WHAT A CHARACTER!

OVERALL TIME *1- to 2-hour lesson*

GROUPS *Three to four kids*

PROGRAMMING LEVEL *Advanced Block: Functions, Variables, complex Controls (If Then), and Comparators*

CONTENT THEME *Art*

OBJECTIVE

- **I can write or retell a story for the Sphero BOLT to tell.**
- **I can create a storyboard to guide my work.**
- **I can program original animations to enhance my story.**

OVERVIEW

The Sphero BOLT has a story to tell. Or maybe you do. Either way, let's tell it!

Create a program to animate the Sphero BOLT to act the part and tell a story for all to hear. Take advantage of all that the Sphero BOLT has to offer, from simple movements to lights and sounds. We can't wait to see it!

MATERIALS

- **Sphero BOLT**
- **Craft materials for building characters (18oz cups work great and fit right over the Sphero BOLT)**
- **Green screen**
- **Video editing software (optional)**

EXPLORATION: PERSONIFICATION

Personification is when you give a human characteristic to something nonhuman. You will be using this literary technique to help tell your story through the Sphero BOLT. You will give it traits and characteristics that would normally be given to a human character. Start thinking about how you will do this with a robot and the Sphero Edu.

The videos below are great resources to see how personification can be used.

▶ *https://youtu.be/VqBZMR83wCg*

▶ *https://youtu.be/1Mb6NxixRk8*

EXPLORATION: CHARACTER TRAITS

Whether you are retelling a story or writing something new, consider how you will program the Sphero BOLT to show emotion, communicate with others, and show off its personality.

Brainstorm some ideas on some scratch paper. To help guide you, consider some of the following questions:

- *How can you use the Sphero BOLT's **Main LED** and associated programming blocks?*
- *How can you use **Sound** and **Speak** blocks?*
- Throughout a story, characters express mood and emotion. *How can you program these into the story?*
- *How can you show the Sphero BOLT's character's personality in a way that enganges your audience?*

EXPLORATION: STORY ARC

Every basic story has a beginning, middle, and end. They tend to follow a predictable **story arc**. The video below explains what a story arc is using the classic example of Romeo and Juliet.

▶ *https://youtu.be/BaPR0y89s6Y*

As you choose your story (retold or new), think about the different dialogue and actions that will happen during each part of your story. These things can be conveyed using the Sphero BOLT's lights, movements, and/or sounds.

SKILLS BUILDING: STORYBOARD

Time to work on your story!

As you begin to develop (or retell) the plot and character development, use a storyboard to help you plan. You can use the storyboard to diagram important moments and plan for specific animations, movements, lights, and sounds. Use the storyboard.pdf below or grab a piece of scrap paper and fold it into nine equal parts.

https://sphero-media-sphero-prod. s3.amazonaws.com/cwist/picturesteps/99/cf/ storyboard.pdf

Take a picture of your storyboard(s) and attach to the end of this step.

SKILLS BUILDING: ONCE UPON A ... SPHERO!

You've planned your story and how you want to tell it. Now it's time to get the Sphero BOLT involved.

Remember that you can program the Sphero BOLT's main LED, its movement, and add sounds and speech. Using what you know about blocks and a combination of blocks, start to create the moods, emotions, and actions of the Sphero BOLT.

If you need a little help, take a look at the program attached to this activity. It includes some storytelling functions that you could use or look at for inspiration.

If you've chosen to decorate or build around the Sphero BOLT with craft materials, be sure to practice your programs with these on it. The added mass will affect how the Sphero BOLT moves.

CHALLENGE: CENTER STAGE

Let's hear your story! Get the Sphero BOLT ready for the big show.

Practice your story a few times through to get your timing down. Once you're ready, grab a partner to film it all. Start your program and tell your story.

As an added challenge, consider using a green screen. With some simple video editing, you could wisk your audience away to far away lands. Ask your mentor about this.