



# TIM: Table of Summary Descriptors

*This table contains the summary descriptors for each cell of the Technology Integration Matrix (TIM).*

The Technology Integration Matrix (TIM) provides a framework for describing and targeting the use of technology to enhance learning. The TIM incorporates five interdependent characteristics of meaningful learning environments: active, collaborative, constructive, authentic, and goal-directed. These characteristics are associated with five levels of technology integration: entry, adoption, adaptation, infusion, and transformation. Together, the five characteristics of meaningful learning environments and five levels of technology integration create a matrix of 25 cells, as illustrated below.

<div> <div>→</div> <div>LEVELS OF TECHNOLOGY INTEGRATION</div> </div> <div> <div>↓</div> <div>CHARACTERISTICS OF THE LEARNING ENVIRONMENT</div> </div>		ENTRY LEVEL	ADOPTION LEVEL	ADAPTATION LEVEL	INFUSION LEVEL	TRANSFORMATION LEVEL
<div>CHARACTERISTICS OF THE LEARNING ENVIRONMENT</div>	<b>ACTIVE LEARNING</b> Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.	Information passively received	Conventional, procedural use of tools	Conventional independent use of tools; some student choice and exploration	Choice of tools and regular, self-directed use	Extensive and unconventional use of tools
	<b>COLLABORATIVE LEARNING</b> Students use technology tools to collaborate with others rather than working individually at all times.	Individual student use of tools	Collaborative use of tools in conventional ways	Collaborative use of tools; some student choice and exploration	Choice of tools and regular use for collaboration	Collaboration with peers and outside resources in ways not possible without technology
	<b>CONSTRUCTIVE LEARNING</b> Students use technology tools to connect new information to their prior knowledge rather than to passively receive information.	Information delivered to students	Guided, conventional use for building knowledge	Independent use for building knowledge; some student choice and exploration	Choice and regular use for building knowledge	Extensive and unconventional use of technology tools to build knowledge
	<b>AUTHENTIC LEARNING</b> Students use technology tools to link learning activities to the world beyond the instructional setting rather than working on decontextualized assignments.	Use unrelated to the world outside of the instructional setting	Guided use in activities with some meaningful context	Independent use in activities connected to students' lives; some student choice and exploration	Choice of tools and regular use in meaningful activities	Innovative use for higher order learning activities in a local or global context
	<b>GOAL-DIRECTED LEARNING</b> Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection.	Directions given; step-by-step task monitoring	Conventional and procedural use of tools to plan or monitor	Purposeful use of tools to plan and monitor; some student choice and exploration	Flexible and seamless use of tools to plan and monitor	Extensive and higher order use of tools to plan and monitor