

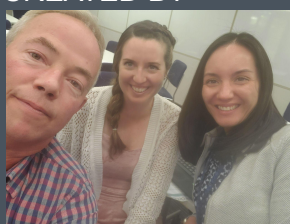
CURRICULUM CRATE

A curriculum crate allows for a "teacher to apply a current and comprehensive repertoire of effective planning, instruction, and assessment practices to meet the learning needs of every student" (TQS 3). We start by **dissecting a learning outcome** to examine what students need to know, experience, and demonstrate in their learning journey for that outcome during this timeframe. We then use this to **plan an appropriate lesson(s)**. This crate is an example moment in time that can showcase possibility to educators. Ideally you will customize this lesson to meet the needs of your students and know that learning outcomes are returned to many times throughout the year as we layer on our knowledge, understandings, skills, and procedures of each learner outcome. Thank you to teacher working groups who worked side by side with consultants to create these.



Click here for an editable [Google Doc](#) or [Microsoft Word](#)

CREATED BY



Thank you to teacher working groups who worked side by side with consultants to create this crate

Natalie Zuberbuhler- St. John XXIII
Vincent Isaac- Math Consultant
Jennifer Espejo Harasimiuk- Assessment Consultant

GRADE

Grade 1

SUBJECT(S)

Mathematics

DATE

Early October

Dissecting a Learning Outcome for Teacher Understanding

Why dissect a learning outcome? A learning outcome describes what students are required to know, understand, and be able to do by the end of a grade. For teachers, having a clear understanding of the anatomy of an outcome drives instruction and ensures that assessments hit the intended target of the learning outcome.

LEARNING OUTCOME(S)

Please note the nouns and verbs to help focus on concepts and skills as part of the learning outcome

Students interpret and explain quantity to 100* (*A focus on quantities to 25 in October)

LEARNING EXPERIENCES & LESSONS

Consider how the verbs within the outcomes provide direction for the instruction. What are the ways students will acquire knowledge and skills? How will they "learn it"? Consider the instructional steps (acquire, build, consolidate) along the way. Think about the thoughtful sequence of learning experiences throughout the timeframe of learning (such as October) Remember Design for Learning: anticipate & plan for a wide range of student needs. ONE of these learning experiences will be planned as a lesson below.

Acquire

"I am being introduced to a new topic or skill."

Activate prior knowledge and engage students' attention, motivation, and interest.

Build

"I am building upon my understanding of the concept/skill."

Expand, delve, practice, and apply.

Consolidate

"I am getting ready to demonstrate my proficiency with the concept/skill."

Make connections, analyze, synthesize, evaluate, and extend practice.

Acquire

Introduce vocabulary: Set, group, count, total, match (leading to subitize)

Introduce one to one correspondence, subitizing, and representing quantity pictorially.

Use Ten Black Dots mentor text to explore one to one correspondence (read aloud)

Use of songs for subitizing and showing number

Build

Students develop one to one correspondence first through the use of concrete materials extensively prior to extending to abstract representations.

Explore representing quantity in different ways such as using objects and creating pictures. (Mentor texts can serve as a catalyst to represent quantity.)

Consolidate

Students will identify a way to represent a quantity up to 10 such as the use of subitizing dot cards.

Identify when/why different representations might be helpful.

EVIDENCE OF LEARNING

These are the collection of assessments for the learning outcome(s) during this time frame. Consider how the verbs within the outcomes provide direction for the assessment. What are the ways students will show their learning? How will students demonstrate their newly acquired knowledge and skills? Remember to triangulate evidence, that is, collect evidence from multiple sources of student demonstration

Observations	Conversations	Products
- Students demonstrate representing numbers in a variety of ways (concrete, pictorial, symbolic). - Students count fluently and accurately to a predetermined quantity (within 25 for October, 10 for this lesson) in a variety of ways.	During “slide in beside” moments, classroom “number talks,” or guided math groups, the students are able to explain how they can represent numbers in a variety of ways.	- Students can represent numbers up to 10 using images. - Students can accurately complete a number set to 10.

MAKING CONNECTIONS WITH COMPETENCIES

Literacy & Numeracy

Literacy:

Children participate in guided activities that model the use of strategies when viewing, listening to, and interacting with texts.

Children express meaning in various ways.

Numeracy:

Children recognize that quantitative and spatial information is all around them.

Children participate in guided activities that model how to complete a task involving numeracy.

Children describe the quantity of objects within a group(s) as being more, less, enough, too many, or too few for a variety of purposes (To complete a set).

Student Competencies

- I ask relevant questions to help me learn.
- I rephrase problems to clarify my understanding.
- I determine information that is relevant to help me solve problems.
- I work toward solving problems even when there are challenges.
- I use a variety of formats to communicate.
- I can represent in multiple ways.

Children use numbers to count in their environment. Children recognize or create basic representations of quantitative information (e.g., numbers, drawings). Children use basic vocabulary, gestures, objects, or symbols when communicating about quantitative or spatial information.

Lesson Plan - A Potential Learning Experience

Below you will see a potential learning experience for a learner outcome in the new curriculum. You will be able to use this lesson as a strong pedagogical example as well as have the freedom to customize it based on your student needs. This can be part of a thoughtful sequence of learning experiences for students as part of ongoing teaching and assessment within the learning outcome.

LESSON TITLE

One-to-One Correspondence (Beginning Lesson)

LEARNING GOALS

Learning goals are written in kid-friendly language. What are the learning goals for THIS LESSON a single outcome may be too large for a single intention -- write multiple learning intentions as necessary

We are learning that a number can be represented in different ways.

STUDENT CRITERIA FOR SUCCESS

What will I see or hear students do or say DURING THIS LESSON that tells me they understand? Use the KUSPs to guide you. All KUSPS of the learning outcome must be addressed by the end of the year. Remember the verbs from [Bloom's Taxonomy](#)

I can make a book in which I show that a number can be represented by both a picture and a numeral.

EVIDENCE OF LEARNING

This is the assessment(s) for THIS LESSON. What are the ways students will show their learning? How will students demonstrate their newly acquired knowledge and skills? How will you gather this evidence? Remember to triangulate evidence, that is, collect evidence from multiple sources of student demonstration

Observations:
Observe students correctly filling in the 10 Black Dot Counts booklet.

Conversation:
During Guided Math or Group activity, utilize observational checklists or anecdotal notes to determine whether a student can complete the activity demonstrating understanding.

Product:
Complete the 10 Black Dot Counts booklet.

TO DO BEFORE THE LESSON

- ☐ Highlight one to one correspondence before the lesson throughout the school day. For example:
Point to your nose and say "This nose represents 1."
Point to two chairs and say, "These chairs represent 2").

RESOURCES NEEDED

- ☐ [Songs, base 10 blocks](#)
- ☐ [Ten Black Dots by Donald Crews](#)
- ☐ [Songs for Subitizing and Showing Numbers](#)
- ☐  Subitizing 10 dots

Use calendar routines, agenda, desks, etc. to reinforce numbers and quantity.

- ☐ Establish gathering routines.
- ☐ Have slides/video of the book ready to go.
[10 Black Dots story and google slide activity](#)
- ☐ Print off student copy of ten black dots
[Subitizing 10 dots](#)

- ☐ [10 Frames](#) and related information from sharepoint.

CONSIDERATION FOR LEARNER NEEDS

Need	Universal Support (GOOD for ALL students)	Targeted Support (CHOICE for ALL students)	Essential Support (Good for One)
Reading comprehension	- Introduce key vocab before reading - Offer read aloud as an option - Sticky notes for vocab challenges	- Paired reading for pacing - Noise canceling headphones - Time to re-read for clarity - Drawing option to map out ideas throughout	In addition to other supports, - Give reading in advance - Read with teacher in small group - stop and explain, draw connections, etc.

Scaffolding

- Provide vocabulary, visuals, and manipulatives as needed.
- Reduce the numbers with which the student is working (10, 20).
- Provide multiple ways to demonstrate understanding (orally, drawing, video, using technology).

Extending

- Students can circle groups within 10 Black dots. Ex: I see a group of 6 and 4. Idea of Part Part whole (beginning additive principle).
- Move the black dots into a ten frame (Multiple representation).
- Provide opportunities to extend place values beyond 10.

TEACHER INSTRUCTION / STUDENT EXPERIENCE & PRACTICE

Suggested two day lesson

1. Provocation (Set learning intention)

Read the book: Ten Black Dots by Donald Crews (also available on youtube:

<https://www.youtube.com/watch?v=l4PGv09T4gc>)

After reading the story together, explain how the amount of dots on each page represent(s) a number. Explain that we are learning that a number can be represented many different ways but today we are focusing on using pictures, or black dots to show how many.

Model using 1 to 1 correspondence to count, and that the last number counted represents the total, or how many are in the group.

Go through google slides to reinforce the concept. [10 Black dots counting](#) (Make a copy)

Count each dot on the page pointing one to one - exemplify cardinality by asking the class, "So, how many?" Count as a class.

2. Introduce success criteria and task

I can make my own "Ten Black Dots" book to demonstrate that a number can be represented by both a picture and a numeral. [Subitizing 10 dots](#)

Distribute the subitizing 10 dots pages and choice of implement to fill in the pages. The teacher will need to project the subitizing 10 dots activity book as students may not yet be ready to read the numerals or words. Go page by page.. Use the "I Do, You Do" strategy.

Dots can be made with stickers, bingo dabbers, or drawing implements of your choice.

Students can then "read" their book to a friend and decorate like Donald Crews.

Teacher Assessment: Observation Checklist complete in whole group or guided group session.

- Have students find page 6. Can they find number 6? Does the student have 6 black dots?
- Go to page 10, have the student count it, then ask, so how many? Do they point one to one correspondence? Do they just say 10? Do they go back to count again?

TEACHER REFLECTION / NEXT STEPS

Critical Thinking:

Do the students understand one to one correspondence?

Do the students understand a number set?

Can students subitize using black dots?

Next Steps:

Increasing the quantity represented to 25.

Continue to support conceptual understanding of numbers using visual representations and manipulatives (blocks, ten frames, number lines).

Continue to demonstrate that numbers have multiple representations.

If students are having difficulty, return to visual representations and manipulatives, and give more time for students to verbally express their understanding. This can also occur during guided math.