IDE Corp.'s *Learner-Active, Technology-Infused Classroom* ™ and 21st Century Skills

IDE Corp.'s instructional model, the *Learner-Active, Technology-Infused Classroom*, is designed around Ten Principles:

- Higher-Order, Open-Ended Problem-Solving
- Learning from a Felt Need
- Technology Infusion
- Student Responsibility for Learning
- Collaboration
- High Academic Standards
- Global Citizenship
- Individual Learning Paths
- Connected Learning
- High Social Capital

The following table outlines the 21st Century Skills presented by the Partnership for 21st Century Skills (www.p21.org) and how the *Learner-Active, Technology-Infused Classroom* addresses those skills.

21st Century Skills		The *Learner-Active, Technology-Infused Classroom*
Core Subjects and 21st Century Themes	○ Subject-area mastery (English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government and civics)	At the core of instruction are problem-based learning tasks that are academically rigorous and used to drive instruction and content mastery. Tasks may be designed to focus on one subject-area or be interdisciplinary. A problem-based approach creates a **Felt Need for Learning**. A rubric offers students clearly-articulated expectations up front that reflect content-specific, **High Academic Standards**.
	○ Global Awareness	**Global Citizenship** is a principle that is evident both in the tasks that are presented (often focusing on global issues) and in the way in which students engage in learning (for example, collaborating with students in geographically-distant locations.)
	○ Financial, Economic, Business, and Entrepreneurial Literacy	Tasks often present students with the challenge of presenting an implementable plan as a solution to a real-world problem. Looking at content through a career lens provides students with **Connected Learning** between subject-area content and real-world application, often including a financial, economic, business, or entrepreneurial component.
	○ Civic Literacy	Students build an understanding of civics within the classroom, the community, nation, and world through an emphasis on **Global Citizenship**. This is accomplished through the context of problem-based learning tasks and through interactions with others inside and outside of the classroom, building **Student Responsibility for Learning**.
	○ Health Literacy	Health literacy is woven into tasks such that students are **Learning from a Felt Need**. Classroom **Collaboration** raises health topics as well in terms of the wellness of class members and the wellness of individuals who work as part of a collaborative team.
	○ Environmental Literacy	Environmental literacy is woven into tasks such that students are **Learning from a Felt Need**. Tasks that promote **Global Citizenship** will often include a focus on the environment.

Learning and Innovation	○ Creativity and Innovation ▪ Think Creatively ▪ Work Creatively with Others ▪ Implement Innovations	Well-crafted, problem-based learning tasks require students to apply creative thinking and innovation skills to their work. **Collaboration** with others within and outside of the classroom sparks generative thinking toward an innovative solution to a problem.
	○ Critical Thinking and Problem Solving ▪ Reason Effectively ▪ Use Systems Thinking ▪ Make Judgments and Decisions ▪ Solve Problems	Engaging in **Higher-Order, Open-Ended Problem Solving** through problem-based learning requires students to think critically and apply problem-solving skills. Teachers design instructional activities to guide students through the process, **Learning from a Felt Need**. Designing classrooms in which all students can learn together in one environment provides a range of abilities and skills that inspire one another.
	○ Communication and Collaboration ▪ Communicate Clearly ▪ Collaborate with Others	Classrooms designed to build greater **Student Responsibility for Learning** promote the development of greater communication skills. **Collaboration** emphasizes "group-think," peer review, and intellectual challenges more than mere cooperative, task division.
Information, Media and Technology	○ Information Literacy ▪ Access and Evaluate Information ▪ Use and Manage Information	Engaging in **Higher-Order, Open-Ended Problem Solving** coupled with **High Academic Standards** and **Student Responsibility for Learning** causes students to access, evaluate, use, and manage information. The greater mastery students have of information literacy, the more likely they will be to succeed at their problem-based tasks. **Technology Infusion** in the classroom enables students to work with information electronically.
	○ Media Literacy ▪ Analyze Media ▪ Create Media Products	**Technology Infusion** coupled with engaging in **Higher-Order, Open-Ended Problem Solving**, builds the need for media literacy skills. Researching a topic requires students to assess both the information they find and the sources that provide the information. Solutions to problems are often presented through media products such as electronic models, simulations, and presentations.
	○ Information Communication and Technology Literacy ▪ Apply Technology Effectively	**Technology Infusion** requires having technology readily available in the classroom at all times so that it is seamlessly infused into the learning process. Typically, classrooms have 5-8 laptop computers or tablet PCs available to students. The school may be involved in a 1:1 laptop initiative. Classrooms may have handheld devices (e.g. iPod Touch), SMART Boards, and other technology tools. Students learn to view the computer not as a learning center or subject unto itself, but rather as a tool to use throughout the learning process.

Life and Career	○ Flexibility and Adaptability ▪ Adapt to Change ▪ Be Flexible	Students schedule the use of their own time; attend whole-class, benchmark lessons and optional small-group, mini-lessons; sign up to utilize limited resources in specified timeslots; leverage technology tools; and engage with others while completing problem-based learning tasks. This learning environment promotes the development of the skills of flexibility and adaptability. Flexibility and adaptability are vital to effective **Collaboration** and to productivity through **Technology Infusion**.
	○ Initiative and Self-Direction ▪ Manage Goals and Time ▪ Work Independently ▪ Be Self-Directed Learners	Students utilize rubrics to self-assess and set goals. They refer to activity lists and teacher notes to schedule their own time and manage **Individual Learning Paths**. They self assess and build **Student Responsibility for Learning**, reporting on their progress and setting goals to achieve at the expected level on the rubric.
	○ Social and Cross-Cultural Skills ▪ Interact Effectively with Others ▪ Work Effectively in Diverse Teams	Students are part of a "home team" of 3-4 students who schedule their time together (group work, paired activities, and individual work) and depend on one another for guidance (not necessarily content-related support.) They interact with others within and outside (through email / videoconferencing) the classroom through tasks that require **Collaboration**. They build **High Social Capital** through individual and small-group engagement with adults.
	○ Productivity and Accountability ▪ Manage Projects ▪ Produce Results	**Student Responsibility for Learning** requires students, engaging in problem-based learning tasks, to manage a project across a 3-5 week period of time and produce a final product as well as activities and assignments throughout the project.
	○ Leadership and Responsibility ▪ Guide and Lead Others ▪ Be Responsible to Others	Effective **Collaboration** while engaging in **Higher-Order, Open-Ended Problem Solving** builds student leadership skills and responsibility. Students act as peer-experts to help one another in the area of content mastery. They engage in their home groups to assist one another in scheduling, project-management, and resource-management. They guide one another to the successful completion of their tasks.