

# The Technology Integration Matrix: Introducing the Five Characteristics

# Levels of Technology Integration



#### ENTRY LEVEL

The teacher begins to use technology tools to deliver curriculum content to students.



#### ADOPTION LEVEL

The teacher directs students in the conventional and procedural use of technology tools.



#### ADAPTATION LEVEL

The teacher facilitates students in exploring and independently using technology tools.



#### INFUSION LEVEL

The teacher provides the learning context and the students choose the technology tools to achieve the outcome.



#### TRANSFORMATION LEVEL

The teacher encourages the innovative use of technology tools. Technology tools are used to facilitate higher order learning activities that may not have been possible without the use of technology.

# Characteristics of the Learning Environment



#### ACTIVE LEARNING

Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.

#### Active Entry

Information passively received

#### Active Adoption

Conventional, procedural use of tools

#### Active Adaptation

Conventional independent use of tools; some student choice and exploration

#### Active Infusion

Choice of tools and regular, self-directed use

#### Active Transformation

Extensive and unconventional use of tools



## COLLABORATIVE

Students use technology tools to collaborate with others rather than working individually at all times.

#### Collaborative Entry

Individual student use of tools

#### Collaborative Adoption

Collaborative use of tools in conventional ways

#### Collaborative Adaptation

Collaborative use of tools; some student choice and exploration

#### Collaborative Infusion

Choice of tools and regular use for collaboration

#### Collaborative Transformation

Collaboration with peers and outside resources in ways not possible without technology



### CONSTRUCTIVE

Students use technology tools to connect new information to their prior knowledge rather than to passively receive information.

#### Constructive Entry

Information delivered to students

#### Constructive Adoption

Guided, conventional use for building knowledge

#### Constructive Adaptation

Independent use for building knowledge; some student choice and exploration

#### Constructive Infusion

Choice and regular use for building knowledge

#### Constructive Transformation

Extensive and unconventional use of technology tools to build knowledge



## AUTHENTIC

Students use technology tools to link learning activities to the world beyond the instructional setting rather than working on decontextualized assignments.

#### Authentic Entry

Use unrelated to the world outside of the instructional setting

#### Authentic Adoption

Guided use in activities with some meaningful context

#### Authentic Adaptation

Independent use in activities connected to students' lives; some student choice and exploration

#### Authentic Infusion

Choice of tools and regular use in meaningful activities

#### Authentic Transformation

Innovative use for higher order learning activities in a local or global context



#### GOAL-DIRECTED LEARNING

Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection.

#### Goal-Directed Entry

Directions giver; step-by-step task monitoring

#### Goal-Directed Adoption

Conventional and procedural use of tools to plan or monitor

#### Goal-Directed Adaptation

Purposeful use of tools to plan and monitor; some student choice and exploration

#### Goal-Directed Infusion

Flexible and seamless use of tools to plan and monitor

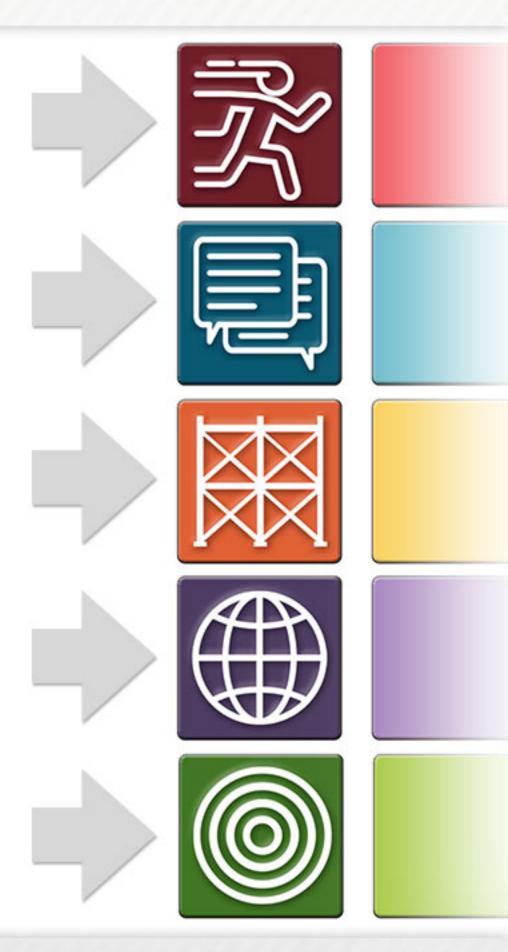
#### Goal-Directed Transformation

Extensive and higher order use of tools to plan and monitor

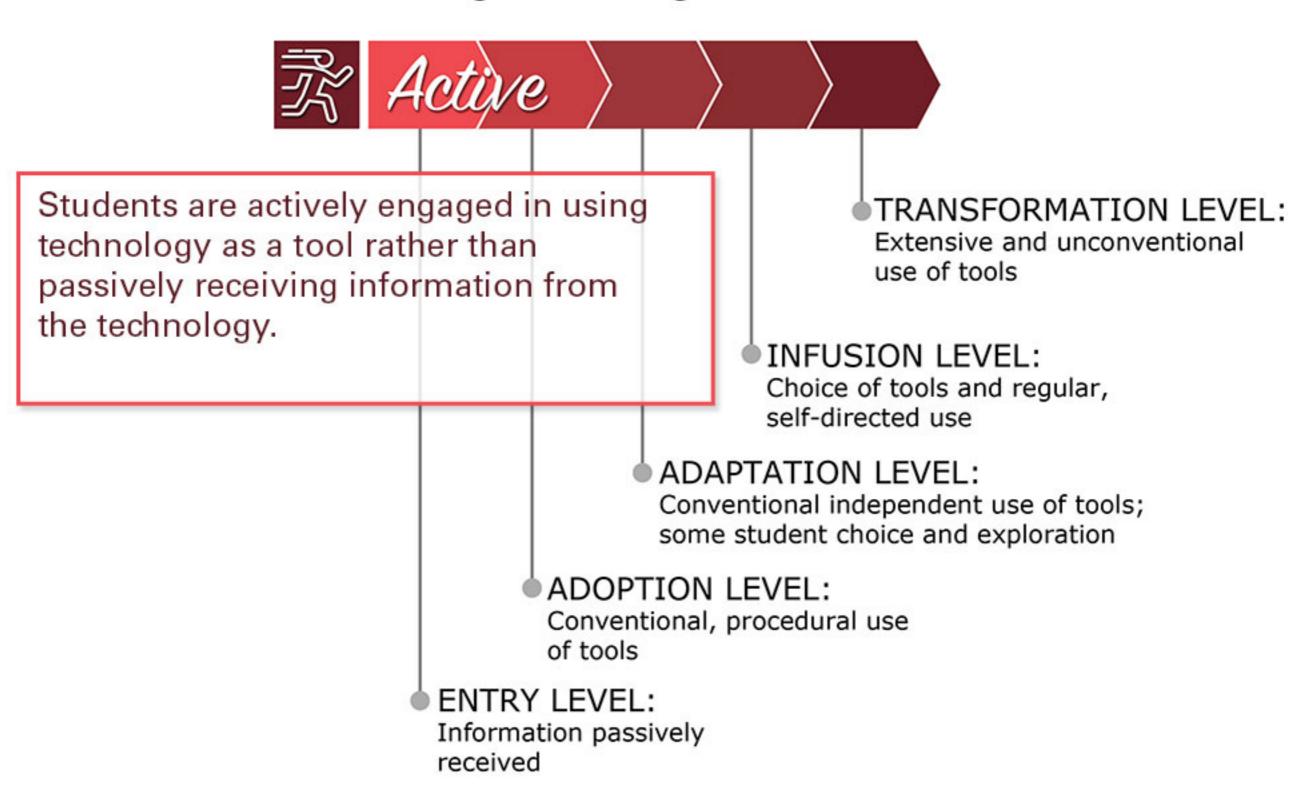
# Five Characteristics of the Learning Environment

Each row of the Technology Integration Matrix represents one of the five characteristics:

- Active Learning
- Collaborative Learning
- Constructive Learning
- Authentic Learning
- Goal-Directed Learning.









INFUSION LEVEL:

Choice of tools and regular use for collaboration

ADAPTATION LEVEL:

Collaborative use of tools; some student choice and exploration

ADOPTION LEVEL:

Collaborative use of tools in conventional ways

ENTRY LEVEL:

Individual student use of tools



Students use technology tools to connect new information to their prior knowledge rather than to passively receive information.

TRANSFORMATION LEVEL:

Extensive and unconventional use of technology tools to build knowledge

INFUSION LEVEL:

Choice and regular use for building knowledge

ADAPTATION LEVEL:

Independent use for building knowledge; some student choice and exploration

ADOPTION LEVEL:

Guided, conventional use for building knowledge

ENTRY LEVEL:

Information delivered to students



Students use technology tools to link learning activities to the world beyond the instructional setting rather than working on decontextualized assignments.

TRANSFORMATION LEVEL: Innovative use for higher order learning activities in a local or global context

INFUSION LEVEL: Choice of tools and regular use in meaningful activities

ADAPTATION LEVEL:

Independent use in activities connected to students' lives; some student choice and exploration

ADOPTION LEVEL: Guided use in activities with

some meaningful context

**ENTRY LEVEL:** 

Use unrelated to the world outside of the instructional setting



Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection.

TRANSFORMATION LEVEL:

Extensive and higher order use of tools to plan and monitor

INFUSION LEVEL:

Flexible and seamless use of tools to plan and monitor

ADAPTATION LEVEL:

Purposeful use of tools to plan and monitor; some student choice and exploration

ADOPTION LEVEL:

Conventional and procedural use of tools to plan or monitor

ENTRY LEVEL:

Directions given; step-by-step task monitoring

# CREDITS

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