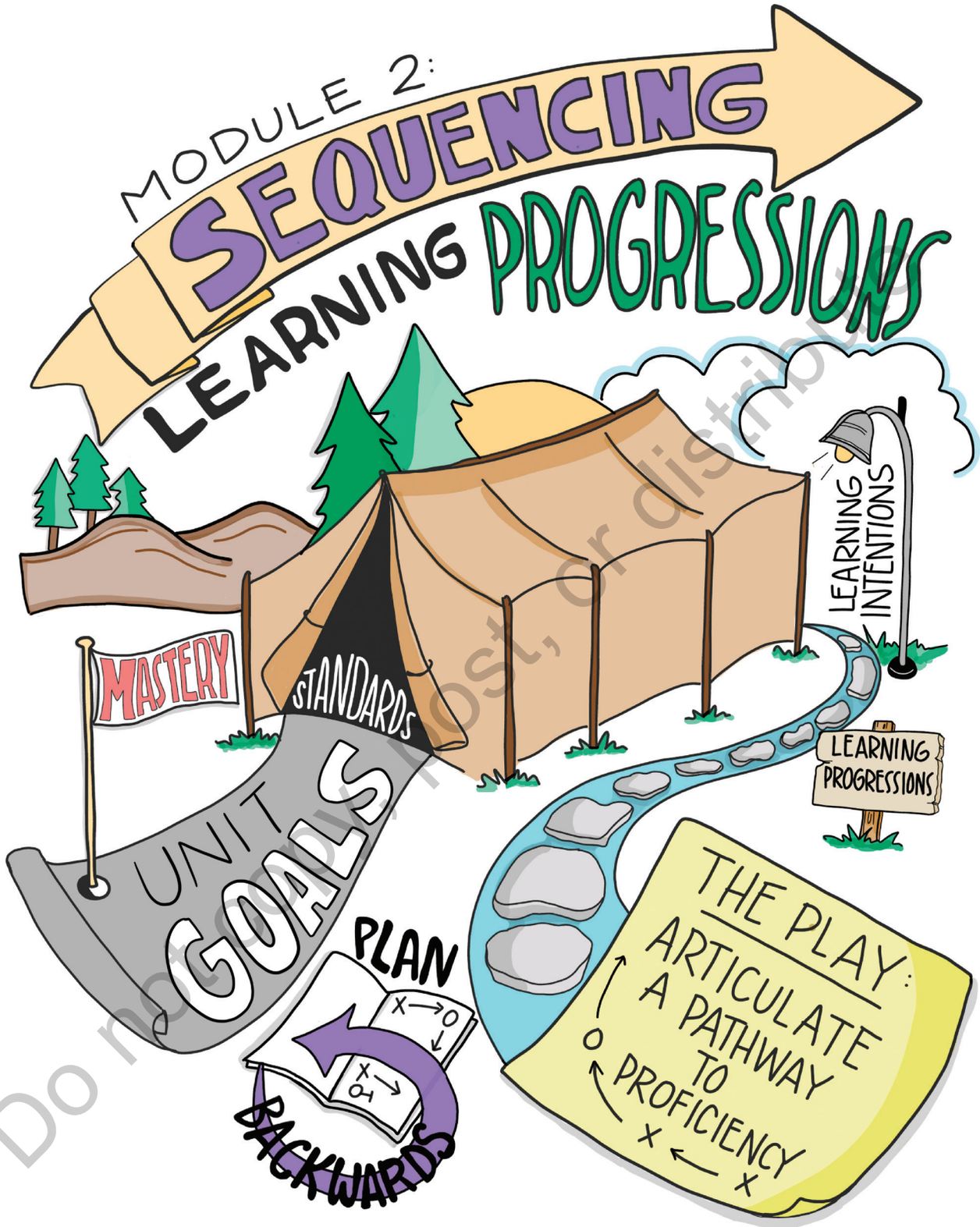


MODULE 2: SEQUENCING LEARNING PROGRESSIONS

◂ Module 2 Overview
resources.corwin.com/TCP2e

In Module 1, we uncovered two ideas that are essential in our clarity journey.

1. **Students can't learn standards in a single day.**
2. **Standards tell educators *what* to teach, not *how* to teach it.**

Standards represent the knowledge students gain through extended experience and interaction with the content. When teachers identify the concepts and skills within a standard, or groups of standards, they discover information about the form of the concepts and skills the students need to learn. What those extended experiences and interactions look like, sound like, and feel like comes with how educators implement the standards. These ideas are associated with two questions that come from the process of analyzing the standards.

- First, what underlying prior knowledge must students possess? This may require viewing the standards vertically, noting what comes before and after the standard you are analyzing.
- Second, how might the concepts and skills within this standard be sequenced in a logical way? In reality, there are likely many right ways to sequence the learning. And there are probably sequences that would not work.

A sequence of learning progressions frames the planning you need to do for students to reliably learn. This module focuses on the logical progression of learning.

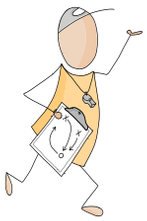
Learning progressions articulate a pathway to proficiency. The learning progressions are like tent poles for a unit of study in that they delineate the major supports for the standard. To use another metaphor, they are the stones that mark a path. Standards provide the scope and sequence of a curricular area that show how concepts are broadly developed from kindergarten through high school. Learning progressions are more fine-grained and describe the intermediate steps students will utilize to reach mastery.

Learning progressions differ from learning intentions, which we will address in the next module. Learning intentions expand each of the learning progressions into daily statements of expectations for students. But it is too broad a leap to move directly from a standard to the daily learning intentions. The learning progressions aid in setting forth a path that will lead to the desired outcome, which is mastery of the standards.

Learning progressions are the essential core concepts and processes that underlie the standard. These function as unit goals or major outcomes that students need to understand to demonstrate their proficiency. If you use instructional materials or textbooks, there is a learning progression already provided. Of course, you may or may not agree with the progression, which is why some teachers modify the order of the content used in these resources. Daily learning intentions may or may not be represented in the assessments of mastery, but learning progressions should be represented in the assessment of mastery, as we will see in Module 9.

DETERMINING A LEARNING PROGRESSION

We will use a middle school Next Generation Science Standard (NGSS) to demonstrate the process of developing a learning progression. Once the concepts (nouns) and skills (verbs) have been identified, the next step is to analyze the logical progress of learning. Let's consider the following standard:



MS-ESS1-1. Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

To gain mastery on this standard, students need to develop their understanding of the cyclical patterns, specifically of the lunar phases. In addition, students need to develop and use models to aid in their descriptions and explanations. Therefore, a possible approach for this standard might be to have the following learning progressions, each with varying numbers of learning intentions:

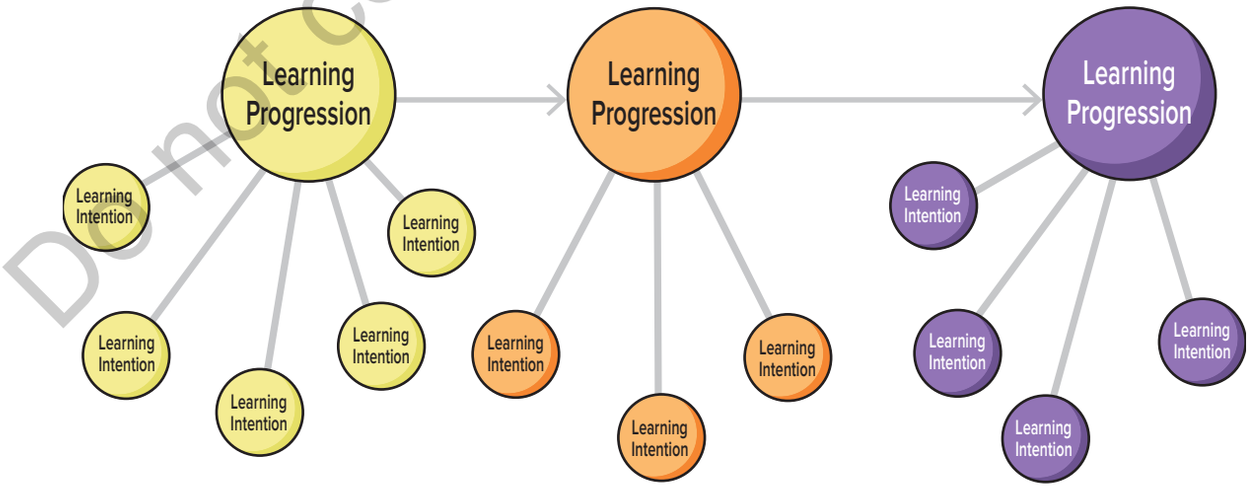
1. Be able to distinguish various phases of the moon.
2. Relate the lunar cycle to seasons.
3. Develop a model to describe lunar phases, including eclipses.

These are not individual lessons, and some may in fact involve previously mastered skills (e.g., using a model). However, identifying a progression for learning ensures that students consolidate concepts and skills in a coherent and cohesive manner.

Of course, there are other orders in which this content could be taught. Some teachers, for example, may start with the model and build from there.

Once the learning progressions have been identified, each can be further expanded into daily learning intentions, which will be addressed in the next module. See Figure 3 for a visual representation of the relationship.

FIGURE 3 The Relationship Between Learning Progressions and Learning Intentions



Importantly, there is no right number of learning progressions (or learning intentions). As we metaphorically noted earlier, these are the tent poles, and we recommend that there are enough of them to support students' learning. Remember that the learning progressions are broader statements from which the daily learning intentions are developed.

Depending on the students in your class, some of the individual learning progressions may have already been mastered. For example, the middle school students might already know how to distinguish various phases of the moon, so the teacher could skip that one, even though it might be important for students in another class to focus on. In other words, learning progressions detail the logical order of students' learning, and teachers decide where to start and what to include, based on their knowledge of their students.

The learning progression plays a key role in implementing the standard—the *how* of our clarity journey. The sequence of learning experiences and interactions lays the foundation for generating and analyzing evidence of student progress toward mastery.

We rely on backward planning, beginning with the end in mind, that analyzes the outcome standard and the ways in which students will demonstrate mastery of that standard. In other words, we identify how the teacher will assess the learning. We have included mastery of standards as the last module in this playbook to demonstrate the flow of the lesson, but some teams may wish to turn to that section now to focus on the ways in which students will demonstrate the culmination of their learning experiences and interactions.

Of course, the planning process also includes a range of meaningful experiences that guide students toward mastery as teachers check for understanding along the learning journey, making modifications based on how quickly students are grasping the information. We will focus on the meaningful learning experiences that teachers design in Module 8.

PLC+ CONVERSATIONS

1. **How do you determine the sequence of learning experiences and interactions for a particular standard?**
2. **How are learning progressions different from learning intentions, and why is this important?**
3. **How can you reach agreement about the learning progressions for a given standard?**

NOTES

MODELING

In this section, you will find examples of standards and learning progressions for the English language arts and mathematics standards we analyzed in Module 1.

GRADE 1 – ENGLISH LANGUAGE ARTS

STANDARD(S)

Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.

CONCEPTS (NOUNS)

Text features

- Headings
- Tables of contents
- Glossaries
- Electronic menus
- Icons

Key facts

Key information

Text

SKILLS (VERBS)

Know (text features)

Use (text features)

Locate (key facts or information)

LEARNING PROGRESSIONS (UNIT GOALS)

1. Know and understand various text features.
2. Use text features to locate key facts or information.

GRADE 3 – MATHEMATICS

STANDARD(S)

Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem).

CONCEPTS (NOUNS)

Multiplication

Division

Word problems

Situations

- Equal groups
- Arrays
- Measurement quantities

Drawings

Equations

Symbol

Unknown number

Problem

SKILLS (VERBS)

Use (multiplication and division)

Solve (word problems)

Represent (the problem)

LEARNING PROGRESSIONS (UNIT GOALS)

1. Know basic multiplication and division facts within 100.
2. Understand and apply representations in multiplication situations, including equal groups, arrays, measurement quantities, and equations with unknown numbers.
3. Understand and apply representations in division situations, including equal groups, arrays, measurement quantities, and equations with unknown numbers.
4. Use models and representations to solve multiplication or division word problems within 100.

GRADE 8/9 – ALGEBRA

STANDARD(S)

F-IF.1 Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x. The graph of f is the graph of the equation $y = f(x)$.

F-IF.2 Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

F-IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*

F-IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function* h *gives the number of person-hours it takes to assemble* n *engines in a factory, then the positive integers would be an appropriate domain for the function.*

CONCEPTS (NOUNS)

Function

Set

Domain

Range

Element of a set

Input/output

Function notation

Statements that use function notation

Relationship between two quantities

Graphs of functions

Tables

Key features of graphs

Key features of tables

Verbal description of a function

SKILLS (VERBS)

Understand (the concept of a function)

Assign (elements from one set to elements of another)

Use function notation

Evaluate functions

Interpret (function notation in terms of a context)

Interpret key features of graphs

Interpret key features of tables

Sketch graphs showing key features

Relate (a domain to a graph)

Relate (a domain to a quantitative relationship)

CONTINUED

CONTINUED

LEARNING PROGRESSIONS (UNIT GOALS)

1. Develop an understanding of the concept of a function and how functions can be represented visually, graphically, verbally, and numerically.
2. Develop fluency with using function notation and numerical evaluation.
3. Generate tables of values from symbolic representations of functions, and interpret their key features.
4. Use tables of values and verbal descriptions to sketch the graphs of functions, and interpret their key features.
5. Analyze key features of functions represented graphically, numerically, verbally, and symbolically, and interpret their meaning.
6. Interpret domains of functions from graphs and contextual descriptions.

GRADE 9/10 – ENGLISH

STANDARD(S)

Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.

CONCEPTS (NOUNS)

Precise claims

Alternate claims

Opposing claims

Organization with clear relationships

- Claims
- Counterclaims
- Reasons
- Evidence

SKILLS (VERBS)

Introduce (claims)

Distinguish (claims)

Create (organization)

LEARNING PROGRESSION (UNIT GOALS)

1. Understand claims and counterclaims and their purpose in an argument.
2. Understand the structure of an argument and the relationship between claims, counterclaims, reasons, and evidence.
3. Create text organization that establishes clear relationships among claims, counterclaims, reasons, and evidence.

GUIDED PRACTICE

We have written learning progressions for a Grade 3 standard for theater. For your first task, place the following learning progressions in a logical sequence. Put 1 beside the step you believe comes first, 2 beside the next logical progression, and so on.

Standard(s)

Propose potential new details to plot and story in a guided drama experience.

___ Perform the story.

___ Identify new details to enhance the experience.

___ Conceptualize the scenery.

___ Tell the story.

For your second task, create a set of learning progressions for the following NGSS for students in kindergarten.

K-PS3-1: Make observations to determine the effect of sunlight on Earth's surface.

1. _____

2. _____

3. _____

4. _____

5. _____

online resources For suggested answers, please turn to the Appendix (page 169) or visit the companion website at **resources.corwin.com/TCP2e**.

INDEPENDENT PRACTICE 

Continue by adding the learning progressions that follow a logical sequence based on the standard(s) you selected and analyzed.

NOTE: If you would prefer to work from the full template, you may either download a blank copy or flip to page 153 and complete all end-of-module independent practice there.

LEARNING PROGRESSION

online resources For a blank version of the independent practice pages in this book, visit **resources.corwin.com/TCP2e**.

WATCH

Videos and additional resources may also be accessed at resources.corwin.com/TCP2e

Module 2 in Action—Elementary
resources.corwin.com/TCP2e

Module 2 in Action—Secondary
resources.corwin.com/TCP2e

Module 2 Think-Aloud
resources.corwin.com/TCP2e

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