

When a learning target begins with the word *understands*, it can either be a knowledge target or a reasoning target. Is the intent that students can explain something such as understanding of a concept? If so, it's a knowledge target. (Remember, calling it a knowledge target doesn't make it a simple target—in order to explain a concept clearly you have to know it well.) Or does the word *understand* in the context of the target call for reasoning in some way beyond an explanation? If so, it's a reasoning target.

Although looking to the verb often results in an accurate classification of a knowledge target, it's important to verify that knowledge is its intent.

Reasoning Targets

Reasoning targets specify thought processes students are to learn to apply effectively (do well) within a range of subjects; e.g., solve problems, make inferences, draw conclusions, form and defend judgments. Mastering content knowledge, while necessary, is not the sole aim of education today; more importantly, we want our students to develop the ability to *apply* knowledge in authentic contexts—that is, in contexts that transfer to work and life beyond school. This requires that they engage in reasoning using their knowledge.

All subject-area curricula include reasoning processes, such as *predict, infer, classify, hypothesize, compare, draw conclusions, summarize, estimate, solve problems, analyze, evaluate, justify, and generalize*. Reasoning processes can be thought of as falling into one of six overall patterns of reasoning: inference, analysis, comparison, classification, evaluation, and synthesis. Together, the six patterns of reasoning represent those most commonly found among various taxonomies, content standards documents, and assessments. They also represent the kinds of reasoning occurring most frequently in subject area curricula as well as in life beyond school.

FIGURE 3.4 Patterns of Reasoning

Inference: Making a reasonable guess based on information or clues

Analysis: Examining the components or structure of something

Comparison: Describing similarities and differences between two or more items

Classification: Sorting things into categories based on certain characteristics

Evaluation: Expressing and defending an opinion, a point of view, a judgment, or a decision

Synthesis: Combining discrete elements to create something new