

Learning in the 21st Century

Assessing Projects is a resource designed for those committed to a student-centered classroom and who want to enhance instruction in 21st century skills. It provides descriptions of how these skills look in a variety of contexts and how different assessments can be adapted for use by teachers and students to assess their own thinking and the thinking of peers.

Students entering adulthood in the 21st century face tasks and challenges unimagined by their ancestors. Confronting a never-ending supply of digital devices and overwhelming amounts of information, individuals in today's society must be proficient in a variety of skills and strategies that were not critical for their grandparents' success. These 21st century skills include:

- **Accountability and Adaptability** — Exercising personal responsibility and flexibility in personal, workplace, and community contexts; setting and meeting high standards and goals for one's self and others, tolerating ambiguity
- **Communication Skills** — Understanding, managing, and creating effective oral, written, and multimedia communication in a variety of forms and contexts
- **Creativity and Intellectual Curiosity** — Developing, implementing, and communicating new ideas to others, staying open and responsive to new and diverse perspectives
- **Critical Thinking and Systems Thinking** — Exercising sound reasoning in understanding and making complex choices, understanding the interconnections among systems
- **Information and Media Literacy Skills** — Analyzing, accessing, managing, integrating, evaluating, and creating information in a variety of forms and media
- **Interpersonal and Collaborative Skills** — Demonstrating teamwork and leadership; adapting to varied roles and responsibilities; working productively with others; exercising empathy; respecting diverse perspectives
- **Problem Identification, Formulation, and Solution** — Ability to frame, analyze, and solve problems
- **Self-Direction** — Monitoring one's own understanding and learning needs, locating appropriate resources, transferring learning from one domain to another
- **Social Responsibility** — Acting responsibly with the interests of the larger community in mind; demonstrating ethical behavior in personal, workplace, and community contexts

Unfortunately, schools are not as effective as they could be at helping students develop these skills. Many of today's teachers have had minimal preparation in explicit strategies for teaching thinking and other 21st century skills, and even though they may be highly proficient in their own use of these skills, they often lack awareness of their own thinking processes and those of others. *Assessing Projects* can help teachers target the instruction and assessment of their students' thinking in ways that help them grow as thinkers and learners.

Assessing Thinking in Projects

All student-centered projects have the potential for embedding assessment of 21st century skills. Often, however, selecting specific skills to focus on in a project can be

difficult. Furthermore, describing what a particular skill looks like in a specific context can be a challenge. *Assessing Projects* is designed to help with this process. It provides rubrics, scoring guides, and checklists that focus on 21st century skills and defines what these skills look like in the context of the project.

For example, the rubric for the project, *The Great Bean Race*, an exemplary Unit Plan from *Designing Effective Projects*, breaks down the analysis of a science investigation into the following subtopics which are more precise and easier to observe and document:

- Successfully draws several conclusions based on evidence
- Considers additional variables when comparing findings with others to determine the best conditions for growing plants
- Compares previous knowledge about plants to the results of the experiment and describes new learning in detail

Narrow, specific descriptions of thinking skills, such as these, also provide teachers with useful information about specific types of thinking in which students need more support.

The Assessment Library includes assessments for 21st century skills. All of these assessments can be easily adapted to suit the needs of teachers.

Assessing Thinking Skills and Processes

When planning and assessing student learning, teachers often use general terms such as “critical thinking” or “problem solving” to describe their objectives. Such terms are difficult to assess because they include so many subskills. Broad descriptions do not provide the information necessary to collect accurate data on the thinking abilities of students.

Assessing Projects can provide useful information on the different subskills involved in thinking. For example, instead of assessing students on a general term like “creativity,” a checklist on fluency in creativity in primary school lists the following skills which are easy to recognize in a variety of situations:

- Thinks of many different ideas
- Looks at things from different points of view
- Generates several possible solutions to a problem
- Thinks of several ways to reach a goal

A Thoughtful Classroom Environment

Students do not acquire and develop 21st century skills within a single lesson or even within a unit of study. These skills must be emphasized throughout all student learning experiences. To create a thoughtful classroom environment, teachers and students must develop a language of thinking, self-direction, and collaboration that they all use consistently. The assessments and background information in *Assessing Projects* provide the terminology teachers need to use when discussing project work. As students become more familiar with the language of thinking, they become more metacognitively aware of their thinking processes and develop more control of their thinking, helping them become mature, strategic thinkers.