

Intel® Teach Program

Essentials Online Course

Module 2

May 2008

Module 2: Planning My Unit

Overview

Facilitator Corner

Welcome to Module 2: Planning My Unit! In Module 1, you previewed the course content, looked at the different products you will be creating in your Unit Portfolio, and researched project-based learning. In this module, you get to start working on the unit you will develop during the course and eventually teach to your students. As you plan your unit, you first define what is important for students to learn in your unit and provide structure to guide them with standards, objectives, Curriculum-Framing Questions, and a plan for assessment. You will return to this initial work in the modules that follow. All activities in this module are completed in the face-to-face environment.

Take a moment to review the **Module Objectives** and **Module Questions**.

Module Objectives

Participants will:

- Identify standards for units
- Create objectives for units
- Discuss and develop Curriculum-Framing Questions
- Discuss and brainstorm assessment methods and strategies
- Create assessments that gauge student needs
- Discuss how to meet standards with projects
- Create Unit Portfolio Presentations
- Reflect on their learning
- Refine standards, objectives, and Curriculum-Framing Questions for units (Optional)

Module Questions

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

Facilitation Tip

During your introduction to the module, remind participants about the concept of backwards design and emphasize 21st century learning as they write their objectives.

Participants work independently for the entire first activity. You will facilitate again during Step 1 of Activity 2: Develop CFOs.

When you are finished reviewing, proceed to **Address Standards**.

Module 2: Planning My Unit

Activity 1: Addressing Standards

Facilitator Corner

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 this activity, you complete two steps:

- In Step 1, you review the Standards and Objectives Rubric. Next, you locate your standards on the Web and download the file or bookmark the site. Then you copy and paste any potential standards into your Unit Plan.
- In Step 2, you use your standards, 21st century skills, and your unit ideas to develop a draft set of learning objectives for your unit.

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.

When you are ready, proceed to **Step 1**.

References

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

Module 2: Planning My Unit

Activity 1: Addressing Standards

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.

Help Guide: Use the Intel® Education Help Guide if you need assistance in completing any technology skills identified below.

1. Review the **Standards and Objectives Rubric** (DOC; 1 page) in the **Resources** tab > **Assessments** link or the paper copy in your folder to help clarify the expectations for the standards and objectives that will be targeted in your unit.
2. Locate your state's standards. If you need help finding your standards, go to: <http://edstandards.org/standards.html>*
3. Tag or bookmark the site.
4. If the standards are available as a downloadable document, save the file to the **unit_plan** folder in your Portfolio folder.
5. Think about the standards that may be related to your unit.
6. Copy and paste any of the potential standards into your Unit Plan saved in your **unit_plan** folder.

Word Processing Skill 2.6: To copy words or text

Word Processing Skill 2.8: To paste words or text in a new place

Facilitation Tip
Remind participants that 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.

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

When you are ready, proceed to **Step 2**.

Module 2: Planning My Unit

Activity 1: Addressing Standards

Step 2: Creating Learning Objectives

Facilitator Corner

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.

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 sample objectives below:

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 do research on 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 the **Unit Portfolios** in the **Resources** tab > **Unit Portfolios** link.

Facilitation Tip

Emphasize the importance of addressing 21st century skills and higher-order thinking in units to help ensure participants create assessments and activities that reflect those outcomes.

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** (DOC: 1 page) in the **Resources** tab > **Thinking** link. 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
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. All 21st century skills should be addressed over the course of a year, though not necessarily in a single unit.

Optional: Find additional resources on 21st century skills and higher-order thinking in the Intel® Education Web site for *Designing Effective Projects* and *Assessing Projects*.

- Critical Thinking
 - Problem Solving
 - Creativity
 - Collaboration
 - Self-Direction
4. Review the **Standards and Objectives Rubric** (DOC: 1 page) in the **Resources** tab > **Assessments** link or the paper copy in your folder as you develop your objectives to ensure they meet the expectations.
 5. Keeping in mind your standards, your own high expectations, 21st century skills, and the criteria from the rubric, type your objectives into your Unit Plan.

Optional: Review your objectives to ensure they include higher-order thinking and 21st century skills. Use the word lists in the **Revised Bloom's Taxonomy—Categorization of Verbs** (DOC: 1 page) and **21st Century Skills—Words** (DOC: 1 page) documents. For future reference, these documents are located in the **Resources** tab > **Thinking** link.

If needed, revise your objectives to address higher-order thinking.

Facilitation Tip

Review the participants' objectives to ensure the use of higher-order thinking and 21st century skills.

Congratulations! You completed this activity. Please check the **Activity** box and click the **Submit** button before moving on to the next activity.

When you are ready, proceed to **Develop CFQs**.

References

Partnership for 21st Century Skills. (2007). *Framework for 21st century learning*. Washington, DC: Partnership for 21st Century Skills. Retrieved from www.21stcenturyskills.org/index.php?option=com_content&task=view&id=254&Itemid=120*.

Module 2: Planning My Unit

Activity 2: Developing Curriculum-Framing Questions to Engage Students

Facilitator Corner

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 complete three steps:

- In Step 1, you view a presentation on Essential, Unit, and Content Questions and review the Curriculum-Framing Questions Rubric. With a small group, you practice developing Curriculum-Framing Questions using an online collaborative spreadsheet.
- In Step 2, you draft your Curriculum-Framing Questions and use the Unit Plan Checklist to self-assess your work.
- In Step 3, you share your Curriculum-Framing Questions in a small group and revise your questions based on the feedback you receive.

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 concept of Essential Questions in the Planning Ahead activity at the end of this module.

When you are ready, proceed to **Step 1**.

Module 2: Planning My Unit

Activity 2: Developing Curriculum-Framing Questions to Engage Students

Step 1: Understanding Essential, Unit, and Content Questions

Facilitator Corner

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 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?

Facilitation Tip

Facilitate this step of the activity. Start by sharing the Curriculum-Framing Questions presentation and the rubric, and then give participants an opportunity to ask questions.

You need to have a collaborative Web site set up and collaborators identified before conducting this activity with your participants. Directions for setting up the collaborative Web site can be found in the **Facilitation** tab > **Facilitation Guide** link.

When you invite collaborators for this activity, include directions in the e-mail for how to log on to and use the online collaborative Web site.

Engaging Students with Curriculum-Framing Questions

1. As a group, view the **Curriculum-Framing Questions Presentation** (PPT; 14 slides) in the **Resources** tab > **CFQs** link.
2. Review the **Curriculum-Framing Questions Rubric** (DOC; 1 page) in the **Resources** tab > **Assessment** link or the paper copy in your folder.
3. Participate in a group discussion.
4. As needed, take notes in your **Notebook**.

Facilitation Tip

Help participants create an account for the online collaborative Web site. You can pull up a list of e-mails you have entered into the system to help you remember which e-mail addresses you used to invite participants to collaborate.

When participants start practicing with developing CFQs, create cross-curricular groups of four or five people so teachers can explore the overarching nature of Essential Questions. Make sure the groups are different from previous groupings.

Start this portion of the activity by leading a whole group discussion about the first Essential Question on the collaborative spreadsheet, *What does it take to change the world?* Gauge how well participants are understanding and lead participants through additional rows of questions as necessary. Then, ask participants to work through a few more in their groups.

Facilitate a whole class discussion at the end of the group work. Emphasize that Essential Questions cross multiple subject areas or several topics in a subject. Encourage participants to expand the possible unit ideas that can relate to a single Essential Question.

Participants will complete independent work during Step 2 and come back together for sharing in Step 3.

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** (DOC; 2 pages) in the **Resources** tab > **Collaboration** link.

In this step, you work collaboratively on an online spreadsheet created with several practice Curriculum-Framing Questions. Working in small groups, you enter your ideas on the spreadsheet and view what other groups are thinking at the same time.

1. 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 ID and password in your Login Information document saved in your **Course Resources** folder. Add the site address to your **My Links** section on the **Home** tab.
 - 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.
2. As a whole group, discuss the first row in the spreadsheet.
3. 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 additional sets of questions and fill in the blanks with your own questions.

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

When you are ready, proceed to **Step 2**.

Module 2: Planning My Unit

Activity 2: Developing Curriculum-Framing Questions to Engage Students

Step 2: Drafting My Curriculum-Framing Questions

Facilitator Corner

Curriculum-Framing Questions are a challenge to create and usually require many revisions. Some teachers find writing their CFQs 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 unit(s) 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, review the following resources in the **Resources** tab > **CFQs** link:

- **Tips for Writing Curriculum-Framing Questions** (DOC; 2 pages)
- **Sample CFQs** (DOC; 12 pages)
- **Big Idea Words** (DOC; 1 page)

Facilitation Tip

Based on personal preferences, participants may begin with either big ideas or content-specific ideas when writing their CFQs. Be sure participants understand they have a choice.

Although participants are working independently throughout this step, walk around the room while they work to monitor their progress and help if necessary. Tell participants that during this activity they do not need to use the communication features of the online course but can instead ask you questions directly.

1. Review your standards and objectives.
2. Write a first draft of your Curriculum-Framing Questions in your Unit Plan.

Note: If you want a more structured step-by-step process for writing your questions, use the **Writing Curriculum-Framing Questions** (DOC; 3 pages) document in the **Resources** tab > **CFQs** link.

3. Using the Curriculum-Framing Questions section of the **Unit Plan Checklist** (DOC; 2 pages), review the draft of your questions. For future reference, the Unit Plan Checklist can be found in the **Resources** tab > **Assessment** link.
4. Revise your questions, if necessary.

Note: The **Unit Plan Checklist** 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.

When you are ready, proceed to **Step 3**.

Module 2: Planning My Unit

Activity 2: Developing Curriculum-Framing Questions to Engage Students

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.

Facilitation Tip

Make sure the groups are different from previous groupings.

2. Use the **Curriculum-Framing Questions Rubric** (DOC; 2 pages) as you provide feedback to each other on your questions.
3. Take notes on the ideas provided by your colleagues in your **Notebook**.
4. If needed, revise your Curriculum-Framing Questions based on the feedback.

Facilitation Tip

Participants will work independently during Activity 3: Consider Assessment. However, give participants the option of working together on the activity if they choose.
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Congratulations! You completed this activity. Please check the **Activity** box and click the **Submit** button before moving on to the next activity.

When you are ready, proceed to **Consider Assessment**.

Module 2: Planning My Unit

Activity 3: Considering Multiple Methods of Assessment

Facilitator Corner

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:

- In Step 1 you review different methods of assessment and think about how you will incorporate assessment strategies into your unit.
- In Step 2 you draft an assessment timeline to illustrate how you will use assessment throughout your unit.

Note: You might find that discussing ideas with a partner is helpful as you review assessment strategies. If you work with a partner during this activity, you should each use your own workspace to complete the entries and products.

When you are ready, proceed to **Step 1**.

Module 2: Planning My Unit

Activity 3: Considering Multiple Methods of Assessment

Step 1: Exploring Formative and Summative Assessments

Facilitator Corner

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.

1. Read **Assessment for Project-Based Learning** (DOC; 1 page) found in the **Resources** tab > **Assessment** link, 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 your **Course Resources** folder.
Word Processing 11.3: To use comments to review a document
Word Processing 11.4: To use highlighting to review a document
2. When you plan for assessment in your unit, you should include both formative and summative assessments for each of five purposes:

	Purpose of Assessment
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. Each purpose of assessment is featured in the Intel® Education **Assessing Projects** resource. Read about each purpose, review the different assessment strategies to achieve each purpose, and then think about how you can use the strategies in your unit.
 - a. Visit each link in the Planning Assessment Strategies Notebook below and tag or bookmark the Web pages. As you review the five assessment purposes, keep the following questions in mind:
 - 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 method and instruments?
 - What do I do with the results?
- b. As you consider assessment strategies for your unit, use the information in the *Assessing Projects* resource to help you brainstorm answers to the questions in the Notebook below. Use the Notebook or your tagging site to record your answers. Click **Submit** below the Notebook when you finish. You revisit these questions later in the module.

Facilitation Tip

Lead the whole group to the *Assessing Projects* site and go over the structure of the Assessment Strategies section. Emphasize the many links to examples of assessment strategies in each of the five purposes.

If participants want to discuss the questions with a partner or a small group before filling in their own Notebook, allow them to do so.

Notebook: Planning Assessment Strategies

Gauging Student Needs

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

Monitoring Progress

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

When you are ready, proceed to **Step 2**.

Module 2: Planning My Unit

Activity 3: Considering Multiple Methods of Assessment
Step 2: Drafting an Assessment Timeline

Facilitator Corner

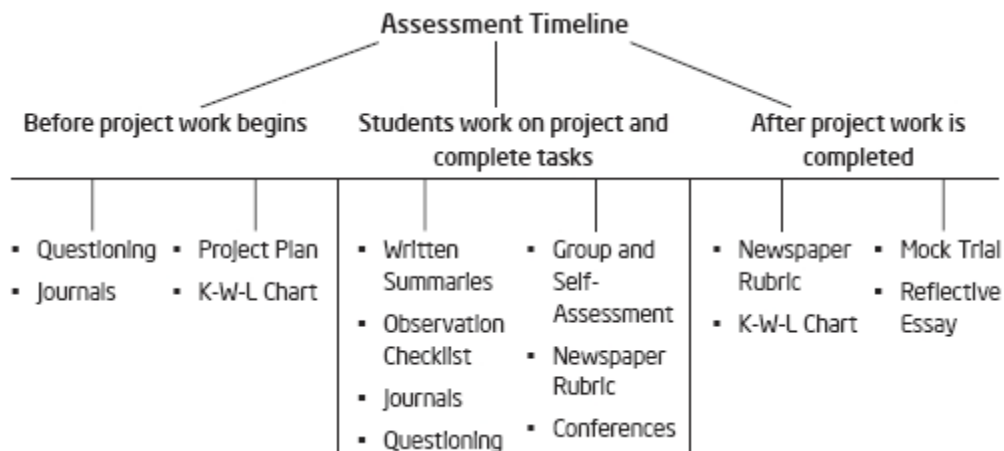
Thorough and accurate assessment is critical for effective instruction. An assessment plan assures that a project stays focused on learning goals, and it should be developed before determining the project activities and tasks. In this step, you begin to create an Assessment Plan for your unit.

The Assessment Plan section in your Unit Plan Template consists of an assessment summary and an assessment timeline. 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

An effective assessment plan is developed before determining the project activities and tasks.

In this step, you create the Assessment Timeline 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:



1. Draft your Assessment Timeline in your Unit Plan. Refer to the planning you completed in the last step to complete your timeline. At this point, your timeline simply reflects your initial assessment ideas. You will have additional time in later modules to complete and revise your Assessment Plan.

2. Be sure to include assessment strategies for all five purposes.

Facilitation Tip
When providing feedback on participants' timelines, do not expect details on the purposes for each assessment at this point, but do look for a variety of assessments both before and during the project.

Congratulations! You completed this activity. Please check the **Activity** box and click the **Submit** button before moving on to the next activity.

When you are ready, proceed to **Create Assessment**.

Module 2: Planning My Unit

Activity 4: Creating an Assessment to Gauge Student Needs

Facilitator Corner

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.

In this activity, you complete three steps:

- In Step 1, you explore different ideas for tapping students' prior knowledge and introducing Curriculum-Framing Questions to your students.
- In Step 2, you plan an assessment to help you gauge student needs at the beginning of your unit.
- In Step 3, you create an assessment and use the Gauging Student Needs Checklist to self-assess the assessment.

When you are ready, proceed to **Step 1**.

Facilitation Tip

Facilitate Step 1 and then ask participants to work independently during the remaining steps of the activity unless they are collaborating on a unit. Step 2 includes a partner discussion and Step 4 has a group discussion, so decide ahead of time how to create those groupings.

Module 2: Planning My Unit

Activity 4: Creating an Assessment to Gauge Student 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 **Notebook** entries about the strategies you are considering for gauging student readiness.
2. Explore the **sample assessments to gauge student needs** in the **Resources** tab > **Assessment** > **Gauging Needs** link. If you want to take notes, open another window to review the samples while you enter your notes in your **Notebook**.

Facilitation Tip

Explain that the purpose of this activity is twofold:

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

Optional Resources

Go to any of the following resources as needed for ideas or content to use in your assessment:

- Go to the Intel® Education ***Designing Effective Projects*** resource for information on **tapping prior knowledge**. Review the information and examples about ways to assess and tap into students' prior knowledge. Take notes in your **Notebook**.
- Go to the ***Designing Effective Projects*** resource for information on **Curriculum-Framing Questions**. Review ways to use and introduce Curriculum-Framing Questions with your students. Take notes in your **Notebook**.
- If you would like, return to the tagged or bookmarked Intel® Education ***Assessing Projects*** resource to review the **Gauging Student Needs** section in more detail. Note ideas for gauging student needs that you can use in your assessment in your **Notebook**.

When you are ready, proceed to **Step 2**.

Module 2: Planning My Unit

Activity 4: Creating an Assessment to Gauge Student Needs
Step 2: Planning My Assessment

Facilitator Corner

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.

Facilitation Tip

Create small groups of 3 or 4 participants so they can discuss initial plans and purposes for their assessments. You may want to use **the Spreadsheet for Creating Groups** (XLS; 1 worksheet) which is available in the **Resources** tab > **Facilitation** > **Facilitation Materials** link or let participants choose someone near them for this discussion.

In small groups, discuss the following questions. As needed, take notes in your **Notebook**.

- What kinds 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?

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

Use the planning area in your **Notebook** to help you think through the content of your gauging student needs assessment and the methods to use.

1:1 Tip: Collecting detailed information about prior knowledge from individual students is possible in a one-to-one computing classroom. Students can answer questions electronically and submit them to the teacher or respond to online surveys.

When you are ready, proceed to **Step 3**.

Module 2: Planning My Unit

Activity 4: Creating an Assessment to Gauge Student Needs

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.

Help Guide: 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.
Word Processing Groups 1 through 12
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.
Word Processing Group 7: Working with Tables
 - Create a graphic organizer.
Word Processing Group 9: Working with Diagrams
 - Create a chart or graph.
Word Processing Group 8: Working with Charts and Graphs
 - Add headers and footers. Place text such as titles, dates, and page numbers on the top and bottom of every page of a document.
Word Processing Skill 6.16: To add repeated information at the top and bottom of your pages, or to add headers and footers
 - Change page settings. You can make changes to the margin settings as well as paper size, layout, and styles.
Word Processing Group 6: Designing Your Pages
 - 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.
Word Processing Skill 10.11: To check the spelling in a document
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.
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** (DOC; 1 page) in the **Resources** tab > **Assessment** link to review your assessment.

7. Revise your assessment, if necessary, based on this self-assessment.

Congratulations! You completed this activity. Please check the **Activity** box and click the **Submit** button before moving on to the next activity.

When you are ready, proceed to **Create Presentation**.

Module 2: Planning My Unit

Activity 5: Creating a Presentation about My Unit

Facilitator Corner

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.

In the Module 3 Pair and Share: Presenting My Unit Portfolio, you share your Unit Portfolio Presentation along with your assessment to gauge student needs.

In this activity, you complete five steps:

- In Step 1, you plan your presentation, write a draft of your Unit Summary, and review sample Unit Portfolio Presentations.
- In Step 2, you create an outline for your presentation.
- In Step 3, you add basic features to your presentation.
- In Step 4, you enhance your presentation by incorporating additional design features.
- In Step 5, you upload your presentation to the **Sharing** tab in preparation for sharing in Module 3.

When you are ready, proceed to **Step 1**.

Facilitation Tip

Explain to participants that the purpose of this activity is twofold:

- To understand the benefits of using presentation software so that they can choose the most appropriate tool when they create the student sample.
- To create a presentation that includes the work they have completed on their unit. Participants present this work to their colleagues that teach a similar grade or subject and receive feedback during the upcoming module. Based on the feedback, they revise their work.

Facilitate the next step by reviewing a sample Unit Portfolio Presentation with participants. Then allow participants to work independently for the remaining steps of the activity. Be prepared to help participants embed their assessments into their presentations and to upload their presentations to the **Sharing** tab if necessary.

Module 2: Planning My Unit

Activity 5: Creating a Presentation about My Unit

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 **Resources** tab > **Unit Portfolios** > **Sample Presentations** link. If you want to take notes, you may find it helpful to open another window to review the examples and enter your notes in your **Notebook**.

Facilitation Tip

Select a sample presentation to demonstrate. Review the key requirements from each slide and explain the components of the Unit Summary in detail, pointing out how the presentation provides a thoughtful overview of the unit and what the teacher hopes to accomplish through its development.

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 **Notebook** entry from Module 1 where you set your learning goals.
 - How will project-based approaches, ongoing assessment, and Curriculum-Framing Questions help your students meet 21st century learning goals?
4. If desired, take notes in your **Notebook**.

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

When you are ready, proceed to **Step 2**.

Module 2: Planning My Unit

Activity 5: Creating a Presentation about My Unit

Step 2: Creating an Outline

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.

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.

Facilitation Tip
Emphasize that effective multimedia presentations condense ideas that are elaborated on in oral presentations.

Help Guide: Use the Intel® Education *Help Guide* if you need assistance in completing any technology skills identified below.

1. Start the presentation software.
Multimedia Skill 1.1: To start multimedia software
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.
Multimedia Skill 1.6: To customize toolbars and menus

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.
Multimedia Skill 2.2: To switch to and work in Outline format/view

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
- Multimedia Group 3: Building Presentations

5. Save your presentation frequently in your **Portfolio** folder.
Multimedia Skill 1.9: To save a presentation

6. When you finish outlining your presentation, work in the slide view of your presentation so that you can change the look of your slides.
Multimedia Skill 2.3: To switch to and work in Slides format/view

When you are ready, proceed to **Step 3**.

Module 2: Planning My Unit

Activity 5: Creating a Presentation about My Unit

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.

Help Guide: Use the Intel® Education *Help Guide* if you need assistance in completing any technology skills identified below.

Facilitation Tip

Remind participants to embed the gauging student needs assessment and set the document to open from the presentation. The document will not open when in slideshow mode if participants 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.
Multimedia Skill 1.7: To change the Task Pane
2. Add a design template or change the existing design.
Multimedia Skill 4.1: To pick and use a design template
3. Change the color scheme, if desired.
Multimedia Skill 4.2: To pick and use a color scheme
4. Change the layout of your text and other slide elements, if needed, to better communicate your ideas.
Multimedia Skill 4.4: To change a slide's current layout
5. Embed your gauging student needs assessment into the appropriate slide and set the document to open from your presentation.
Multimedia Skill 7.11: To add a file to a slide
Multimedia Skill 7.12: To open a file from a slideshow

Note: For more information about embedding and hyperlinking files read **Embedding and Hyperlinking Files** (DOC; 1 page) in the **Resources** tab > **Unit Portfolios** link.

6. Insert pictures to support your content.
Multimedia Group 6: Adding Pictures and Artistic Effects
 - 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.
Graphics Skill 3.16: To copy and save a picture from the Web
 - You may also want to compress images to help keep your file sizes small.
Multimedia Skill 6.8: To compress a picture to keep the file size small

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.
Multimedia Group 8: Adding Animation and Special Effects
8. Change the slide order if you need to re-sort the slides in your presentation to enhance the flow of your message.
Multimedia Skill 3.4: To put slides in order
9. Save your presentation frequently in your **Portfolio** folder.

When you are ready, proceed to **Step 4**.

Module 2: Planning My Unit

Activity 5: Creating a Presentation about My Unit

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.

Help Guide: Use the Intel® Education *Help Guide* if you need assistance in completing any technology skills identified below.

1. Add a hyperlink to a file or a Web site.
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
2. Insert a table to organize information.
Multimedia Skill 5.10: To add or insert a table into a slide
3. Insert a chart or graph to visually display data.
Multimedia Skill 5.12: To add or insert a chart into a slide
4. Insert a sound or movie clip that you have saved from the Web.
Multimedia Group 7: Adding Sounds, Movies, and Links
Web Technologies Group 2: Finding and Saving Web Resources with Mozilla Firefox*, OR
Web Technologies Group 4: Finding and Saving Web Resources with Internet Explorer*, OR
Web Technologies Group 6: Finding and Saving Web Resources with Safari*

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.

When you are ready, proceed to **Step 5**.

Module 2: Planning My Unit

Activity 5: Creating a Presentation about My Unit

Step 5: Uploading to the Sharing Tab

You will share your Unit Portfolio Presentation and the embedded gauging student needs assessment with a small group of colleagues during the Module 3 Pair and Share: Presenting My Unit Portfolio. In this step, you create a sharing discussion thread in preparation for the activity.

Facilitation Tip

You will need to guide your participants through the following steps as a whole group, and you should walk around to ensure they have set up the thread correctly.

Working in the Sharing Tab

1. Read the **Directions for Module 2: Posting Unit Portfolio Presentations** for detailed instructions on how to post to the **Sharing** tab. This document is also available in the **Resources** tab > **About This Course** link.
2. Go to the **Sharing** tab and set up your sharing discussion thread. Follow your facilitator's guided instructions if you need help setting up your thread.
3. Create a reply to your sharing discussion thread titled **Module 3: Pair and Share**. Provide a brief overview of what you will share during the activity. You may also want to specify the kind of feedback you would like on your work.
4. Attach or link your Unit Portfolio Presentation with the embedded gauging student needs assessment to your **Module 3: Pair and Share** discussion thread.
5. Click **Submit**.

Note: You have only 30 minutes to edit your message after you first post it, so remember to check your postings carefully.

Congratulations! You completed this activity. Please check the **Activity** box and click the **Submit** button before moving on to the next activity.

When you are ready, proceed to **Pedagogical Practices**.

Module 2: Planning My Unit

Activity 6: Pedagogical Practices: Meeting Standards in a Student-Centered Classroom

Facilitator Corner

During pedagogical practices activities, you share ideas and strategies for teaching in a student-centered, project-based classroom. The Pedagogical Practices discussions take place throughout the course and focus on key topics from each module.

During this pedagogical practices activity, you discuss your concerns and possible solutions for meeting standards in a student-centered classroom using the course wiki.

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 would like more information about the use of wikis in education, read **Web-based Collaborative Learning** (DOC; 2 pages) and other wiki resources in the collaboration **Related Web Links** in the **Resources** tab > **Collaboration** link.

As you thought about how to incorporate projects into your unit, you identified standards and Curriculum-Framing Questions to help focus student learning. You may have concerns about how you can effectively meet standards in a project-based, student-centered classroom where students construct much of their own knowledge rather than receive information and instruction only from the teacher. When moving to a student-centered classroom, students still need to do well on standardized tests and truly meet the learning objectives and standards. Other practical concerns that deal with accountability and time constraints must also be answered.

Facilitation Tip

Divide participants into three groups and assign each group one of the questions on the wiki.

You will need to review the wiki pages before the activity. Be prepared to help participants use the features of the course wiki. Point out the animated demonstration linked from the Wiki Help page that describes basic steps for using the wiki.

Let participants know that if they save their wiki page and try to go back to edit it too quickly, they might receive a message stating that they are still editing the page. To edit the page, they need to click off the page and then return after a few seconds.

Explain to participants that the purpose of this activity is twofold:

- To create a common space to share ideas as participants progress through the course
- To understand the benefits of using wikis so participants can choose the most appropriate tool when they create their student samples

However, let participants know that the course wiki is internal to the Essentials Course and cannot be used externally, such as with students. Participants are given the opportunity to explore public-facing wikis that they may want to use with students.

Participants are divided into three groups for this activity. Ideas for how to create sharing groups for your own classroom are available in the **Resources** tab > **Facilitation** > **Facilitation Materials** link.

1. Get into your assigned groups. Note the question assigned to your group:
 - a. How do I ensure that students meet standards—and meet enough of them to make the effort worthwhile—in open-ended activities and projects?
 - b. If students are in charge of their own learning, how will we be sure they learn what is important?
 - c. How do I ensure accountability when students are working in groups?
2. Go to the Essentials **Course Wiki** tab at the top of the course page.
3. Click the **Module 2 Pedagogical Practice** link on the wiki menu and read the directions.
4. Designate one person to create the wiki page and record your group's ideas.

Note: Review the **Wiki Help** page and remember to use it if you need help at any time using the course wiki.

5. Discuss and enter your group's concerns and possible solutions in the table.

Note: When working with 'Web 2.0' resources, you may want to type your ideas in an offline word processing document and then copy and paste them into the online environment when you are finished—especially if your Internet connection is intermittent.

6. Save your wiki page when your discussion is finished.
7. Review the other groups' pages and add to their lists of solutions.

Facilitation Tip

The next two activities, Reflect on Learning and Wrap-Up, should be completed independently. Then, bring participants back together to introduce Module 3: Making

Connections or the optional Planning Ahead activity.

Congratulations! You completed this activity. Please check the **Activity** box and click the **Submit** button before moving on to the next activity.

When you are ready, proceed to **Reflect on Learning**.

Module 2: Planning My Unit

Activity 7: Reflecting on My Learning

Facilitator Corner

In this activity, first review the guiding questions and key points for this module. Then, in the course blog, reflect on how the focus of this module has made you think differently about planning your unit.

Review the guiding questions and key points for **Module 2: Planning My Unit** and think about the ideas and materials you have created that can be used in your classroom, instruction, or planning.

Module Questions

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

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.

When you are ready, proceed to **Step 1**.

Module 2: Planning My Unit

Activity 7: Reflecting on My Learning

Step 1: Blogging My Journey

Use your personal blog in the course blog to reflect on your learning and interact with your facilitator and colleagues about issues related to the course. Reply to your colleagues' entries to extend and enhance these important conversations.

1. Find the blog site address in your **My Links** section on the **Home** tab or in your tagged or bookmarked site.
2. 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:

3. 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 personal blog. An alternate method of ensuring you do not lose your work is to copy your blog entry into the temporary clipboard before you click **Submit**.

Word Processing Skill 2.6: To copy words or text

Facilitation Tip

Review the blog entries, paying particular attention to any participant concerns that arise. Offer suggestions yourself or recommend participants ask their colleagues for help in addressing issues or concerns. Remind participants that they have many options for communicating with their colleagues, including:

- Teachers' Lounge discussion forum
- Chat room
- Message
- E-mail

Congratulations! You completed this activity. Please check the **Activity** box and click the **Submit** button before moving on to the next activity.

When you are ready, proceed to **Wrap-Up**.

Module 2: Planning My Unit
Wrap-Up

Facilitator Corner

Congratulations! You completed **Module 2: Planning My Unit**. Before you move on to the next module:

1. Complete the **End of Module Survey**. Click the **Submit** button when finished.
2. Go to the **Course Progress** checklist. Review the appropriate boxes in the checklist to ensure they are checked for the Module 2 activities you completed. If you make any changes, click the **Submit** button at the bottom of the page.

Remember to post your thoughts, queries, and comments in the Teachers' Lounge discussion forum or in your personal blog at any time.

Facilitation Tip

Review class surveys for completion before you provide your own feedback on the module. Also remember to check for Teachers' Lounge discussions and blog entries related to this module.

Review participant's objectives and provide feedback if necessary.

When you are ready, proceed to **M3: Making Connections** or the optional activities in **Plan Ahead**.

Module 2: Planning My Unit
Planning Ahead (Optional)

Facilitator Corner

In this activity, you complete two steps:

- In the Step 1, you further explore Essential Questions and think about your own Essential Question in more depth.
- In the Step 2, you refine your standards and objectives.

When you are ready, proceed to **Step 1**.

Module 2: Planning My Unit

Planning Ahead (Optional)

Step 1: Creating Project Ideas for an Essential Question

Facilitator Corner

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.

1. In the Creating Project Ideas table in your **Notebook**, an Essential Question has been created for each unit described in the middle column. Since Essential Questions by design cross units and subject areas, discuss creating other project ideas that address the same Essential Question. Some examples are provided for you.
 - a. Read the following four unit descriptions and the corresponding Essential Questions.
 - b. Choose one Essential Question based on your group's interests.
 - c. In the column on the right, brainstorm other student project ideas that connect to that same Essential Question.
2. Record you group ideas in your **Notebook**.

Revising My Essential Question

1. Consider ways that you could broaden your Essential Question without weakening its impact.

Optional: You may want to review the rubric, additional examples, and information on Curriculum-Framing Questions, which are available in the **Resources** tab > **CFQs** link.
2. If you choose to revise your Essential Question, edit your Essential Question on your Unit Plan.

When you are ready, proceed to **Step 2**.

Module 2: Planning My Unit

Planning Ahead (Optional)

Step 2: Reviewing My Standards and Objectives

Now that you have refined the ideas for your unit, written Curriculum-Framing Questions, and thought about your assessment strategies, review the standards you chose and refine the list to those you want to specifically target. Then, look at your objectives and revise them as necessary.

1. Review the **Standards and Objectives Rubric** (DOC; 1 page) in the **Resources** tab > **Assessment** link or use the paper copy in your folder.
2. Review your standards and refine the list, identifying the standards that are truly targeted in your unit, not just touched on. When your standards are finalized for your Unit Plan, you should include only the standards that you intend to:
 - Assess
 - Address in the Instructional Procedures section of your Unit Plan
 - Have students meet by the end of your unit

Note: You will have an additional opportunity to refine your standards after you test your unit ideas and create your student sample in Module 4.

3. Consider refining your objectives based on the revision of your standards and your review of the Standards and Objectives Rubric.

Congratulations! You completed this activity. Please check the **Activity** box and click the **Submit** button before moving on to the next module.

When you are ready, proceed to **M3: Making Connections**.