Tech Tool:	Sphero bolts
Grade:	5th
Tool to student ratio:	1:2
Activity Objective:	Code the Sphero to complete a series of steps to make dance.
Key Skills & Vocabulary:	Computational Thinking Skills: Algorithm Design and Debugging Computational Thinking Approach: Creating: designing and making
Pre Activity Prep:	Week 1: Encanto Bruno (other song options, macarena, boot scoot 'n boogie, happy) Need an iPad and Sphero Bolt Need a doc cam/apple tv Teacher program example "dance" before class, at the bottom of the page Week 2: Surface Pressure (or let them choose a song from a short list - macarena,happy, cotton eye joe, boot scootin boogie)
Charging:	how long to charge: 1 hour how long will they last: 1 hour Keep one set charging while the other is in use. Charge iPads each night.
Tech Tool Rules:	Return to charging cradles when not in use. iPads should not be left on the floor.
Activity Introduction:	5 minutes: Introduce the activity by showing the class the Sphero pre-programmed block code dance. As a class, discuss what steps they observed. We will be doing block coding and show them a few blocks to introduce what kind of things the sphero bolt can do by showing them a few examples. Examples are spin, speed, reverse, matrix animation, and colors.
Activity:	Week 1: 20 minutes: As a class the teacher will show the block coding page for Sphero Bolt. The class will choreograph 5 steps together with the teacher. Come up with the 5 steps. Keep the block coding up on the doc cam. The students get with a partner and recreate the same steps the class came up with. Line up all the robots to see if they are doing the same moves. See if the groups all coded it correctly. Debug anything that is incorrect. Try again. Once everyone has the same code, do it again.

	As a partnership keep the class choreography block coding but then add 10 seconds of their own dance. At the end they will start all at once again and have it turn into a dance party with the different moves. Week 2: 20 minutes Review for a few minutes. Have them get with a partner with an iPad and Sphero Bolt. Then they team up with another group. With the Sphero Bolt, they are going to pick a song and choreograph a new synchronized dance with the bolts or do a partner type dance to one of the songs. Toward the end of class they will perform what they came up with to the class.
Clean Up:	10 minutes: Have students double click on the home button on their ipads and then swipe up to exit the sphero app. Return the spheros, and ipads to designated locations.
Reflection:	What steps did we use to choreograph the sphero bolt? Vocabulary: Algorithm

on start program

loop forever

matrix animation [matrix] once

main LED ⬡

roll 0° at 50 speed for 2s

roll 0° at -50 speed for 2s

stop

roll 90° at 50 speed for 2s

roll 90° at -50 speed for 2s

matrix animation [matrix] loop

spin 6000° for 5s

Movements   Lights   Sounds   Controls