

Chapter 6: Hypothesize



Technology Integration

This technology integration lesson features the following technology.

- SMART Board
- Google Share
- Google Drive templates
- Poll Everywhere (www.polleverywhere.com)

Digital Integration Task

After previewing Poll Everywhere (www.polleverywhere.com) as identified in this chapter's Instructional Strategy (page 68), open the website again and display it on your SMART Board and on student computers. Check for understanding of how to answer the poll before beginning.

Select your topic (for example, *bullying* or *fake news*) and ask an essential question such as "What if we prevent bullying at our school?" or "What if our government banned fake news?" Have students submit their responses to Poll Everywhere, and display the results on the SMART Board. Group their responses and ask students to vote agree or disagree. After the votes, have the students state reasons why a solution might work. You can explore these hypotheses later in the unit.

Grade-Level Digital Variations

The following sections provide grade-level variations for incorporating technology into lessons.

► Elementary Level

For primary students, design the survey as an engaging entry activity to check prior knowledge before a lesson or unit. For instance, in math, set up a survey with Poll Everywhere (www.polleverywhere.com) to determine what students think they already know and can do regarding *our community* or *fractions*. In science, do the same to promote student wonder about topics of interest such as bugs or robots. Four or six questions will suffice. Survey the students, analyze the results, and show the class how their answers to the survey questions indicate what they will need to spend most time learning.

►► Middle Level

Vary this lesson by changing the topic from the example in the elementary level. Brainstorm possible topics of interest to the students about their community. After your class has a list of eight to ten best ideas selected from the brainstormed list, form the hypothesis, make the class poll, decide who in the community should be polled, and determine a way to get good participation. Remember to review any safety issues that may be a concern when having students sample data in the community. Collect and analyze the data with

Poll Everywhere. The results can lead into a project-based deeper learning unit, in which the students create a test for their hypothesis and propose it to city officials.

►►► Secondary Level

Assign each team of three students to a computer and guide them through the brainstorming activity described previously in the middle level variation. Each team will select a different topic, form its hypothesis, and then propose a solution, in the form of a business plan, to present to an appropriate governing body such as the school administration, the student council, an after-school club, or the city council. Using Google Drive, their business plans for the proposal should contain appropriate lists, data charts and graphs, a budget, and so on.