Writing Learning Objectives

What are learning objectives?

Learning objectives (also called *"learning outcomes"* or *"learning targets*") are specific, measurable, and observable statements that describe:

- The behaviors students need to perform to demonstrate mastery of the content being taught.
- The intended outcome or result of instruction, not the instructional process itself.

Why should instruction include learning objectives?

- To guide the teacher's lesson planning
- To guide the teacher's assessment design
- To give students a target for what they need to learn and be able to do

How should learning objectives be written?

Learning objectives should always begin with a declarative sentence-starter. For example, the phrase, "Students will" (or, "Students will be able to," or, "Students can") is an appropriate way to begin a learning objective. Then, include three main parts to craft a measurable objective: (1) verb, (2) content, and (3) measurement.

Note: A learning objective should typically be one sentence in length and written concisely with only the required parts. Learning objectives are not the place to outline learning strategies, groupings, provide an anticipatory set, etc.

Three main parts of a learning objective:

After the declarative sentence-starter, there are three essential components of a well-written learning objective:

- The ***verb,*** which describes the desired performance (e.g., "explain…," "design…," "prove…"). The verb is an observable action that should match the content (what is being taught) and the measurement (the evidence or proof of learning).
- The ***content,*** which describes what is being taught within the specific lesson (e.g., "cause and effect relationships," "structure of a story," "numerical patterns"). What is taught should be related (aligned) to the given content standard.
- The ***measurement***, which describes the evidence students will produce (by the end of the lesson) that aligns with the verb. The measurement provides the teacher proof that the students understand the content and must be collected from each student by the end of the lesson. This formative feedback allows the teacher to assess students' learning as the unit unfolds.

Scaffolding

The verb (or verbs) used within a given content standard should guide how the teacher scaffolds the measurable objective(s). Depth and rigor differ among verbs (using Bloom's taxonomy; see below for more information). For example, teaching students to identify a specific piece of information would theoretically take less time and be less complex than teaching students to analyze it. Again, theoretically, students would need to be taught to identify the parts or elements of the content *before* being able to analyze how those parts connect.

Further, the expectation is that all verbs within a given content standard are taught. Thus, content standards (across all subjects and grade levels) vary widely with respect to scope, sequence, and pacing. For example, a given standard may take several weeks to fully teach; in contrast, a given standard may take one lesson to fully teach.

Examples of Learning Objectives

Learning Objective	Points to Consider
1. Students will multiply two-digit numbers using the provided index cards.	*Declarative sentence-starter: "Students will"* *Verb: "multiply"* *Content: "two-digit numbers"* *Measurement: "index cards"*
2. Students can describe the four functions of a cell using the unlabeled diagram.	*Declarative sentence-starter: "Students can"* *Verb: "describe"* *Content: "the four functions of a cell"* *Measurement: "using the unlabeled diagram"*
3. Students will be able to identify elements from the periodic table that are used in five given food products.	*Declarative sentence-starter: "Students will be able to"* *Verb: "identify"* *Content: "elements from the periodic table"* *Measurement: "five given food products"*
4. Students can read a given grade-level sentence or paragraph based on the criteria in the performance rubric.	*Declarative sentence-starter: "Students can"* *Verb: "read"* *Content: "given grade-level sentence or paragraph orally"* *Measurement: "performance rubric"* *Note: a performance rubric would need to be created or identified as part of the lesson plan.*
5. Students will apply the formula for the area of squares to real-	*Declarative sentence-starter: "Students will"* *Verb: "apply"*

world applications using the provided scenarios worksheet.	*<u>Content</u>: "the formula for the area of squares to real-world applications"* *<u>Measurement:</u> "scenarios worksheet"*

Non-Examples of Learning Objectives

Not a Learning Objective	Points to Consider
1. Students will understand why the United States entered World War II by writing a 5-7 sentence paragraph.	*"**Understand" is not an observable behavior**.* *The following is observable:* *Revised: Students will explain four reasons why the United States entered World War II by writing a 5-7 sentence paragraph.*
2. Students will be able to interact in a way that shows their understanding of the concept.	*This is **missing several pieces of information**:* ● *Is the learning objective being able to interact, or is it something else?* ● *What is the content being taught?* ● *What is a measurable way that the understanding would be demonstrated (what evidence or proof of learning would the teacher collect from students at the end of the lesson)?*
3. Given an essay question, students will be able to describe three outcomes of World War I.	***"Given an essay question" is describing the assessment**, not the outcome of the student's learning. This objective is also missing a measurement.* *Revised: Students will be able to describe three outcomes of World War I by accurately completing a graphic organizer.*
4. Given flags with capital cities, students will attach the flag to their proper state.	***"Attaching" is an instructional activity**, not a learning outcome. That activity might be part of a lesson-building skill toward achieving the learning objective.* *Revised: Students will properly label the capital city of each state using the provided unlabeled map.*
5. Students will learn how to eat a balanced meal.	*"**Learn" is not an observable verb**. The following is observable:*

	Revised: Students will plan one week of meals that follow given nutritional guidelines using a meal planner.

PRO TIP: Because learning objectives describe learning outcomes, it can be helpful to ask, "Is this objective written as a performance that students should be able to do in the real world (outside of my classroom) once they have mastered it?" Also, in specific cases, a performance **rubric** is necessary to assess an observable action (verb) outlined in an objective.

PRO TIP: It is appropriate to identify near the top of the lesson plan the place or order of the lesson plan with respect to the sequence of lessons within the larger content unit. Reminder: scaffolding of verbs is necessary before a given content standard can be fully taught.

Bloom's Revised Taxonomy

When designing instruction, it can be helpful to see examples of performances that ask for different levels of critical thinking. Bloom's Taxonomy was first created in 1956 for this purpose. The taxonomy was updated in 2001, which is the version referred to below [1]. These verbs can help with writing objectives as well as planning instructional activities around levels of critical thinking.

Learning Level Definitions *(Listed from most basic to most complex)*	**Sample Action Verbs** *(Not an inclusive list)*
I. Remembering/Knowledge The learner is able to recall information, such as dates, events, places, ideas, definitions, formulas, theories, etc.	*Arrange, Define, Describe, Draw, Duplicate, Identify, Indicate, Label, List, Locate, Match, Name, Outline, Pick, Point, Pronounce, Quote, Recall, Recite, Recognize, Record, Relate, Repeat, Reproduce, Retrieve, Say, Select, State, Tell, Underline*
II. Understanding The learner is able to grasp the meaning of the information, express it in their own words, and/or cite examples.	*Articulate, Characterize, Compute, Communicate, Confirm, Contrast, Convert, Defend, Differentiate, Equate, Estimate, Explain, Express, Extend, Extrapolate, Generalize, Give Examples, Group, Instantiate, Liken, Map, Order, Paraphrase, Predict, Reorder, Rephrase, Represent, Restate, Retell, Rewrite, Sort, Substitute, Tell, Trace, Translate*
III. Applying The learner is able to use or apply knowledge or skills to new situations. The learner is able to use knowledge to solve a problem, answer a question, or perform another task.	*Adapt, Add, Allocate, Alter, Apply, Calculate, Change, Choose, Complete, Compute, Conduct, Coordinate, Delineate, Demonstrate, Determine, Develop, Direct, Discover, Divide, Dramatize, Draw, Employ, Examine, Exhibit, Formulate, Gather, Graph, Make, Manipulate, Model, Multiply, Operate, Perform, Practice, Present, Provide, Recount, Report, Respond, Schedule, Show, Sketch, Subtract, Use*
IV. Analyzing	*Analyze, Appraise, Associate, Break Down, Catalog, Chart, Classify, Compare, Correlate, Criticize, Discern, Deduce, Designate,*

[1] Anderson, L., Krathwohl, D., & Bloom, B. (2001). *A taxonomy for learning, teaching, and assessing: a revision of Bloom's taxonomy of educational objectives*(Complete ed.). New York: Longman.

The learner is able to break down knowledge into parts and explain the relationships among the parts.	*Diagram, Discriminate, Dissect, Distinguish, Edit, Elect, Establish, Experiment, Explain, Expound, Illustrate, Inspect, Inventory, Isolate, Parse, Profile, Question, Refute, Segment, Separate, Subdivide, Summarize, Survey, Test, Utilize*
V. Evaluating The learner is able to judge or assess the value of material and methods for a given purpose.	*Argue, Appraise, Assess, Attack, Champion, Compare and Contrast, Conclude, Critique, Debate, Decide, Deduce, Diagnose, Dispute, Evaluate, Forecast, Improve, Influence, Interpret, Judge, Justify, Measure, Prioritize, Prove, Rank, Rate, Recommend, Resolve, Revise, Score, Select, Solve, Support, Value, Verify, Weigh*
VI. Creating / Synthesis The learner is able to pull together parts of knowledge to form a new whole and build relationships for new situations.	*Assemble, Assimilate, Build, Categorize, Collect, Combine, Compile, Compose, Condense, Construct, Create, Design, Derive, Detail, Devise, Elaborate, Execute, Expand, Generate, Glean, Guide, Form, Frame, Hypothesize, Incorporate, Integrate, Invent, Manage, Modify, Originate, Organize, Plan, Portray, Prepare, Prescribe, Produce, Propose, Publish, Reconstruct, Refine, Reorganize, Simplify, Synthesize, Theorize, Transform, Write*

PRO TIP: Once a measurable objective has been crafted, the teacher should consider using engagement teaching strategies that specifically align with the verb in the objective. For example, a "partner quiz-and-trade" learning experience (i.e., the Kagan Structure called Quiz, Quiz, Trade) aligns well with the Common Core State Standards (CCSS) 3rd grade ELA Informational Text standard 3.RI.1. This standard outlines how students learn to ask and answer questions from a given informational text. Once the teacher provides instruction regarding this content, students should engage in meaningful learning experiences that (1) align with the verb outlined in the objective (and standard), (2) allow students to practice what they are learning, and (3) provide opportunities for the teacher to assess students' learning through the application/practice or what students produce from the engagement opportunities.

PRO TIP: GCU's College of Education provides the following Explore More video to further help with crafting lesson plans: **https://youtu.be/48VZlfju8aI**