Tuesday, July 7
11:30am

SciGirls, "Baile Digital / Digital Dance"
4th – 8th grades.

This series showcases bright, curious real girls putting science and engineering to work as they answer questions and make unexpected discoveries in the world around them. In this episode SciGirls in Queens, New York unite to create a high-tech dance show. Marillin, Nazaret, Sheira and Marielly code robotics and light up dance costumes, and perform for their families and community.

> ## After watching this episode, choose from the following questions and/or tasks to extend your learning

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Question Box 1

Plan
- What is Baile Digital Dance?
- The SciGirls learn that they are going to create some technology to go with a dance created by a school club. What three things do the girls have to decide upon and plan?

Collect & Create:
- What assets do the SciGirls collect and create for their dance program?
- How do they prepare the Spheros robots? How do they plan to use them?

Test:
- How do the girls test their Sphero?
- What is the Arduino code?
- What problems do the girls find?
- What does it mean to debug?
- How do they work together to get ready for their final performance?

Question Box 2

- Watch the Mentor Moment video
- Think about where the teacher in the video got her inspiration to do what she does for others. Think about who or what is your inspiration? How can you inspire others?
- Now that it's over, what are my first thoughts about this program? Are they mostly positive or negative? Explain?
- What is the most important thing I learned personally?
- What were some of the most interesting discoveries I made while working on this program?
- What were some of my most powerful learning moments in the program and what made them so?

Box 3 (Tasks)

- How did the SciGirls use science when designing their costumes?
- What sort of coding did the SciGirls use for their performance?
- Think about how the SciGirls use robotics and lightning to enhance their dance show.
- Think about the kind of robot you'd like to design to enhance your life.
- Watch How To Draw Robot tutorial for kids
- Draw your own sketch of a robot.
    - Create your robot from your sketch using cardboard, paper and other household items.
    - Write a description of what your robot can do?
    - Using a coordinate plane, map the movements of the robot. How many different combinations of moves could the robot do to get the endpoint? What are they?
    - Calculate the surface area of the robot that you created.
    - Calculate the volume of your robot.

Box 4 (Enrichment)

- How did the SciGirls decide what sort of coding they needed to do in order to accomplish their goals?
- Describe other technology the SciGirls used in their performance.
- Watch Fun Facts About Robots! | Nat Geo Kids Robots Playlist
- Visit Robotics Activities and select your own robotic activity from the list. Be sure to check with an adult first.

Box 5 (Extend/Real-Life)

- Make a list of everyday items in which coding is used in order for the item to work.
- Explore: Robot Facts for Kids