

MODULE 1:

# CONCEPTS & SKILLS

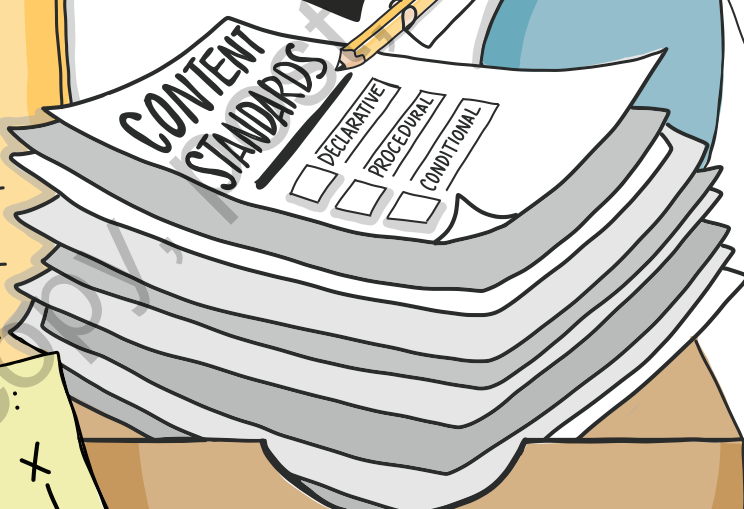
I KNOW THE FACTS...  
HOW TO **APPLY** THEM  
& **WHEN** TO USE!

**PRIOR KNOWLEDGE**

**NOUNS**  
CONCEPTS  
**VERBS**  
SKILLS

WHAT A STUDENT  
NEEDS TO **KNOW**

...AND  
BE ABLE TO  
**DO!**



THE PLAY:  
ANALYZE  
THE  
STANDARDS



# MODULE 1: IDENTIFYING CONCEPTS AND SKILLS



◀ **Module 1 Overview**  
[resources.corwin.com/TCP2e](https://resources.corwin.com/TCP2e)

The journey toward clarity of learning must begin with the end in mind. For almost all of us, this is communicated through our standards and supporting materials. Together, these documents articulate what learners must know, understand, and be able to do within a given grade level and content area.

Clarity demands that educators analyze these documents to identify the concepts, understandings, and skills, along with the prior knowledge necessary to engage in the new learning. When you take a close-up look at the standards, you will notice that the learning outcomes are often linked to an application of those outcomes to an ever-widening set of problems, situations, contexts, and/or texts. Thus, these outcomes and applications are not meant to be mastered by your students in a day or a week. Instead, teaching these standards require you to engage in intentional planning and implementation over multiple learning experiences, which may also rely on concepts, understandings, and skills from other integral standards.

Let's take a closer look at the nature of the concepts, understandings, and skills, which include the content knowledge and the cognitive complexity of our standards.

## WHAT IS THE CONTENT KNOWLEDGE OF THE STANDARD OR STANDARDS?

Not all standards are the same. Not all content within a standard is the same. We know that

there are some standards that provide an initial introduction to content, while other standards take a deeper dive into the content.

A useful method for determining the cognitive complexity of a standard is to focus our analysis on the standard's nouns and verbs. The nouns in a standard generally represent what the student needs to know—the concepts—and encompass the following:

- *Declarative knowledge*, which is the factual information associated with the subject
- *Procedural knowledge*, which is the application of the information
- *Conditional knowledge*, which is knowing when the information should be used

Many of the nouns in a standard reveal the factual, procedural, and/or conditional knowledge the student needs to learn. In other words, these are the content demands. Take this example from the Michigan Social Studies Standards for Grade 5, with key nouns and noun phrases underlined:

### STANDARD(S)

Describe positive and negative consequences of changing the physical environment of the local community.

### CONCEPTS (NOUNS)

consequences of changing (positive and negative)  
physical environment  
local community

### SKILLS (VERBS)

the essential nouns. That is not to say that these adjectives are not important—quite to the contrary, they are important because they provide further detail and nuance about the concepts that need to be taught. But for now, we just want to tease out the key nouns and noun phrases present. We will also analyze the skills/verbs shortly.

The nouns of the standard also represent the academic vocabulary necessary for navigating through and communicating about the learning. As we will show in an upcoming module, insight into the language of the standards allows us to build the academic vocabulary in our students and scaffold the linguistic demands associated with the learning.

This example focuses on one standard. In many subject areas, teachers are teaching multiple standards at the same time. In that case, you'd list all of the standards in the top box and identify the range of concepts (nouns) and later skills (verbs), and then continue the process outlined in this playbook.

## WHAT IS THE COGNITIVE COMPLEXITY OF THE STANDARD?

Of course, teaching is far more than just pouring facts into the heads of students. Likewise, our standards are more than just vocabulary terms to be memorized and regurgitated. The syntax of the standards helps us again, this time in the form of verbs. The nouns tell us what learners must know, and the verbs tell us how well they must know it. Many of the verbs in a standard speak to the skills students must acquire in order to make the concepts, and content, useful. The verbs communicate the cognitive complexity of the standard. There is a difference between the skills of identifying and analyzing and those of naming and evaluating. Let's look again at the same standard from before, this time with the verbs underlined.

### STANDARD(S)

Describe positive and negative consequences of changing the physical environment of the local community.

### CONCEPTS (NOUNS)

consequences of changing (positive and negative)  
physical environment  
local community

### SKILLS (VERBS)

describe

*Describing* is a more complex cognitive skill than listing consequences associated with changes. Chances are good that the moment you considered this verb, you immediately began thinking in two divergent directions:

1. What other knowledge and skills would students need to develop an argument?
2. How might a student demonstrate this skill?

The first question speaks to the prior knowledge and skills needed, while the second question addresses wonderings about teaching and assessment.

These questions are an essential part of the clarity journey and will be a focus of upcoming modules. For now, let's not jump too far ahead. Instead, consider the cognitive demand associated with *describe*. This is above and beyond simply reproducing facts. *Describe* requires learners to use factual, procedural, and conditional knowledge as those elements apply to the concepts in the standard.

However, we also want to highlight what the word *describe* doesn't say. Nowhere is there

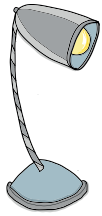
a directive about how this skill will be accomplished or what the learning experiences will look like. The outcome might include a written explanation, a presentation, or a debate. Standards tell us what to teach, not how to teach. Those decisions are yet to come as you identify learning progressions, learning intentions, and success criteria in the coming modules.

Let's model and practice identifying concepts, understandings, and skills.

## PLC+ CONVERSATIONS

1. How has this module changed your approach to creating clarity of and for learning?
2. How will you package and pace the standards? Would a pacing guide for all of the standards be useful?
3. What is the cognitive complexity of standards for your grade level and/or content area?
4. How will you know if you analyzed the standard(s) correctly?





## MODELING

In this section, you will find examples of standards with the nouns and verbs identified. In three of the examples, we focus on a single standard. However, in the Algebra example, we focus on a cluster of standards to model how the analysis might look when planning longer units. Language added in parentheses indicates further context from the standard to flesh out the meaning of the skill. In one case, we present a cluster of standards that are commonly taught together. We have modeled this process for you.

### 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)

## 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)

## 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)

## 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)

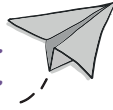
Introduce (claims)

Distinguish (claims)

Create (organization)



# GUIDED PRACTICE



For the following examples, identify the nouns and verbs. First underline them, then place them in the corresponding boxes that follow.

## GRADE 5 – WRITING

### STANDARD(S)

Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

### CONCEPTS (NOUNS)

### SKILLS (VERBS)

## GRADE 11 – WRITING IN HISTORY/SOCIAL STUDIES

### STANDARD(S)

Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

### CONCEPTS (NOUNS)

### SKILLS (VERBS)



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

# INDEPENDENT PRACTICE

Fill in your own standard(s), concepts, and skills in the below template.

**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.

STANDARD(S)

CONCEPTS (NOUNS)

SKILLS (VERBS)

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For a blank version of the independent practice pages in this book, visit [resources.corwin.com/TCP2e](https://resources.corwin.com/TCP2e).



