

# TABLE 4 – GRAPPLING’S TECHNOLOGY AND LEARNING SPECTRUM

TECHNOLOGY LITERACY USES	ADAPTING USES	TRANSFORMING USES
<p><b>Technology Focus - Acquiring / Practicing Technology Skills</b></p> <p>“Just-in-case” technology skills are acquired for possible future needs.</p> <ul style="list-style-type: none"> <li>• <i>Literacy classes</i></li> <li>• <i>Learning hardware and software</i></li> <li>• <i>Students’ projects are technology focused rather than expecting standards to intentionally drive the use of technology for learning</i></li> <li>• <i>Curriculum provides “topics” for technology uses</i></li> </ul>	<p><b>Technology Focus - Optional/Adaptive Learning Tasks</b></p> <p>Integrating is translated into “use it for something, anything... just use it.”</p> <ul style="list-style-type: none"> <li>• <i>Drill and practice with content software</i></li> <li>• <i>Instructional games</i></li> <li>• <i>Productivity tools used to adapt assignments/tasks given without technology in the past</i></li> </ul>	<p><b>Technology Focus - Essential Learning Tasks</b></p> <p>Integrating is “just-in-time” technology skills as needed for learning content standards/projects.</p> <ul style="list-style-type: none"> <li>• <i>Complex learning and thinking tools</i></li> <li>• <i>Community learning tools</i></li> <li>• <i>Assessment tools</i></li> <li>• <i>Productivity tools used to construct meaning, and produce information useful to others</i></li> </ul>
<p><b>Instructional Focus</b></p> <p>Technology-centered pedagogy</p> <ul style="list-style-type: none"> <li>• <i>Teacher talk is “technology talk” rather than “learning talk.”</i></li> </ul> <p>Technology uses are organized for their own sake</p> <ul style="list-style-type: none"> <li>• <i>Acquiring and assessing technical skills</i></li> <li>• <i>Offered as separate and/or optional experiences/programs</i></li> <li>• <i>Allowed when “real work” is completed or considered “alternative reward” activities</i></li> <li>• <i>Research done to learn tools and processes</i></li> <li>• <i>Teachers view technology as something to learn or do</i></li> </ul>	<p><b>Instructional Focus</b></p> <p>Teacher-centered, direct instruction pedagogy</p> <ul style="list-style-type: none"> <li>• <i>Teacher talk is “same stories with new tools” – there is confusion that new tools make new instructional stories.</i></li> </ul> <p>Technology uses are adapted/provided but still optional with traditional curriculum goals.</p> <ul style="list-style-type: none"> <li>• <i>Teacher and student roles remain the same</i></li> <li>• <i>Learning/assessment practices are unchanged</i></li> <li>• <i>Student experiences depend upon teacher directed assignments</i></li> <li>• <i>Research is “go look up” and “tell me back”</i></li> <li>• <i>Teachers view technology as interesting but optional and not necessary to achieve present curriculum goals</i></li> </ul>	<p><b>Instructional Focus</b></p> <p>Student-centered, constructivist pedagogy</p> <ul style="list-style-type: none"> <li>• <i>Teacher talk is “new stories with new tools.”</i></li> </ul> <p>Technology uses enable new learning tasks not possible without technology</p> <ul style="list-style-type: none"> <li>• <i>Student roles expand to include explorers, producers of knowledge, communicators and self-directed learners</i></li> <li>• <i>Teacher roles expand to include facilitators, designers, learners, and researchers</i></li> <li>• <i>Learning and assessment practices are changed</i></li> <li>• <i>Students initiate technology uses as they create their own learning experiences</i></li> <li>• <i>Research is sustained inquiry for original thinking and conclusions useful to others</i></li> <li>• <i>Teachers view technology as essential for development of higher-order thinking skills (HOTS)</i></li> </ul>

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TECHNOLOGY LITERACY USES	ADAPTING USES	TRANSFORMING USES
<ul style="list-style-type: none"> <li>• Technology use occurs at scheduled times</li> <li>• Limited or no access is available beyond literacy programs</li> <li>• Little equipment is needed</li> <li>• Labs are primary location of equipment</li> <li>• Software is selected to teach or use technology</li> </ul>	<ul style="list-style-type: none"> <li>• Individual teachers initiate technology uses within their curriculum if equipment is available.</li> <li>• Increased numbers of equipment are needed to meet expanding curriculum uses.</li> <li>• Software is identified and matched to specific curriculum objectives.</li> <li>• An effort is made to move equipment closer to classrooms creating various combinations of lab and classroom locations.</li> </ul>	<ul style="list-style-type: none"> <li>• Students, staff, and parents have access to technology wherever learning is occurring</li> <li>• Students as well as teachers initiate technology use as needed for their work and learning</li> <li>• Higher numbers of equipment are needed to support on-demand, pervasive use by students and staff</li> <li>• Software is standardized to 2-4 tools</li> <li>• New learning tasks require a wider range of technologies with higher performance capabilities</li> </ul>
<p><b>Focus:</b> School “experts” are found rather than distributed learning through all staff</p> <ul style="list-style-type: none"> <li>• Staff development is limited since specialists teach the primary experiences for students</li> <li>• Specialists tend to learn new technologies on their own</li> <li>• Specialists are expected to supply technical repair, offer training, and answer colleagues’ questions</li> </ul>	<p><b>Focus:</b> Integration is encouraged for all teachers but optional and unfocused.</p> <ul style="list-style-type: none"> <li>• Integration of technology into curriculum translated as “...do something, do anything – just use it.”</li> <li>• Increased workshops offerings and conference attendance reflect expectations for wider staff use within the academic curriculum</li> <li>• District/building leadership view budget/political support of staff development as optional</li> <li>• Staff views participation in staff development as optional</li> <li>• Increased equipment numbers, varied locations, and rising instructional use also increase the needs for technical support</li> <li>• Funding is inadequate—less than 30% of technology budget is in place</li> </ul>	<p><b>Focus:</b> Essential skills and practices are articulated, supported, and measured for all teachers.</p> <ul style="list-style-type: none"> <li>• Sustained and expanded staff development strategies support new pedagogical and technological skills/practices</li> <li>• Diversified staff development supports on-site and in-class mentoring with team collaboration and reflective practice</li> <li>• New learning tasks require expertise in a wider range of instructional strategies and technology tools</li> <li>• Increased equipment numbers, locations, and uses demand continuous, on-site technical support be in place</li> <li>• Everyone takes responsibility for effective use of technology resources with student word demonstrating results</li> <li>• Adequate funding of at least 30% of technology budget is in place</li> </ul>

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