your standards and identify those that you need to teach and assess in your unit. Use the Intel® Education *Help Guide* if you need assistance in completing any technology skills identified below.



Refer to the following skills in the *Help Guide* for this section:

- Web Technologies Skill 2.1, 4.1, or 6.1: To download a document from a Web site
- Word Processing Skill 2.6: To copy words or text
- Word Processing Skill 2.8: To paste words or text in a new place



1. Review the Standards and Objectives Rubric in the *Assessment* folder on the Curriculum Resource CD to help clarify the expectations for the standards and objectives that will be targeted in your unit. This rubric is also available in the Appendix on page A.08.

2. Open your Unit Plan from your *unit_plan* folder.



3. Go to the Web site that contains your state standards. Links to each state's standards are available at: <http://edstandards.org/standards.html>

4. Tag or bookmark the page for your state's standards.



5. If the standards are available as a downloadable document, save the file to the *unit_plan* folder in your Portfolio folder. (See Web Technologies Skills 2.1 [for Mozilla Firefox*], 4.1 [for Internet Explorer*], or 6.1 [for Safari*].)

6. Think about the standards that may be related to your unit. Copy and paste any of the potential standards into your Unit Plan. (See Word Processing Skill 2.6 and 2.8)

Note: You will refine and narrow down the number of standards you want to target for your unit at a later point.

The selected standards should include only prioritized, targeted standards that students are expected to meet (not just lightly address) and that will be assessed by the end of the unit.

Step 2: Creating Learning Objectives

Identifying what you want students to learn from a unit is the first, and most important, step in the unit design process. From the standards you selected in Step 1, create an initial set of learning objectives for your unit. These objectives should describe what you want your students to learn. Your objectives should:

- Outline what you want your students to understand or demonstrate
- Emphasize learning concepts using 21st century skills and higher-order thinking
- Be assessed throughout the unit

Objectives should not focus on activities, tasks, or technology skills. Review the objectives on the following page.

Vague, Task-Oriented Objectives	Specific, Learning-Oriented Objectives
Students will create multimedia presentations.	Students will create persuasive presentations appropriate for a selected audience.
Students will research local businesses.	Students will gather, analyze, organize, reflect, and process information about local businesses in a variety of ways.
Students will create presentations showing their data about weather.	Students will represent data about local weather through graphs and charts or other visual aids.
Students will think about their reading.	Students will make connections between themselves and the lives of people in biographies.



For additional examples, view the learning objectives in any of the unit plans on the Curriculum Resource CD. Use the *Help Guide* if you need assistance in completing any technology skills identified below.

Follow the steps below to create learning objectives for your Unit Plan.

1. Review your standards. As you look at your standards, think about what you want your students to be able to know, do, or understand.



2. Review the list of 21st century skills in the *Thinking* folder on the Curriculum Resource CD. These skills, developed by the Partnership for 21st Century Skills, have been organized into three categories:

- a. Learning and Innovation Skills
- b. Information, Media, and Technology Skills
- c. Life and Career Skills

Note: All 21st century skills should be addressed over the course of a year, though not necessarily in a single unit.

3. Read the descriptions and select one to three skills that are the most relevant for your unit. Incorporate the selected skills into the objectives you write for your Unit Plan.



4. Refer to the Standards and Objectives Rubric in the *Assessment* folder on the Curriculum Resource CD as you develop your objectives to ensure they meet the expectations. This rubric is also found in the Appendix on page A.08.

Activity 2: Developing Curriculum-Framing Questions to Engage Students

All teachers want their students to develop higher-order thinking skills along with a deep understanding of content. Students, however, may not find this knowledge relevant to their lives, especially when they study different subject areas in isolation. Curriculum-Framing Questions connect learning in and across different disciplines by addressing topics that are interesting and important to students. In this activity you develop your Curriculum-Framing Questions and share your ideas through an online collaborative document.

Step 1: Understanding Essential, Unit, and Content Questions

Curriculum-Framing Questions are critical for keeping projects focused on important learning. They encourage students to use higher-order thinking skills, help students fully understand essential concepts, and provide a structure for organizing factual information. Curriculum-Framing Questions consist of Essential, Unit, and Content Questions:

- Essential Questions are broad, open-ended questions that address big ideas and enduring concepts. Essential Questions often cross disciplines and help students see how subjects are related.
- Unit Questions are tied directly to a project and support investigation into the Essential Question. Unit Questions are open-ended questions that help students demonstrate how well they understand the core concepts of a project.
- Content Questions are fact-based, concrete questions that have a narrow set of correct answers. Often Content Questions relate to definitions, identifications, and general recall of information—similar to the types of questions you would typically find on a test. Content Questions are important support questions for Essential and Unit Questions.

Because the best Essential and Unit Questions demand that students have a strong understanding of Content Questions, your Essential and Unit Questions will drive the content and strategies for your entire Unit Portfolio.

Note: You have the option to further develop your concepts of Essential Questions in the Planning Ahead activity at the end of this module.

Engaging Students with Curriculum-Framing Questions

Asking intriguing questions is an effective way to encourage students to think deeply and to provide them with a meaningful context for learning. When students encounter questions that they are truly interested in answering, they become engaged in learning. When questions help students see connections between subject matter and their own

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lives, learning becomes meaningful. You can help your students become more motivated and self-directed by asking the right questions. But what are the right questions?

1. As a whole group, view and briefly discuss the presentation on Essential, Unit, and Content Questions.



Note: This presentation is available in the *CFQs* folder on the Curriculum Resource CD.

2. View the following Curriculum-Framing Questions Rubric as a whole group.



Note: The Curriculum-Framing Questions Rubric is also available in the *Assessment* folder on the Curriculum Resource CD and in the Appendix on page A.02.

Curriculum-Framing Questions Rubric

4	3	2	1
Essential Question (EQ) generates critical thinking.			
My EQ is a thought-provoking question that crosses subject areas or topics within subject areas.	My EQ addresses a broad idea that crosses subject areas or topics within subject areas.	My EQ addresses the concepts of my unit rather than a big idea.	My EQ addresses the content of my unit.
Unit Questions (UQs) support learning goals.			
My UQs are open-ended, clearly aligned with objectives, and require students to use higher-order thinking to develop conceptual understanding related to my unit.	My UQs are open-ended, aligned with objectives, and ask students to use higher-order thinking to develop conceptual understanding related to my unit.	My UQs are open-ended but are not clearly connected to objectives, higher-order thinking, or concepts specific to my unit.	My UQs have pre-determined answers or are too broad for my unit to focus understanding.
Content Questions (CQs) address important factual knowledge.			
My CQs focus on key concepts to build factual knowledge. They have narrow and defined answers.	My CQs build factual knowledge and have narrow and defined answers.	Some of my CQs address factual understanding.	My CQs do not build factual understanding.
Curriculum-Framing Questions (CFQs) connect to each other.			
My CFQs require students to use information from CQs to thoroughly answer UQs and think critically and creatively about the EQ.	My CFQs ask students to use information from CQs to answer UQs and think critically about the EQ.	My CFQs sometimes ask students to use information from CQs to answer UQs or to think about the EQ.	My CFQs rarely ask students to use information from CQs or to answer UQs or think about the EQ.

Using an Online Collaborative Web Site to Practice CFQs

Online collaborative Web sites allow individuals to create or upload documents to the Web where they can then be edited using familiar formatting tools by anyone you invite who has Internet access. Some sites also provide the ability to edit and create presentations and spreadsheets. If you would like more information about using online collaborative Web sites in your classroom, read *Web-based Collaborative Learning* in the *Collaboration* folder on the Curriculum Resources CD.



1. Go to the online collaborative Web site provided by your facilitator.

2. Create an account on the online collaborative Web site:

- a. Find the system-generated e-mail that was sent to you from the Online Collaborative Web site inviting you to collaborate on the spreadsheet titled CFQ_Practice.
- b. In the e-mail, find the link to the registration page of the Web site.
- c. Create an account on the site and record your login and password on page vii of the Introduction and/or type the information in the Login Information document available in the *About This Course* folder on the Curriculum Resource CD.
- d. If you cannot find your system-generated e-mail or you want to use a different e-mail address to create an account, provide it to your facilitator, who will either invite or re-invite you to the Web site.



3. As a whole group, view Brainstorming Questions on the online collaborative site.
4. As a whole group, discuss the first row in the spreadsheet.



5. In a small cross-curricular group, complete one or two more sets of Essential, Unit, and Content Questions with one person recording the brainstormed questions on the spreadsheet.

Optional: Pick any other two to three sets of questions and fill in the blanks with your own questions.

6. Share and discuss your questions with the whole group.

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It is a personal preference to begin writing Curriculum-Framing Questions with either big ideas or with content-specific ideas.

Step 2: Drafting My Curriculum-Framing Questions

Curriculum-Framing Questions are a challenge to create and usually require many revisions. Some teachers find writing their Curriculum-Framing Questions easier if they start with the big idea, draft an Essential Question, and then work on the Unit and Content Questions. Other teachers find the process easier if they look at the specific units they teach and then see how the units fit into a bigger idea and Essential Question. In this step, you write Curriculum-Framing Questions for your unit.



If needed, use the following resources in the *CFQs* folder of the Curriculum Resource CD:

- Tips for Writing Curriculum-Framing Questions
- Sample Curriculum-Framing Questions
- Big Idea Words

1. Review your standards and objectives.
2. Write a first draft of your Curriculum-Framing Questions in the table below or type them into your Unit Plan.

Note: This table is available in Module 2, Activity 2, Step 2: Drafting Your Curriculum-Framing Questions of your downloaded Notebook.

Essential Question	
Unit Questions	
Content Questions	



Note: If you want a more structured step-by-step process for writing your questions, use Writing Curriculum-Framing Questions in the *CFQs* folder on the Curriculum Resource CD.

3. Using the Curriculum-Framing Questions section of the Unit Plan Checklist, review the draft of your questions.



Note: The Unit Plan Checklist, located in the *Assessment* folder on the Curriculum Resource CD, helps you monitor your progress as you work on your Unit Plan. It is based on the Portfolio Rubric and the other detailed rubrics specific to certain areas of the Unit Plan Template.

4. Revise your questions, if necessary.



5. Save the Unit Plan Checklist in the *unit_plan* folder of your Portfolio folder for future use.

Step 3: Sharing Curriculum-Framing Questions



1. Break into small groups of three or four and share the first draft of your Curriculum-Framing Questions.



2. Use the Curriculum-Framing Questions Rubric on page 2.06 or in the *Assessment* folder on the Curriculum Resource CD to provide feedback to each other on your questions.
3. Take notes on the ideas provided by your colleagues.
4. Revise your questions based on the feedback.

Ideas for how to create sharing groups for the classroom are available in the *Facilitation* folder on the Curriculum Resource CD.

Activity 3: Considering Multiple Methods of Assessment

You have now completed two important steps that focus on student learning in your unit:

- Determined specific learning goals based on standards and 21st century skills
- Developed Curriculum-Framing Questions

During this activity, you continue to focus on student learning with work on your assessment plan:

- Review different methods of assessment and think about how you will incorporate these methods into your unit
- Draft an assessment timeline to illustrate how you use assessment throughout your unit

Step 1: Exploring Formative and Summative Assessments

Different kinds of assessments reveal different kinds of information about student understanding of important concepts and skills. Understanding what you can learn about student learning from different assessments can help you plan for effective assessment and instruction. In this step, you think about how to use assessment strategies that help you meet the different purposes of assessment.

Refer to the following skills in the *Help Guide* for this section:

- Word Processing 11.3: To use comments to review a document
- Word Processing 11.4: To use highlighting to review a document



1. Read *Assessment for Project-Based Learning* in the *Assessment* folder on the Curriculum Resource CD, which provides an overview for using student-centered assessments in the classroom. Start thinking about how you might incorporate any of the ideas into your own unit. If desired, take notes on the document and save it in the *course_resources* folder of your *Portfolio* folder. (See Word Processing Skill 11.3 and 11.4.)
2. When you plan for assessment in your unit, you should include both formative and summative assessments for each of five purposes:



Formative Assessment	1. Gauging student needs
	2. Encouraging self-direction and collaboration
	3. Monitoring progress
	4. Checking for understanding and encouraging metacognition
Summative Assessment	5. Demonstrating understanding and skill

3. To read about detailed assessment strategies for each of the preceding purposes, follow these steps:



- a. Go to the Intel® Education Assessing Projects resource at:
www.intel.com/education/AssessingProjects
- b. Tag or bookmark the Web site.
- c. Click **Assessment Strategies**.

4. Read about each purpose, review the different assessment strategies to achieve each purpose, and then think about how you can use the methods in your unit.

Note: The following exercise is available in Module 2, Activity 3, Step 1: Exploring Formative and Summative Assessments in your downloaded Notebook.

5. As you consider assessment strategies for your unit, use the information in *Assessing Projects* to help you brainstorm answers for the following questions.

- What is the purpose of an assessment?
- What methods are appropriate to meet the purpose?
- What instrument is most effective?
- When do I use the methods and instruments?
- What do I do with the results?

Note: You may prefer breaking into small groups to discuss these questions.

Each of the following purposes is featured in the Intel® Education *Assessing Projects* resource:

Gauging Student Needs

What methods are you considering to gauge student readiness for the unit?

Note: Review the Strategies for Gauging Student Needs section carefully. In the next activity, you create an assessment to help you determine student needs at the beginning of your unit.

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Monitoring Progress

What reporting and monitoring methods could you use to encourage student self-management and progress during independent and group work? How could you help students stay on track during a project? What monitoring and reporting instruments would you need to create?

Encouraging Self-Direction and Collaboration

How will you involve students in understanding the project expectations and criteria? How can you help your students become independent learners who are efficient at planning and following through without prompting? What assessments could you use to help students collaborate with other students and provide effective feedback?

Checking for Understanding and Encouraging Metacognition

What assessment methods will help students reflect on their learning (metacognition) and help you to check understanding? What assessments will you need to create?

Demonstrating Understanding and Skill

What methods could you use to assess final understanding and demonstration of learning? How will you and your students know they have met the learning goals?

6. Record any other information you find useful as well as your insights.

Step 2: Drafting an Assessment Timeline

Thorough and accurate assessment is critical for effective instruction. An assessment plan ensures that a project stays focused on learning goals, and it should be developed before determining the project activities and tasks. Because project tasks allow for broader expression of individual learning, assessment strategies need to be open enough to accommodate a range of student work yet focused on expected results. The assessment plan outlines methods and instruments that define clear expectations and standards for quality in products and performances. It also defines project monitoring checkpoints and strategies to both inform the teacher and keep the students on track. The plan should involve students in setting goals, reviewing and managing their learning progress during the project, and self-reflecting after the project.

The Assessment Plan section in your Unit Plan consists of an assessment summary and an assessment timeline. An assessment timeline is a good way to visually represent the occurrence of assessments throughout the unit and can be a good first step in developing an assessment plan. An assessment plan:

- Ensures that a project stays focused on learning goals
- Outlines assessment methods and instruments
- Defines clear expectations and standards for quality in products and performances
- Defines project monitoring checkpoints and strategies to both inform the teacher and keep the students on track

In this step, you create the Assessment Timeline section for your Assessment Plan. An assessment timeline is a good way to visually represent the sequence of assessments throughout a unit. The following sample assessment timeline shows assessments before, during, and after project work:

Assessment Timeline		
Before project work begins	Students work on projects and complete tasks	After project work is completed
<ul style="list-style-type: none"> ▪ Questioning ▪ Journals ▪ Project Plan ▪ K-W-L Chart 	<ul style="list-style-type: none"> ▪ Written Summaries ▪ Observation Checklist ▪ Journals ▪ Questioning ▪ Group and Self-Assessment ▪ Newspaper Rubric ▪ Conferences 	<ul style="list-style-type: none"> ▪ Newspaper Rubric ▪ K-W-L Chart ▪ Mock Trial ▪ Reflective Essay

Activity 4: Creating an Assessment to Gauge Student Needs

During this activity, you create an assessment for one of the five purposes of assessment—gauging student needs. The assessment should help you assess students’ prior knowledge, interests, areas of weakness, or misconceptions about the content in your unit. As part of this assessment, you may want to incorporate the Essential and Unit Questions to help you gauge students’ understanding of the topic. When you implement the assessment in your classroom, you can gather information on students’ knowledge and needs to further refine your unit. For instance, you can adjust your objectives, provide additional instruction before proceeding, or differentiate to accommodate student needs.

The purpose of this activity is twofold:

- To understand the benefits of using word processing software.
- To create an assessment to use in your classroom. Based on the evidence you gather when sharing the assessment with students, you can adjust your objectives, provide additional instruction before proceeding, or differentiate for different needs.

Step 1: Tapping into Prior Knowledge

During this step, browse some ideas to help you plan your assessment for gauging student needs:

1. Review your notes about the strategies you are considering for gauging student readiness on page 2.11.
2. Explore the sample assessments to gauge student needs located in the *Assessment* folder of the Curriculum Resource CD.
3. If desired, note any ideas you might want to use in your assessment.



Optional Resources:

Go to the Intel® Education *Designing Effective Projects* resource for information on tapping prior knowledge:



1. Go to: www.intel.com/education/DesignProjects
2. Click **Instructional Strategies**.
3. Click **Prior Knowledge**.
4. Review the information and examples about ways to assess and tap into students’ prior knowledge.

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Go to the *Designing Effective Projects* resource for information on Curriculum-Framing Questions:



1. Go to: www.intel.com/education/DesignProjects
2. Click **Project Design**.
3. Click **Curriculum-Framing Questions**.
4. Click **Effective Questioning Practices** in the box on the right side of the page.
5. Review ways to use and introduce Curriculum-Framing Questions with your students.

If you would like, return to the *Assessing Projects* resource to review the Gauging Student Needs section in more detail:



1. Open the tagged or bookmarked Web site for *Assessing Projects*.
(www.intel.com/education/AssessingProjects)
2. Click **Assessment Strategies**.
3. Click **Strategies for Gauging Student Needs**.
4. Note ideas for gauging student needs that you can use in your presentation.

Step 2: Planning My Assessment

Taking the time to create assessments before the unit allows you to consider how you will gauge student needs, check for understanding, conference with students on their progress, and make project expectations known. Consider the type of assessment you might use to assess your students' prior knowledge of concepts:

Students bring a wide variety of experiences, abilities, and interests to any new topic. A thorough understanding of students' background knowledge and understanding helps teachers design instruction to take advantage of relevant experiences and address misconceptions and areas of weakness.



1. In small groups, discuss the following questions:
 - What kind of information do you need to gather from your students to better understand their learning needs? How will you collect it?
 - How can your Essential and Unit Questions be used for gauging student needs?
 - In what ways can you gather information about your students' higher-order thinking and 21st century skills related to this unit?
 - How will you use the information you collect?
2. Think about how you might collect and use this kind of information. Possible methods include:
 - Questioning
 - Survey
 - Graphic Organizer
 - K-W-H-L
 - T-Chart
 - Brainstorming
 - Think-Pair-Share
 - Journal Write
 - Performance Task

1:1 Tip: Collecting detailed information about prior knowledge from individual students is often easier in a one-to-one computing classroom. Students can answer questions electronically and submit them to the teacher or respond to online surveys. This information can provide the teacher with an overall picture of the students' knowledge. Think about how you might collect and use this kind of information.

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- Use the following planning area to help you think through the content of your gauging student needs assessment and the method to use.



Note: This table is available in Module 2, Activity 4, Step 2: Planning My Assessment in your Notebook.

Assessment Information Needed	
Prior knowledge information	
Misconceptions or areas of weakness	
Strategies for Gathering Assessment Information	
How to use the Essential and Unit Questions	
How to pre-assess necessary 21st century skills	
What the most effective assessment methods are	

Including sample student responses may help ensure that your prompts are effective when creating your assessment. Remove the responses before actually sharing the assessment with your students.

Step 3: Creating My Assessment

Using your planning ideas from the previous step, create an assessment to gauge student needs. Consider how your students might respond to the assessment to help you anticipate areas of weakness or misconceptions to address during the unit. Use the Intel® Education *Help Guide* if you need assistance in completing any technology skills identified below.

1. Use word processing software to create your document.
2. Choose from among the additional ideas for types of design and formatting features you may want to include in your document.
 - Format a table. (See Word Processing Group 7.)
 - Create a graphic organizer. (See Word Processing Group 9.)
 - Create a graph from a table. Use the information in a table to create different kinds of graphs. (See Word Processing Skill 8.2.)
 - Create a graph without a table. You can create a graph without displaying the table with the original data. (See Word Processing Skill 8.1.)
 - Format a chart. You can change the chart type, add titles, change the way the data is organized, and change colors and patterns. (See Word Processing Group 8.)
 - Add headers and footers. Place text such as titles, dates, and page numbers on the top and bottom of every page of a document. (See Word Processing Skill 6.16.)
 - Change page settings. You can make changes to the margin settings as well as paper size, layout, and styles. (See Word Processing Group 6.)
 - Check a document for spelling and grammatical errors. Most word processing software automatically checks spelling and sometimes grammar while you type, unless the feature is turned off. In most word processing software a red, wavy line shown under a word indicates that the word is not in the program's dictionary. A green wavy line under a word, phrase, or sentence indicates a possible grammatical issue. With instruction and guidance, spelling and grammar tools can help support students while they edit and write. (See Word Processing Skill 10.11.)
3. Save your document in the *Assessment* folder in your Portfolio folder.
4. Take on the perspective of students in your classroom and anticipate the answers they might provide to the questions in your assessment. Write your answers as "sample student responses" directly onto your assessment instrument.

Refer to the following skills in the *Help Guide* for this section:

- Word processing Groups 1-12
- Word Processing Group 7: Working with Tables
- Word Processing Group 9: Working with Diagrams
- Word Processing Skill 8.2: To create a graph from a table
- Word Processing Skill 8.1: To create a graph without a table
- Word Processing Group 8: Working with Charts and Graphs
- Word Processing Skill 6.16: To add repeated information at the top and bottom of your pages, or to add headers and footers
- Word Processing Group 6: Designing Your Pages
- Word Processing Skill 10.11: To check the spelling in a document

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5. Review your responses. Could you reword some questions to engage more students? To gather more relevant information? To tap other knowledge you had not previously considered? Revise your questions if desired.
6. Use the Gauging Student Needs Assessment checklist below to review your assessment and revise your assessment, if necessary.

Note: This checklist is available in the *Assessment* folder of the Curriculum Resource CD.

Gauging Student Needs Assessment Checklist

<input type="checkbox"/>	My assessment gathers the prior knowledge I need from my students.
<input type="checkbox"/>	I use my Essential and Unit Questions to help collect assessment information.
<input type="checkbox"/>	The questioning I use helps to model how my unit will target higher-order thinking and 21st century skills.
<input type="checkbox"/>	I have anticipated student responses to help focus the information I need to gather.
<input type="checkbox"/>	I can use the information from this assessment to meet my student needs before I start the unit.

Follow your facilitator's demonstration of the key components of the Unit Portfolio Presentation.

The purpose of this activity is twofold:

- To understand the benefits of using presentation software so that you can choose the most appropriate tool when you create the student sample.
- To create a presentation that provides a thoughtful overview of the unit and what you hope to accomplish through its development.

You work with the same group of teachers who teach a similar subject or grade level in all the Pair and Share discussions throughout the course.

Activity 5: Creating a Presentation about My Unit

During this activity, you create a presentation about your unit to share with your colleagues. Throughout the course, you will meet with the same group of participants during Pair and Share activities to give and receive feedback on the various components of the group's Unit Portfolios. Included in your presentation is your Unit Summary which you will write during this activity, your targeted standards and objectives, Curriculum-Framing Questions, and assessment timeline. You share this Unit Portfolio presentation, along with your assessment to gauge student needs, at the beginning of Module 3: Making Connections.

Step 1: Planning My Presentation

During this step, browse some sample presentations to help you plan your own and then write a draft of your Unit Summary. Your presentation will summarize your thinking about your unit so far and give your group members the information they need to give you quality feedback throughout the course. You may also choose to use this presentation to showcase your Unit Portfolio in Module 8.



1. Explore the sample Unit Portfolio Presentations in the *Unit Portfolios, Sample Presentations* folder on the Curriculum Resource CD.

2. Open your Unit Plan and write a draft of your Unit Summary. In 3 to 5 sentences, briefly describe the topics, key activities, student products, and possible roles students assume in the project scenario.
3. Think about the following questions in preparation for creating your Unit Portfolio Presentation:
 - What do you want to learn by creating this unit? What about this unit makes it suitable for helping you achieve your goals for the course? You may want to refer to your learning goals on page 1.16.
 - How will project-based approaches, ongoing assessment, and Curriculum-Framing Questions help your students meet 21st century learning goals?
4. Note any ideas you might like to use.

Note: You have an opportunity to revise your Unit Summary in later modules after you create your student sample and write your Instructional Procedures.

Step 2: Creating an Outline for My Unit Presentation

The outline feature in a presentation application helps a user focus on and quickly enter key concepts that need to be communicated in a presentation. Similarly, this strategy can be used to help students focus on content, rather than design features. Outlining a presentation before adding visuals, animations, and sounds helps to ensure that the focus is on the content. Use the *Help Guide* if you need assistance in completing any technology skills identified below. Create your presentation to synthesize the important points about your unit. You will expand on the points as you present your unit.



Classroom Tip: A multimedia slideshow accompanied by an oral presentation is an effective tool for sharing projects and other complex ideas with others. Teachers as well as students can use presentations in a variety of ways in their school and personal lives.

Note: Remember that effective multimedia presentations condense ideas that are elaborated on in oral presentations.

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Refer to the following skills in the *Help Guide* for this section:

- Multimedia Skill 1.9: To save a presentation
- Multimedia Skill 2.3: To switch to and work in Slide format/view
- Multimedia Skill 5.15: To add notes to slides for the presentation speaker to use
- Word Processing Skill 10.7: To insert another document or presentation as an object



1. Start the presentation software. (See Multimedia Skill 1.1.)
2. Consider customizing the toolbars and menus for your computer so that everyone has the same buttons and menus. This change makes following demonstrated instructions easier. (See Multimedia Skill 1.6.)



Classroom Tip: Set up your classroom or lab computers in the same consistent manner for easier classroom instruction.

3. Create an outline in the Outline pane to help you organize your thoughts and focus on the presentation content. (See Multimedia Skills 2.2 and 5.1.)



Classroom Tip: You may want to require your students to use the Outline pane to enter their content before they add any design elements to their presentations.

4. Create slides to guide your presentation about initial ideas for your Unit Plan, such as:
 - Unit summary
 - Vision of what you hope to accomplish in the unit, both for yourself and for your students
 - How the gauging student needs assessment will help you and your students plan for upcoming activities in the unit
 - Other information, such as your Curriculum-Framing Questions, that would help your group members support you as you develop your unit
5. Add a slide to summarize your gauging student needs assessment:
 - What do you want to learn from your students?
 - How will the assessment information help you and your students plan for upcoming activities in the unit?
 - What feedback or additional ideas would you like?



6. Save your presentation frequently in the *unit_plan* folder in your Portfolio folder. (See Multimedia Skill 1.9.)
7. When you finish outlining your presentation, work in the slide view of your presentation so that you can change the look of your slides. (See Multimedia Skill 2.3.)

Step 3: Adding the Basics to My Presentation

After your outline is complete, embed your assessment and design your slides to help support your content. Use the *Help Guide* if you need assistance in completing any technology skills identified below.

Note: You need to embed your unit plan and the gauging student needs assessment and set the documents to open from the presentation. The documents will not open when in slideshow mode if you fail to take this extra step.



1. The right side of the multimedia application window includes a task pane where you can access various tools to change the look of your presentation. You can change the task pane for various purposes, such as changing the design, text layout, adding animation, adding slide transitions, and more. (See Multimedia Skill 1.7.)
2. Add a design template or change the existing design. (See Multimedia Skill 4.1.)
3. Change the color scheme, if desired. (See Multimedia Skill 4.2.)
4. Change the layout of your text and other slide elements, if needed, to better communicate your ideas. (See Multimedia Skill 4.4.)
5. Embed the assessment into the appropriate slide and set the document to open from your presentation. (See Word Processing Skill 10.7)

Note: For more information about embedding and hyperlinking files read Embedding and Hyperlinking Files in the Unit Portfolios folder on the Curriculum Resource CD.

6. Insert pictures to support your content. (See Multimedia Group 6.)
 - If you save pictures from the Web, be sure to include their sources in your Works Cited document and note their sources in your presentation. (See Graphics Skill 3.16.)
 - You may also want to compress the images to help keep your file size small. (See Multimedia Skill 6.8.)
7. Add animation for preset visual effects to text or images on your slides. Be sure that your animations help focus your audience's attention on your content and do not distract them. (See Multimedia Group 8.)
8. Change the slide order if you need to re-sort the slides in your presentation to enhance the flow of your message. (See Multimedia Skill 3.4.)



9. Save your presentation frequently.

Refer to the following skills in the *Help Guide* for this section:

- Multimedia Skill 1.7: To change the Task Pane
- Multimedia Skill 4.1: To pick and use a design template
- Multimedia Skill 4.2: To pick and use a color scheme
- Multimedia Skill 4.4: To change a slide's current layout
- Multimedia Group 6: Adding Pictures and Artistic Effects
- Graphics Skill 3.16: To copy and save a picture from the Web
- Multimedia Skill 6.8: To compress a picture to keep the file size small
- Multimedia Group 8: Adding Animation and Special Effects
- Multimedia Skill 3.4: To put slides in order

Module 2

Planning My Unit

Refer to the following skills in the *Help Guide* for this section:

- Multimedia Skill 7.9: To insert a link to another document saved on your computer
- Multimedia Skill 7.10: To insert a link to a Web site
- Multimedia Skill 5.10: To add or insert a table into a slide
- Multimedia Skill 5.12: To add or insert a chart into a slide
- Multimedia Group 7: Adding Sounds, Movies, and Links
- Web Technologies Groups 2, 4, or 6: Finding and Saving Web Resources

You were provided with instructions on how to register and log into the wiki site before the course. Your facilitator has created the starting page of the wiki.

A list of possible wiki sites is available in the *Wiki Sites* document in the *Collaboration* folder on the Curriculum Resource CD.

If you have difficulty accessing the wiki, you can keep your presentation in your Portfolio folder and share it from your desktop.



Step 4: Enhancing My Presentation (optional)

Decide which additional design features you want to add to your presentation. Each feature should enhance the content. Too many sounds and images can detract from the purpose of a presentation. Remember to follow copyright and trademark laws, include source citations when appropriate, and save your work frequently. Use the *Help Guide* if you need assistance in completing any technology skills identified below.



1. Add a hyperlink to a file or a Web site. (See Multimedia Skills 7.9 and 7.10.)
2. Insert a table to organize information. (See Multimedia Skill 5.10.)
3. Insert a chart or graph to visually display data. (See Multimedia Skill 5.12.)
4. Insert a sound or movie clip that you have saved from the Web. (See Multimedia Group 7 and Web Technologies Group 2.)



Note: Movie and sound clips are often copyrighted. Be sure to follow copyright law, which involves more than simply adding these sources to your Works Cited document.

Step 5: Uploading to My Wiki (optional)

To facilitate the sharing process, you may choose to use a wiki to share your Unit Portfolio Presentation during the Pair and Share in Module 3: Making Connections. A wiki is a “type of website that allows the visitors themselves to easily add, remove, and otherwise edit and change some available content... This ease of interaction and operation makes a wiki an effective tool for collaborative authoring.” (Wikipedia, 2006)

If you wish, you can use your wiki for the Portfolio Showcase in Module 8. Follow these instructions to create your wiki.

1. Open the wiki site provided by your facilitator.
2. Write down the URL of the wiki site, your login, and password on page vii of the Introduction and/or type the information in Login Information available in the *Course_Resources* of your Portfolio folder (if previously saved) or in the *About this Course* folder on the Curriculum Resource CD.

Note: Additional Web sites that provide free wiki space are listed in *Wiki Sites* in the *Collaboration* folder on the Curriculum Resource CD.

3. Create a page for your Unit Portfolio Presentation by following these steps:
 - a. Create a new subpage.
 - b. Add a title for your page starting with your first name (for example, Claire’s Presentation).

4. Decide how you want your colleagues to provide feedback. Options include creating a separate wiki page for feedback or asking them to use the commenting feature on your Unit Portfolio wiki page. If you choose a separate feedback wiki page, create it now.
5. Upload your presentation with your embedded assessment and Unit Plan to the wiki.

Activity 6: Reflecting on My Learning

Step 1: Reviewing the Module

Review the guiding questions and key points for Module 2 on page 2.31 and think about the ideas and materials you have created that can be used in your classroom, instruction, or planning.

In the following modules, you will build on these concepts as you discuss ways to support and encourage higher-order thinking skills through the use of Curriculum-Framing Questions, standards-based projects, ongoing assessment, and student-centered activities.

You can also view the guiding questions and key points on the presentation provided by your facilitator.

Step 2: Blogging My Journey

Reflect on the activities, skills, and approaches addressed in this module in your personal blog. You will share your blog entries with a colleague in Module 8 and discuss how your understanding and knowledge have changed over time.



1. Open your tagged or bookmarked blog site.
2. Review the guiding questions and key points for Module 2 Summary on page 2.31.
3. Go to your personal blog, create an entry titled *Module 2 Reflection*, copy and paste the following prompt into your entry, and write your response:

This module has helped me think about using standards, CFQs, or formative assessment in the following ways...

4. Write about any other insights, questions, or concerns you want to address in your reflection.



Note: If you are having intermittent connectivity issues, you may want to type your blog offline in a word processing document and then paste it into your blog. An alternate method of ensuring you do not lose your work is to copy your blog entry text into the temporary clipboard before you click submit. (See Word Processing 2.6.)

5. Print or e-mail your Unit Plan to yourself so you have it available for the Planning Ahead.

If you have difficulties with the blogging site, use the journal template located in the *Assessment* folder on the Curriculum Resource CD to complete your reflection.

Refer to the following skill in the *Help Guide* for this section:

- Word Processing Skill 2.6: To copy words or text

Planning Ahead

Broadening My Understanding of Essential Questions

Step 1: Creating Project Ideas for an Essential Question

Essential Questions, by their very nature, can be used across a variety of grades, subject areas, and topics. For example, the Essential Question, *How can we make a difference?* is appropriate for a unit plan in which middle school students learn about community government by creating plans for developing a vacant lot. The same question is also used in a unit where high school students assume the role of senators serving on an energy subcommittee and are given the task of developing a national energy plan that provides for the future economic and environmental welfare of the country.

In the table below and on the following pages, an Essential Question has been created for each unit described in the middle column. Since Essential Questions by design cross units and subject areas, practice creating other project ideas that address the same Essential Question. Some examples are provided for you.

1. Read the following four unit descriptions and the corresponding Essential Questions.
2. Choose one Essential Question based on your interest.
3. In the column on the right, brainstorm other student project ideas that connect to that same Essential Question.

Note: This table is available in Module 2, Planning Ahead, Step 1: Creating Project Ideas for an Essential Question, in your Notebook.

Essential Question	Unit Title and Description	Other Project Ideas Relating to the Essential Question
How does the world change?	Seasoning the School Year (Science, Math, and Language Arts, Grades 3–5): Students become botanists and climatologists to investigate seasonal changes. Students observe and record changes in the weather, the length of the day, and the animal and plant life around them. They create multimedia presentations and weather graphs to compare weather in other parts of the world. With a partner class, students publish seasonal newsletters and class books to celebrate changes in and promote awareness of the environment.	<p>Example:</p> <ul style="list-style-type: none"> ▪ Students take on the role of masters by creating drawings and paintings in the style of artists from three different periods and analyze the stylistic differences. ▪ ▪ ▪

Essential Question	Unit Title and Description	Other Project Ideas Relating to the Essential Question
<p>How do ordinary people accomplish extraordinary things?</p>	<p>Enduring Heroes (Language Arts, Grades 6–8): Students read stories about the heroes of Greek mythology and analyze what it takes to be a hero. They compare Greek and modern day heroes to determine how the definition has changed over time and across cultures. They then synthesize their thinking when they write a myth based on a contemporary hero. The myths are compiled into books that can be read to younger students or shared with senior citizens during a service-learning project.</p>	<p>Example:</p> <ul style="list-style-type: none"> ▪ Students reflect on their experiences as explorers during the 13th to 15th centuries. ▪ ▪ ▪
<p>What does the past tell us about the future?</p>	<p>Track the Trends (Algebra 1 and 2): Taking on the role of statisticians, students choose a subject of interest (AIDS rate, rise of average baseball salaries, state population growth, and so forth) and collect statistical information about the subject over time. Using a graphing calculator and an exponential regression function, students derive the equation for curve of best fit for the data. The actual data and curve of best fit are graphed, and future predictions are made using the equation. Finally, students evaluate and present the socioeconomic implications of their predictions and the validity of their statistical investigation as a tool for predicting the future.</p>	<p>Example:</p> <ul style="list-style-type: none"> ▪ Students analyze the rise and fall of the Roman Empire to predict the future of contemporary cultures. ▪ ▪ ▪ ▪

Step 2: Revising My Curriculum-Framing Questions (optional)



You may want to review the rubric, additional examples, and information on Curriculum-Framing Questions, which are available in the *Assessment* and *CFQs* folders on the Curriculum Resource CD. In addition, many reference Web sites are also available (some of which are available on the Curriculum Resource CD for offline viewing).

Review your Essential, Unit, and Content Questions from page 2.08 or from your Unit Plan. In the next module, you will share your questions and your presentation with a partner. If you choose to revise your questions, write your new questions in the following table or revise them directly in your Unit Plan.

Essential Question
Unit Questions
Content Questions

References

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Thomas, J. W. (1998). *Project-based learning: Overview*. Novato, CA: Buck Institute for Education.

Wiggins, G. (1998). *Educative assessment: Designing assessments to inform and improve student performance*. San Francisco, CA: Jossey-Bass.

Wiggins, G., & McTighe, J. (2005). *Understanding by design* (Expanded 2nd edition). Alexandria, VA: Association for Supervision and Curriculum Development.

Module 2 Summary

Review the guiding questions and key points of Module 2 and think about the ideas and materials you have created that can be used in your classroom, instruction, or planning to help improve student learning.

Module Questions:

- How can Curriculum-Framing Questions help support my students' learning?
- How can I plan ongoing student-centered assessment?

Module 2 Key Points:

- Curriculum-Framing Questions encourage students to use higher-order thinking skills, help students fully understand essential concepts, and provide a structure for organizing factual information. Curriculum-Framing Questions consist of:
 - An *Essential Question*, which is a broad and open-ended question that addresses big ideas and enduring concepts. Essential Questions often cross disciplines and help students see how subjects are related.
 - *Unit Questions*, which are open-ended questions tied directly to a project or unit and support investigation into the Essential Question.
 - *Content Questions*, which are fact-based, concrete questions that have a narrow set of correct answers.
- Assessments for project-based units should:
 - Be embedded throughout the learning cycle
 - Assess the important objectives of the unit
 - Engage students in assessment processes
 - Use a variety of assessment strategies that:
 - Gauge student needs
 - Encourage self-direction and collaboration
 - Monitor progress
 - Check for understanding and encourage metacognition
 - Demonstrate understanding and skill

In the following modules, you will build on these concepts as you discuss ways to incorporate web-based resources and effective student projects into your units.

