

Step **Two**

Using the Tech Matrix in your Classroom



Florida's

TECHNOLOGY INTEGRATION MATRIX

- A common language for technology integration and professional development
- 5 Attributes of Learning Environments (Active, Collaborative, Constructive, Authentic, and Goal-Directed)
- 5 Levels of Technology Integration (Entry, Adoption, Adaptation, Infusion, Transformation)

- ❖ ready made and adapted by educational technology teachers and administrators
- ❖ I will show you how to access and use it

Technology Skills Matrix

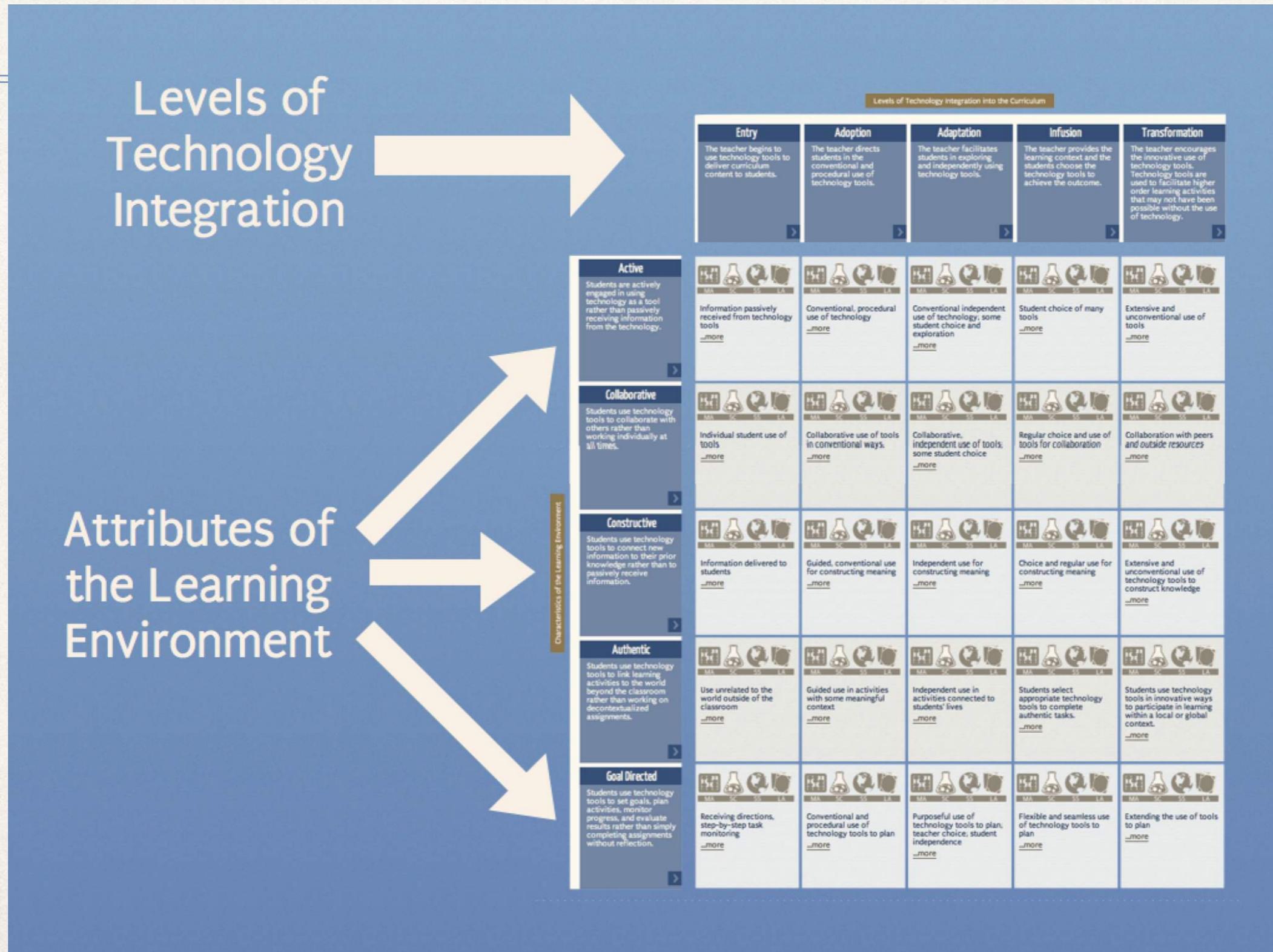
Produced by the Florida Center for Instructional Technology, University of South Florida

The tech skills matrix can guide us on how to help Alt Students use technology for testing. Specifically, "the Technology Integration Matrix (TIM) illustrates how teachers can use technology to enhance learning for K-12 students. The TIM incorporates five interdependent characteristics of meaningful learning environments: active, constructive, goal directed (i.e., reflective), authentic, and collaborative (Jonassen, Howland, Moore, & Marra, 2003). The TIM associates five levels of technology integration (i.e., entry, adoption, adaptation, infusion, and transformation) with each of the five characteristics of meaningful learning environments. Together, the five levels of technology integration and the five characteristics of meaningful learning environments create a matrix of 25 cells."

| | Entry | Adoption | Adaptation | Infusion | Transformation | |
|---------------|--|---|--|---|---|---|
| Active | <p>The teacher begins to use technology tools to deliver curriculum content to students.</p> | <p>The teacher directs students in the conventional and procedural use of technology tools.</p> | <p>The teacher facilitates students in exploring and independently using technology tools.</p> | <p>The teacher provides the learning context and the students choose the technology tools to achieve the outcome.</p> | <p>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.</p> | |
| Collaborative | <p>Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.</p> | <p>Information passively received ...more</p> | <p>Conventional, procedural use of tools ...more</p> | <p>Conventional independent use of tools; some student choice and exploration ...more</p> | <p>Choice of tools and regular, self-directed use ...more</p> | <p>Extensive and unconventional use of tools ...more</p> |
| Constructive | <p>Students use technology tools to collaborate with others rather than working individually at all times.</p> | <p>Individual student use of tools ...more</p> | <p>Collaborative use of tools in conventional ways. ...more</p> | <p>Collaborative use of tools; some student choice and exploration ...more</p> | <p>Choice of tools and regular use for collaboration ...more</p> | <p>Collaboration with peers and outside resources in ways not possible without technology ...more</p> |
| Authentic | <p>Students use technology tools to connect new information to their prior knowledge rather than to passively receive information.</p> | <p>Information delivered to students ...more</p> | <p>Guided, conventional use for building knowledge ...more</p> | <p>Independent use for building knowledge; some student choice and exploration ...more</p> | <p>Choice and regular use for building knowledge ...more</p> | <p>Extensive and unconventional use of technology tools to build knowledge ...more</p> |
| Goal Directed | <p>Students use technology tools to link learning activities to the world beyond the instructional setting rather than working on decontextualized assignments.</p> | <p>Use unrelated to the world outside of the instructional setting ...more</p> | <p>Guided use in activities with some meaningful context ...more</p> | <p>Independent use in activities connected to students' lives; some student choice and exploration ...more</p> | <p>Choice of tools and regular use in meaningful activities ...more</p> | <p>Innovative use for higher order learning activities in a local or global context ...more</p> |
| Goal Directed | <p>Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection.</p> | <p>Directions given, step-by-step task monitoring ...more</p> | <p>Conventional and procedural use of tools to plan or monitor ...more</p> | <p>Purposeful use of tools to plan and monitor; some student choice and exploration ...more</p> | <p>Flexible and seamless use of tools to plan and monitor ...more</p> | <p>Extensive and higher order use of tools to plan and monitor ...more</p> |

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Active Level of the Tech Matrix

Most applicable to NCSC Alt Testing

| | Entry | Adoption | Adaptation | Infusion | Transformation | |
|--------|---|---|--|---|---|--|
| | <p>The teacher begins to use technology tools to deliver curriculum content to students.</p> | <p>The teacher directs students in the conventional and procedural use of technology tools.</p> | <p>The teacher facilitates students in exploring and independently using technology tools.</p> | <p>The teacher provides the learning context and the students choose the technology tools to achieve the outcome.</p> | <p>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.</p> | |
| Active | <p>Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.</p> | <p>Information passively received ...more</p> | <p>Conventional, procedural use of tools ...more</p> | <p>Conventional independent use of tools; some student choice and exploration ...more</p> | <p>Choice of tools and regular, self-directed use ...more</p> | <p>Extensive and unconventional use of tools ...more</p> |

Entry to Transformation - from **Teacher-Directed** to **Student-Centered**

Recommendations for Each Cell

Entry

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

Each cell corresponds to the level of the student and the level of technology use of the teacher in the classroom.

For each cell, there are links for four subjects:

MA - Mathematics

SC - Science

SS - Social Studies

LA - Language Arts

Active

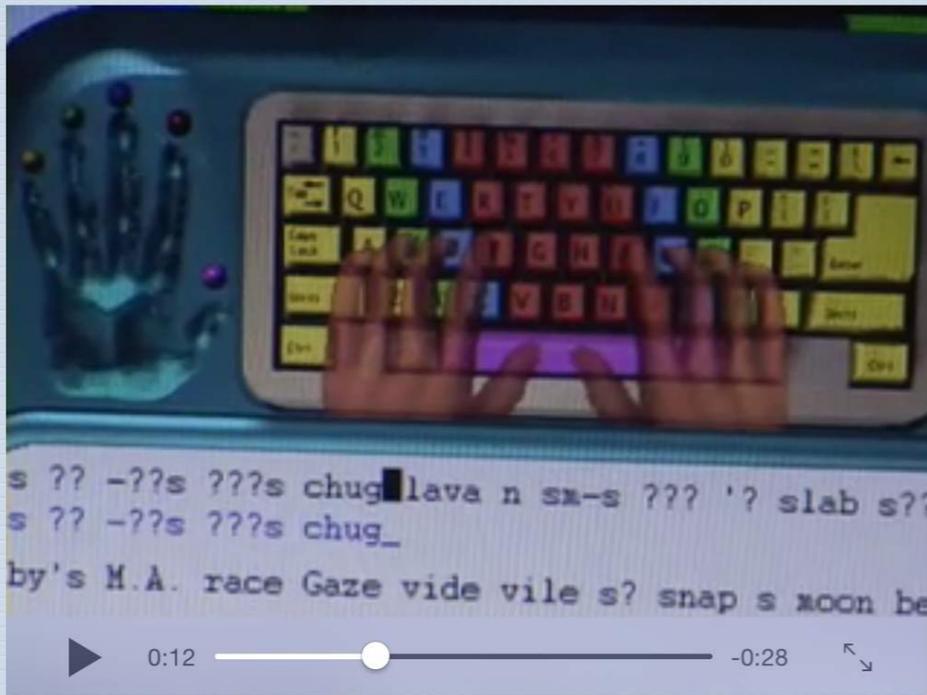
Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.



Information passively received

[...more](#)

Click it and you will see links to video resources.



Keyboarding Skills

Active Learning | Entry Level | Language Arts

Objectives

- Increase typing speed
- Increase spelling accuracy
- Become more familiar and competent in using the keyboard

Procedure

- Students complete the lesson using individual desktop computers with headsets.
- Students use the TyperShark software that was downloaded on the desktops.
- Students type words on the sides of sharks to zap them as they swim across the screen.
- The program assists students with typing speed and spelling accuracy.

Sunshine State Standards

- LA.D.1.2.1

NETS Profiles for Technology Literate Students

- Use keyboards and other common input and output devices (including adaptive devices when necessary) efficiently and effectively.
- Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem solving, self-directed learning, and extended learning activities.

Materials

- Desktop computers
- Headsets
- TyperShark software, free download available from PopCap Games [TyperShark](#)

Grade Level: 3-5

| ACTIVE | |
|----------------|---|
| Entry | MA SC SS LA |
| Adoption | MA SC SS LA |
| Adaptation | MA SC SS LA |
| Infusion | MA SC SS LA |
| Transformation | MA SC SS LA |

| COLLABORATIVE | |
|----------------|---|
| Entry | MA SC SS LA |
| Adoption | MA SC SS LA |
| Adaptation | MA SC SS LA |
| Infusion | MA SC SS LA |
| Transformation | MA SC SS LA |

| CONSTRUCTIVE | |
|----------------|---|
| Entry | MA SC SS LA |
| Adoption | MA SC SS LA |
| Adaptation | MA SC SS LA |
| Infusion | MA SC SS LA |
| Transformation | MA SC SS LA |

| AUTHENTIC | |
|----------------|---|
| Entry | MA SC SS LA |
| Adoption | MA SC SS LA |
| Adaptation | MA SC SS LA |
| Infusion | MA SC SS LA |
| Transformation | MA SC SS LA |

| GOAL-DIRECTED | |
|----------------|---|
| Entry | MA SC SS LA |
| Adoption | MA SC SS LA |
| Adaptation | MA SC SS LA |
| Infusion | MA SC SS LA |
| Transformation | MA SC SS LA |

Active Level of the Tech Matrix

Most applicable to NCSC Alt Testing