Unit 4: Stories

Content Area: **Technology**
Course(s): **Technology**
Time Period: **Generic Time Period**
Length: **Weeks**
Status: **Published**

Unit Overview

Students will gain familiarity in and build understandings of the benefits of reusing and remixing while designing. They will develop greater fluency with computational concepts (events and parallelism) and practices (experimenting and iterating, testing and debugging, reusing and remixing). They will explore computational creation within the genre of stories by designing collaborative narratives.

Standards

TEC.5-8.8.1.8.A.5	Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.
TEC.5-8.8.1.8.D.1	Model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics.
TEC.5-8.8.1.8 A.1	Use appropriate technology vocabulary.
TEC.5-8.8.1.8 A.2	Use common features of an operating system (e.g., creating and organizing files and folders).
TEC.5-8.8.1.8 B.1	Demonstrate an understanding of how changes in technology impact the workplace and society.
TEC.5-8.8.2.8.E.1	Work in collaboration with peers and experts in the field to develop a product using the design process, data analysis, and trends, and maintain a digital log with annotated sketches to record the development cycle.

Essential Questions

How can creative computing help one use computational concepts across many disciplines and contexts?

How can engaging in creative computing prepare one for a career as a computer scientist or programmer?

How does interacting with a computer as a designer, rather than a consumer, increase knowledge, creativity, imagination, and literacy?

How can reflection enable us to grow and learn?

How can collaborating and building on another's work enable one to create more complex projects?

Application of Knowledge: Students will know that...

- Creative computing offers opportunities to design and make for the computer, not just listen, observe, and use
- Creative computing offers opportunities to engage with others as audience, coaches, and co-creators
- Reflecting about your practice enables one to review and rethink your creation

Application of Skills: Students will be able to...

- Change backdrops within a project, like a story with multiple scenes or a slideshow
- Collaborate within Scratch to create a drawing or tell a story
- Create their own Scratch blocks using "Make a Block"
- Define the terms: reusing, remixing, backpack, stage, pair programming, scratch screening, pass-it-on story
- Explain the difference between the Stage and sprites
- Investigate a problem and find a solution by debugging
- Use timing and broadcasting to synchronize interactions between sprites

Assessments

- Design Journal (personal reflection and self assessment by student)
- Rubric for collaborative animated story project

Suggested Activities

- Students will practice creating their own Scratch blocks by using "Make a Block." They will design two sprites (or characters) that each have two behaviors using the "Characters" handout.
- Students will look inside the Scratch code for the "Penguin Joke" project to observe how conversation is animated using wait blocks. Students will remix and redesign the project to incorporate a new joke using the broadcast, broadcast and wait, and when I receive blocks. Students will share their new Penguin jokes with the class.
- Students will develop a project that includes multiple scene changes using different backdrops, such as in a slideshow. Students can explore and manipulate scripts in the Stage to initiate backdrop changes.
- Students will open the Debug It! program from the Stories Unit Debug It! studio and test and debug at least one challenge.
- "Pass it On" -- Students will work in pairs to create a Scratch project that tells a story by using and remixing the work of others. They will work with a partner and have 10 minutes to start a story, then they will save and share it online. The pair will rotate to extend another story by remixing the project. Students will be encouraged to reuse and remix content instead of scrapping it and creating new content. After two rotations, they will revisit story projects with their contributions. Stories can be presented through a Scratch screening.

Activities to Differentiate Instruction

Peer-to-peer "Tech Buddy" support

Students may work at their own pace

Advanced students may use their computer skills to enhance their Scratch program

Students who complete the daily assignment and are up-to-date on all projects may choose from one of the following activities if time permits in the period:

- Practice their math and ELA skills using recommended online educational websites provided by the teacher
- Play activities and games on teacher's website at www.quia.com
- Keyboarding exercises
- Smart Board Challenges

Integrated/Cross-Disciplinary Instruction

ELA -- literacy skills involved in reflective journaling and storytelling

Math -- sequencing and computation

Art -- principles of design

Resources

- Computers with speakers
- Network connection
- Projector or SmartBoard with speakers
- Scratch programming language -- http://scratch.mit.edu
- Characters handout (Creative Computing doc)
- Characters studio -- http://scratch.mit.edu/studios/475545
- Conversations handout (Creative Computing doc)
- Penguin Joke starter project -- http://scratch.mit.edu/projects/10015800
- Conversation studio -- http://scratch.mit.edu/studios/475547
- Scenes handout (Creative Computing doc)
- Scenes studio -- http://scratch.mit.edu/studios/475550
- paper and sketching supplies
- Pass It On handout (Creative Computing doc)
- Pass It On studio -- http://scratch.mit.edu/studios/475543