Thinking about Information
One of the most profound characteristics of the 21st century is the access that
ordinary people have to infinite amounts of information. In the past, we could
depend on publishing companies and libraries to filter information, but the Internet,
while convenient and rich with data, requires a more critical eye.

Critical thinking involves analyzing and evaluating information and is composed of six
traits: interpretation, analysis, making inferences, evaluation, commitment, and
generalizing. Critical thinking is an especially important skill in research projects,
particularly those that require persuasion. In the *Designing Effective Projects* Web
resource, several Unit Plans, such as *Healthy Oceans, Healthy Planet*, *Don't Trash
the Earth*, *Virtual Ambassador*, *What Happened to Robin*, and *Famine*, offer
examples of the effective use of critical-thinking skills.

In one unit, fifth graders in Ms. Silvers' class research different waste management
systems in Don't Trash the Earth. The teacher begins the research part of the unit by
giving some explicit instruction on determining the credibility of sources, using the
items in the Critical Thinking Evaluation Checklist from *Assessing Projects* as a guide.
She then provides students with a guide to use with questions to think about as they
use the Internet and other sources to gather information. At the end of the first day
of research, she asks students to reflect on how they decide whether the information
they find is credible or not. After reading through the reflections, she thinks about
which students seem to understand and which do not and plans instruction to meet
those needs.

In a later research project, Ms. Silvers observes students using a checklist to see if
they are using the strategies for determining the credibility of sources without being
directed to do so. When she discovers that many of her students seem to be
accepting whatever they find as the truth, she sets up a demonstration where
credible-looking information found on the Internet is false and emphasizes again the
importance of asking the right questions about sources.

Ms. Silvers knows that an important skill such as this must be reinforced throughout
the year and makes a point to assess it periodically through anecdotal observations.
She also frequently asks students during different projects to write in their learning
logs about how they know the information they are using in their research is
credible.