Power On! Wrap Up (Changemaker) Lesson **Duration: 90 MIN (2-45 Min periods)**

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Objective: Students explore various format options (game design, animated poster, storytelling) to determine how they will create their own Public Service Announcement (PSA) about their (Pitch their Passion) topic from Power On!

Standards:

Grade 3 CCSS.ELA-LITERACY.W.3.1	Write opinion pieces on topics or texts, supporting a point of view with reasons.
Grade 4 CCSS.ELA-LITERACY.W.4.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
Grade 5 CCSS.ELA-LITERACY.SL.5.4	Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
ELA Anchor Standard - CCSS.ELA-LITERACY.CCRA.W.3	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.
ELA Anchor Standard - CCSS.ELA-LITERACY.CCRA.SL.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
Algorithms And Programming 4-6.CT.8	Create programs that include sequences, events, loops, and conditionals. Develop algorithms or programs that use repetition and conditionals for creative expression or to solve a problem.
Abstraction and Decomposition 4-6.CT.4	Decompose a problem into smaller named tasks, some of which can themselves be decomposed into smaller steps.

Prior knowledge/Background: Students created a project about an issue or cause they care about from Power On! with the Pitch Your Passion project. In this lesson students will plan how they will turn their passion code into a PSA to bring awareness about the issue to others and convince them to take action.

Resources/Materials:

- Power on book by Jean J. Ryoo and Jane Margolis
- Devices connected to Internet (Chromebooks, laptops, or iPads, etc.)
- Links to Google CS First assignments on Google Classroom

I do: the teacher will explain how a PSA is different from students sharing information about their passion.

(Draw comparison to opinion/argumentative writing) In a PSA, we want to capture the audience's attention, convince the audience by providing information, and give the audience next steps (how can they support the cause or share information on where they can learn more).
Present the video about PSA http://g.co/csfirst/psa
To do this we have to start by having a clear purpose

1. The Topic (think of this as the title)
2. Who is your audience? (think about the audience's point of view when you are deciding how to catch their attention)
3. What is your argument? (This is going to be what you want your audience to agree with)
4. What are the next steps for your audience? (If you convince the audience, what do you want them to do after your project?)

Model Example (with think aloud)

1. Power On! By Jean Ryoo and Jane Margolis
2. Teachers k-12 (even though I think everyone should read it! I think my message will get further if I target teachers because then they can reach many students.)
3. My argument is that this book is a great way to share this information with younger students and increase awareness to something important that impacts them and their future. Having the information allows them to make an informed decisions, and empowers students to take action.
4. I want the teachers to read Power On! So they can use it with their class and share it with other teachers. I also want them to like my project and add a comment so that it can reach more teachers!

(Now that I know exactly what I want my project to do, I will look at different ways I can present this information with code and decide which one would be most effective and I would be better at!) That is what you will do next.

We do: Students will answer these 4 questions about their passion project. Turn and talk to share. (Now that you know exactly what you want your project to do, you will look at different ways you can

present this information with code and decide which one would be most effective and I would be better at!) You will rotate to each station with your group and at the last station, you will share with your group which format you think is the best way to present your passion project in code, and why it would be the best.

Independent practice (In class exercises):
You will have to decide what format would be best for you to accomplish this goal, remember, there is no right or wrong answer. You are going to have the opportunity to explore what those projects would look like so that you can decide what the best format would be to convince your audience.

Students will rotate through stations to explore examples of PSA projects in the format options game design, art animation (animated poster) storytelling, and then (brainstorming) where they share their ideas with their group and decide which format they are going to choose for their PSA and why.
*Note share intro video/exemplar project from Lessons 9- groups 1-3 at each station

Exit Ticket: Students will submit their decision on which format they will choose for their PSA and Why?
(Note to teacher: Preferably, the exit ticket will be under their "we do" questions 1-4. It will be the first page of their project and help them stay focused on their goals. It can be done on paper or digitally if 1:1 devices are available)

Assessments:

Exit Ticket - Final Project Format Choice

Classroom Observations

Plickers questions

Teacher Lesson Notes

Extension Activities (Assignments)

Additional Resources:

Public Service Announcement (PSA) Lesson Plan

Overview

CS First teaches computer science (CS) concepts through instructional videos that show students how to make projects with *Scratch for CS First*. In this coding lesson, students create their own Public Service Announcement (PSA) about a topic of their choosing. This lesson plan is designed to help you teach students how to research a topic and use sources to create a PSA to persuade their audience. Access the lesson at g.co/csfirst/psa.

Tip: This lesson is an enhancement to incorporate CS into your existing english language arts, reading, social studies or technology curriculum. Use this lesson as is, or make a copy and modify it.

Activity details

In Public Service Announcement (PSA), students conduct research on a topic of interest and use code to make a compelling case for why people should care. Learning how to create a persuasive argument and communicate the right message for listeners is an important part of developing a strong PSA.

Students that complete the **Pitch Your Passion lesson** (click here) will learn how to take their passion projects a step further by not only caring but by persuading others to take action. Use this lesson to teach students how to choose a topic and provide a supporting point of view with facts and details.

The **Pitch Your Passion lesson** was designed for students in grades 3 through 5, and can be adapted for many different ages and audiences. It takes approximately one hour.

The **Public Service Announcement lesson** was designed for students in 6th grade or older (or for students with more coding experience), and can be adapted for many different ages and audiences. It also takes approximately one hour.

Tip: You can choose to do the **Pitch Your Passion lesson** (click here), this lesson, or both, depending on your students' interests, age and time allotted. Split this lesson between morning and afternoon, different days, or complete it in one sitting. Younger students and those new to coding may need more time.

Learning Objectives

By selecting add-on videos that present coding challenges, students will:

- Create an **animated project** that emphasizes an interest or issue they want others to care about.
- Use **event** blocks (like "broadcast") to trigger a series of code.
- **Sequence** at least 3 "say" blocks to tell others about the issue or cause.
- Use **motion** blocks (like "glide to X Y") and **sounds** to get their audience's attention.
- Use **arrays** (like "lists") to organize supported phrases about the PSA

CS Topics Covered

- Parallelism: The process of events happening at the same time, either independently or interdependently.
- Debugging: The process of identifying and fixing error(s) in a program when it is not functioning as expected.
- Control structures: Sections of code that order the direction or flow of how a program functions. The control structure in this lesson is focused on loops.

Standards addressed

This activity can be adapted for many different language arts, reading, social studies and technology classes. Refer to these standards in choosing how to adapt the lesson to your class.

ELA Anchor Standard - CCSS.ELA-LITERACY.CCRA.W.3

Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.

ELA Anchor Standard - CCSS.ELA-LITERACY.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.. **[continued on following page]**	
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CSTA 1B-AP-10	Create programs that include sequences, events, loops, and conditionals.
CSTA 1B-AP-11	Decompose problems into smaller, manageable subproblems to facilitate the program development process.

Materials

The lesson can be completed online or offline, but both options require access to a computer.

Online Version	**Offline Version**
Student computers with internet access (recommend 1 per student or group of 2-3)* CS First website: g.co/csfirst/NYSDpitch	Student computers with Scratch Desktop installed (recommend 1 per student or group of 2-3) Activity Cards
Shared Materials: Teacher computer and a projector (optional for both activities) Student completion certificates: 1 certificate per student (optional for both activities) Student Public Service Announcement worksheets (needed for the Optional Follow-Up Activity) Headphones: 1 headphone per student (optional for both activities)	

Setup (Online)

1. If you are using the offline version for this lesson, follow the corresponding setup steps.
2. Consider running a pre-writing activity where students can plan out the scenes, data points, reference research and key takeaways they want others to understand about their chosen topic.
3. Set up your classroom to ensure videos (with sound) can be played for your entire class.
4. Share the unique lesson link or class code, which you can find under your classes from your CS First teacher account.
5. Read the “Lesson Introduction” aloud and present an Example Project bit.ly/NYSDExample1.

Tip: The projects of students in your class are automatically shared with your teacher account.

Setup (Offline)

1. If you are using the offline version for this lesson, follow the corresponding set-up steps.
2. Download the Scratch Desktop from https://scratch.mit.edu/download (Available on PC and Mac)
3. Consider running a pre-writing activity where students can plan out the scenes, data points, reference research and key takeaways they want others to understand about their chosen topic.
4. Print the cards and put them in a place where the kids can pick a card with a coding challenge.
5. Download all the lesson videos in bulk from g.co/csfirst/psa,

Tip: The projects of students in your class are automatically shared with your teacher account.

Procedure (Online and Offline)

Introduction: Review lesson objectives (7 minutes)

1. Introduce the lesson:
    a. [say] In this lesson, you’ll create a Public Service Announcement – also known as a P-S-A.

b. [say] A PSA is a special type of message that gives people information about an issue, then asks them to change something in their own lives or to help others.
c. [ask] What message would you like to share to help your community, the environment, or other people. What facts or statistics can you share to promote your message? What specific action can people take?

2. Before computer time, consider running a pre-writing activity where students plan out the scenes, data points, reference research and main takeaways they want others to understand about their idea or cause.

[Optional] Pre-writing activity

1. **Watch a PSA:** Show a few of the following Scratch or YouTube examples to the group:
    a. Scratch Projects:
        i. *Adopt don't shop* by jeilanii (bit.ly/NYSDPSA1)
        ii. *Halloween Culture ≠ Costume* by amee- (bit.ly/NYSDPSA2)
        iii. *Clean water* by Echostrike (bit.ly/NYSDPSA3)
        iv. *Google is not a source* by DaMan56100 (bit.ly/NYSDPSA4
    b. Videos:
        i. Award Winning Anti-Smoking Commercial (bit.ly/NYSDPSA5)
        ii. Hearing Loss PSA Challenge Videos (bit.ly/NYSDPSA6)

2. **Discuss:** The projects and videos we just watched are called "public service announcements," or PSAs. A PSA is a message that raises awareness about a topic or social issue and motivates people to take positive action for that cause. As you develop your PSA, let's consider the following questions:
    a. What social issue or message was this PSA trying to address?
    b. What should the viewer do, the "call to action," after they've heard the message?
    c. Who was the intended audience of each PSA?
    d. What was the tone and "persuasive tool" used to communicate the message? (Comedy? Statistics? Appeal to emotions?)
    e. What did the PSAs have in common?
    f. What did the creators use to communicate their message?
    g. Were you persuaded? Why or why not?
    h. Make a list: If you could change anything about the PSA, what would you do to make it better?

3. **Choose and research your own topic:** Select a topic or issue that is important to you. Using the internet and/or other resources available (e.g. newspapers, books, other people), research your topic and find data or statistics that will help convince their audience why their topic is important.
    a. Find 2-3 pieces of data or statistics about your topic that will help convince your audience why your topic is important.
    b. **EXAMPLE:** A PSA topic to encourage people to go outdoors and hike might use the following data/information: "On average, children aged 10 to 16 now spend only 12.6

minutes a day on outdoor activity compared to 10.4 hours being motionless." Source: UK Study sponsored by National Trust

4. **Plan:** Plan a PSA campaign with one or more different solutions to solve the problem or advocate for the issue.
    a. Think about how you would create a PSA on your topic.
        i. What words could you use to convey your message or goal?
        ii. Is there a catchy phrase or slogan you can use?
        iii. What would you say to share out the importance of your message?
        iv. How do you convince or persuade people?
        v. How will you share your facts? Will it be funny, or dramatic? Show positive outcomes or negative ones?
    b. The suggested PSA structure includes
        i. An overview of the topic
        ii. Incorporating facts into the body of the project
        iii. Adding a personal story or narrative
        iv. Closing the project with a persuasive statement for the audience to take action, and
        v. Including credits that list the sources and references where they found their information.

Transition to CS First: Start coding (45 minutes)

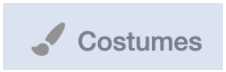
1. Present the first two videos of Public Service Announcement to the entire class g.co/csfirst/psa.
2. Navigate students to the Public Service Announcement activity.
3. Reiterate the video instructions:
    a. Open the Starter Project.
    b. Add two character sprites to start the PSA.
    c. Program both sprites using "say for 2 seconds" blocks, "wait" blocks, and [when flag clicked] events.
    d. Select add-on videos to continue your animated PSA.
4. Release students to work. While they're working:
    a. Check that students are on-task.
        i. Online - Students should have two tabs open (CS First videos and *Scratch for CS First*). Look for signs that students might not know what to do, like adding a lot of sprites or dragging out a lot of unrelated blocks.
        ii. Offline - Encourage students to rotate and pick up cards with other coding challenges.
    b. Talk with students one-on-one about their animated PSA projects. Ask open-ended questions to get everyone thinking about topics they're passionate about.

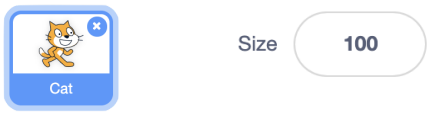
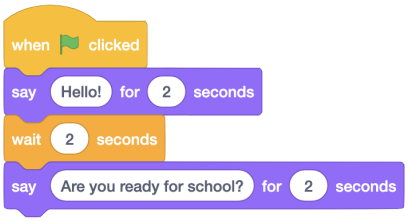
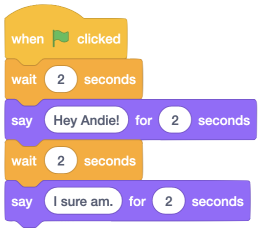
Wrap-up: Reflect on the activity and CS concepts practiced (8 minutes)

1. Pair students and ask them to review their partner's project. Answer the following questions (either in writing or whole-class).
    - What social issue or message was your partner's PSA trying to address?
    - What words did your partner use to convey their message or goal?
    - What was the "call to action" in your partner's PSA?
    - What was the tone and "persuasive tool" used to communicate the message? (Comedy? Statistics? Appeal to emotions?)
    - Were you persuaded? Why or why not?

Common Needs

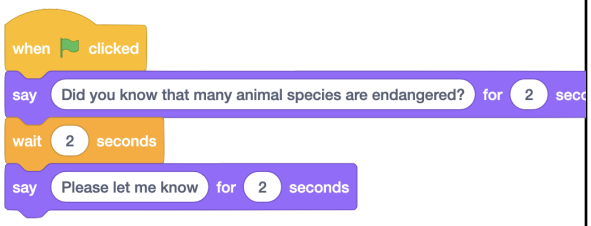
Refer to this guide when helping students on their projects. For additional resources, check out the Scratch Wiki, including the Scratch Secrets and Hidden Features articles.

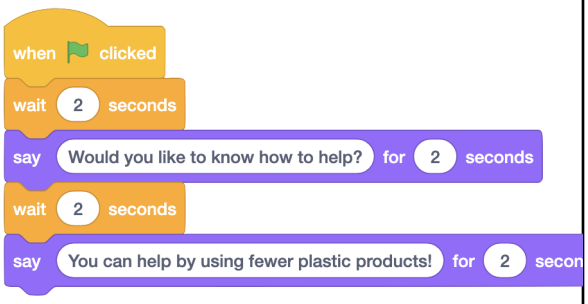
I want to...	How to
Restore a deleted sprite	Click Edit -> Restore Sprite
Restore deleted code	Right click -> Undo
Flip the direction of sprite	Select sprite -> Costumes tab ->  Select tool -> Flip Horizontal
Change size of sprite	Select sprite -> Change size

	
Sequencing code with “wait” blocks	Main Character (i.e. Andie)  Secondary Character 

Add-on Solution Guide - continued

Refer to this guide to see example code for each video.

Intro to Public Service Announcement	Engage Supporters
No code.	Main Character  Second Character

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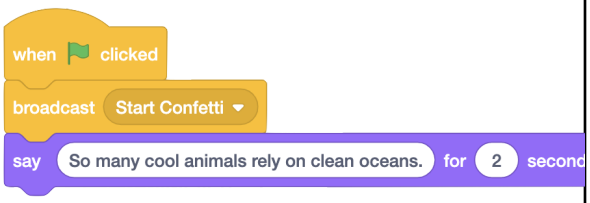
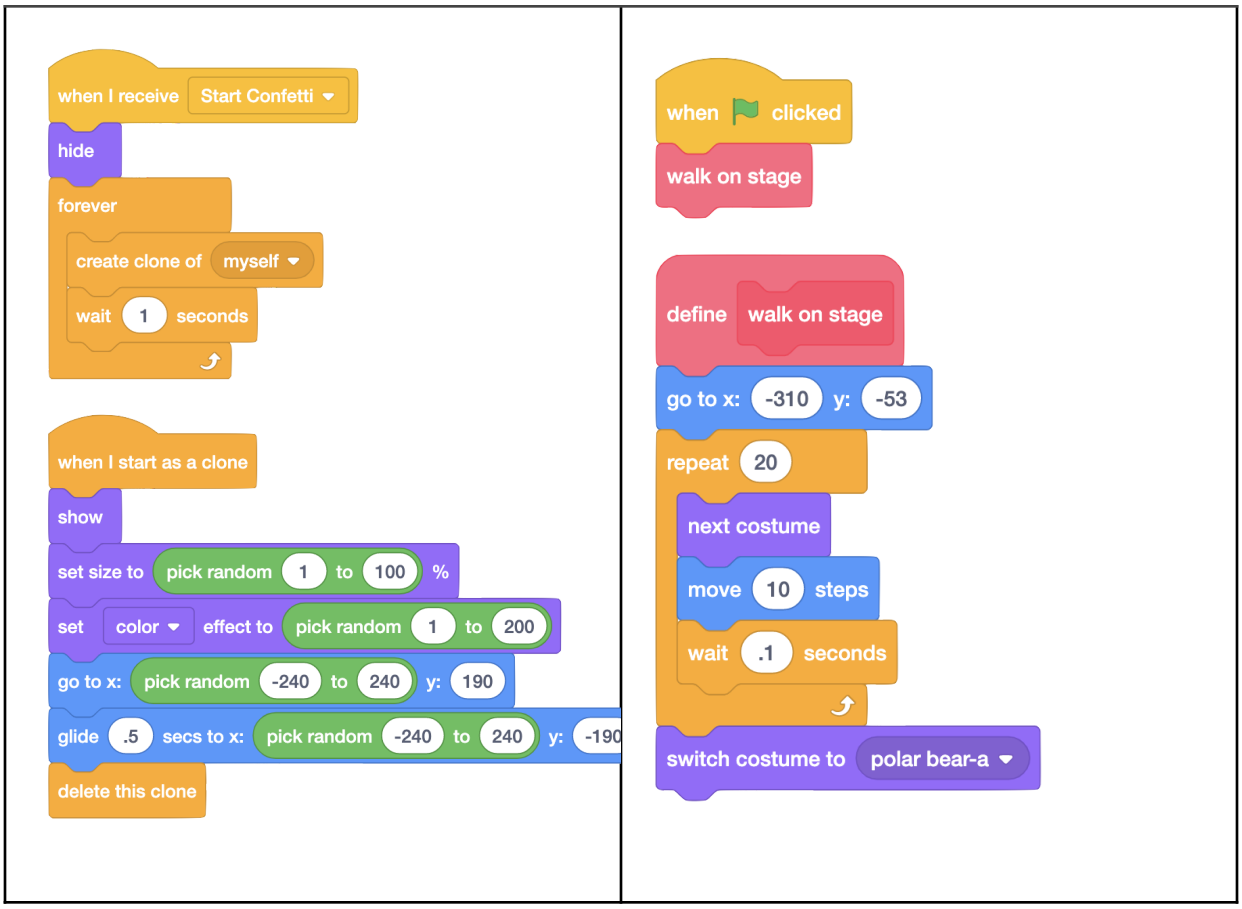
Weather and Confetti	Come on Stage
Main Character  Falling Sprite	New sprite



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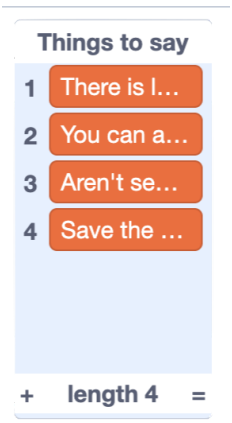
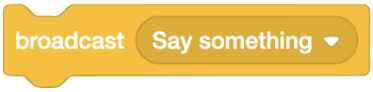
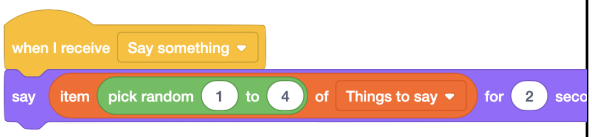
Supportive Phrases	Broadcast Finale
Create a variable list	Define event to broadcast

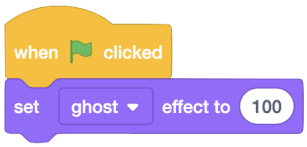


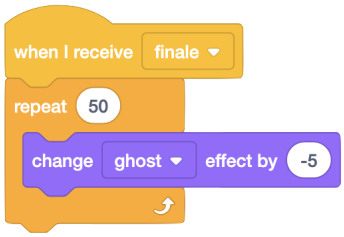
Define broadcast



Active supporter







Program your final slide

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Take Action
Share project and add call-to-action details and information. Include prompts and credits.

CS First projects are coded using Scratch, a block-based coding tool developed by the Scratch Foundation in collaboration with the Lifelong Kindergarten group at the MIT Media Lab. Learn more about Scratch at scratch.mit.edu.

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Scratch is developed by the Lifelong Kindergarten Group at the MIT Media Lab. See http://scratch.mit.edu