



I-TOTEMS: Seven Essentials of Technology-Rich Learning

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I-totems are the information processes, resources, and tools students need to identify essential questions, evaluate multiple perspectives, and make informed decisions.

- What if we help students connect their personal world to the larger social, historical, and scientific community?
- What if we taught the joy and art of learning?
- What if we helped our students learn to make informed decisions?
- What if we used technology to empower?

National Museum of the American Indian <http://www.nmai.si.edu/>

Me: What technology tools and resources will help me learn and share my understandings?

We: What technologies and activities will facilitate group learning and understanding?

Pirates of Pigeon Creek <http://www.evsc.k12.in.us/room24/>

Our: What technologies will help me understand and enhance my relationship with the world?

Voices of Civil Rights <http://www.voicesofcivilrights.org/>

Information

Young people need questions to stimulate inquiry and exploration. They need access to facts, data, knowledge, and wisdom. They need guidance in how to select, evaluate, apply, organize, synthesize, and communicate ideas. How do you and your students acquire and use information?

Read *A Northern Light* by Jennifer Donnelly or *An American Tragedy* by Theodore Dreiser

Court Case <http://www.courts.state.ny.us/history/gillette.htm>

Love Letters http://www.pausingtoremember.net/Fatal_Journey_Part_One.html

Discussion Questions <http://www.jenniferdonnelly.com/>

Questions: What do I know, need to know, want to know? Who cares? Why should I care?

Ease History <http://www.easehistory.org/>

Access: Museums, libraries, collaborative projects, and agencies

Teacher Tap <http://eduscapes.com/tap/> ARKive <http://www.arkive.org/>

Guidance: Sorting, selecting, applying, organizing, analyzing, synthesizing, and communicating

One Planet Many People <http://www.na.unep.net/OnePlanetManyPeople/index.php>

Time

Young people need time to watch, wonder, wiggle, weave, wrap, wave, and wish. They need time to explore, question, search, evaluate, synthesize, create, communicate, and assess. How do you and your students make the best use of time?

Keep It Simple: Balance production and use with needs and standards

Limit Production Time: Elevator Moods <http://www.elevatormoods.com/>

Focus Attention: KidsHealth <http://kidshealth.org/kid/> Cool Spot <http://www.thecoolspot.gov/>

Find Help: Breaking News <http://www.breakingnewsenglish.com/>

ipodder <http://ipodder.sourceforge.net/>

Repeat, Reinforce: Missouri Botanical Gardens <http://mbgnet.mobot.org/>

Opportunities

Young people need choices, options, and alternatives to explore. They need chances to do, try, explore, travel, and interact. How do you select among opportunities?

Multi-sensory Approaches: Interactive stories, audio books, audio on web pages, podcasting

Improving Oral Fluency http://www.readingonline.org/articles/art_index.asp?HREF=oakley/

Elementary School Podcasting <http://mrmayo.typepad.com/magazine/>

Apple Exhibits http://ali.apple.com/ali_sites/ali/exhibits/1000510/
Decision-Making: Question, Investigate, React, Act
PBS Kids Don't Buy It <http://pbskids.org/dontbuyit/>

Tools

Young people need resources and technologies for thinking, creating, and communicating. They need materials for physical and mental work and place. What tools facilitate your work?
Read *Americans who Tell the Truth* by Robert Shetterly <http://www.americanswhotellthetruth.org/>
Scholastic Flashlight Readers <http://teacher.scholastic.com/activities/flashlightreaders/>
TATE Imaginary City <http://www.tate.org.uk/learning/kids/city/>
ThinkPort's Villainy, Inc <http://villainyinc.thinkport.org>
Earthquake <http://dsc.discovery.com/anthology/unsolvedhistory/earthquake/interactive/interactive.html>
Virtual Ecosphere <http://www.open2.net/diyscience/ecosphere/index.html>

Experiences

Young people need practical, meaningful, and active participation with varied activities. What experiences do you and your students seek?

FalconCam <http://falconcam.apk.net/>
Falcon Project <http://powayusd.sdcoe.k12.ca.us/pusdrhes/5thgrade/falcon2005/intro.htm>
Jean Craighead George <http://www.jeancraigheadgeorge.com/>
Incubator Simulation <http://www.aviary.org/curric/incubator.htm>

Motivation

Young people need to be engaged in meaningful, relevant, and authentic activities. They need positive, supportive, and enthusiastic models. What motivates you and your students?

Teacher Tap: Contests <http://eduscapes.com/tap/topic113.htm>
Read *Under One Rock: Bugs, Slugs, and Other Ughs* by Anthony D. Fredericks
Kids-Learn <http://kids-learn.org/>
Schoolhouse Video <http://www.schoolhousevideo.org/>
Exploravision http://www.exploravision.org/2004/national_winners.htm

Strategies

Young people need techniques for addressing strengths, weaknesses, opportunities, and problems. They need scaffolding for critical and creative thinking. What learning strategies you and your students?

Organize Technology: Bloglines <http://www.bloglines.com/>
Teacher Tap: News Resources <http://eduscapes.com/tap/topic27.htm>
Addressing Individual Differences: *Gregor The Overlander* by Suzanne Collins
Reading Levels: EPA <http://epa.gov/> FirstGov <http://firstgov.gov/>
Inquiry-based Approach: WebQuest http://www.nelliemuller.com/The_Last_Spin_WebQuest.htm

Conclusion

How can the I-TOTEMS enrich the lives of you and your students?

Shakespeare: Subject to Change http://www.ciconline.org/bdp1/000_home.asp

Bill Gates Governor's Conference 2005

Gate's Solution: Rigor, Relevance, Relationships
<http://www.gatesfoundation.org/MediaCenter/Speeches/BillgSpeeches/BGSpeechNGA-050226.htm>