

T A B L E 3 . 8

Developmental Use of Thinking Skills in Social Studies Lessons

Thinking Skill	Components of Skills Used at Particular Grade Levels		
	<i>Kindergarten</i>	<i>Elementary School</i>	<i>Middle School</i>
Observation	Descriptive; uses all senses; needs to use real experiences	Quantitative; observes change; uses familiar situations	Relates theory and observations; can use imagined situations
Classification	Uses one attribute to classify	Can use multiple attributes to classify; can use a hierarchical system	Can create a hierarchical system
Communication	Can describe information coming directly from the senses, can begin recording data	Can make inferences from experiences; can begin graphical representation	Can describe using maps, charts, graphs qualitatively
Measuring and Estimating	Can make comparisons	Measures with some accuracy; begins estimating	Can use abstract measures and relations
Inferring	Uses inference but unaware of using it	Distinguishes among observations	Uses inference in developing theory
Predicting	Uses prediction but unaware of using it	Makes descriptive, concrete predictions	Makes quantitative, thorough predictions; uses qualitative description; uses abstract variables
Using Variables	Uses a single variable	Identifies, selects, uses multiple variables	Controls multiple variables
Hypothesizing	Begins using fair tests	Makes simple, concrete hypotheses; identifies hypotheses; judges; uses inductive thinking	Identifies and constructs tests; judges; uses inductive and deductive thinking
Investigating	Begins developing concept of fairness	Uses hypothesis testing	Uses and generates hypotheses