HOPSCOTCH

Telling Stories: ELA and Coding
2017 Hour of Code | Grades 3-8

Time | 45 - 60 minutes

Big Idea | Learning to code gives students another format and media for expressing their creativity and communicating with others. In this example lesson, students will design a program to demonstrate understanding of story elements in Hopscotch.

Lesson Goals
- Students will identify story elements including character, plot, setting, conflict and resolution.
- Students will analyze a story, summarize the story, imagine a different ending, and code a project to share their ideas.
- *(optional)* Students will evaluate their own work as well as that of their peers in a positive and helpful manner.

Skill Focus
- Following a multi-step procedure to complete a task
- Using Hopscotch as a tool to express understanding of literary concepts

Key Vocabulary
- **Event**: When something happens
- **Sequence**: A list of instructions, in order
- **Character:** the player in a story (i.e. person, animal, etc.)
- **Plot:** the series of events that together make a story
- **Setting**: the time and place of a story
- **Conflict:** the problem in a story
- **Resolution:** the conclusion of a story

Materials
- 1 iPad or iPhone per student, or 1 device per 2 students, for pair programming. Email educators@gethopscotch.com for bulk-created student accounts.
- Making a Story Worksheet
- Project Examples in Hopscotch[1]:
  - https://c.gethopscotch.com/p/sshkd5m
  - https://c.gethopscotch.com/p/xarsu4klw
  - https://c.gethopscotch.com/p/xmvdka3

> ### Teacher Brief
> Students will read and analyze a text and then create a program in Hopscotch to summarize that text. Students make their programs interactive by imaging an alternate ending and allowing the user to choose. The story that students analyze is

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[1] *These project examples were made by Hopscotch users. Some are more complex than others. Please see notes in section 0 below for suggestions on how to discuss them with students.*

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up to you! No matter the text, students must identify story elements including character, plot, setting, conflict and resolution. They must deeply understand these elements in order to accurately summarize a text and create their own twist on the ending. Suggested modifications are included below and may prove helpful for students in need of more structure. This lesson assumes that students and teachers have little to no experience coding in Hopscotch, but are prepared to summarize a story and produce an alternate ending to that story.

Lesson

0. Whole Group Discussion (5 minutes)

- Introduce the project to students; explain that they will be using Hopscotch to retell a story and create their own ending.
- Review story elements and prepare students: what are the elements that you must include to accurately summarize the text? What are some other ways the story could have ended? What might happen next?
- *(Optional)* Share example projects with students. As a class, discuss these projects. *What is included? What is missing? What do these models do well and how might you make them more effective?* This is also a great opportunity for students to practice giving feedback on someone else's work using helpful and constructive language.

1. Getting to Hopscotch (5 min)

1.1 Find the Hopscotch app on your iPad
1.2 Sign in to your account (students may need to create accounts)
1.3 Making a new project: Tap on the highlighted + on the bottom of the screen

2. Getting Familiar with Hopscotch (10min)

2.1 Exploring the Workspace & Blocks
- Students new to Hopscotch must go through the introductory tutorials to get a sense of how to add objects to the workspace and code these objects. This step is enables students to create new projects from scratch.
- Share the *Making a Story* worksheet with students, which shows blocks commonly used to create stories in Hopscotch.

2.2 Check In & Share Out
- Ask students to share things that they noticed that might be helpful for projects.
- Answer common questions, if necessary.

3. Create Your Story! (20min)

3.1 Summarize the Story (10min)
- Students create projects in Hopscotch that summarize the major elements of the text.

- Optional: if students are not already working in partners or small groups, encourage students to use *thought partners* who will help each other during the design process.

3.2 Making the Stories Interactive (10min)
- Add an alternate ending! Encourage students to think about modifying the resolution or adding to the story.
- Students can make their programs interactive by allowing the user to choose from multiple endings, or even allowing the user to create their own.

4. Sharing Stories in the Hopscotch Community (optional) (15min)

4.1 Publishing a Project
- When students finish, they can publish projects in the Hopscotch community. This is a great opportunity for students to share their work with a digital audience. Students can "like" another student's project and remix it to see how they made it.

4.2 Commenting on a Classmates' Project
- Show students how to search for projects in the Hopscotch community.
- Encourage students to remix their classmates' projects in order to see how they created their project.
- Students may use the project rubric or pre-determined criteria for success to evaluate each other's work and give helpful feedback.

5. Reflection (5 min)

5.1 Choose 1-2 student projects to share and discuss as a class
- Show the project(s) to the class and discuss if the alternate ending effectively captured the story elements

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Modifications
- Pair programming: this is a great opportunity for students to work together to create strong projects that they are proud of
- Build in time for students to get comfortable in Hopscotch; encourage students to work through all of the introductory tutorials
  - Coding Journey Tutorials
    - Build Your World
    - You're the Boss!
    - Sharing is Caring
- Printed copies of the *Making a Story Worksheet* to handout

Curriculum Extensions
- Add an extra challenge - students must first summarize the story in their project and then add an alternate ending.

- How could students turn their stories into a game?
- Self-assessment: Using this rubric as a model[2], encourage students to assess their work, evaluate its effectiveness, and iterate to improve the project.

Common Core State Standards

CCSS.ELA-LITERACY.SL.5.2: Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.RI.6.7: Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

CCSS.ELA-LITERACY.RI.8.7: Evaluate the advantages and disadvantages of using different mediums (e.g. print or digital text, video, multimedia) to present a particular topic or idea.

CCSS.ELA-Literacy.RST.6-8.3: Follow precisely a multistep procedure when carrying out experiments, taking measurements, or following technical tasks.

CCSS.ELA-Literacy.RST.6-8.4: Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific and technical context relevant to grades 6-8 texts and topics.

CCSS.ELA-Literacy.RST.6-8.7: Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

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[2] Rubric: https://drive.google.com/file/d/0BwKFT8tX5oZVbzkwWHN0OFBOM3c/view

Making a Story Worksheet

Here are some blocks that might be helpful when making a story in Hopscotch.

Events: These will get the story started and help control scenes.

Game Starts	is Tapped	is Swiped Left

Text:

1.) Add a text object to help share the words of the story. How could emojis help tell the story?

2.) Set text inside an object.

TEXT

😂😎 Aa

Set Text

Visibility: Use the *Set Invisibility* block to make objects appear and disappear.

Set Invisibility

Wait: Add a pause to an object

Wait

Loops: Make blocks of code repeat.

Repeat   Repeat Forever

Backgrounds: Add an image to set the background or use the set size block to make an object fill the screen.

IMAGES

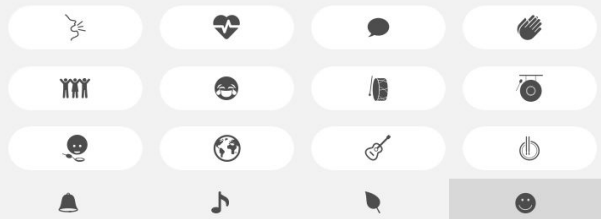New Image

Set Size

Sound: Use sounds to animate the story!

Start Sound

PEOPLE

Scenes: Once multiple objects have been added, use the event blocks to help them interact with each other.

When [ ] is tapped

OBJECTS

Text	? Anything
Text 2	
Text 3	