

# Mission Sphero (2 one-hour sessions)

## Essential Question: How does coding impact our lives?

We're going on a mission, start the countdown, 5...4...3...2...1! Students will learn the importance of coding and how it is used in everyday life. During Mission Sphero, students will learn Sphero basics by "driving" the Sphero, changing its colors and speed, and participating in activities that demonstrate how coding is used in the real world. After mastering the basics, they will have the opportunity to create their own codes to accomplish certain tasks and create a Brain Break.



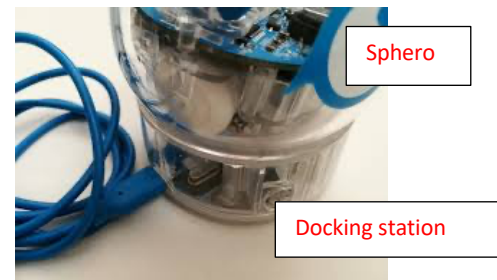
- 3-PS2-1 Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.
- 3-PS2-2 Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.
- CSS 1B-CS-01 Describe how internal and external parts of computing devices function to form a system
- CSS 1B-CS-02 Model how computer hardware and software work together as a system to accomplish tasks.
- CSS 1B-AP-10 Create programs that include sequences, events, loops, and conditionals.
- 3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations.

### Materials Needed:

- Masking tape
- Print a teacher copy of Sphero Protractor

### Materials Supplied:

- Sphero and Docking Station for charging with charging blocks
- iPad with Sphero App and iPad charging station
- I will be in contact with you regarding the delivery and pick up of materials.



### Advanced preparation:

Make sure the Sphero's and iPads are charged  
Each student should have an iPad and a Sphero and docking station at their desk

Leave blue cord plugged into power strip

**Post lab sanitation:** Please make sure iPads and Spheros are sanitized (Lysol spray or wipes) and charged. A solid blue light means it is charged; a blinking blue light means it is charging. If there is no light, slowly rotate the Sphero until you see a light appear.

# Program Connection Information

Please use an external microphone (conference style) rather than the integrated one in the computer for the audio for your class and locate it centrally in the room. It can be difficult for the Greenbush teacher to hear the students using the computer microphone and therefore it reduces the interactive nature of the lesson. It is fine to use the computer webcam for your video source.

All classes will take place using Zoom desktop video. If your building is already set up to use a desktop video application with a computer, simply open a browser and enter <https://greenbush.zoom.us/j/5337714346> in the URL space. You may need to download Zoom launcher software (free download) if you don't already have it. This needs to be done in advance of the lesson.

If using a Polycom video conferencing unit (or any legacy type video conferencing unit) to connect to a ZOOM conference, make sure the unit is in "encrypted mode" then dial the following IP on the internet: 162.255.37.11 or 162.255.36.11 and once connected, they will ask for a MEETING ID: enter 533 771 4346 (for Sheila at Science Center).

It's always a good idea to touch base with your district technology facilitator prior to your program to make sure all systems/equipment are in place and operational and that there aren't any firewalls in place that might prevent you from connecting to Zoom.

Once you connect, you will enter a Zoom waiting room. Your Greenbush teacher will admit you into the final meeting room.

If you have questions, please call Sheila Sandford at Greenbush, 620-724-6281, or email at [sheila.sandford@greenbush.org](mailto:sheila.sandford@greenbush.org) (best method of contact).

# Sphero Protractor

Print on card

