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There is little question we are moving toward an education environment and workplace highlighted by teams performing high-paced, information-based tasks and projects. As educators, it is our responsibility to prepare students for the evolving, knowledge-based economy where STEM-based information industries replace traditional jobs and industries (Molnar, 1997).

Inquiry-Based Learning (IBL) offers educators a unique instructional tool for the rapidly changing learning demands of today's classroom. Through inquiry, students work to build the habits of mind that prepare them to compete with their peers locally and globally. There is a growing body of research detailing the success of IBL in all content areas in providing students the tools and thought processes they need to develop inquiring minds with the power to solve creatively, actively, and intelligently even the toughest problems in classrooms and beyond.

The development of inquiring mindsets will serve students well as they function as contributors in the knowledge economy. However, research also demonstrates that students generally do not have schema and experience with inquiry to be successful

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While there is general agreement on the basic elements of Inquiry-Based Learning, there are several widely accepted models of instruction based on IBL. All of the models support student-centered learning environments with the teacher serving as the facilitator once inquiry has begun; however, how students get to the inquiry target and how that target is determined vary from model to model. All models have validity in the classroom, meaning they are all viable approaches to IBL depending on the needs of the student, teacher, and content at hand. The following table provides a comparison of the key decision points when choosing one of the four types of IBL outlined in this paper.

[illegible]-B[illegible] L[illegible]

In Number Worlds, students participate in Inquiry-Based Learning through the

Project-Based Learning follows a generalized process that begins with background information and an essential question. Students work through the process, assimilate learning, and present their findings and products. Key steps in the process include

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I-Search, developed by Ken Macrorie in the late 1980's, is a form of Instructional-Based Learning that provides more background and support than many of the other IBL models presented in this synthesis. Case-Based Learning, Project-Based Learning, and Problem-Based Learning all provide students with a relatively narrow direction for their inquiry. Projects that are true to the I-Search instructional model, such as those described by Zorfass and Copel (1995), put an even greater choice of topic in the hands of students while offering a more structured process than other IBL models. I-Search still asks teachers to take on the role of a coach or facilitator for much of the research time, but also requires the teacher to provide a solid, motivating central theme on which students base their research. The structure and the individualized nature of the I-Search approach lends itself to younger student populations and shorter-term activities.

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Number Worlds has built-in Project-Based Learning lessons for a variety of reasons.

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