**Technology Tools for Creative Thinking Skills (William’s Taxonomy)**
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**Tennessee Academic Vocabulary terms are written in bold in the example activities.**

**Fluency:** The student generates many ideas, related answers, or possible choices to a given problem. A prompt would be to generate a list of many ideas.

*Tech tools:* VoiceThread, Bubbl.us, Inspiration, Tux Paint, *word processing (MSWord, GoogleDoc)*

*Boolean Internet Search—Boolify.org*

**Example:** First grade social studies—Think of as many ways as possible that a citizen can act patriotic.

*Tech:* Create a Voicethread where students add their ideas and related answers.

http://voicethread.com/share/1573955/

**Flexibility:** The student generates alternatives, variations, adaptations and/or different solutions in a given situation. Student finds alternative ways to vary things like shape, size, time limits, objectives, dimensions, etc. Prompts would include generating a list of different ideas, creating alternatives, or manipulating digital situations by providing varied ideas.

*Tech tools:* *Listing—VoiceThread, Bubbl.us, Inspiration, Tux Paint,* *word processing (MSWord, GoogleDoc)* *Manipulation—Programming (Scratch, eToys), Animating/Designing (Kerpoof.com)*

*Thinking Blocks—www.thinkingblocks.com*

**Example:** Fifth grade reading/lang. arts—Think of how a fairy tale might be different if the story was told from the villain’s **point of view**.


**Originality:** The student presents new ideas by thinking of novel or unusual solutions or by coming up with clever responses. A prompt would be to think of unusual or unique ideas.

*Tech tools:* *Listing—VoiceThread, Bubbl.us, Inspiration, Tux Paint,* *word processing (MSWord, GoogleDoc)* *Manipulation—Programming (Scratch, eToys), Animating/Designing (Kerpoof.com)*

*Poster making—Glogster, Nota, LEGO Digital Designer*

**Example:** Second grade math/science—What would be an unusual or unique way to **transform** your name into a three **dimensional** shape?

*Tech:* Using LEGO Digital Designer, create a unique or unusual 3-dimensional figure of your name.
**Elaboration:** Students embellish or enrich possibilities that build on previous thoughts or ideas. Students attempt to make their ideas understandable and/or interesting to others. A prompt would be to think of enriched, embellished ideas.

*Tech tools:* Listing—VoiceThread, Bubbl.us, Inspiration, Tux Paint, word processing (MSWord, GoogleDoc) Animating/Designing (Kerpoof.com) Poster making—Glogster, Nota

**Example:** Fourth grade science—Think of some interesting adaptations that might occur in humans over time if they were living in space or in a different environment from earth and explain how the adaptations help them survive.

**Tech:** Using Tux Paint, draw how your future human in the different environment with his/her adaptations. Using the typing tool, explain with words how the environment is different from earth and how humans have adapted over time to survive. Label the adaptations if possible.

**Risk Taking:** Students experiment, deal with the unknown by taking chances, or try new challenges.

*Tech Tools:* Manipulation—Programming (Scratch, eToys), Animating/Designing (Kerpoof.com, Stykz) Poster making (Glogster, Nota) Building (LEGO Digital Designer)

**Example:** Sixth grade math—In what ways could you animate a sprite in Scratch by using the Cartesian Coordinate System? How could adding rotation in degrees create an animated effect?

**Tech:** Program a simple animation in Scratch using the motion blocks to give coordinate directions (x,y) and turn in degrees.

**Complexity:** The student sees the missing parts, creates structure in an unstructured setting or builds a logical order where there seems to be none. Prompts include examine, express, explain, and improve.

*Tech Tools:* Manipulation—Programming (Scratch, eToys), Animating/Designing (Kerpoof.com, Stykz) Poster making (Glogster, Nota) Building (LEGO Digital Designer) Digital map making

**Example:** Third grade social studies—You have been stranded on a deserted island for several weeks and have explored enough to make a map. Examine your situation by creating a map. Include cardinal directions, border between the island and ocean, landforms, and places where important natural resources are located (such as water, trees, and food sources). Include a legend to explain the markings on your map. Using your map, try to improve your situation by deciding on how to create a signal for help and decide where the best place would be to place your signal.

**Tech:** Use a digital mapping application or Tux Paint to create a digital version of the map.


**Curiosity:** Students question possibilities, contemplate, and think about options in a given situation. Prompts include question, wonder, and ponder.

*Tech Tools:* Poster making (Glogster, Nota) Building (LEGO Digital Designer) VoiceThread, Tux Paint, word processing (MSWord, GoogleDoc), ) Boolean Internet Search—Boolify.org, Skype

**Example:** Kindergarten social studies—Make a list of types of transportation. Choose one form of transportation and wonder why we use that kind of transportation. Can you think of a different invention that could also help people get around that way?

**Tech:** Draw the transportation you wondered about using Tux Paint.

**Imagination:** Students formulate mental pictures, envision the impossible or impractical, visualize new things or possibilities. Prompts include visualize or imagine.

Example: Fifth grade science—Considering **inherited traits**, imagine if it was possible for parents to select the genetic traits they wanted their children to have. (Could also coincide with literature if reading the YA fiction “uglies” trilogy by Scott Westerfield)

Tech: Using Glogster or Tux Paint, create an advertisement or catalog page for a company that allows selection of inherited traits.