Grades: 4-5

SciGirls, "Cartoon Coders"

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, fueled by their passion for technology and social justice, Kanah, Margaret and Eh Lay create a computer animation that urges kids to take action in their own communities.

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

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Question Box 1

Learn
- What does STEM stand for?
- What is the add on to STEM that the girls are interested in?
- How do the girls learn about stop motion animation?
- Describe how stop motion animation works?

Research
- What are some ideas that the girls discover other kids their age think STEM Justice is? Give 3 examples.
- What conclusion did the girls draw from their research?

Brainstorm
- What technology tools do girls think about using when creating their STEM Justice animation?
- What problems do the girls consider as the topic for their animation?

Plan
- How does the girls' outline influence the work on their storyboard?
- After sharing their storyboard ideas with others, what do the girls discover? What do they plan to do to improve their work?

Create
- Describe how the girls used the software program, Alice to create their animation.
- Why is it a good idea to check your animation often?
- What are the final touches the girls can add to their animation to make it better?
- How do the girls make sure their animation is "natural", explain.
- Why is "grouping" important?

Share
- Tell the different ways the girls share their animation?
- How do the girls feel about their project?
- What do the girls hope that others learn from them?

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Question Box 2

- How is Jake and Izzie's community service similar to the SciGirls? Think about the neighbor/city where you live, make a list of ways that you and your friends can give back to the community.

Box 3 (Tasks)

Activity:
- Think of a service you can do for your community.
- Make a storyboard to explain the problem, the solution and how you plan to help.
- Share it with others for feedback.
- Record your feedback.
- Edit your storyboard based on the feedback you received from others.
- Share your revised storyboard to others.
- Tell what you learned based on feedback collected.
- Describe how the SciGirls use Engineering to make their computer animation?
- List the ways that community action will involve

Box 4 (Enrichment)

SciGirls Connect
- Download the PDF under "Related Activity Story Starters"
- Follow the steps to create your own storyboard.
- Describe the connection between technology and social justice.
- Describe the connection between science, engineering and social justice.

Box 5 (Extend/Real-Life)

Begin your Coding Adventure
- Click on the link above.
- Select from the list of activities to learn how to code.
- For more fun...see more Tynker Hour of Code on the right-hand side of your screen.

Visit scratch for kids
- Research and describe a community action group that uses science to guide their actions.