
Deconstructing Standards

Process

1. Identify the key concepts:

Within the standards are the specific concepts that students need to know in order for the standard to be met. These concepts are then applied to the specific learning targets.

2. Determine the learning target(s):

List what students need to do (verbs) within the standard.

3. Identify the Type(s) of Learning Targets:

For each standard, consider the knowledge, thinking and reasoning, performance skills, and/or product that are prerequisite to and underpinning competencies for that standard. The ultimate intent of a standard might be any, several, or all of the four types of targets.

- a) *Knowledge* – Teachers expect students to master substantive subject matter knowledge (e.g., science or history facts).
- b) *Thinking/Reasoning* – They often expect specific higher order cognitive operations or problem-solving skills to be demonstrated by students using the knowledge they have mastered (e.g., drawing inferences).
- c) *Performance* – They expect achievement-related skills to be exhibited by the student in specific academic contexts (e.g., giving a speech).
- d) *Products* – They expect achievement-related products to be created by the student, and they want these products to possess certain attributes (e.g., a research report).

4. Content Boundaries and clarification of terms within the standard:

Content Boundaries are those words or phrases that students should be expected to know, and be able to use, as they develop skills to master the standard. In ELA, for example, fifth grade students working on the concept of Main Idea, should know that Key Idea and Central Idea are related terms.

Many terms or concepts may mean significantly different things to teachers at the same grade level, teaching the same subject, not to mention at different grade levels or subject areas. This process not only involves defining the concept but also identifying the key elements that everyone agrees to incorporate into their instruction.

5. Construct specific skill statements:

Skill statements identify the rigor in thinking that is required of students. These are the specific “knowing” and “doing” that will lead students to proficiency in a standard. Skill statements must be written in measurable terms so that both students and teachers will know where they are in the progress to proficiency.

Deconstructing Standards: Grade 3 Mathematics Example

Standard:

- 3.NF.2.a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.
- 3.NF.2.b. Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.

1. Identify the key concepts:

interval, endpoint, (interval) size, number line, fraction $1/b$, lengths $1/b$

2. Determine the learning target(s)

partition, define, recognize, represent, locate

3. Identify the type(s) of learning targets:

Identify the Knowledge, Reasoning, Skill, and Product learning targets support the standard.

- What **knowledge** or **understanding** is required to become competent on this standard?
define, recognize
- What **reasoning** (if any) is required to be competent on this standard?
represent
- What **performance skills** (if any) are required to demonstrate competence on this standard?
partition, locate
- What **product** competencies (if any) are required by this standard?

4. Establish content boundaries and clarify terms within the standard:

Content Boundaries: fraction, real numbers, place value, numerator, denominator

Term(s) to Clarify: recognize

5. Construct specific skill statements: Fractions on the Number Line

- Partition the interval 0 to 1 on a number line diagram into b equal parts
- Define the size of each part as $1/b$
- Locate $1/b$ on the number line diagram as the point that has 0 as an endpoint and has size $1/b$
- Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0
- Express the size of the interval of a lengths $1/b$ from 0 as a/b
- Locate the fraction a/b on a number line by counting a intervals of length $1/b$ from the endpoint 0

Tips for Deconstructing Standards

Analyze the wording of the standards to determine key concepts and key skills.

- Read through the standards
- Circle verbs to identify key skills
- Underline nouns and noun phrases to identify key concepts

Example:

Create grade-appropriate real-world problems involving any of the four operations using multiple strategies, explain the reasoning used, and justify the procedures selected when presenting solutions.

Learning Target Verbs

The following chart helps identify the type of target associated with the terms in a standard.

Knowledge	Reasoning	Performance	Product
Explain	Predict	Observe	Design
Describe	Infer	Perform	Produce
Identify	Classify	Compose	Make
Define	Compare	Conduct	Write
Recall	Summarize	Speak	Draw
Recognize	Analyze	Operate	Represent
Select	Evaluate	Investigate	Display
List	Generalize	Collect	Model