The 21st Century Technology & Information Literate Teacher Model

- from the *International Society for Technology in Education*

- ***What are the standards by which a 21st Century Technology & Information Literate Teacher can be identified?***

  I TECHNOLOGY OPERATIONS AND CONCEPTS
  Teachers demonstrate a sound understanding of technology operations and concepts. Teachers:

  - Demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Education Technology Standards for Students).
  - Demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

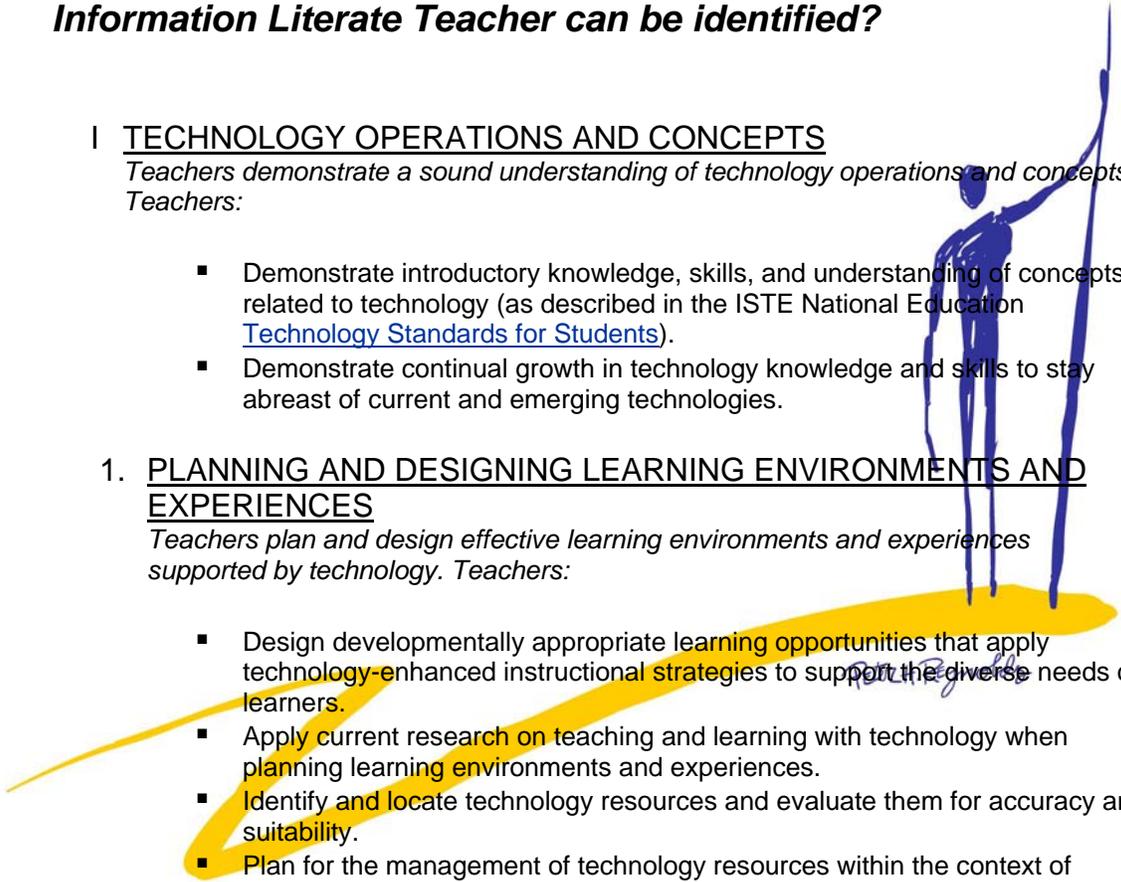 1. PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES
  Teachers plan and design effective learning environments and experiences supported by technology. Teachers:

     - Design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
     - Apply current research on teaching and learning with technology when planning learning environments and experiences.
     - Identify and locate technology resources and evaluate them for accuracy and suitability.
     - Plan for the management of technology resources within the context of learning activities.
     - Plan strategies to manage student learning in a technology-enhanced environment.

  2. TEACHING, LEARNING, AND THE CURRICULUM
  Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning. Teachers:

     - Facilitate technology-enhanced experiences that address content standards and student technology standards.
     - Use technology to support learner-centered strategies that address the diverse needs of students.

- Apply technology to develop students' higher order skills and creativity.
- Manage student learning activities in a technology-enhanced environment.

3. <u>ASSESSMENT AND EVALUATION</u>
   Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies. Teachers:

   - Apply technology in assessing student learning of subject matter using a variety of assessment techniques.
   - Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.
   - Apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.

4. <u>PRODUCTIVITY AND PROFESSIONAL PRACTICE</u>
   Teachers use technology to enhance their productivity and professional practice. Teachers:

   - Use technology resources to engage in ongoing professional development and lifelong learning.
   - Continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.
   - Apply technology to increase productivity.
   - Use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.

5. <u>SOCIAL, ETHICAL, LEGAL, AND HUMAN ISSUES</u>
   Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice. Teachers:

   - Model and teach legal and ethical practice related to technology use.
   - Apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.
   - Identify and use technology resources that affirm diversity.
   - Promote safe and healthy use of technology resources.
   - Facilitate equitable access to technology resources for all students.

- ***What are the performance indicators by which a 21st Century Technology & Information Literate Teacher can be measured?***

  <u>21st Century Technology & Information Literate Teachers:</u>

  1. Demonstrate a sound understanding of the nature an operation of technology systems. (aligned to standard 1)*

2. Demonstrate proficiency in the use of common input and output devices; solve routine hardware and software problems; and make informed choices about technology systems, resources, and services. (aligned to standard 1)*

3. Use technology tools and information resources to increase productivity, promote creativity, and facilitate academic learning. (aligned to standards 1, 3, 4, 5)

4. Use content-specific tools (e.g., software, simulation, environmental robes, graphing calculators, exploratory environments, Web tools) to support learning and research. (aligned to standards 1, 3, 5)*

5. Use technology resources to facilitate higher order and complex thinking skills, including problem solving, critical thinking, informed decision making, knowledge construction, and creativity. (aligned to standards 1, 3, 5)*

6. Collaborate in constructing technology-enhanced models, preparing publications, and producing other creative works using productivity tools. (aligned to standards 1, 5)*

7. Use technology to locate, evaluate, and collect information from a variety of sources. (aligned to standards 1, 4, 5)*

8. Use technology tools to process data and report results. (aligned to standards 1, 3, 4, 5)*

9. Use technology in the development of strategies for solving problems in the real world. (aligned to standards 1, 3, 5)*

10. Observe and experience the use of technology in their major field of study. (aligned to standards 3, 5)

11. Use technology tools and resources for managing and communicating information (e.g., finances, schedules, addresses, purchases, correspondence). (aligned to standards 1, 5)

12. Evaluate and select new information resources and technological innovations based on their appropriateness to specific tasks. (aligned to standards 1, 3, 4, 5)*

13. Use a variety of media and formats, including telecommunications, to collaborate, publish, and interact with peers, experts, and other audiences. (aligned to standards 1, 5)*

14. Demonstrate an understanding of the legal, ethical, cultural, and societal issues related to technology. (aligned to standard 6)*

15. Exhibit positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity. (aligned to standards 5, 6)*

16. Discuss diversity issues related to electronic media. (aligned to standards 1, 6)

17. Discuss the health and safety issues related to technology use. (aligned to standard 6)

* adapted from the student standards.