Assessment for Learning Video Series

VIEWING GUIDE

A resource to support the implementation of *Growing Success: Assessment, Evaluation, and Reporting in Ontario Schools. First Edition, Covering Grades 1–12, 2010*

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Introduction

This viewing guide accompanies the video, *Planning Assessment with Instruction,* which shows teachers learning about planning assessment that is seamlessly integrated with instruction to produce a continuous flow of assessment information for teachers and students to use to improve learning, and implementing these practices with their students. The guide provides learning activities to facilitate reflection and discussion about planning assessment with instruction and to provide support for trying new practices. Although you can use this resource to learn independently, by learning collaboratively you and your teaching colleagues can provide one another with support and feedback throughout the learning process.

In this video, we are learning how to:

- plan assessment with instruction so that students will know what they are expected to learn and become more independent learners;
- design learning experiences for students that connect with the learning goals and result in quality evidence of student learning;
- integrate and connect the individual assessment *for* and assessment *as* learning practices that help to align assessment with instruction when planning and implementing a unit of instruction;
- design assessment with instruction to teach students to become responsible for their own learning.

Planning Your Professional Learning

a. Self-Assessment and Goal Setting

Before viewing the video, use the self-reflection tool, *Appendix A: Where Am I Now?*, to identify what you are already doing well and an area of assessment practice that you would like to implement or improve. You may wish to monitor your professional learning at regular intervals using this assessment tool.

b. Viewing the Video

The video is divided into eight segments, each of which focuses on a specific aspect of planning assessment with instruction. This viewing guide contains additional information and selected activities related to the content of the video. Each segment is organized as follows:

Learning Goals: Describe the intended learning for each segment and its related activities.

Key Questions: Provide a focus for viewing and reflection. Use these questions to initiate thinking and promote discussion prior to and after viewing each segment.

What's in This Segment: Presents an overview of the content in each segment.

Before Viewing: Suggests activities intended to provide opportunities to self-assess your current practice and identify areas for growth. Time signatures are generally provided for "Before Viewing" activities.

After Viewing: Suggests activities intended to promote reflection and discussion and ways to apply new learning when planning and teaching. Time signatures are generally provided for "After Viewing" activities.

Extending the Learning: Includes a selection of post-viewing activities to extend and challenge the learning beyond current practice.

While viewing the video, consider using one of the following organizers to focus your viewing:

ASSESSMENT FOR LEARNING VIDEO SERIES *Planning Assessment with Instruction Viewing Guide*
What I Already Know *(complete before viewing)*
What I Hadn't Thought of *(note during viewing)*
Next Steps for Me *(complete after viewing)*

ASSESSMENT FOR LEARNING VIDEO SERIES *Planning Assessment with Instruction Viewing Guide*
What are the students doing? (What's different?)
What is the teacher doing? (What's different?)
What are they learning?

c. Action and Feedback

The activities provided in "Extending the Learning" are intended to help you implement the strategies. Consider inviting a colleague to provide feedback as your "critical friend" (Costa & Kallick, 1993). Critical friends observe and ask questions to explore the reasons for your instructional decisions. They provide support as they challenge you to grow professionally.

d. Reflection and Goal Setting

Once you have reached a level of comfort in using the new practice, revisit the self-reflection tool, *Appendix A: Where Am I Now?,* to plan next steps. *Appendix B: My Learning Plan* is provided to support you in setting learning goals and developing action plans.

Setting the Stage

Appendix C: Planning Assessment with Instruction Quotations can be used before viewing to activate prior knowledge and engage the viewer in reflection (and discussion if viewing with others) and in making connections to his or her own assessment practices.

Use the following "Have the Last Word" strategy:

1. Copy the quotes onto individual sheets of paper, using a font that is legible for sharing in a group.
2. Divide the participants into groups of 4 to 6.
3. Distribute the quotes so that each group member has a different quote.
4. Ask each participant to individually read and reflect on the meaning of his or her quote.
5. Ask groups to begin sharing as follows: The first participant reads the quote aloud to the group and shares his or her reflections. Every other participant then has an opportunity to comment, with the person who read the quote having the final word. The process continues until all of the quotes have been read. Each participant has a turn at "having the last word".
6. Ask each group to collectively answer the following question: "Based on these quotes, what is best practice with respect to identifying, sharing, and clarifying learning goals and success criteria?"

Segment 1 – **Planning Instruction, Planning Assessment**

Learning Goals

In this segment, we are learning to:

- plan assessment with instruction so that students will know what they are expected to learn and become more independent learners;
- use the principles of backward design to plan our assessment with instruction;
- identify big ideas and learning goals from the expectations in the curriculum policy documents.

Key Questions

- How does purposefully planning assessment with instruction support student learning?
- How could the process of clearly identifying what students are expected to learn in language they can understand change our own understanding of the curriculum expectations?
- How are big ideas, overall and specific expectations, and learning goals related to one another? How do they work together to support student learning?

What's in This Segment

Clearly identifying what students are expected to learn is essential when planning assessment with instruction. While the curriculum expectations define what students should know and be able to do, teachers must build a common understanding of what needs to be learned with their students by identifying both the big ideas and learning goals for a cycle of learning and sharing them with their students. Big ideas capture the broad concepts, themes, and issues underlying the expectations and help teachers cluster expectations to plan assessment with instruction that is designed to focus on what is most important for students to learn. Learning goals express what students need to learn in language that they can understand and help to make the learning transparent to students. Co-constructing success criteria for the learning goals with students makes them active partners in their learning. Planning assessment with instruction based on a clear, transparent understanding of what students are expected to learn is vital because when students know and understand what they are expected to learn, and what such learning looks like, they can become more successful independent learners.

Before Viewing

Activity 1 – Reflection

Reflect on the following quote from the video (0:39):

> "Learning is not a linear process. Assessment doesn't come at the end … Learning intentions and assessment are connected so closely to curriculum that it is impossible to plan them in isolation from one another."
>
> (Earl, 2003)

How is this quote aligned with your current thinking and practices and how might it challenge them? If viewing with others, share your reflections with your group or elbow partner.

Activity 2 – Self-Assessment: Planning Assessment with Instruction

Reflect on your own planning for assessment with instruction by examining a unit plan that you currently use. Review your unit plan and use it to think about the following questions:

- How have you used the curriculum expectations in planning for learning?
- What expectations are being identified and clustered in this cycle of learning?
- How have you identified, shared, and clarified for students what they need to learn in order to be successful?
- What assessment information did you gather from and about your students before and during the learning to inform your planning?
- How have you incorporated assessment *for* and assessment *as* strategies and practices into your daily planning?
- How is the assessment and instruction combined to allow the students to demonstrate their knowledge and skills and to inform the teacher's instruction?
- How are learning goals, success criteria, and learning tasks aligned to ensure valid and reliable evidence of learning?
- Do the learning activities reflect a balance across the categories of the achievement chart?
- What is the purpose of the evidence of student learning you will collect? What evidence will you evaluate?
- What opportunities have you planned for the students to act as resources for one another in the learning activities?

If viewing with others, consider comparing your answers to the questions and examining each other's plans.

Use the questions to examine the two versions of the unit plan in *Appendices D* and *E*. Compare your plans with the two versions. Which plan does yours most resemble? Why? Consider using the unit planning template in *Appendix F* to guide your thinking when you design your next unit.

Activity 3 – Backward Design (0:51–3:26)

> "Deliberate and focused instructional design requires us as teachers … to make an important shift in our thinking about our job. The shift involves thinking a great deal, first, about the specific learnings sought, and the evidence of such learnings, before thinking about what we, as the teacher, will do or provide in teaching and learning activities."
>
> (Wiggins & McTighe, 2005)

Before viewing the video, complete the first two columns of the K-W-L-N (**K**now-**W**ant to Know-**L**earned-Learning **N**ext) chart in *Appendix G* to activate your prior knowledge about backward design. If viewing the video with others, compare your charts and make any changes that are necessary as a result of your discussion.

Decide if you will pause the video after the discussion about backward design (3:26) to complete the chart or if you will wait until the end of the video.

After Viewing

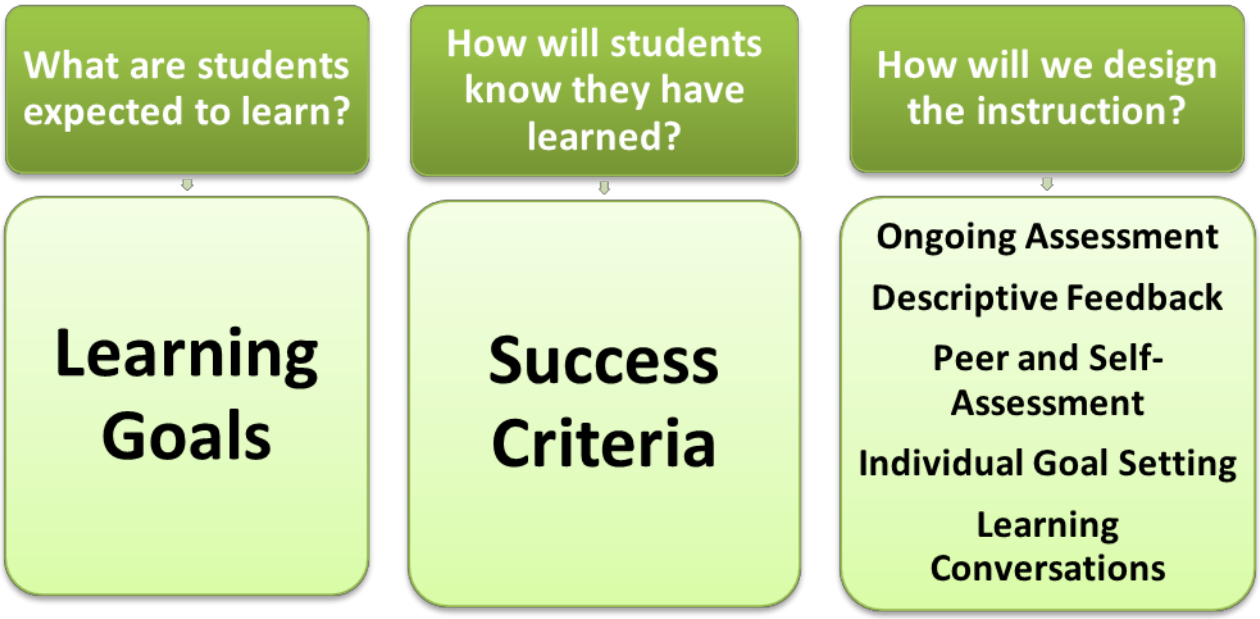
Activity 4 – Backward Design (2:49–3:26)

Complete the last two columns of the K-W-L-N chart. If viewing with others, compare your charts, discuss any new learning that has occurred, and revise your chart if necessary.

Some of the points that you added to your chart may include the following:

- Begin by identifying your desired results – What are students expected to learn?
- Begin with the curriculum expectations.
- Develop big ideas.
- Spend more time at the beginning – articulate up front what successful learning will look like.
- Are the success criteria as rich as the learning in the expectations?
- What are the most appropriate tasks to achieve this learning?
- Plan activities and tasks based on the kind of evidence you are planning to collect.

Following the principles of backward design helps teachers to focus on what students should learn as they integrate assessment with instruction. The chart on the following page aligns the components of assessment *for* learning with the three guiding questions of backward design.



The components of assessment *for* learning outlined in the chart above form a continuum that is rooted in the work of Black and Wiliam (1998; 2008) and has evolved from teachers engaging their students in classroom assessment. It is a practical framework that helps teachers to understand the interrelationship of the assessment practices that support students in monitoring and directing their own learning (e.g., through self-assessment and goal setting). It is also an effective way for students to learn the language, knowledge, and skills associated with self-assessment and independent learning. Each stage in the continuum increasingly engages learners in monitoring their learning and setting individual goals, and progressively leads to independent learning. The continuum leads to a *transformation* that teachers and students experience in how they teach and learn together when they embrace the spirit of assessment *for* learning and assessment *as* learning. (See *Learning Goals and Success Criteria Viewing Guide*, page 7.)

Activity 5 – Big Ideas (3:28–5:11)

Read the following quotes about big ideas:

- "A big idea is a concept, theme, or issue that gives meaning and connection to discrete facts and skills" (Wiggins & McTighe, 2005, p. 5).
- "'Big ideas' are the broad, important understandings that students should retain long after they have forgotten many of the details of something that they have studied. In this document, big ideas describe aspects of the fundamental concepts that are addressed at each grade level. Developing a deeper understanding of the big ideas requires students to understand basic concepts, develop inquiry and problem-solving skills, and connect these concepts and skills to the world beyond the classroom" (Ontario, Ministry of Education, 2007, p. 6).

Review the list of big ideas shared by the teachers in the video segment.

- Rich texts appear in many different forms and can support multiple interpretations.
- "Optimization" means making the best of a situation within certain constraints.
- Relationships exist between and among the linear, area, and volume measures of 3D figures.

Reflect on how they fit the definitions of big ideas presented above.

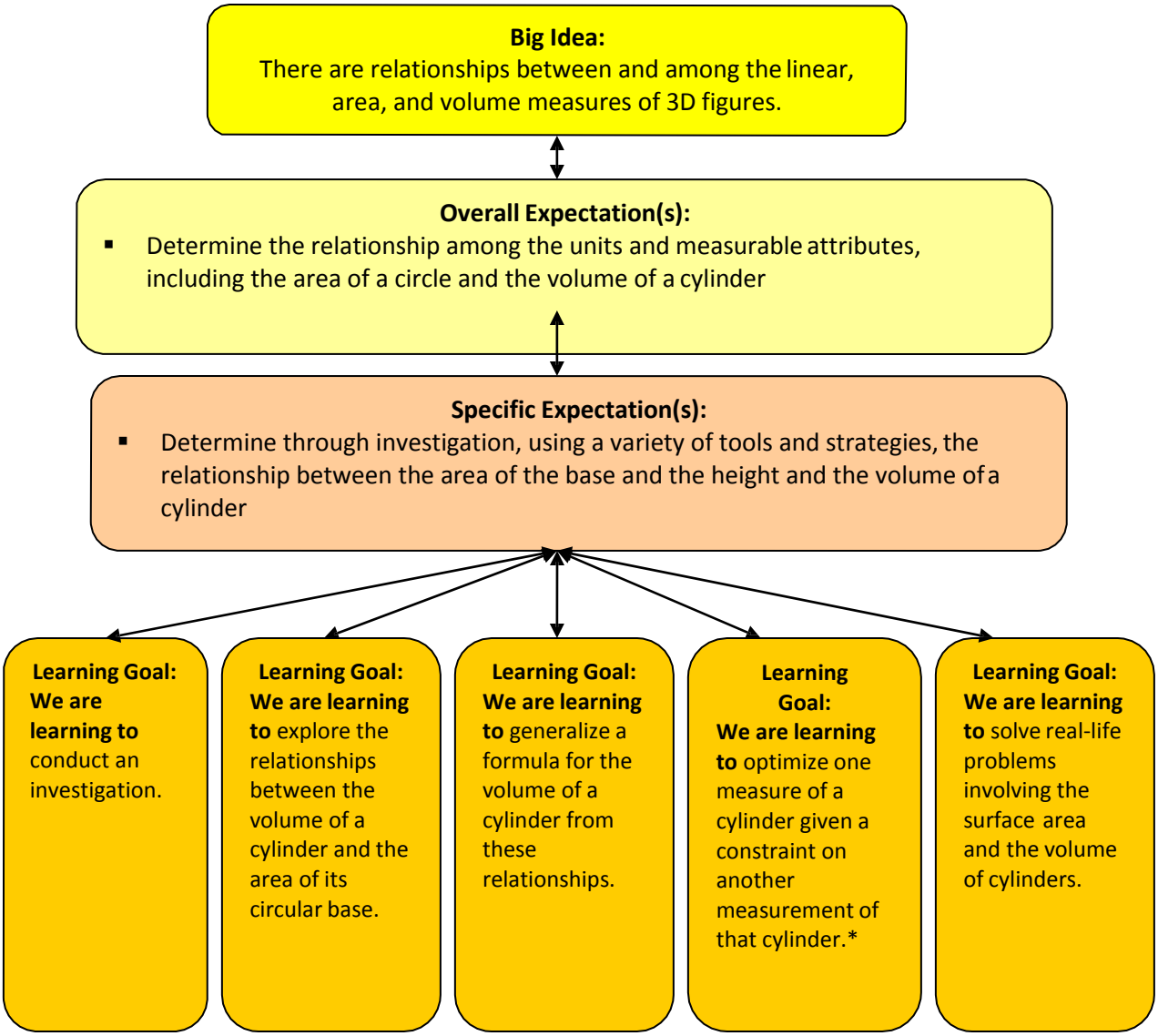
Think about a unit of study you are currently planning or are about to plan. Use your curriculum document to examine the overall expectations to be addressed and the big idea(s) associated with the expectations for this unit. If viewing with others, share your big ideas with your colleagues. Discuss how you developed the big ideas for your unit and how they meet the criteria presented in the definitions above.

Extending the Learning

Activity 6 – Connecting Big Ideas, Curriculum Expectations, and Learning Goals (5:14–7:06)

Reflect on the relationships between and among the big idea, overall expectation, specific expectations, and learning goals. To help you focus your reflection, you may wish to review the example from the video described on the following page.

Sample: Grade 8 Mathematics – Measurement



*The task in the video has students explore the relationship between the volume of the cylinder and its surface area when the height is constant. The task may be one of several on which the students work to meet all of the learning goals stated above.

Begin with the big idea(s) you developed in **Activity 5.** Use the curriculum document to identify overall and specific expectations that connect with the big idea(s). Create some potential student-friendly learning goals based on the expectations and big idea(s). Use the example above as a model, and use your big idea(s), expectations, and learning goals to complete the *Template for Connecting Big Ideas, Expectations, and Learning Goals* in *Appendix H*.

Segment 2 – **Making the Learning Transparent to Students**

Learning Goals

In this segment, we are learning to make the learning transparent to students by:

- crafting student-friendly learning goals;
- sharing and clarifying learning goals with students;
- designing tasks that align with learning goals and success criteria.

Key Questions

- How can teachers ensure that students are learning what they are expected to learn?
- How do the questions "What are students expected to learn?" and "Where are we going?" guide teacher planning?
- What strategies can teachers use to make the learning transparent to students? How can teachers make sure that these strategies are effective?
- How can the strategies teachers use to make learning transparent to students also help them to design assessment tasks and opportunities?

What's in This Segment

The goal of assessment *for* learning is to help students to learn and become independent, self-monitoring learners. Once teachers have clearly identified for themselves what students are expected to learn, they can begin to develop strategies for sharing and making this learning transparent to students. Teachers use their professional judgement to determine how and when to share with their students what they are expected to learn, and to ensure that the tasks students are asked to do result in the learning identified in the curriculum expectations. Students who are involved in creating and using learning goals and success criteria develop much clearer understandings of what they are supposed to be learning. Together, teachers *and* students can use the learning goals and success criteria to uncover and address misconceptions, provide descriptive feedback while engaged in learning activities, and monitor success in learning. Making the learning transparent to students can also help teachers create assessment tasks that are connected explicitly and clearly with the learning and with students' experiences.

Before Viewing

Activity 1 – Reflect on Personal Experience

Before viewing this segment, choose an activity or two you are using in a lesson and ask your students, "What do you think you are learning through this activity?" Reflect on their responses. Was their thinking about what they were supposed to be learning different from yours? If so, what might have caused this difference in understanding? Is it important? How might differences in understanding have affected student learning? If viewing with others, share your experience and your thoughts on these questions with your colleagues.

Activity 2 – Reflection
Reflect on the following quote from the video (0:41):

> "Once assessment is designed to be educative, it is no longer separate from instruction; it is a major, essential, and integrated part of teaching and learning."
>
> (Wiggins, 1998)

Reflect on ways your current thinking and practices are aligned with this quote and on how they might be challenged by it. What knowledge, skills, or strategies are you using to weave the assessment with instruction and make the learning explicit to your students? If viewing with others, consider sharing and discussing your reflections with them.

Activity 3 – Student-Friendly Learning Goals (1:42–3:18)
Use the *Writing More Effective Learning Goals* chart in *Appendix I* to identify some criteria for more effective goals. List the criteria for what makes an effective learning goal. As you view the rest of the segment, refer back to your list and add to or revise your criteria.

After Viewing

Activity 4 – Sharing and Clarifying Learning Goals, Part I (3:18–8:32)
Brainstorm possible ways you can share and clarify learning goals with your students. While watching this section of the video, revise your list if necessary and, if viewing with others, share your observations. Decide if you will pause the video after the discussion at the end of this section to complete this activity or if you will wait until the end of the segment.

Ways to share and clarify learning goals with my students:

Activity 5 – Challenges to Creating Learning Goals (8:33–9:22)
The video identifies two specific pitfalls to avoid when creating learning goals:

1. Learning goals should not change the curriculum expectations; rather they should restate the expectations in language that students will easily understand.
2. Learning goals should not simply be about what students are doing but should focus on what the students are learning.

Re-examine the "more effective" learning goals from **Activity 3**. Have these learning goals avoided these pitfalls? You may wish to refer to the curriculum documents to guide your discussion and to explain your thinking.

Link to curriculum documents: http://www.edu.gov.on.ca/eng/teachers/curriculum.html

Extending the Learning

Activity 6 – Sharing and Clarifying Learning Goals, Part II (10:47–12:21)
Return to the list of strategies for sharing and clarifying learning goals you created in **Activity 4**. As you watch this section of the video, revise your list. Choose one example of sharing and clarifying learning goals and reflect on how you could use this strategy in one of your classes. What conditions would have to be in place in your classroom to make using this strategy successful? (For example: posting learning goals – need to be visible to everyone; need to refer to them throughout the lesson.) What evidence would tell you that the strategy is helping students learn?

You may wish to compare your list of strategies with the ones below:

Sharing Learning Goals

- Tell students orally.
- Post the goal in the classroom.
- Have students write the goal in a notebook.
- Make connections with the goal during the lesson.
- Link the goal to the success criteria.

Clarifying Learning Goals

- Ask, "What are you learning?"
- Discuss the meaning of the goal with an elbow partner.
- Define key words to clarify meaning.
- Have students rewrite the goal in their own words.
- Deconstruct and reconstruct expectations to clarify the learning.
- Have students link the goal to the activity.
- List one or two "look-fors" that demonstrate learning.

Activity 7 – Developing Guiding Questions (12:22–13:45)
Planning guiding questions can help to "engineer" effective learning conversations by helping teachers to draw out students' understandings and misconceptions and anticipate possible responses. Guiding questions can also help students internalize success criteria so that they can become accomplished self-assessors.

Developing guiding questions integrates assessment with instruction by:
- generating learning conversations;
- encouraging critical thinking;
- internalizing success criteria;
- promoting self-assessment.

Choose one of the more effective learning goals from **Activity 3**. Imagine that you are introducing this learning goal to your students. What are some guiding questions you could ask to help you to assess your students' prior knowledge about this learning goal? What possible responses and misconceptions might you anticipate? What questions might you develop in advance to promote discussion and engage students in critical thinking? Share your thinking with a colleague.

Segment 3 – **How Will We Know They Have Learned?**

Learning Goals

In this segment, we are learning to:

- develop and co-construct quality success criteria so that students and teachers know what it means to achieve the learning goals;
- align quality success criteria with learning goals and assessment tasks to produce valid and reliable evidence of learning;
- engage students in refining, revising, and applying the success criteria while monitoring and improving their learning;
- assess if students have met the learning goals.

Key Questions

- Why is it important that students and teachers share a common understanding of what success looks like?
- How does co-constructing success criteria with students inform and improve teaching and learning?
- How are learning goals, success criteria, and assessment tasks and learning experiences necessary conditions for gathering quality evidence?

What's in This Segment

Students need to know early in the learning what they are expected to learn and how they will know if they have been successful in that learning. Teachers need to collect evidence of student learning that provides an accurate picture of the student's achievement of the learning goals. Consequently, defining quality success criteria is essential for teachers and students alike. Quality evidence of learning depends on, and aligns with, criteria that are clearly identified and specifically linked to learning goals. Teachers involve students in co-constructing success criteria in an effort to build a common understanding of what success looks like and to deepen students' understanding of the criteria as they progress towards the learning goals.

Before Viewing

Activity 1 – Reflect on Personal Experience

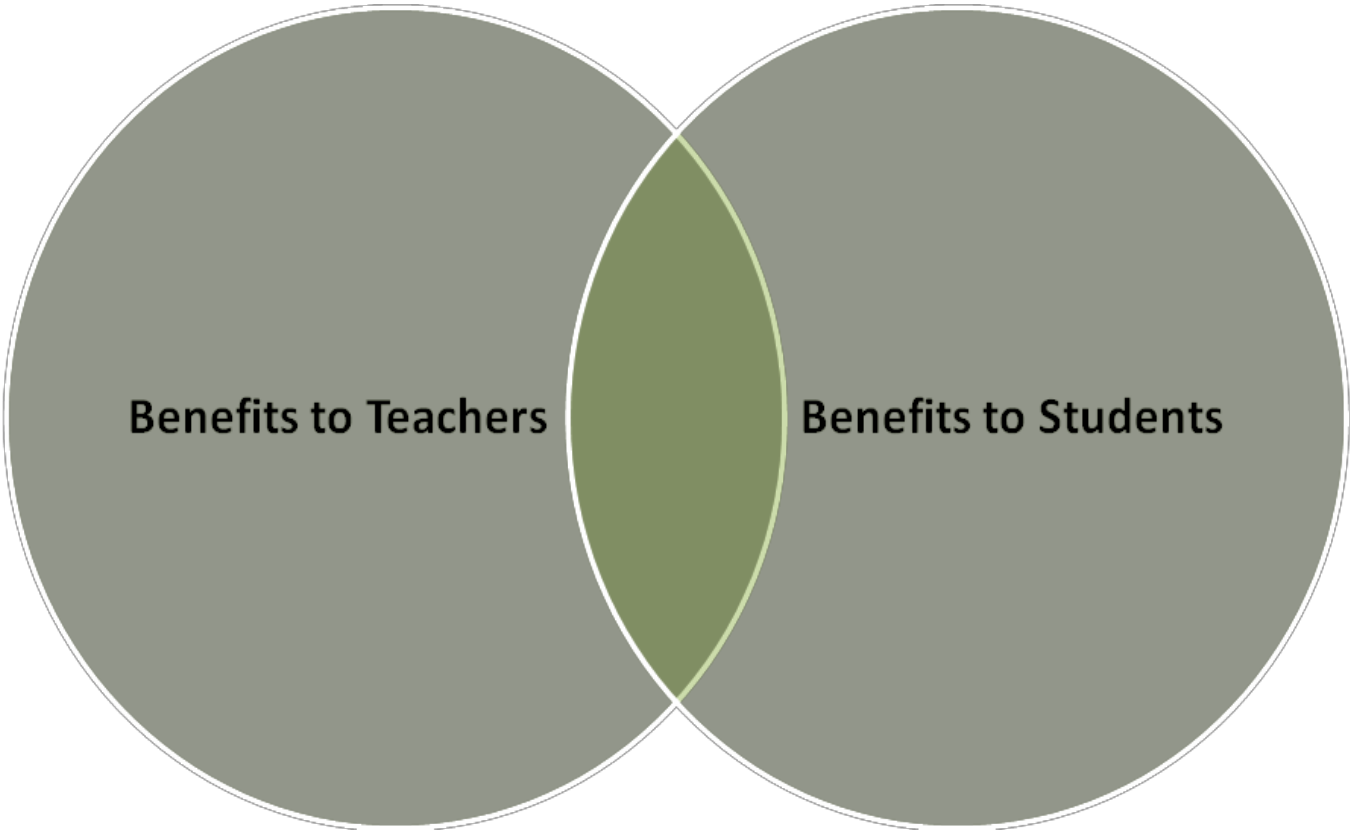
Recall a time when you were successful in learning something new or acquiring a new skill. What conditions made you successful? For example, were you aware in advance of what you needed to know or do in order to be successful? How might you create those conditions for your students in your classroom?

Activity 2 – Reflection
Reflect on the following quote from the video (0:39):

Reflect on ways your current thinking and practices answer the question posed in this quote and on how they might be challenged by it. If viewing with others, share your reflections.

Activity 3 – Identifying the Benefits of Developing Success Criteria with Students (3:23–3:41)
What are the benefits for teachers of developing success criteria with students? What are the benefits for the students themselves? How does each benefit contribute to improved learning for the student and provide the teacher with information for planning assessment with instruction?

Use the Venn diagram below to organize your thinking about these questions and then view the video clip. Does anything need to be added to your diagram?



Compare the points in your Venn diagram with the ones listed below:

Benefits of co-constructing success criteria with students:

- Produces a common understanding of success
- Teaches students the language of assessment
- Provides ongoing assessment information to students and teacher
- Helps students internalize what success looks like
- Leads to quality evidence of learning

After Viewing

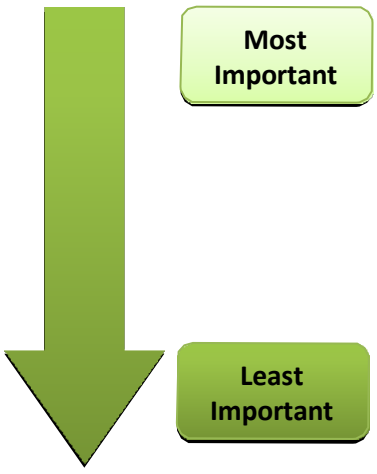
Activity 4 – Creating and Refining Success Criteria (1:54–3:19; 4:17–5:57)

Success criteria help teachers and students focus specifically on what students are to know and be able to do. Too many criteria, or criteria that focus more on the requirements of the task than on the learning, may make it difficult for students to use the criteria to guide their own learning.

Review one of the following learning goals and its associated success criteria. Order the success criteria from the most important to the least important. How did you decide which were the most important? Compare your list with those of your colleagues. Were there any differences? If so, discuss both the differences and the criteria you used to decide which were the most important and least important success criteria. Were there any success criteria you felt should be added to the list to meet the learning goal?

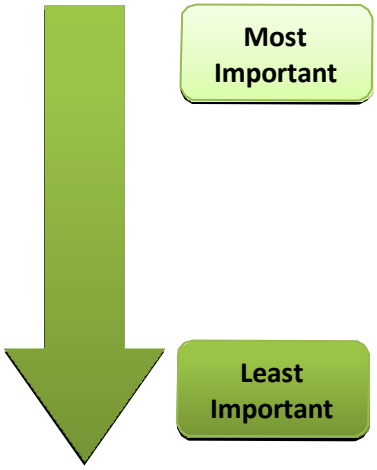
Sample 1: Grade 12 Mathematics, Calculus and Vectors – Derivatives and Their Applications

Learning Goal:
We are learning to solve optimization problems.

Success Criteria		Reordered Success Critiera
▪ Draw a diagram ▪ Identify max/min values ▪ Write an equation ▪ State the constraints ▪ Differentiate correctly ▪ Use critical numbers/points ▪ Verify max/min		

Sample 2: Grade 8 Mathematics – Measurement

Learning Goal:
We are learning to optimize one measure of a cylinder given a constraint on another measurement of that cylinder.

Success Criteria		Reordered Success Critiera
▪ Organize data in a table ▪ Accurate calculations ▪ Use appropriate formula correctly ▪ Proper units ▪ Explain reasoning ▪ Visual representation ▪ Verbally/in writing ▪ Use appropriate mathematical vocabulary ▪ Connection between surface area and volume		

When there is a broad range or large number of success criteria associated with the learning goal(s), it is helpful to categorize or group similar criteria under a common heading to make it easier to remember and apply the criteria and focus the learning. Review the success criteria you identified and try grouping them under common headings. Share and compare your work with others and discuss similarities and differences in your groupings and headings.

Extending the Learning

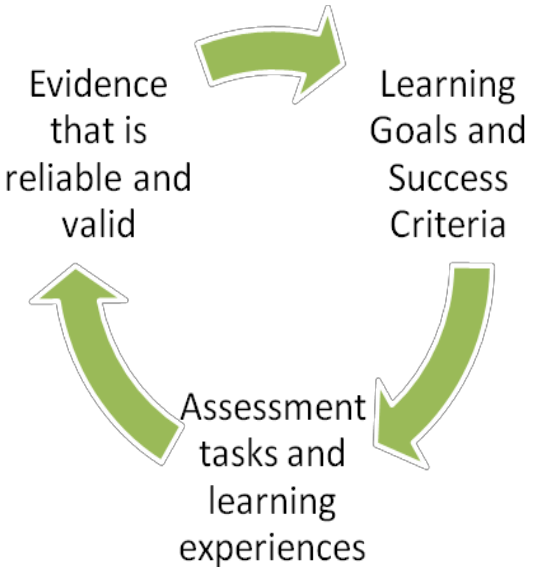
Activity 5 – Planning for and Gathering Reliable Evidence of Student Achievement (5:58–9:07)

Sharing and clarifying learning goals and co-constructing success criteria to make the learning transparent to students requires careful planning. The litmus test for quality planning lies in the correlation among:

- learning goals and success criteria;
- assessment tasks and learning experiences;
- evidence that is reliable and valid.

Each one must embody and inform the other two. Their alignment must be transparent, explicit, and self-evident.

In your own practice, what do you do in each of these areas to promote this alignment? Record your thinking in the boxes provided. Is there an area on which you would like to focus your own professional learning? Share your reflections with your colleagues.



Activity 6 – Criteria for Tasks

If we want to gather valid and reliable evidence of learning, we need to ensure that the tasks align precisely with the goals and criteria, provide evidence to demonstrate the learning, and allow students to make explicit connections between what they are doing and what they are learning.

Examine one of the tasks the teachers have designed in this clip. In what ways does it meet the criteria for a rich task described in *Appendix J*?

Activity 7 – Examining Your Own Practices

Select a task you have traditionally used as part of a lesson. Without referring to your curriculum expectations, examine the task and try to identify precisely what you are expecting students to learn as a result of doing it. If possible, ask a colleague to complete the same activity with your task and then compare your responses.

Next, consult the curriculum document and identify the exact expectations that the task was designed to address. What changes would you have to make to align the task and the learning goals with the curriculum expectations?

Finally, use the criteria in *Appendix J* you examined in **Activity 6** to assess your redesigned task.

Segment 4 – **Gathering Evidence that Demonstrates Learning**

Learning Goals

In this segment, we are learning to:

- plan for and gather valid and reliable evidence of student learning;
- identify and align the characteristics of rich tasks.

Key Questions

- How can backward planning (beginning with the intended learning rather than the activity) help us to gather valid and reliable evidence of student learning?
- How can we ensure the quality of the evidence we collect?
- How can we create an accurate picture of student learning?

What's in This Segment

Teachers must ensure that assessment, evaluation, and reporting are based on valid and reliable evidence of student learning.

"No assessment is valid for all purposes. The results of an arithmetic test, for instance, may have a high degree of validity for indicating students' computational skill, a low degree of validity for indicating their mathematical reasoning, and essentially no validity for predicting success in reading or writing."

(Guskey & Bailey, 2001)

Validity means that the assessment measures what it is intended to measure. Teachers think about validity when they design assessment and instructional activities that align with learning goals, and when they select or design assessment tools that match the intended demonstration of learning (e.g., using success criteria to provide students with feedback on a performance).

Reliability means that repeated measures will give the same result. Scientists are concerned with reliability when they peer-review each others' work because they try to create the results of someone else's experiment or study in their own work. If they can re-create the results using the same procedure, then they have established reliability.

For teachers to gather valid and reliable evidence, they need to plan assessment tasks that are ongoing, varied in nature, and administered over a period of time to provide multiple opportunities for students to demonstrate the full range of their learning.

Teachers can refine the quality of the evidence they collect by:

- designing rich performance tasks that embody the learning and are explicitly linked to expectations and criteria;
- defining and applying success criteria to inform the descriptive feedback on what is being learned;
- using samples, exemplars, and anchors to help students understand what success could look like;
- engineering assessment conversations by planning for and asking effective questions;
- using appropriate assessment tools to assess, monitor, and record student progress;
- gathering enough evidence to yield balance within the categories of the achievement chart;
- using multiple sources of evidence to triangulate the students' achievement of the learning goals.

If the evidence is valid and reliable, then teachers can be confident that their assessment of student learning is accurate.

Before Viewing

Activity 1 – Examining the Evidence

Review the completed sample unit plans from **Segment 1, Activity 2** (*Appendices D* and *E*) and use them to consider the following questions:

- How did the teacher plan to gather evidence of student learning?
- What evidence is there that the teacher considered reliability and validity in creating these plans?
- What evidence is there that the teacher considered triangulation in these plans?
- In your opinion, "does the proposed evidence enable us to infer a student's knowledge, skill, or understanding?" (Wiggins & McTighe, 2005)
- Are there any changes you would make to these plans to refine the evidence of student learning?

Share your thinking about these questions with a colleague.

Activity 2 – Designing Rich Tasks (1:12–4:06; 9:16–10:06)

When designing rich tasks, teachers need to identify the meaningful learning contained in the curriculum expectations, define precisely what this learning will look like, and ensure that what students are being asked to do is actually what they are being asked to learn and vice versa. In their book *Understanding by Design*, Wiggins and McTighe (2005, p. 19) describe this process as:

> … purposeful task analysis: Given a worthy task to be accomplished, how do we best get everyone equipped? ... What will count as evidence *on the field*, not merely in drills, that they really get it and are ready to *perform with understanding, knowledge, and skill* on their own? What must learners master if they are to effectively perform?

In effect, the expectations, goals, criteria, and experiences inform and align with one another and produce evidence that can be used to accurately assess what students have learned.

Select one performance task from a course or subject you are currently teaching and that you believe to be "rich". What are the characteristics that make it a rich task? If you are working with colleagues, describe the characteristics of the task to them. Discuss the similarities and differences between your own and your colleagues' observations about the criteria you identified for the task.

Refer to *Appendix J* for a list of criteria for rich tasks. Have you identified these criteria in your list of characteristics of a rich task? Are there other criteria you would add to your list or to the criteria in the appendix? Does your task meet the criteria listed there? What improvements could be made to your task to help it to meet these criteria?

After Viewing

Activity 3 – Applying the Criteria for Rich Tasks to an Example (1:12–4:05)

Review 1:12–4:05 of this video segment to note what the teachers and students are saying and doing. Use the list of criteria for rich tasks found in *Appendix J* to identify any criteria that have been met and any evidence from the video to support your assessment. Have any of the criteria not been met? If not, what could be done to improve the task so that it successfully meets the criteria?

Activity 4 – Triangulation (6:19–7:32)

One of the fundamental principles of *Growing Success: Assessment, Evaluation and Reporting in Ontario Schools, 2010* is that assessments and evaluations should be "ongoing, varied in nature, and administered over a period of time to provide multiple opportunities for students to demonstrate the full range of their learning" (p. 6). Gathering data about student learning from a variety of sources (i.e., conversations, observations, and products) helps teachers to gain an accurate picture of student learning. Relying too heavily on one source of evidence may lead teachers to misinterpret student learning.

Return to the unit plans from **Segment 1, Activity 2** (*Appendices D* and *E*) that you also used to complete the first activity in this segment. Identify the sources of assessment data in the unit plans. Categorize them first according to the curriculum expectations / learning goals they address, and then by whether they are conversations, observations, or products. What do you notice? If you are working with colleagues, share your observations with them.

Examine one of your own unit plans for evidence of triangulation. What kinds of evidence do you currently gather for particular curriculum expectations? Do you collect more of one kind of evidence (conversation, observation, or product) than others? Why or why not? Where you may have used a single source of evidence of student learning, could you begin to use other sources to enhance the quality of the evidence and increase its reliability and validity? How do you collect and record the evidence from different sources? Do you and your students both understand how you collect and record evidence from different sources? Do they know how to demonstrate their learning in each instance?

As an extension activity, try planning a learning activity around a single cluster of expectations where students produce evidence through conversations, observations, and products. Discuss the experience with your colleagues and your students.

Activity 5 – Samples, Exemplars, Anchor Charts: Self-Reflection (7:33–9:16)
Samples, exemplars, and anchor charts, while different, share broad similar purposes. They can be used by teachers and students to:

- define and visualize quality work;
- develop assessment language;
- clarify criteria;
- achieve mastery.

Samples of student work can serve many assessment purposes. For example, using a variety of samples can show students what success looks like, help teachers and students co-construct, apply, and refine success criteria throughout the learning, and provide the basis for creating rubrics. They can also be used to provide teachers with opportunities for moderated marking and building a common understanding of quality among colleagues.

Exemplars are samples of authentic student work that exemplify the intended quality of work as described by the success criteria or an assessment tool such as a rubric (Student Achievement Division, 2010b, p. 43). Teachers and students may use exemplars to judge the quality of student work for the purposes of assigning a grade (assessment *of* learning). The words "exemplar" and "anchor paper" are used interchangeably in some contexts.

Anchor Charts are co-created by teachers and students as a way to record thinking (e.g., about a text, problem, or strategy) and make it visible for future reference and study. Anchor charts can also list procedures and processes for a particular activity (e.g., the stages of the writing process, the problem-solving process in mathematics). They help students clarify thinking, make connections, and/or remember a specific skill, strategy, or concept (Student Achievement Division, 2010b, p. 41). Success criteria may be recorded on anchor charts.

Think about your own practice when planning assessment with instruction and reflect on the following questions.

- How could you use samples of student work to guide your planning?
- How could you use samples to model and practise applying success criteria with your students?
- How could you use samples to develop criteria on new learning where students may not have prior knowledge?
- How could you create a selection of samples that you could share and discuss with students at different stages in their learning?

If you are using samples in some of these ways, think about how you might extend or refine your practice. If you aren't using samples, how might you begin?

Extending the Learning

Activity 6 – Try the Task Yourself (9:16–12:21)

When teachers complete a task before assigning it to students, it helps them to clarify and refine the learning, success criteria, and task, anticipate the potential challenges or misunderstandings and misconceptions students might have, and plan questions that inform and improve the learning.

Choose a task that you would typically use in your instruction to meet particular learning goals. Try completing the task using the chart in *Appendix K* to record your thinking. Identify possible solutions, potential misconceptions, and questions you would ask students to help them clarify their thinking and resolve their misconceptions.

Examine your clarifying questions. Arrange them into a questioning sequence that reflects a progression in thinking (e.g., from simple to more cognitively complex questions) that you could use in the classroom. Are there any questions that you might need to add in order to scaffold this progression for your students? If so, list them and discuss your question progression with your colleagues.

For more information about questioning and developing a progression of questions, see the *Questioning Viewing Guide*, Segment 2 – Planning Questions, Activity 4 (pp. 7–8) and *Asking Effective Questions* (Student Achievement Division, 2011a), available at http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/CBS_AskingEffectiveQuestions.pdf.

Segment 5 – **How Do We Design Assessment with Instruction?**

Learning Goals

In this segment, we are learning to:

- design learning experiences that connect with the learning goals and criteria and result in quality evidence of student learning;
- plan assessment and instruction seamlessly and concurrently;
- involve students directly in classroom assessment.

Key Questions

- How can planning assessment with instruction engage students as active partners in their learning?
- How can we ensure that the learning experiences for students are closely aligned with the learning goals and criteria?
- How do we involve students directly in classroom assessment and engage them as learning resources for one another?

What's in This Segment

In this segment, teachers focus on designing the learning so that the activities and tasks connect precisely with the learning goals and criteria to produce evidence of learning. When planning assessment seamlessly with instruction, teachers design questions and anticipate responses to create rich learning conversations, plan opportunities for peer and self-assessment, and help students become knowledgeable self-assessors and independent learners.

Before Viewing

Activity 1 – Reflection

Use the questions below to reflect on the following quote from the video (0:41):

> "If assessment is also a learning event, then it does not take unnecessary time away from instruction ..."
>
> (Linn & Baker, 1996)

- What is the relationship between assessment and instruction that is reflected in this quote?
- In what ways could assessment be a learning event for teachers? Students?
- Describe a scenario that would make this statement true when engaged in assessment *for, as,* and *of* learning.

If viewing with others, discuss your thinking with them.

Activity 2 – Connecting Activities with Learning Goals and Success Criteria, Part I (1:10–3:19; 5:26–6:29)

Classroom activities and tasks need to be explicitly connected with the learning goals and success criteria for students to be successful learners. The precise and explicit alignment of goals, criteria, and tasks:

- makes the learning transparent for teachers and students alike;
- helps students see the connections between what they are doing and what they are learning;
- provides students with authentic opportunities to demonstrate their learning;
- provides valid and reliable evidence of learning.

Examine the expectations and learning goals the teachers have planned for this cycle of learning and then reflect on the questions below.

Grade 8 Mathematics – Data Management and Probability

Curriculum Expectations

- (OE) Use probability models to make predictions about real-life events
- (SE) Compare, through investigation, the theoretical probability of an event with the experimental probability, and explain why they might differ

Learning Goals

- We are learning the difference between experimental and theoretical probability.
- We are learning to apply probability to real-life situations.

- What are the success criteria for each of the learning goals?
- What mathematical knowledge and skills would the students need to meet each learning goal?
- What evidence of learning would the teachers expect the students to demonstrate during the inquiry?
- Do the goals, criteria, and task align precisely? Could any of them be refined to make their alignment more precise?

If viewing with others, explain your reasoning to them. Discuss some of the challenges in identifying tasks that are closely aligned with learning goals and how they might be addressed.

Activity 3 – Connecting Activities with Learning Goals and Success Criteria, Part II (7:07–9:17)
The teachers have planned for the students to rotate through the following activities during the learning:

- Coloured spinner with four quadrants
- Spinner with eight numbers
- Number cube
- Two-sided flipper
- Deck of cards without jokers
- Bag of letters spelling "CALIFORNIA"

Do these activities align with the learning goals in the video (stated in **Activity 2**)? Provide some descriptive evidence for your opinion from the video. What mathematical knowledge and skills would the students be using and demonstrating by completing these activities? What are they learning? In your opinion, do some of the activities planned align better with the stated goals and criteria than others?

After Viewing

Activity 4 – Now You Try It
Review the learning goals from **Segment 2, Activity 3** (*Appendix I*). Choose one of the learning goals from the appendix and brainstorm some tasks that would allow students to demonstrate their achievement of this learning goal. Record your thinking in the chart below.

Identify the task that you think best connects what the students will be doing with the intended learning. If working with others, explain your reasoning to them. Discuss some of the challenges in identifying tasks that are closely aligned with learning goals and criteria and how they might be addressed. Try completing the task together to identify any areas for improvement that you could make to align the learning goals, criteria, and task more precisely.

Sample Student-Friendly Learning Goal	

Activity 5 – Planning Opportunities for Peer and Self-Assessment (1:57–5:15)
Providing students with opportunities to reflect on and assess their own learning helps them to become self-directed and independent learners. When teachers consciously create these opportunities as they plan assessment concurrently with instruction, they help to ensure that students have the opportunity to practise these skills.

Return to the task you identified in **Activity 4**. In what ways can you build peer and self-assessment into the task? How might you use the information from the peer and self-assessments to guide your instruction?

Activity 6 – Scaffolding Peer and Self-Assessment (2:22–5:26)
Review this section of the video segment and reflect on the following questions either on your own or with others:

- How did the criteria enhance the effectiveness of peer and self-assessment?
- How might co-constructing the criteria with the students prepare them to engage in effective peer and self-assessment?
- What other steps might you take to teach your students to engage in effective peer and self-assessment?
- How did the teachers scaffold the peer and self-assessments for their students?
- What did you notice about the feedback the students offered one another? How was the feedback connected with the learning goal? (We are learning what is meant by "optimization".)
- What steps might the teachers take to help their students become more independent in peer and self-assessment?

For more information about explicitly teaching peer and self-assessment, see *Segment 1: Self-Assessment – The Process* and the accompanying *Self-Assessment Viewing Guide*.

Extending the Learning

Activity 7 – Involving Students in Classroom Assessment (7:11–11:47)
Involving students deliberately in classroom assessment challenges teachers to:

- make explicit connections between the learning and the instruction;
- utilize strategies and tools that actively engage students in gathering information in assessing their progress;
- employ alternative groupings to engage students and differentiate instruction;
- design specific learning activities that embody the desired knowledge and skills;
- engage students as learning resources for one another;
- incorporate multiple opportunities for continuous student–teacher and student–student feedback;
- plan and teach peer and self-assessment knowledge and skills.

Which of these challenges did you see or hear addressed in the teachers' collaborative planning in this section of the video?

Choose one of the points from the list above. With others, discuss how you might implement one of them in your current practice and create a plan to do so. For example, you might try an "ask three before me" strategy in a primary classroom to help the students engage one another as learning resources during group work; or you might try grouping the students in different ways to solve similar math problems. Gather data from the students about the plan's effectiveness. The data collection might take the form of a whole-class discussion, students' reflections in their journals, or a short survey. Discuss the results along with your own observations with your colleagues and students.

Activity 8 – Reflection
Read and reflect on the following quotation from the video:

> "Assessment that is consistent with principles of learning and understanding should:
> - Mirror good instruction
> - Happen continuously, but not intrusively, as a part of the instruction
> - Provide information about the level of understanding that students are reaching."
>
> (Bransford, Brown, & Cocking, 2000)

In your opinion, what else should assessment that is consistent with principles of learning and understanding do? Create your own list and share it with a colleague. Discuss your thinking about each point. Invite your colleague to share his or her own list with you.

Segment 6 – **Designing Instruction to Empower Students**

Learning Goals

In this segment, we are learning to:

- plan for assessment *for* learning in an inquiry-based approach to learning;
- purposefully plan opportunities for students to engage in assessment *as* learning;
- teach students to become responsible for their own learning and become independent learners.

Key Questions

- How can we plan assessment with an inquiry approach to learning?
- How can we teach students to become learning resources for themselves and for one another?

What's in This Segment

In this segment, teachers focus on designing inquiry-based learning experiences that include assessment *for* and *as* learning. Some assessment *for* learning strategies may need to be refined so that they align more appropriately with an inquiry approach to learning. For example, instead of explicitly stating and co-constructing learning goals and success criteria at the start of the lesson, teachers can use carefully planned inquiry to bring the learning goals to light through discovery and invite students to define and apply potential success criteria as they conduct their inquiry. As well, teachers can plan probing, open-ended questions they can use to engineer learning conversations, model exploration, promote critical thinking, and encourage independent learning. Incorporating assessment *for* learning into inquiry helps students become collaborative partners and active learners with responsibility for their own learning.

Before Viewing

Activity 1 – Engaging Students in Inquiry

Kuklthau, Maniotes, and Caspari (2007, p. 2) define inquiry as:

> … an approach to learning whereby students find and use a variety of sources of information and ideas to increase their understanding of a problem, topic or issue. It requires more than simply answering questions or getting a right answer. It espouses investigation, exploration, search, quest, research, pursuit and study … it is enhanced by involvement with a community of learners, each learning from the other in social interaction.

Carefully planning assessment *for* and *as* learning practices during inquiry to make the learning transparent to the students and help them monitor their own learning is essential, but teachers may need to adjust their implementation to suit the activity. For example, sharing and clarifying

learning goals might occur after students have had opportunities to explore the activities and begin drawing their own conclusions about the learning goals. Learning goals could focus on the *process* of inquiry as well as learning curriculum content through *engaging in* inquiry.

Read *Getting Started with Student Inquiry* (Student Achievement Division, 2011b), available at http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/CBS_StudentInquiry.pdf. What do you notice about how the educators support student inquiry in this model and the assessment framework? Discuss any connections between the two with a colleague.

"Inquiry allows students to make decisions about their learning and to take responsibility for it.

Teachers introduce instruction and assessment strategies that keep students focused on personal improvement. They make sure that students have the necessary knowledge, skills and strategies 'to operate independently, make appropriate choices, and expand their abilities by attempting challenging tasks' (Perry, Phillips & Dowler, 2004, p. 1856). Collectively, these actions lead to a strong sense of student self-efficacy."

(Student Achievement Division, 2011b)

After Viewing

Activity 2 – Challenges with Inquiry (0:58–5:19)

When taking an inquiry approach to learning, teachers may face particular challenges in planning the assessment with instruction. How and when can they identify and share learning goals if the intent of the learning is for the students to discover them through the inquiry? Can an inquiry be designed to make the learning explicit by doing the investigation? When and how can they co-construct criteria for inquiry as students investigate? When and how can teachers provide students with opportunities to define and apply success criteria as they learn?

In this section of the video segment, teachers demonstrate how they plan to deal with some of the challenges specific to learning through inquiry. Working by yourself or with a colleague, identify and record how the teachers in the segment address these challenges. What are some other ways of addressing these challenges while planning for assessment with instruction as well as during the lesson? Record your thinking in the chart on the next page, and, if possible, discuss your thinking with a colleague. Compare your thinking with the completed chart in *Appendix L*.

Potential Challenges with Planning Collaborative Inquiry with Assessment	
▪ Writing and sharing learning goals that do not compromise the inquiry (3:38)	▪ ▪ ▪ ▪
▪ Promoting critical thinking through quality questioning (3:49)	▪ ▪ ▪ ▪
▪ Defining and applying criteria during the inquiry process (4:22)	▪ ▪ ▪ ▪
▪ Using criteria so that students can peer- and self-assess while they learn (5:03)	▪ ▪ ▪ ▪

Activity 3 – Planning Questions and Conversations to Elicit Student Learning (5:51–8:27)
Planning questions in advance helps teachers to:

- focus the planning;
- guide the learning;
- promote critical thinking;
- elicit assessment information;
- engineer learning conversations;
- anticipate and/or address misunderstandings.

Review the questions the teachers have planned in this section of the video:

- "What do you notice about the difference between the predicted outcome and the actual outcome?"
- "What do you think might happen to the difference between the predicted and actual outcomes if we increased the number of trials?"
- "What might you notice if you compared your results at a station with another group's results?"

What do these questions have in common? How do they align with what the students are learning and doing? How might sharing their thinking about their questions have helped the teachers in planning assessment with instruction?

Use the self-assessment tool from *Appendix A* in the *Questioning Viewing Guide* to reflect on your planning practices when it comes to questioning. Identify areas of strength and areas for further reflection and practice.

Effective Questioning	Usually	Sometimes	Rarely
I plan questions to determine what students know, with respect to their learning goals, and what they still need to learn.			
I design questions that anticipate and expose individual students' misconceptions or learning challenges.			
I develop questions that uncover students' attitudes and interests.			
I develop a sequence of questions that scaffold students' thinking from lower to higher cognitive levels.			
I design key questions to focus students' thinking on the critical learning (big idea, enduring understanding).			

Consider setting a learning goal for yourself related to one of the areas you chose for further reflection and practice. Identify what success on that goal might look like. Design a simple action plan for implementing your goal, which could include the learning experiences or tasks you will undertake, the sources of evidence of your learning you will gather, and how you will self-assess and monitor your learning.

See the *Questioning Viewing Guide* for the complete self-assessment tool.

Activity 4 – Critical Checkpoints (8:29–9:50)

With a colleague, review this section of the video and begin building a common understanding of critical checkpoints. Reflect on and discuss the following questions:

- Why might critical checkpoints be referred to as "know before you go" moments? Why are they critical for improving learning and informing instruction?
- How can critical checkpoints guide your planning of assessment with instruction?
- How can you identify critical checkpoints in the learning and encourage students to do the same?
- How can students use critical checkpoints effectively to ensure they have learned, to improve their learning and inform their next steps, and to help them become responsible for their own learning?

Extending the Learning

Activity 5 – Student Voice (9:52–11:07)

Teachers engage in assessment *as* learning by helping all students to develop their capacity to be independent, autonomous learners who are able to set individual goals, monitor their own progress, determine next steps, and reflect on their thinking and learning. Teachers should provide their students with regular opportunities to:

- learn and practise assessment knowledge and skills;
- co-develop learning goals, success criteria, rubrics, and checklists;

- engage in peer and self-assessment;
- give and receive feedback on the quality of self-assessments;
- set individual learning goals and monitor their progress;
- act as learning resources for one another;
- become increasingly responsible for their learning.

Share this list with your students in an age-appropriate and student-friendly fashion (e.g., orally, using grade- and age-appropriate vocabulary). Ask them to give an example of one of the practices they have experienced as part of the classroom instruction. Was the practice helpful to them in their learning? Why? Ask them to share and explain their thinking in small groups or class discussion.

Now share the section of this video segment showing the three students discussing how assessment *for* and *as* learning practices are supporting their learning. Ask your students to reflect and share their thoughts on the thinking of the students in the video. Has their perception of any of the items in the list changed? Why or why not? Use the groups' responses to reflect on your planning of assessment with instruction. Are there any areas on which you might concentrate or where you might learn more or try new practices based on your students' thinking? How might you include what you have learned in your planning?

Activity 6 – Student Reflection: Beginning with the End in Mind

Share this quotation from the video with your students in an age-appropriate fashion (e.g., orally, with some adjustments to the vocabulary):

> "To begin with the end in mind means to start with a clear understanding of your destination. It means to know where you're going so that you better understand where you are now so that the steps you take are always in the right direction."
>
> (Covey, 1989)

Have the students use a "Think-Pair-Share" strategy to discuss the meaning of the quotation and how it is related to their own learning. Have them record and share their responses. Engage in a similar activity with your colleagues. How might the student and teacher responses inform your planning and instruction, your implementation of assessment *for* and *as* learning, and your students' learning?

Segment 7 – **Aligning Assessment with Instruction**

Learning Goals

In this segment, we are learning to:

- use the principles of backward design to plan assessment with instruction;
- integrate the individual assessment *for* and *as* learning practices when planning assessment with instruction.

Key Questions

- What does seamlessly planned assessment with instruction look like when it is implemented in a classroom?
- How does purposefully planning assessment with instruction make students active partners in their learning?

What's in This Segment

This segment shows teachers integrating the elements of assessment and instruction discussed in the earlier video segments into a particular unit plan. The teachers use three guiding questions to integrate assessment *for* learning into their backward design:

- *What are students expected to learn?*
- *How will students know they have learned?*, and
- *How will we design the instruction?*

Answering the first two questions helps the teachers ensure that what students need to learn – the learning goals – and what successful learning looks like – the success criteria – are embedded in the planning process. In this segment you will also see teachers designing the instruction with purpose and intent to engage students in co-constructing the learning as they assess the learning together.

Before Viewing

Activity 1 – Self-Reflection, Part I

In **Segment 1, Activity 2** you were invited to reflect on your own planning of assessment with instruction by examining a unit plan that you currently use. This time, return to that unit plan and use the following questions to examine and reflect on your planning process. Did you:

- use the three guiding questions from the backward design process?
- examine the curriculum expectations to identify big idea(s), learning goals, and success criteria?
- identify rich learning tasks that align with the learning goals and criteria so that what your students are learning and what they are doing are the same?
- incorporate opportunities for your students to engage in descriptive feedback, peer and self-assessment, and goal setting at critical times during the learning?
- plan to teach your students the language, knowledge, and skills to assess, monitor, and improve their learning?

- plan for a gradual release of responsibility to your students to help them develop their assessment knowledge and skills?
- allow students multiple opportunities to demonstrate the full range of their learning?
- engineer learning conversations to activate students as instructional resources for one another?
- use ongoing assessment information to inform and differentiate your instruction?

Are there any changes from your reflection in **Segment 1, Activity 2**? Discuss your responses to these questions and your observations about your practice with a colleague before viewing the video. Choose some of the questions from the list above to frame your thinking as you view the video.

After Viewing

Activity 2 – Self-Reflection, Part II

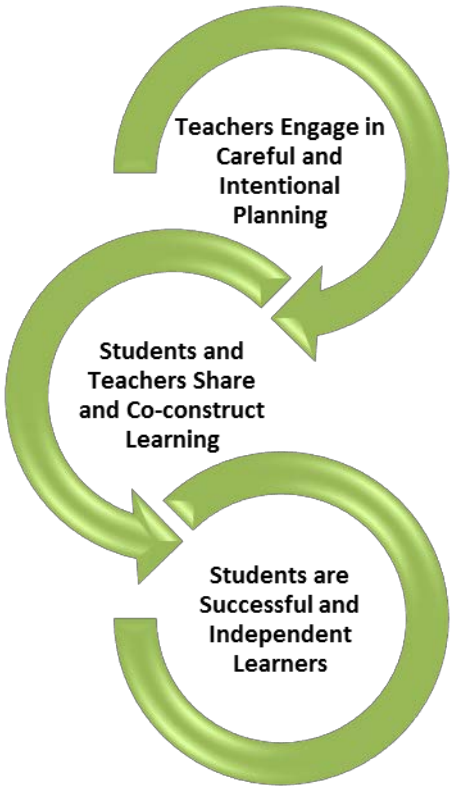
Return to the questions in **Activity 1**. How are the teachers in the video addressing these questions in their planning of assessment with instruction? Compare what you observed with your reflections on your own practice. How might the knowledge and skills modelled in the video support your professional growth and learning? If viewing with colleagues, discuss your thinking with them.

Activity 3 – Planning Assessment with Instruction (1:50–5:50)

The chart in *Appendix M* outlines some of the parts of the instructional unit the teachers designed in the video. The teachers identified six scaffolded goals that would provide the students with the knowledge and skills they would need to complete the culminating task of creating an allegorical graphic text and demonstrate their attainment of the big idea / rich learning goal. Examine the chart and the scaffolded, student-friendly learning goals that are listed there. Create the remaining scaffolded, student-friendly learning goals. How did the task drive the backward planning for the learning? How do the scaffolded learning goals build the knowledge and skills for success on the task? If viewing with colleagues, discuss your thinking with them.

Activity 4 – Students as Active Participants in the Learning (5:51–13:00)

The teachers' planning for assessment with instruction is affected by how they invite students into the learning in the classroom. The image on the following page illustrates this integration of purpose.



After viewing the video, complete the first two rows of the chart in *Appendix N* to identify how teachers and students act independently and together to construct the learning for the lesson and the unit. (You will complete the chart after viewing Segment 8.)

Activity 5 – Developing Success Criteria Using Samples (5:51–9:13)
What are the benefits of using samples and exemplars in helping students develop, apply, understand, and internalize the criteria? How were they used in this section of the video? How can co-constructing criteria facilitate the co-construction of a rubric? Does every set of criteria need to be turned into a rubric? Why or why not? If viewing with colleagues, discuss your thinking with them.

Samples and exemplars can be used to:
- represent and define the learning;
- develop and apply the criteria;
- assess and monitor progress;
- conceptualize and analyse assessment tasks.

> "When planning assessment and instruction, teachers, guided by the achievement chart for the particular subject or discipline … identify the criteria they will use to assess students' learning, as well as what evidence of learning students will provide to demonstrate their knowledge and skills. The success criteria are used to develop an assessment tool, such as a checklist, a rubric, or an exit card (i.e., a student's self-assessment of learning)."
>
> (Ontario, Ministry of Education, 2010, p. 33)

Activity 6 – Engineering Learning Conversations (9:14–13:05)

Purposefully engineering learning conversations around the learning goals helps students to:

- interact with and internalize the goals and criteria;
- reach the goal through critical thinking and self-reflection;
- cultivate common understandings of the goals;
- become learning resources for one another.

In this video segment, what is the teacher's role in planning and engineering learning conversations? How is questioning used effectively to focus the learning conversations on the goals and criteria? What knowledge, language, and skills do students need to develop in order to engage effectively in these conversations? What is the teacher's role in teaching the assessment knowledge and skills? How do the learning conversations enhance the quality of the criteria?

Extending the Learning

Activity 7 – Checkpoints

Review the video and identify the checkpoints the teachers built into their planning of assessment with instruction. How did they know that their students were learning? What was their evidence? How did the teacher act on that evidence in his interactions with the students? How did the students know they were learning?

Activity 8 – Reflection

Reflect on the following quotation from the video:

> "When assessment is integrated with instruction it informs teachers about what activities and assignments will be most useful what level of teaching is most appropriate and how summative assessments provide diagnostic information."
>
> (McMillan, 2000)

Discuss your thinking with your colleagues.

Segment 8 – **Students as Partners in the Learning**

Learning Goals

In this segment, we are learning to:

- plan for students to practise giving and receiving descriptive feedback, engaging in peer and self-assessments, and setting individual goals with teacher guidance and independently;
- provide students with descriptive feedback that will help them see where to go next with these practices.

Key Questions

- What does it look like to plan assessment *as* learning concurrently with instruction?
- How can we plan opportunities for students to practise giving and receiving descriptive feedback, engaging in peer and self-assessments, and setting goals independently?
- How can we scaffold our students' learning as they move towards independence in these practices?

What's in This Segment

Students become partners in the learning when they have a deep understanding of success criteria related to their learning goals so that they are able to:

- use the criteria to offer each other descriptive feedback;
- use the criteria to monitor and improve their own learning through self-assessment; and
- set their own goals for their learning.

Teachers plan assessment *as* learning with instruction to include opportunities for students to engage in guided practice of these skills and to move towards independence in their application. Planning assessment with instruction means planning assessment *as* learning as well as assessment *for* learning.

Before Viewing

Activity 1 – Reflecting on Personal Practice

How have you engaged students in the process of peer and self-assessment in your practice? How did students use the learning goals and success criteria when engaged in peer and self-assessment? What were some of the successes and challenges you experienced? Have you ever engaged in peer or self-assessment in your own practice? How did it affect your practice?

After Viewing

Activity 2 – Reflecting on Planning (0:42–2:53; 4:33–5:35)

How did the teachers in the video plan assessment with instruction in their lessons? How did they plan to provide their students with feedback about their peer and self-assessments?

What conditions would you have to have in place for your students to be successful with these practices? What would your planning look like as a result?

In this segment the teacher uses a variation of a cooperative learning strategy, "One Stray-Three Stay", to have students explain their decisions regarding the graphic text assignment, and to gather feedback from other students (2:16). What other strategies could be used to promote the sharing of feedback from peers?

Activity 3 – Students Engaging in Peer Assessment (2:54–4:18)

The students in this section of the video have peer-assessed another group's work and are offering descriptive feedback to help the group improve its allegorical graphic text. Use the chart on the following page to identify how the feedback the students provide meets the criteria for good descriptive feedback found in the *Descriptive Feedback Viewing Guide* (Segment 2, Activity 7).

Criteria for Feedback	Evidence from the Video
Feedback includes three components: what was done well, what needs improvement, and specific suggestions for how to improve.	
Feedback relates to the learning goals.	
Feedback is based only on the criteria for success.	
Feedback is prioritized to focus on the aspects of learning that need the greatest attention.	
Feedback is focused on the product or task and the processes used.	
Next steps are incremental and specific enough so that students can make the improvements themselves.	
The amount of feedback at any one time is manageable.	
Feedback is expressed in a respectful, positive tone and in language meaningful to the students.	
Feedback is descriptive (i.e., provides information that students can use to improve) rather than evaluative (i.e., provides a mark or grade).	
The timing of the feedback provides students with opportunities to use the information while they are still learning and practising the requisite knowledge and skills.	

Reflect on your own students and the current quality of the descriptive feedback that they offer one another when engaged in peer assessment. How does it meet the criteria for good descriptive feedback? How might it be improved? What could you do to help them improve? Share your thinking with a colleague.

Activity 4 – Students as Active Participants in the Learning (5:36–9:37)
After viewing the video, complete the last three rows of the chart in *Appendix N* (begun after viewing **Segment 7**) to identify how teachers and students act independently and together to provide descriptive feedback and engage in peer and self-assessment and individual goal setting for the lesson and the unit.

Activity 5 – Teacher Providing Feedback (5:25–6:28; 6:49–7:10)
Reflect on how the teacher provided feedback to the students in these sections of the video segment. How did he reinforce the feedback offered by the students to one another? How did he offer feedback to the students who were giving and receiving the feedback?

Activity 6 – Students Engaging in Self-Assessment and Goal Setting (5:36–5:56; 6:30–6:48; 7:11–8:26)
The students in these sections of the video segment are using their peers' assessments of their work to plan for improvements. What do you notice about their use of feedback? What do you notice about their personal learning goals? What conditions would need to be in place in your classroom for your students to engage in self-assessment and goal setting?

Activity 7 – Student Voice (8:42–9:27)
Share this section of the video segment, which shows the students discussing how they think the assessment *as* learning practices are supporting them in their own learning, with your students in an age-appropriate fashion (e.g., orally, with some adjustments to the vocabulary). Ask them to reflect on other students' comments and share their thinking in a small group. Do they think about their own learning in a similar way? Why or why not? Use the groups' responses to reflect on your planning of assessment with instruction. Are there any areas on which you might concentrate, learn more, or try new practices based on your students' thinking?

Extending the Learning

Activity 8 – Involving Your Students in Classroom Assessment (9:40–10:11)
When teachers commit to planning assessment with instruction with knowledge and intent, students:

- know what they are learning;
- know what it looks like to learn;
- know how to assess their learning;
- know how to set individual goals;
- know how to monitor their progress;
- learn to take ownership of their learning;
- learn to become independent learners.

The result is increased student motivation and achievement.

Choose one of the points from the list above. With your colleagues, discuss how you might implement one of them in your current practice and create a plan to implement it. For example, you might try having students work in small groups to identify success criteria and then use their work to construct the criteria with the whole class to help them know what it looks like to learn; or you might try modelling the process you use to monitor your progress towards a goal to help students learn how to monitor their own progress. Once you have implemented the plan, gather data from the students about its effectiveness. The data collection might take the form of a whole-class discussion, students' reflections in their journals, or a short survey. Discuss the results along with your own observations with your colleagues.

Activity 9 – Reflection
Reflect on the following quotation from the video:

> "As this learning partnership grows stronger … teachers and students work together to gather information about the strengths and weaknesses of their performances in ways that inform *all* learners and *all* learning in the classroom."
>
> (Moss & Brookhart, 2009)

Discuss your thinking with your colleagues.

Activity 10 – *I Used to Think…But Now, I Think*
Use the template in *Appendix O* to reflect on how your thinking about making students partners in the learning has changed as a result of viewing this segment. You can also use the template to reflect on the changes in your learning after viewing the whole *Planning Assessment with Instruction* video series. Share your thinking with a colleague.

Activity 11 – The Role of the Teacher in Student Peer and Self-Assessment
Teachers have a significant role to play while students are involved in the act of assessing themselves or their peers, providing feedback, acting on feedback, or setting individual learning goals.

Examine the list of quotes from the oral text of the video, shown on the next page. Determine what each quote shows about the important role of the teacher in teaching students to engage in assessment *as* learning. The first one is done for you as an example.

Teacher Comments	
3:16 "So there's a problem with transitions …"	*The teacher interacts with students to clarify their feedback.*
3:20 "So you're saying that there always needs to be a logical connection between the explicit meaning and the implicit meaning …"	
3:36 "What exactly do you think they're missing in that transition?"	
4:08 "What I'd like to see you improve on is your next steps …"	
6:16 "Make sure that you're linking your goals to the success criteria …"	
6:21 "What I want you to do now is to set an individual learning goal."	
6:50 "Has the descriptive feedback been helpful?"	
7:03 "Jot down one overall improvement …"	
8:10 "… you've tied in the suggestions for improvement to the success criteria …"	

Appendix A: Where Am I Now?

Consider each of the following statements, and indicate R (Rarely), S (Sometimes), or U (Usually).			
▪ Use the principles of backward design.			
▪ Identify big ideas and learning goals from the expectations in the curriculum policy documents.			
▪ Share and clarify big ideas and learning goals with students in student-friendly language to ensure a common understanding.			
▪ Develop success criteria with students so that they will know what it means to achieve the learning goal.			
▪ Connect success criteria with learning goals, assessment tasks, and quality evidence.			
▪ Design rich performance tasks that align with the learning goals and success criteria.			
▪ Design rich performance tasks so that what the students are doing is what they are learning.			
▪ Gather valid and reliable evidence of student learning.			
▪ Involve students directly in classroom assessment.			
▪ Integrate and connect the individual assessment *for* and *as* learning practices that help to align assessment with instruction when planning and implementing a unit.			
▪ Plan for students to practise providing descriptive feedback and engaging in peer and self-assessment and individual goal setting with teacher guidance and independently.			
▪ Provide students with descriptive feedback that will help them see where to go next with these practices.			

Appendix B: My Learning Plan

After completing **Appendix A: Where Am I Now?** use this template to develop a learning plan. Begin with small steps and build gradually and progressively on your successes as you and your students become comfortable with the practices. Continue to use **Appendix A: Where Am I Now?** to inform your learning plan as your learning progresses.

1. What is the immediate next step you have identified?	
2. What do you need to know more about?	
3. What specific actions will you take to get there?	
4. What specific support will you need?	
5. What evidence will you look for to demonstrate growth and progress in your learning?	
6. How does your plan involve shifting responsibility for learning from you to your students?	
7. How will you model the knowledge and skills involved in self- and peer-assessing?	

Appendix C – Planning Assessment with Instruction Quotations

Learning is not a linear process. Assessment doesn't come at the end … Learning intentions and assessment are connected so closely to curriculum that it is impossible to plan them in isolation.

(Earl, 2003)

Planning your approach to assessment and evaluation is just as important as planning what you are going to teach.

(Cooper, 2007)

Once assessment is designed to be educative, it is no longer separate from instruction; it is a major, essential, and integrated part of teaching and learning.

(Wiggins, 1998)

Teaching is a means to an end. Having a clear goal helps to focus our planning and guide purposeful action toward the intended results.

(Wiggins & McTighe, 2005)

The formative assessment process is a fundamental reframing of the work teachers and students do day to day and minute to minute in the classroom.

(Moss & Brookhart, 2009)

Does the proposed evidence enable us *teachers+ to infer a student's knowledge, skill, or understanding?

(Wiggins & McTighe, 2005)

Effective assessment is more like a scrapbook of mementos and pictures than a single snapshot. Rather than using a single test, of one type, at the end of teaching, effective teacher-assessors gather lots of evidence along the way, using a variety of methods and formats.

(Wiggins & McTighe, 2005)

If assessment is also a learning event, then it does not take unnecessary time away from instruction …

(Linn & Baker, 1996)

Assessment that is consistent with principles of learning and understanding should:

- Mirror good instruction
- Happen continuously, but not intrusively, as part of instruction
- Provide information about the level of understanding that students are reaching.

(Bransford, Brown, & Cocking, 2000)

… there must be a match between what is taught and what is assessed.

(Wilson & Sloan, 2000)

To begin with the end in mind means to start with a clear understanding of your destination. It means to know where you're going so that you better understand where you are now so that the steps you take are always in the right direction.

(Covey, 1989)

… assessment and instruction, must be in step – they drive one another.

(Wilson & Sloan, 2000)

When assessment is integrated with instruction, it informs teachers about what activities and assignments will be most helpful, what level of teaching is most appropriate, and how summative assessments provide diagnostic information.

(McMillan, 2000)

… effectively designed learning environments must also be assessment centred.

(Bransford et al., 2000)

As this learning partnership grows … teachers and students work together to gather information about the strengths and weaknesses of their performances in ways that inform *all* learners and *all* learning in the classroom.

(Moss & Brookhart, 2009)

Appendix D: Unit Plan, Version 1

Sugar Bush Visit and Slideshow*

Curriculum Link: Check one or more of the following:

☐ English	☐ Science
☐ Math	☑ Other: French

Curriculum Expectations (Grade 8 Core French):**

- Listen to and talk about simple oral texts in structured and open-ended situations
- Express ideas, feelings, and opinions in conversations and discussions, using learned language structures and a variety of vocabulary and expressions
- Read a variety of simple materials, 400 to 600 words long, and demonstrate understanding
- Write in a variety of forms, adjusting language to suit the audience

Criteria:

1. Review the Curriculum Expectations and Achievement Chart with your teacher.
2. The student will read materials related to sugar bush operations in the area, the production of maple syrup, and the menu.
3. The student will visit a local sugar bush to observe maple syrup production and sample maple products.
4. The student will endeavour to speak in French during the outing so as to experience francophone culture.
5. A report will be prepared using presentation software. It should integrate some of the written material the student read in preparation for the visit. The report will also allow the student to label certain tools and activities encountered during the day's events.
6. The student will make an oral presentation, using visual aids – this can be paper and pencil, a slide show, or any other medium deemed appropriate to the task.

Assessment: Achievement Chart, Grade 8 Core French

Categories				
	The student:			

**Used with permission from the Ottawa Catholic District School Board.*

***The Ontario Curriculum, Grades 4–8: French As a Second Language – Core French, 1998*.

Appendix E: Unit Plan, Version 2

<table>
<tr><td colspan="2">How can a uniquely Canadian experience deepen a sense of culture and community?*</td></tr>
<tr><td>Culminating Task
You are a teen liaison hired to work part time at a community centre with a group of teenagers newly arrived in Canada. One of the outings the centre has planned in the spring is a visit to the sugar bush. You have been asked to develop a multimedia presentation, including an oral French component, on the production of maple syrup to develop background knowledge for the students.

Possible Products
Digital story including narration, PowerPoint presentation or brochure (photos or drawings) combined with an oral report, skit or song using props or images.</td><td>How will we determine the grade?
Evaluation
Use the rubric established through the co-construction of criteria.

Criteria will reflect the categories of the achievement chart.</td></tr>
<tr><td>Overall Expectations (Grade 8 Core French)
Listen to and talk about simple oral texts in structured and open-ended situations
Express ideas, feelings, and opinions in conversations and discussions, using learned language structures and a variety of vocabulary and expressions
Read a variety of simple materials, 400 to 600 words long, and demonstrate understanding
Write in a variety of forms, adjusting language to suit the audience</td><td>Guiding Questions
What is uniquely Canadian?
How do we build community and celebrate diversity?
How can we use media to communicate effectively?</td></tr>
</table>

(continued)

**Used with permission from the Ottawa Catholic District School Board.*

Overview	***What are students expected to learn?*** **Learning Goals / Learning Destinations** *(Know, Do, Articulate)*	***How will we know they are learning?*** **Evidence or Proof** *(Product, Observation, Conversation)*	***How will we help them learn?*** **Instructional Notes** *(Activation, Action, Consolidation, Next Steps)*
Subtask 1: Activating and building background knowledge	I know the steps of making maple syrup from readings. I know the key French vocabulary.	Checkpoint 1: *Does the student know the process of making maple syrup?* • samples of graphic organizers / storyboard information summarized from simple texts; reading response journal • samples of key French vocabulary listed/illustrated • observation of student; listen for clarifying questions • conversations with student about the process; feedback • peer assessment	*Activation:* • Discuss guiding questions. • Set the context; introduce culminating task. • De-construct culminating task; share subtasks and learning goals for each task. *Action:* • Co-construct criteria with students: "What are the characteristics of a successful multimedia presentation?" • Students work individually or in pairs to research the process of making maple syrup. Provide a variety of graphic organizers to summarize information. Students maintain a reading response journal as well as an English/French dictionary of terminology. • Observe and discuss possible misconceptions. Provide feedback to students. *Consolidation:* • Students peer-assess the work and provide feedback by using a series of guiding questions. • Individually, students refine their work as needed. *Next Steps:* • Decide on the format of the final product.

(continued)

Overview	***What are students expected to learn?*** **Learning Goals / Learning Destinations** *(Know, Do, Articulate)*	***How will we know they are learning?*** **Evidence or Proof** *(Product, Observation, Conversation)*	***How will we help them learn?*** **Instructional Notes** *(Activation, Action, Consolidation, Next Steps)*
Subtask 2: Visiting the sugar bush	I can identify the steps of the process when visiting the sugar bush. I can question and gather evidence in French from the sugar bush workers.	Checkpoint 2: *Can the student gather evidence of the process using the French language?* • samples of questions to be used during the visit • samples of photos/sketches/notes; response journal • observation of student in conversation with workers • self-assessment based on co-constructed criteria • feedback to student	*Activation:* • Share learning goals with students. • Brainstorm a list of questions to ask the workers. Review necessary language structures and vocabulary. Role-play scenario. • Co-construct a checklist of images to capture. *Action:* • Visit the sugar bush. • Students take photos of the process and use questioning to deepen understanding of the process. *Consolidation:* • Review information gathered at the site. • Students self-assess using established criteria and discuss/write about areas of improvement. *Next Steps:* • Review feedback and refine material as needed.

(continued)

Overview	***What are students expected to learn?*** **Learning Goals/Learning Destinations** *(Know, Do, Articulate)*	***How will we know they are learning?*** **Evidence or Proof** *(Product, Observation, Conversation)*	***How will we help them learn?*** **Instructional Notes** *(Activation, Action, Consolidation, Next Steps)*
Subtask 3: Creating the presentation	I can create a product that includes a visual and an oral component.	Checkpoint 3: *Can the student create a multimedia presentation?* • samples of storyboard, images, script for narration • feedback from peer/teacher • observation of student • conference with student	*Activation:* • Share learning goals with students. Refer back to guiding question 3. Review criteria. • Look at samples. *Action:* • As students are working on creating the presentation, conference with individual students to assess progress and give feedback. *Consolidation:* • Peer- and self-assess multimedia presentation using established criteria. • Practise the presentation. Peer/teacher feedback based on the final rubric. *Next Steps:* • Review feedback and refine material as needed.
Subtask 4: Presenting to an audience	I can use media to communicate effectively. I can respond to questions.	Checkpoint 4: *Can the student use the presentation to communicate effectively to an audience?* • self-assessment **Assessment of learning**: • use rubric	Culminating Task: • (Gather an authentic audience if possible.) • Students present their work. • Have students self-assess by listing the evidence found in their work and commenting on areas of improvement. • Evaluate using the rubric.

Appendix F: Planning Assessment and Instruction Together – Incorporating Backward Design in Unit Planning: Unit Overview

Summary

Provide a brief summary of the learning experiences.

Consider:

- *Are the content and focus of the unit clearly summarized?*
- *Do the unit's activities offer opportunities for appropriate treatment of the subject/topic under study?*
- *Do the unit's activities offer opportunities to work independently and collaboratively?*
- *Is the unit aligned with the Ontario curriculum?*
- *Is the rationale for the unit clear and well conceived?*
- *Does the unit encourage students to explore key questions, solve authentic problems, and apply new learning?*

What are students expected to learn?	**Enduring Understanding** *Provide a statement that describes what, specifically, students should understand about the topic.* *Consider:* • *Are the understandings central to the discipline? Transferable to new situations?* **Overall Expectations** *List the overall expectations that will be addressed in instruction, assessment, and evaluation.* *Consider:* • *Do the unit expectations support / align with the unit's rationale?* • *Can the unit expectations be clustered into groupings around which effective subtasks can be developed?* **Key Question** *Provide one or two open-ended questions that will frame the student's thinking and learning throughout the unit.* *Consider:* • *Does the question promote inquiry?* • *Is it open-ended, able to produce different plausible responses?*

How will we know students are learning?	**Assessment *of* Learning** *Provide a detailed description of the evaluation(s) (e.g., culminating performance task) that will provide evidence of learning for reporting purposes. Design the instructions for the students (e.g., a blackline master that teachers can share with students clearly outlining the task requirements).* *Consider:* • *Does the evaluation(s) offer students authentic opportunities to demonstrate the full range of their achievement of the expectations by the end of the unit?* • *What tool(s) will record assessment and evaluation of student learning?* **Assessment *for* Learning** During the unit, students' achievement of the identified learning goals is monitored using a variety of assessment strategies and tools. A summary is provided in the next section.

(continued)

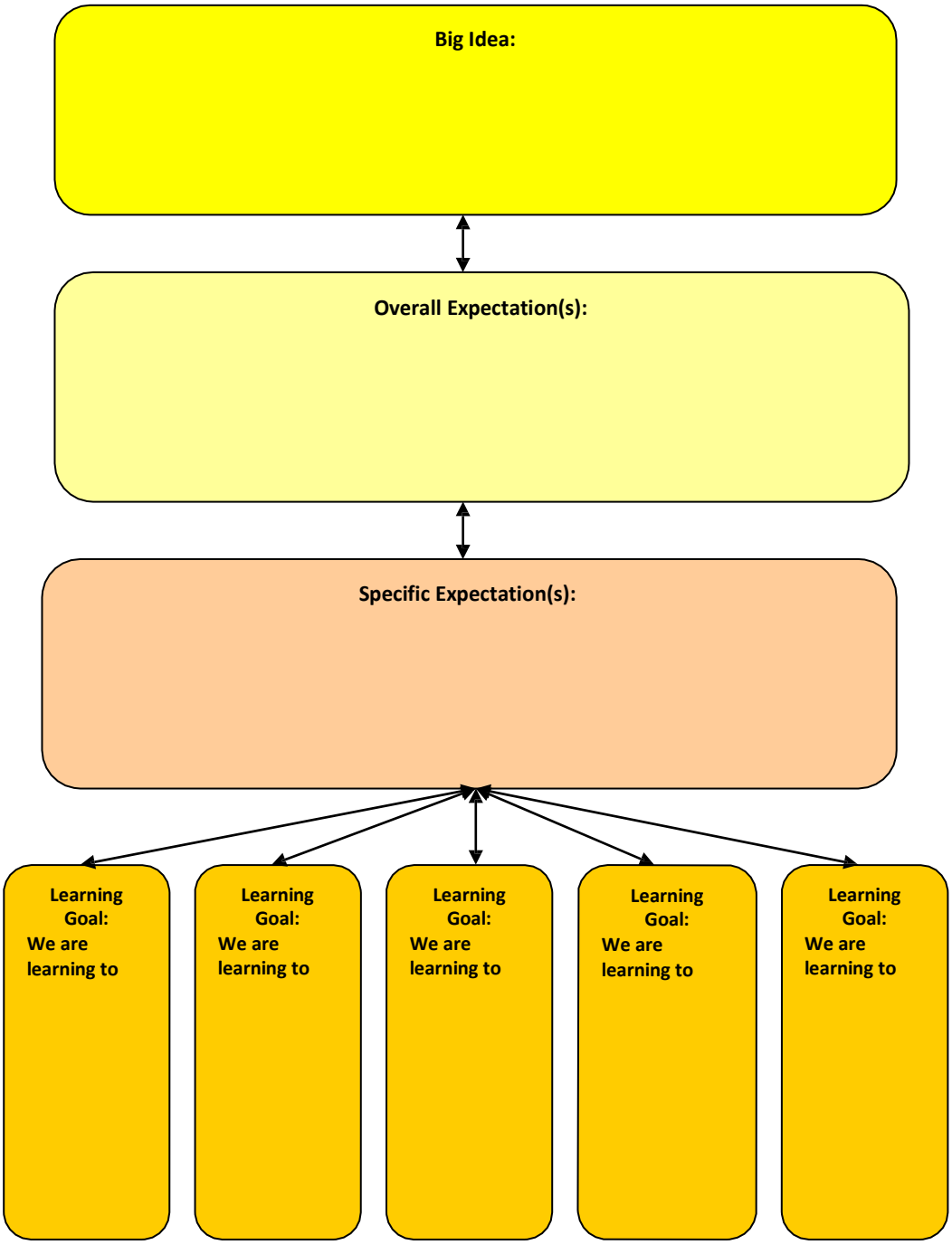
The Instructional Trajectory: How will assessment and instruction be organized for learning?	**What are students expected to learn?** *For each lesson, identify the learning goal(s) in student-friendly language.* *Consider:* *• Are lessons organized in a logical sequence that builds on previous skills and knowledge, offers opportunities for practice and growth, and leads to the culminating task?* *• Are the key learnings introduced and assessed in an appropriate sequence?* *• Are appropriate opportunities provided to learn and practise the knowledge and skills required for successful achievement of the overall expectations?* *• Do the lessons show evidence of effective design (e.g., backward design, appropriate clustering of expectations)?* *• Are the lessons incremental and scaffolded?*	**How will we know students are learning?** *Identify and provide brief details about assessment strategies and tools that will be used to monitor student learning during instruction.* *Consider:* *• Does the initial assessment task identify and assess prior knowledge and skills required for the work of the unit?* *• Does the assessment structure identify and assess learning at critical checkpoints and provide effective feedback at appropriate times?*
	Lesson 1: We are learning to *(list learning goals)* by *(describe student tasks)*	**Checkpoint:**
	Lesson 2: We are learning to *(list learning goals)* by *(describe student tasks)*	**Checkpoint:**
	Lesson 3: We are learning to *(list learning goals)* by *(describe student tasks)*	**Checkpoint:**

Appendix G: What Are Students Expected to Learn? – KWLN Chart

What I **KNOW** About Backward Design	What I **WANT TO KNOW** About Backward Design	What I **LEARNED** About Backward Design	What I Want to Learn **NEXT** About Backward Design

Appendix H: Template for Connecting Big Ideas, Curriculum Expectations, and Learning Goals

Begin with the big idea(s) you developed in **Segment 1, Activity 5.** Use the curriculum document to identify overall and specific expectations that connect with the big idea(s). Create some potential student-friendly learning goals based on the expectations and big idea(s). Use the example in **Segment 1, Activity 6** as a model, and use your big idea(s), expectations, and learning goals to complete the template below.



Appendix I: Writing More Effective Learning Goals

Examine the sample learning goals below. Identify the common attributes of the more effective goals. Jot down your thoughts on what makes an effective learning goal. As you view the rest of Segment 2, refer back to your list and add or revise.

Criteria for Effective Learning Goals			
Curriculum Expectation	**Less effective learning goal**	**More effective learning goal**	**What makes it more effective?**
Grade 1 Mathematics – Number Sense and Numeration ▪ read, represent, compare, and order whole numbers to 50, and use concrete materials to investigate fractions and money amounts	We are learning to represent, compare, and order whole numbers to 50, using a variety of tools and contexts.	We are learning to use different tools to make numbers. We are learning to compare numbers to find out which one is bigger and which one is smaller. We are learning to put numbers in order from smallest to largest.	

(continued)

Curriculum Expectation	Less effective learning goal	More effective learning goal	What makes it more effective?
Grade 3 Health and Physical Education – Healthy Living ▪ explain how local fresh foods and foods from different cultures (e.g., berries, curries, chapattis, lychees, kale, lentils, corn, naan, wild game, fish, tourtière) can be used to expand their range of healthy eating choices	We can explain how local fresh foods and foods from different cultures can be used to expand our range of healthy eating choices.	We are learning to make healthier personal food choices by exploring new foods from different parts of the world.	
Grade 5 Social Studies – Canada and World Connections ▪ explain the significance of civic buildings and symbols (e.g., the federal Parliament Buildings, the Peace Tower, the Speaker's Mace, the national anthem, Queen's Park, flags and coats of arms, local public buildings and memorials)	We can explain the significance of civic buildings and symbols.	We are learning to explain how the symbols used in places like civic buildings can help us feel Canadian.	

(continued)

Curriculum Expectation	Less effective learning goal	More effective learning goal	What makes it more effective?
Grade 6 Arts – Visual Arts ▪ **Reflecting, Responding, and Analysing:** apply the critical analysis process to communicate feelings, ideas, and understandings in response to a variety of art works and art experiences	We are learning to apply the critical analysis process to our work.	We are learning to express our first reactions to a work of art in different ways. We are learning to analyse and interpret the artist's choices of elements, materials, and concepts, and how those choices make us feel and think. We are learning to identify and communicate how the artist's background and personal life shaped his or her work. We are learning to develop and communicate an informed personal point of view about visual art works.	

(continued)

Curriculum Expectation	Less effective learning goal	More effective learning goal	What makes it more effective?
Grade 8 Science and Technology – Understanding Life Systems ▪ investigate functions and processes of plant and animal cells	Students will know how to investigate functions and processes of plant and animal cells.	We are learning to use a microscope to investigate functions and processes of plant and animal cells.	
Grade 10 English (ENG2D) ▪ identify the most important ideas and supporting details in texts, including increasingly complex texts (e.g., flag key passages that reveal character in a text; highlight or make notes about ideas or details that support the author's thesis; prepare a series of tableaux to represent key events in a story; determine what essential information is conveyed by the captions in a graphic)	We are learning to identify the important ideas and supporting details in both simple and complex texts.	We are learning to identify the important ideas and supporting details in both simple and complex texts to help us to understand what we are reading.	

(continued)

Curriculum Expectation	Less effective learning goal	More effective learning goal	What makes it more effective?
Grade 11 Technological Education – Communications Technology Fundamentals (TGJ3O) ▪ identify the components of audio, video, graphic arts, and printing systems (e.g., video cameras, editing software, switchers, microphones, audio mixers, computers, monitors, platesetters, different types of presses [offset, flexographic, gravure, letterpress], inkjet and electrostatic printers, bindery equipment) and devices (e.g., camera controls, sensor, recording media, connectors, toner, roller, ozone filter), and describe their functions	I can identify the components of audio, video, graphic arts, and printing systems and devices and describe their functions.	I am learning to identify the components of audio and video systems and describe their functions. I am learning to identify graphic arts systems and describe their functions. I am learning to identify the components of printing systems and devices and describe their functions.	
Grade 12 Business Studies – Accounting for a Small Business (BAN4E) ▪ complete the accounting cycle for a service business, using accounting software	I can use accounting or applications software to complete the accounting cycle for a service business.	I am learning to explain the features of the accounting cycle and its importance for a service business. I am learning to use accounting or applications software to complete the accounting cycle for a service business.	

(continued)

Compare the criteria for effective learning goals that you identified from the earlier examples and from viewing the video with the ones below. Discuss any differences between your criteria and the ones listed below with your colleagues.

Criteria for Effective Learning Goals

Criteria	
Content	identifies what is to be learned
	linked to the overall and specific expectations to be addressed
	connected to a big idea
	identifies incremental steps to build student knowledge and skills
Language	uses clear, concise language
	uses language that is student-friendly and grade-appropriate
	uses verbs that describe specific and observable actions
	is stated from a student's perspective (e.g., "We are learning to …")

Appendix J: Criteria for Rich Tasks

Criteria	(√) or (X)	Evidence of Learning
▪ Embodies what students know and are able to do – what they are doing and learning are the same		
▪ Aligns explicitly with the big ideas, overall expectations, learning goals, and success criteria		
▪ Builds on prior knowledge and learning		
▪ Complex: requires students to use critical thinking skills and allows for a full range of performances		
▪ May require students to apply the learning in new ways		
▪ May address two or more categories of the achievement chart		
▪ High interest, meaningful, connected to real life, and engaging for students		
▪ Reflects students' interests, learning styles, preferences, needs, and experiences		
▪ Allows for multiple entry points		
▪ Allows students some choice in how they demonstrate their learning		

Appendix K: Learning Goals and Tasks

Completing rich tasks yourself before assigning them to students helps to identify potential solutions and misconceptions, areas of challenge, and clarifying questions that can help you to refine your task and plan for constructing learning conversations.

Learning Goal(s):			
Task and Possible Solution(s):			
Reflecting on the Task:			
Potential Misconceptions:		**Clarifying Questions:**	

Examine your clarifying questions. Arrange them into a questioning sequence that reflects a progression from least to most difficult, which you could use in the classroom. Are there any questions that you might need to add in order to scaffold this progression for your students? If so, list them and discuss your question progression with a colleague.

For more information about questioning and developing a progression of questions, see **Activity 4** in **Segment 2 – Planning Questions** in the *Questioning Viewing Guide* (p. 8).

Appendix L: Planning Inquiry with Assessment

Potential Challenges with Planning Collaborative Inquiry with Assessment	
▪ Writing and sharing learning goals that do not compromise the inquiry (3:38)	Write the learning goal(s) as: ▪ Questions ▪ Inquiry-based goals – e.g., "design and conduct an investigation of …" ▪ Exploration – e.g., "examine the relationship between …" ▪ Exit card responses near the end of the investigation
▪ Promoting critical thinking through quality questioning (3:49)	▪ Anticipate and plan responses that extend thinking for questions students might ask. ▪ Encourage students to develop and pose their own questions. ▪ Promote learning conversations through peer questioning. ▪ Pre-plan your questions to connect the learning and the doing. ▪ Use question extenders – e.g., "What would happen if …"; "Can you think of another example?"
▪ Defining and applying criteria during the inquiry process (4:22)	▪ Have students list what they are doing as they learn to document the inquiry process. ▪ Have students predict what they think they might need to know and be able to do at different stages of the lesson or process.
▪ Using criteria so that students can peer- and self-assess while they learn (5:03)	▪ Anticipate criteria that might evolve early around a goal and employ an abbreviated form of co-construction early in the learning so that students can use these criteria to self-assess during the learning. ▪ Focus on one or two criteria from prior learning and apply them for self-assessment during the learning. ▪ Have students build a list of possible criteria as they progress through the investigation and select just one to use for self-assessment.

Appendix M: Scaffolded Goals

The teachers identified six scaffolded goals that would provide the students with the knowledge and skills they would need to complete the culminating task of creating an allegorical graphic text and demonstrate their attainment of the big idea / rich learning goal. Examine the chart and the scaffolded, student-friendly learning goals that are listed there. Create the remaining scaffolded, student-friendly learning goals. How did the task drive the backward planning for the learning? How do the scaffolded learning goals build the knowledge and skills for success on the task? If viewing with colleagues, discuss your thinking with them.

Course Code: ENG4U
Expectations: **Writing OE2. Using Knowledge of Form and Style:** draft and revise their writing, using a variety of literary, informational, and graphic forms and stylistic elements appropriate for the purpose and audience **Media Studies OE2. Understanding Media Forms, Conventions, and Techniques:** identify some media forms and explain how the conventions and techniques associated with them are used to create meaning **Media Studies OE3. Creating Media Texts:** create a variety of media texts for different purposes and audiences, using appropriate forms, conventions, and techniques
↓
Inferential thinking **Student-friendly learning goal**: We are learning to explain the difference between explicit and implicit meaning.
↓
Defining allegory
↓
Defining graphic text
↓
Developing success criteria
↓
Develop outline or draft **Student-friendly learning goals:** We will demonstrate insight into our strengths and weaknesses as writers. We will practise strategies to improve our writing skills on complex texts.
↓
Debrief descriptive feedback from peers
↓

Appendix N: Students as Active Participants in the Learning

After viewing **Segment 7**, complete the first two rows of the chart to identify how teachers and students act independently and together to construct the learning for the lesson and the unit. Complete the chart after viewing **Segment 8**.

Segment				
Segment 8, Activity 4	**Peer and Self-Assessment**			
	Descriptive Feedback			
	Individual Goal Setting			

Appendix O: I Used to Think … But Now, I Think …

	I used to think …	But now, I think …
Students as Partners in the Learning		
	I used to think …	But now, I think …
Planning Assessment with Instruction		

I used to think … but now I think Activity from Project Zero Website:
http://pzweb.harvard.edu/vt/VisibleThinking_html_files/03_ThinkingRoutines/03c_Core_routines/Core_pdfs/V T_ Usedtothink.pdf

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