



Intel[®] Teach Program

MT 2.0 Update

March, 2008

*Note: Version 2.0 was released in 2006.
This update is for reviewing changes
between version 1.0 and 2.0.
Version 2.5 was released March 2008.*

Welcome: MT Workshop 2.0 Updates

This printed guide is designed to give you an overview of the curriculum enhancements for the Intel® Teach Program Thinking with Technology Course, edition 2.0 for Master Teachers. This version was released in 2006. Please note: There is now a version 2.5. This document orients you to the changes implemented in the previous version 2.0.

MT Training Tips for Moving to a New Edition

The following tips will help you plan for your next training:

- As you review the curriculum revisions, review your notes in your previous curriculum manual and transfer your notes to your new manual.
- Before you conduct your next training, remember to review the entire curriculum and the [new presentation materials](#).
- If teachers are building projects for their unit plan, they should build directly in the Unit Plan Template.
- If teachers are creating project ideas for different units or areas of study, direct them to use the Project Idea Template.

Getting Started

1. Begin this update by reading **General Overview of Revisions** to get a high-level understanding of the workshop enhancements.
2. Review the overview for each module.

Table of Contents

General Overview of Revisions	3
Module 1: Targeting Thinking in the Classroom	6
Module 2: Designing Standards-Based Projects	8
Module 3: Creating Curriculum-Framing Questions to Support Thinking Skills	9
Module 4: Planning Student-Centered Assessment.....	10
Module 5: Considering the Visual Ranking Tool for Your Unit	11
Module 6: Using the Seeing Reason Tool to Target Thinking Skills.....	12
Module 7: Considering the Seeing Reason Tool for Your Unit	13
Module 8: Using the Showing Evidence Tool to Target Thinking Skills	13
Module 9: Considering the Showing Evidence Tool for Your Unit.....	14
Module 10: Completing Your Unit	15

General Overview of Revisions

Workshop on Teaching Thinking with Technology

Curriculum Edition 2.0

Overall:

- Revised the unit planning process. Teachers build their unit plan throughout all modules, testing ideas out using the thinking tools and refining their unit's use of the tool(s) in Module 10
- Restructured the first four modules to build a strong unit foundation based on: higher-order thinking skills, standards-based project design, Curriculum-Framing Questions, and assessment
- Added instructions for a new Web site feature, a project set up wizard, which will create an existing thinking tool unit plan or project idea in the Teacher Workspace. The project description, prompt and any other student workspace detail is automatically setup for the teacher.
- Updated instructions for creating teams using the project wizard
- Updated screenshots and tool instructions
- Updated the format and design of the curriculum manual

Introduction and Overview Pages:

- Moved information about the general content and purpose of the workshop to the overview pages so that Module 1 starts with introducing yourself
- Added a brief demonstration and review of all the thinking tools
- Revised the house image that represents both the workshop modules and the building of the unit

Module 1: Targeting Thinking in the Classroom

- Changed the activity using Bloom's Taxonomy to an interactive activity that requires teachers to work together to solve a problem, and then identify the thinking skills involved in that process
- Modified the Marzano's Dimensions of Learning activity to use the River City Water project idea for reviewing thinking skills
- Added the downloading and reviewing of the Unit Plan Template

Module 2: Designing Standards-Based Projects

- Switched the order of Modules 2 and 3: project design is in Module 2 and creating Curriculum-Framing Questions is in Module 3
- Moved the searching of content standards from Module 9 to this module
- Removed the Visual Ranking activity on project characteristics
- Added time to review some unit plans and project ideas that incorporate the use of the thinking tools
- Added information about the strengths of each tool to help teachers identify the appropriate tool to use for
- targeting the identified thinking skills and standards in their unit

Module 3: Creating Curriculum-Framing Questions to Support Thinking Skills

- Added a ranking activity using the Visual Ranking Tool to rank the questions according to their potential for generating deeper thinking in the classroom. Questions are based on the River City Water project idea.

- Re-emphasized the connection of higher-order thinking skills and standards with the development of Curriculum-Framing Questions

Module 4: Planning Student-Centered Assessment

- Added new content to the assessment planning activity, incorporating some of the content from Modules 3 and 9
- Added an activity using the Showing Evidence Tool to help teachers analyze possible assessment strategies and methods that they may want to include in their assessment plan
- Removed the Showing Evidence activity that had teachers evaluate the use of projects in the classroom
- Added discussion time for teachers to share and receive feedback on their unit ideas
- Moved the introduction of Visual Ranking to the end of this module

Module 5: Considering the Visual Ranking Tool for Your Unit

- Added content on reviewing the needs of one's unit (standards, Curriculum-Framing Questions, objectives, higher-order thinking skills) in light of the strengths of Visual Ranking
- Added instructions for using the project wizard to duplicate a Visual Ranking unit or project idea in one's own Teacher Workspace by copying the description, prompt, and sample sorting list
- Revised the former module 4 to include testing the use of Visual Ranking for one's unit
- Added a reflection and discussion activity to evaluate the use of Visual Ranking for one's unit

Module 6: Using the Seeing Reason Tool to Target Thinking Skills

- Added instructions for using the project wizard to duplicate a Seeing Reason unit or project idea in one's own Teacher Workspace by copying the description, prompt, and research question
- Revised the former module 5 to add content on reviewing the needs of one's unit (standards, Curriculum-Framing Questions, objectives, higher-order thinking skills) in light of the strengths of Seeing Reason

Module 7: Considering the Seeing Reason Tool for Your Unit

- Revised the former Module 6 to include testing out the use of Seeing Reason for one's unit
- Added a reflection and discussion activity to evaluate the use of Seeing Reason for one's unit

Module 8: Using the Showing Evidence Tool to Target Thinking Skills

- Added instructions for using the project wizard to duplicate a Showing Evidence unit or project idea in one's own Teacher Workspace by copying the description, prompt, and any teacher-created evidence or claims
- Updated instructions for creating teams and reviewing teams
- Revised the former module 7 to add content on reviewing the needs of one's unit (standards, Curriculum-Framing Questions, objectives, higher-order thinking skills) in light of the strengths of Showing Evidence

Module 9: Considering the Showing Evidence Tool for Your Unit

- Revised the former module 8 to include testing out the use of Showing Evidence for one's unit

- Added a reflection and discussion activity to evaluate the use of Showing Evidence for one's unit

Module 10: Completing Your Unit

- Added information about common assessments that are used in a project approach to learning
- Revised the activity for reviewing assessment methods to include the review of Assessment Plans and assessments that target 21st century skills available in the new online Assessing Projects resource
- Added and revised prompts and planning areas for assessing 21st century skills, products/performances, and higher-order skills
- Added directions on formatting a document and creating tables for the creation of assessments

Appendix:

- Added a K-3 unit plan that incorporates all three thinking tools
- Added 12 new project ideas (five K-3, three foreign language, four math)
- Added a project idea, River City Water, and updated the other unit plans
- Added Assessment Plan examples and online assessment resources

MT Appendix:

- Added information about university credit
- Updated instructions for setting up projects with the project wizard for Participant Teacher workshops

Workshop File Sites:

- Participant Teacher download site (www.inteleducation.com/teachingthinking/ptfiles)
 - Updated all documents to match curriculum
- Master Teacher download site (www.inteleducation.com/teachingthinking/mtfiles)
 - Updated presentations
 - Updated agenda timings and content

Module 1: Targeting Thinking in the Classroom

Exploring the Curriculum Enhancements

In this section, you dig into Module 1's new and significantly revised activities. Note: The page numbers reference the edition 2.0 manual.

Activity 4: Applying Different Models of Thinking—1.06

- 21st century skills are still addressed in this activity; however, Participant Teachers no longer do the paper ranking activity.
- Step 1: Read the new activity Applying Bloom's Taxonomy of Thinking Skills. This activity is designed to help you use Bloom's Taxonomy to analyze the thinking processes involved in problem solving.
 - The Glass is Half Full Problem (pages 1.08–1.10).
 - Try this problem with a small group of educators or students before conducting this activity in your workshop.
- Step 2: Read Applying Marzano's Dimensions of Learning.
 - Visit http://educate.intel.com/en/ThinkingTools/VisualRanking/ProjectExamples/ProjectIdeas/VR_ProjectIdeas6.htm and read River City Water a Visual Ranking Tool Project Idea (starting on page 1.13).
- Answer reflection questions on pages 1.14–1.15.

Activity 6: Reviewing the Unit Plan Template—1.20

- Starting with Module 1, teachers begin to think about their unit plans. Throughout the modules you will:
 - Build the foundation of your unit (by determining your targeted thinking skills, standards, priorities for project design, Curriculum-Framing Questions, and Assessment Plan).
 - Try the thinking tools to see how well they fit and support your unit's goals and objectives.
 - Finalize your plans for tool use, unit activities, and implementation.
- Explore the revised Unit Plan Template on pages 1.21–1.25. Note the revised sections of the Unit Plan Template:
 - Revised description of Habits of Learning Taxonomy
 - Revised description of Content Question
 - Added Student Assessment Plan
- Review the unit plan you created when you completed the 40-hour workshop. As you review the enhanced curriculum, you may want to adapt/revise your unit plan to meet the needs of the new template.

The following activities have been modified slightly (or not at all). Review the changes for these activities to become familiar with the material.

- **Activity 1: Introducing Yourself—1.01**
- **Activity 2: Taking a Look into Two Classrooms—1.02**
 - Moved forward in the workshop to get Participant Teachers to start thinking about what thinking looks like earlier in the workshop.
 - No significant changes in the activity itself.
- **Activity 3: Reflecting on Your Own Classroom—1.05**
 - Moved forward in the workshop to engage Participant Teachers to reflect on thinking in their classrooms.
 - No significant changes in the activity itself.
- **Activity 5: Creating Your Own “Habits of Learning Taxonomy”—1.18**
- **Activity 7: Supporting Deeper Thinking—1.26**

Module 2: Designing Standards-Based Projects

Exploring the Curriculum Enhancements

In this section, you dig deeper into Module 2's new and significantly revised activities. Note: The page numbers reference the edition 2.0 manual.

Activity 1: Identifying Standards and Learning Objectives—2.01

- Teachers dive into thinking about designing technology-supported projects by looking at the standards that may be supported by the thinking tools.
- The chart in Step 3 provides key words for each of the thinking tools.
- As the standards are used to create the learning objectives, a clear picture of the direction of the unit topic should begin to take shape.
- This activity supports the idea of building a unit plan from the beginning of the workshop.

Activity 2: Exploring Project Design—2.08

- Explore sample units and project ideas related to the three thinking tools.
- Get a sense of the types of projects that are possible with these tools. Note the difference between the unit plans and project ideas.
- The following three uses of the tools are highlighted in project examples:
 - Visual Ranking Tool used in the unit plan **Mystery Elements**, <http://educate.intel.com/en/ThinkingTools/VisualRanking/ProjectExamples/UnitPlans/MysteryElements/>
 - Seeing Reason Tool used in the project idea **Habitat Conflict**, http://educate.intel.com/en/ThinkingTools/SeeingReason/ProjectExamples/ProjectIdeas/SR_Ideas1.htm
 - Showing Evidence Tool used in the project idea **Media Messages: The Effects of Advertising**, http://educate.intel.com/en/ThinkingTools/ShowingEvidence/ProjectExamples/ProjectIdeas/SE_ProjectIdeas6.htm
- Appendix D.03 provides additional unit plan project ideas for teachers to reference.
- Make sure teachers to have time to explore the various project ideas online and in the appendix to help them gain ideas for their own unit. This prepares teachers to consider and reflect on their project priorities in Step 4.

The following activities have been modified slightly (or not at all). Review the changes for these activities to become familiar with the material.

- **Activity 3: Considering a Project Idea for Your Unit—2.14**
- **Activity 4: Discussing Unit Ideas—2.19**
- **Activity 5: Supporting Deeper Thinking—2.20**

Module 3: Creating Curriculum-Framing Questions to Support Thinking Skills

Exploring the Curriculum Enhancements

In this section, you dig deeper into Module 3's new and significantly revised activities. Note: The page numbers reference the edition 2.0 manual.

Activity 1: Ranking Questions—3.01

- This is a new Visual Ranking Tool activity on questioning.
- Take a closer look at the River City Water Project Idea. Focus on the questions associated within the unit.
http://educate.intel.com/en/ThinkingTools/VisualRanking/ProjectExamples/ProjectIdeas/VR_ProjectIdeas6.htm
- Review the prompt and rank the questions on their potential to generate deeper thinking.

The following activities have been modified slightly (or not at all). Review the changes for these activities to become familiar with the material.

- **Activity 2: Asking Questions in the Classroom—3.04**
- **Activity 3: Developing Curriculum-Framing Questions—3.07**
- **Activity 4: Supporting Higher-Order Thinking Skills with Curriculum-Framing Questions—3.16**
- **Activity 5: Writing Your Own Curriculum-Framing Questions—3.18**
- **Activity 6: Sharing Your Curriculum-Framing Questions—3.22**
- **Activity 7: Supporting Deeper Thinking—3.23**

Module 4: Planning Student-Centered Assessment

Exploring the Curriculum Enhancements

The first three activities in Module 4 cover assessment, a topic that was previously part of Module 9. Bringing assessment forward in the workshop allows teachers to simultaneously build an assessment plan while they create their units.

In this section, you dig deeper into Module 4's new and significantly revised activities. Note: The page numbers reference the edition 2.0 manual.

Activity 1: Exploring an Assessment Plan—4.01

- Step 1: Discussing Methods of Assessment has some revised content and some content combined from other locations in the previous workshop.
 - Identify Assessment Methods on page 4.03 gives teachers purpose while reviewing the assessment methods and tools charts on pages 4.03–4.08.
 - Read Step 1 through page 4.03. Complete the Identify Assessment Methods activity by indicating your interest in or experiences with the assessment methods by filling the boxes with the appropriate symbols.
- Read Step 2: Taking a Look at Project Assessment Plans in Action.
- Step 3: Identify Assessments for Your Classroom on page 4.13 is a new activity.
 - Through this activity, teachers:
 - Think about trying new assessments in their classroom.
 - Identify an assessment method they have not tried before but are interested in exploring.
 - Are introduced to Activity 2.
 - Complete Step 3 by selecting an assessment method you are interested in exploring.

Activity 2: Using the Showing Evidence Tool to Analyze Assessment Plan Ideas—4.14

- Review the use of the Showing Evidence Tool.
 - MT Note: In the workshop, Participant Teachers should complete this activity in teams if they have similar claims.

Activity 3: Drafting an Outline for Your Assessment Plan—4.19

- The purpose of this activity is to have teachers outline the types of assessments they want to use in their Unit Plans. Teachers create their assessments in Module 10; this activity gets teachers started on their assessment plan outlines.
- The Assessment Timeline on page 4.20 offers a new way of organizing assessments throughout the unit.
- Explore the Assessment Plan section in the revised Unit Plan Template.
- Revisit the unit plan that you created in your workshop for Master Teachers.
 - Create a draft of your Assessment Plan using the new Unit Plan Template.

The following activities have been modified slightly (or not at all). Review the changes for these activities to become familiar with the material.

- **Activity 4: Introducing the Visual Ranking Tool—4.21**
- **Activity 5: Viewing Project Ideas—4.29**

Module 5: Considering the Visual Ranking Tool for Your Unit

Exploring the Curriculum Enhancements

In this section, you dig deeper into Module 5's new and significantly revised activities. Note: The page numbers reference the edition 2.0 manual.

Activity 1: Viewing Project Ideas—5.01

- Read the entire activity. This is a new activity where participants:
 - Revisit their "Habits of Learning Taxonomy."
 - Revisit the targeted standards for their unit plans and review the standards for Visual Ranking key words.
 - If teachers feel that the standards for their unit plans do not provide an opportunity to effectively use Visual Ranking, then they should build project ideas instead and not use the tool in their units. The project ideas illustrate effective uses of the tool related to standards for other units or areas of study.
 - View and discuss sample project ideas.

Activity 3: Setting Up the Teacher Workspace—5.11

- Step 3: Creating a Visual Ranking Project from an Existing Project is new. Follow the steps on 5.13 to use the Project Wizard to create an existing Visual Ranking project in your personal workspace.
- PRACTICE using the Project Wizard (page 5.13) by creating the Module 3 Visual Ranking project: Ranking Questions.
- **MT Note:** You will use the project wizard (<http://www.intel.com/education/WorkshopSetup/>) to set up the following four projects used in the workshop you conduct for Participant Teachers:
 - Module 2: Seeing Reason Project: Deeper Levels of Thinking
 - Module 3: Visual Ranking Project: Ranking Questions
 - Module 4: Visual Ranking Project: Growing a Business
 - Module 4: Showing Evidence Project: Analyzing Assessment Strategies

Activity 5: Revisiting Your Unit Plan—5.25

- New and revised material to help teachers implement and manage projects using Visual Ranking.

Activity 6: Discussing Your Results—5.29

- Discussion time is added to foster reflection on use of the Visual Ranking Tool.

The following activities have been modified slightly (or not at all). Review the changes for these activities to become familiar with the material.

- **Activity 2: Planning Your Project—5.07**
- **Activity 4: Trying Out a Visual Ranking Idea—5.19**
 - New activity name to encourage exploration and use of the Visual Ranking Tool.
 - Reflecting on the ranking activity is slightly different to promote recognizing and effective use of the tool.

Module 6: Using the Seeing Reason Tool to Target Thinking Skills

Exploring the Curriculum Enhancements

In this section, you dig deeper into Module 6's new and significantly revised activities. Note: The page numbers reference the edition 2.0 manual.

Activity 3: Viewing Project Ideas—6.14

- Activity name has been changed to better support the use of creating a project idea that effectively uses the Seeing Reason Tool.
- Read Step 1: Reviewing the Power of the Seeing Reason Tool
 - Reference to Costa and Kallick's Habits of Mind
 - Discussion of the strengths of Seeing Reason in supporting higher-order thinking
- Read Step 4: Thinking About Your Unit. Note the new brainstorming question.

Activity 4: Considering the Seeing Reason Tool for Your Unit—6.19

- Master Teacher—Read and highlight the entire activity. This is a new activity where participants:
 - Revisit their "Habits of Learning Taxonomy."
 - Revisit the targeted standards for their unit plans and review the standards for Seeing Reason key words.
 - If teachers feel that the standards for their unit plans do not provide an opportunity to effectively use Seeing Reason, then they should build project ideas instead and not use the tool in their units. The project ideas illustrate effective uses of the tool related to standards for other units or areas of study.
- View and discuss sample project ideas.

The following activities have been modified slightly (or not at all). Review the changes for these activities to become familiar with the material.

- **Activity 1: Looking at Seeing Reason in Action—6.01**
- **Activity 2: Digging Deeper into Cause and Effect—6.06**
- **Activity 5: Planning Your Project—6.25**

Module 7: Considering the Seeing Reason Tool for Your Unit

Exploring the Curriculum Enhancements

The following activities have been modified slightly (or not at all). Note: The page numbers reference the edition 2.0 manual.

- **Activity 1: Trying Out Your Seeing Reason Idea—7.01**
- **Activity 2: Sharing Causal Maps and Practicing Effective Questioning—7.06**
 - Minor revision in Step 3: Reflecting on Your Causal Map (page 7.09) to relate to the shift in focus from building project ideas to building a unit plan.
- **Activity 3: Revising Your Project—7.11**
- **Activity 4: Revisiting Your Unit Plan—7.15**
 - New and revised material to help teachers implement and manage projects using the Seeing Reason Tool.
- **Activity 5: Discussing Your Results—7.20**

Module 8: Using the Showing Evidence Tool to Target Thinking Skills

Exploring the Curriculum Enhancements

In this section, you dig deeper into Module 8's new and significantly revised activities. Note: The page numbers reference the edition 2.0 manual.

Activity 4: Considering the Showing Evidence Tool for Your Unit—8.26

- Read the entire activity. This is a new activity where participants:
 - Revisit their "Habits of Learning Taxonomy."
 - Revisit the targeted standards for their unit plan and review the standards for Showing Evidence key words.
 - If teachers feel that the standards for their unit plans do not provide an opportunity to effectively use Showing Evidence, then they should build project ideas instead and not use the tool in their units. The project ideas illustrate effective uses of the tool related to standards for other units or areas of study.
- View and share sample project ideas.

The following activities have been modified slightly (or not at all). Review the changes for these activities to become familiar with the material.

- **Activity 1: Looking at Showing Evidence in Action—8.01**
- **Activity 2: Digging Deeper into Argumentation—8.06**
- **Activity 3: Viewing Project Ideas—8.20**
- **Activity 5: Planning Your Project—8.31**

Module 9: Considering the Showing Evidence Tool for Your Unit

Exploring the Curriculum Enhancements

The following activities have been modified slightly (or not at all). Note: The page numbers reference the edition 2.0 manual.

- **Activity 1: Creating a Practice Case—9.01**
- **Activity 2: Reviewing Student Work—9.06**
- **Activity 3: Sharing Your Practice Case—9.07**
- **Activity 4: Revising Your Project—9.09**
- **Activity 5: Revisiting Your Unit Plan—9.11**
 - New and revised material to help teachers implement and manage projects using Showing Evidence.
- **Activity 6: Discussing Your Results—9.15**
 - Discussion time to foster reflection on the use of the Showing Evidence Tool.

Module 10: Completing Your Unit

Exploring the Curriculum Enhancements

In this section, you dig deeper into Module 10's new and significantly revised activities. Note: The page numbers reference the edition 2.0 manual.

Activity 1: Supporting Your Assessment Plan—10.01

- Review Step 1: Considering Documents that Will Support Your Assessment Plan. The assessments listed are introduced in Module 4. Revisit to determine what assessments are needed to support your unit plan.
- Read Step 2: Understanding the Types of Assessments on 10.03. There are many types of assessments. The focus is on the types of assessments used in a project-base learning environment.
- For Step 3: Reviewing Assessment Examples on 10.05, complete the following actions:
 - Preview any Assessment Plan or assessments found in the Project Examples of the Thinking Tools.
 - Explore Assessment Plans and assessments found within the Assessing Projects Web site - <http://www.intel.com/education/assessingprojects/>.

Activity 2: Creating an Assessment—10.07

- Review Step 1: Determining Your Assessment(s). Note the types of assessments that could support your unit, and identify how they will be used.
- Complete Step 2: Planning an Assessment on 10.09 in the workspace provided.
- The details and steps outlined in Step 3: Creating an Assessment with Microsoft Word* on 10.12, highlight features of Microsoft Word that can assist with creating an assessment. Create an electronic version of an assessment for your unit plan.

Activity 3: Finalizing Your Assessment Plan—10.14

- The questions starting on page 10.14 are provided to guide teachers through creating and editing the elements of their Assessment Plan.

The following activities have been modified slightly (or not at all).

Activity 4: Reflecting on Your Unit—10.18

- **Activity 5: Completing Your Unit Plan—10.17**
- **Activity 6: Showcasing Your Unit—10.21**
- **Activity 7: Reflecting on the Workshop—10.31**