

A quick review of a class set of anticipation guides can inform a teacher of general class needs and also help pinpoint individual areas of weakness in terms of prior and background knowledge. At this point, the teacher now knows what to include in the subsequent lessons. After completion of instruction that has been developed in response to this formative assessment, students may redo the anticipation guide to note their growth. If they change their mind about a statement after instruction, consider asking them to provide written evidence to support their revised viewpoint. In keeping with the expectations of both CCSS and NGSS, students should be using evidence to support their thinking. It is expected

that, after such instruction, students will know what they previously did not know about the topic. Knowledge of personal growth is a great factor in developing a motivation to learn. Developing insights about one's growing base of knowledge is supported by Next Generation Standards that state that both Crosscutting Concepts and Science and Engineering Practices grow in complexity and sophistication across the grades (NGSS, Appendix F, Appendix G, 2013b). Students clearly need to be cognizant of their own growth as they are active participants in the learning process.

Anticipation guides require students to draw on background knowledge to determine whether a statement is true or false. In some cases, the student will need to make an informed prediction that will later be confirmed or refuted through new learning in the classroom. This mode of thinking is characteristic of how scientists approach problems—by drawing on background knowledge to make informed predictions—and is an example of disciplinary literacy.

Figure 2.2

An Anticipation Guide for a Biology Class Used to Begin a Study of Specialized Plant Structures and Reproduction of Plants

Read each statement and decide if it is true or false.		
True or False Before Reading		True or False After Reading
	1. Angiosperms include dogs, cats, ferns, and oaks.	
	2. Seeds form inside the flowers of plants.	
	3. A tomato is a vegetable.	
	4. The life cycle of an annual is less than one year.	
	5. Perennials remain alive underground throughout the winter months.	