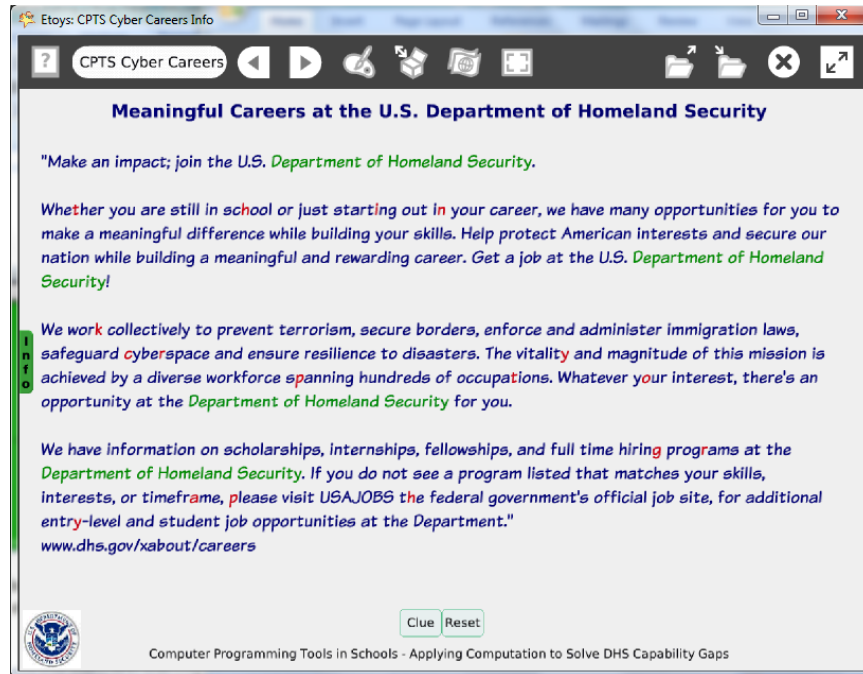


Project: Cyber Careers Info
Difficulty: Level 1



Time: Two 45 minute labs

Challenge:

Use a quotation of basic information from www.dhs.gov in a puzzle that challenges the reader to solve a simple ciphered message. Provide a clue. Of course, other web sites with information of value to students will work equally well in this kinds of project.

Programming:

This project uses three scripts. One script provides the clue and uses a declared variable: time. There are two scripts set to Normal, Clue and Reset that use a button to the script.

The Scripting Category of tiles to start, pause, and stop scripts based on events while the project is running. There are no Quick Guides for scripting tiles. There are Help balloons that are useful.

Useful to know: use CTRL-c to copy and CTRL-v to paste text from web sites and documents into an Etoys text object.

Things you'll need to know:

Quick Guides

- Paint Tools/ All
- Halo Handles/All
- Supplies: Text, Add a Flap
- Script Tiles: Hide and Show
- Menus: Viewer Icons Set (variables info), Button Fires a Script

Things to think about:

- Can this project be done without the use of the variable?
- Is the project effective if the clue is visible when the project opens?
- Could the project be effective without any scripting?

Extensions:

- Provide additional ciphered messages in the Info Flap or use steganography to conceal a message that will only be found by diligent seekers.
- Decide whether to provide more direct clues, solutions or even, confusing clues. After all, it is meant to be a challenging puzzle as well as to provide information.

NETS for Students:

<http://www.iste.org/standards/nets-for-students/nets-student-standards-2007.aspx>

1. Creativity and Innovation: a, b
2. Communication and Collaboration: a, b
3. Research and Information Fluency: a, b, c
4. Critical Thinking, Problem Solving, and Decision Making: a, b, c
5. Digital Citizenship: a, b, c, d
6. Technology Operations and Concepts: a, b, c, d

CSTA:

CSTA Level II: Objectives and Outline

<http://csta.acm.org/Curriculum/sub/CurrFiles/L2-Objectives-and-Outlines.pdf>

Level II objectives for middle school students are furthered through studying a programming language well enough that the student is proficient with it. Whether the language is Etoys, StarLogo TNG, or Scratch, it is the ability to use the language to express ideas that is valuable. A student skillful enough to use *any* programming language to express ideas, solve problems, model behaviors, simulate data, or to educate or entertain is an entitled person in today's society.

Topics of particular note are:

Topic 2: Problem Solving

Topic 6: Connections between Mathematics and Computer Science

Topic 11: Programming Languages

Topic 13: Multimedia

Common Core Standards Mathematics:

<http://www.corestandards.org/the-standards/mathematics>

6. NS.6, 6. EE.2

Teacher Notes:

Materials: Provide students written materials from www.dhs.gov or give them time to read about the multitude of careers described there or in other appropriate web sites.

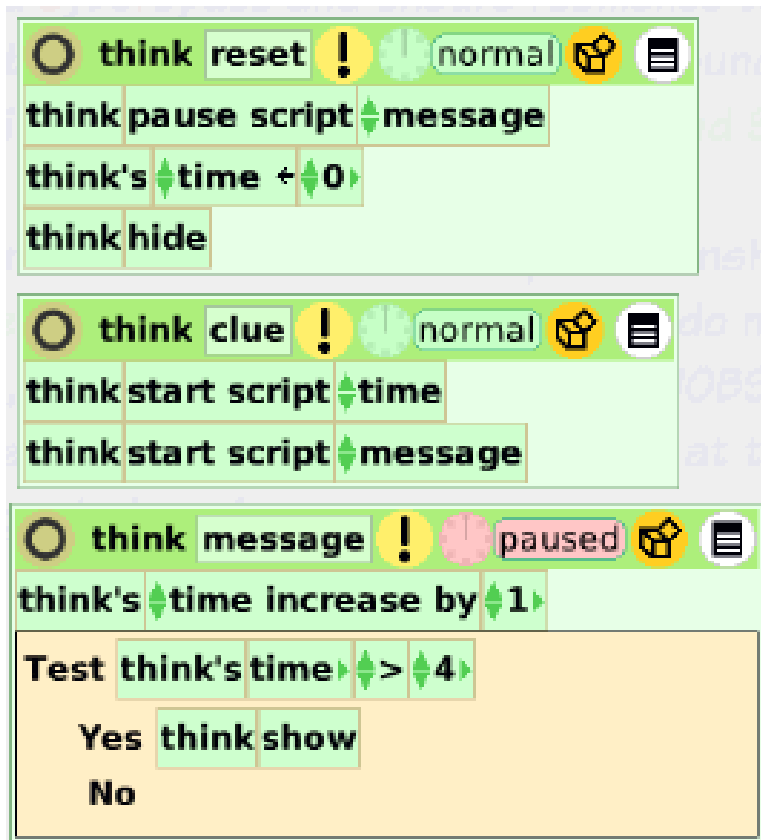
Comments: The project uses several of the authoring tools to import and modify text. The scripts use basic applications of when a script should run, whether ticking/paused or Normal which only acts when called.

Objects - Scripts – Decisions

The project's text and title have been modified. To change the color of a letter or word, highlight it, open a Halo of Handles and use the magenta change color tool. The added flap contains a web site link for more information.

Creating a variable for a timer is an easy direct way to introduce the topic of variables.

Example Scripts:



Student Notes:

None provided.