

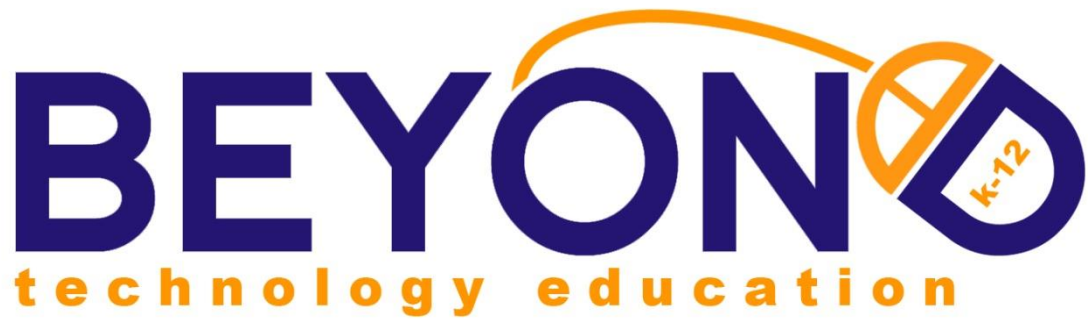


Inspiring students and teachers in the use of technology



Creating Change,
Developing Solutions
Using [Scratch.com](https://scratch.mit.edu/)





Creating Change, Developing Solutions

Teacher Edition
6th – 8th Grade Version

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Creating Change, Developing Solutions

Creating Change, Developing Solutions will challenge students to identify and research a pressing social issue and create a technology-infused campaign seeking to raise awareness and pose solutions. Students will develop online research skills, learn basic programming skills, practice video production and editing and learn to present their original content in a dynamic, digitally focused context.

This curriculum facilitates competence in Word Processing, Databases, and Multimedia Presentation as well as teaching students to use the following advanced technology tools: Kidblog.com (online blog), Windows Movie Maker, and Scratch.com. Scratch is developed by the Lifelong Kindergarten Group at the MIT Media Lab. See <http://scratch.mit.edu>. Over the course of the year, students will campaign for a particular cause, blog about it, create animations and videos to raise awareness, and present their own solutions to create change in the world.

Students will be using ten major technology areas to create their projects. These technology areas are:

- Word Processing
- Databases
- Multimedia
- Desktop Publishing
- Graphics
- Internet
- Programming
- Video Production
- Blogging
- Operating System

On the first day of class, each student will determine the social issue that they will focus on for the year.

This is a 36-hour course divided into 4 units.

- Unit 1: Researching and Launching the Campaign
- Unit 2: Raising Awareness
- Unit 3: Interacting with the Cause
- Unit 4: Presenting the Cause

Since this course is modular, it can be adjusted to:

- 36 hours by following the suggested timeline
- 24 hours by omitting the Unit 4 project and shortening the Interactive Project in Unit 3
- Most projects can be modified to fit within a certain time constraint

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Programming

Programming or Coding, in computer terms, is the process of writing, assembling, and compiling computer code. Code is simply the instructions for hardware and software. (Ask.com)

Learning Objectives
Log in and log out of coding application
Identify profile tools and menus
Create a new project
Title a project
Identify project editor tools, menus, and work areas
Identify backdrops, sprites, and script blocks
Create, select, or upload backdrops
Delete or duplicate a backdrop
Title a backdrop
Use drawing tools to design a backdrop
Add shapes, lines, or graphics to a backdrop
Add text to a backdrop
Add color to a backdrop
Erase an area of a backdrop
Select an area of a backdrop
Delete or duplicate an area of a backdrop
Create, select, or upload sprites
Title a sprite
Delete or duplicate a sprite
Use drawing tools to design sprites
Create sprite costumes
Duplicate sprite costumes
Edit sprite costumes
Use code blocks to begin action
Use code blocks to repeat action
Use code blocks to show and hide sprites
Use code blocks to move sprites
Use code blocks to change costumes and appearance
Use code blocks to affect timing and triggers
Use code blocks to switch backdrops
Use code blocks for dialogue and thought

Delete code blocks
Select or upload sounds
Use code blocks to play sounds
Use code blocks for keyboard and mouse triggers
Use code blocks with if/then operators
Use code blocks with multiple variables
Use code blocks for sensing interaction
Use code blocks to collect or track data
Use code to clone a sprite
Use code to radomize sprite behavior
Specify position using x and y coordinates
Arrange scripts vertically and horizontally in the scripts area
Store code blocks for later use
Preview a section of code
Preview a project
Share a project
Add a project description
Add tags to a project
Cite resources used in a project
Comment on a project
Add a project to favorites
Follow a user
Search for a project by a tag

Blog

A personal website or web page on which an individual records opinions, links to other sites, etc. on a regular basis. (Oxford Dictionary)

Learning Objectives
Log in to blog website
Customize blog and profile settings
Insert a blog title
Write new blog post
Format post with standard text formatting options
Spell Check blog post
Insert Hyperlink into blog post
Insert media into blog post
Set alignment of media or text
Caption media
Save draft
Add tags to blog post
Preview post
Publish blog post
Discuss commenting etiquette
Comment on blog post
Review and accept comments
Log out of blog website

Internet

An electronic communications network that connects computer networks and organizational computer facilities around the world (Encarta)

Learning Objectives
Launch an Internet browser
Use the Back and Forward buttons
Bookmark a web page
Access a web page by using a bookmark
Describe proper Internet etiquette
Reference a website
Refresh or stop a web page
Access a web page by entering a URL
Copy or save a graphic from the Internet
Use a search engine
Conduct online research
Evaluate content of a web page
Describe what a domain name is
Use advance search techniques
Download a file from the Internet
Describe domain suffixes
Create a Bookmark Folder
View web page in full-screen mode
Open a new tab or window
Copy URL from address bar
Return to the browser Home Page
Access a web page by using a link

Video Production

Video production is the process of creating video by capturing moving images (videography), and creating combinations and reductions of parts of this video in live production and post-production (video editing). (Wikipedia)

Learning Objectives
Writing a script
Storyboard video ideas
Rehearsing video following a script
Film video
Transfer video files to computer
Import video files to editing program
Adjust the view of the clip timeline
Trim video clips
Delete video clips
Insert still image
Arrange video clips
Take pictures from clip previews
Insert narration
Insert audio media
Adjust audio volume
Adjust audio fade in or out
Insert screen effects
Insert transition effects
Insert titles, captions, or credits
Save as a video file
Save as a project file

Graphics

The art and science of storing, manipulating, and displaying computer data in the form of pictures, diagrams, graphs, or symbols (Encarta)

Learning Objectives
Insert a graphic or shape
Change the size of a graphic
Delete an object
Resize an object
Position an object
Flip and rotate an object
Fill an object with a color
Format line color or style
Use screen capture command
Draw a shape
Crop a graphic
Layer objects
Duplicate an object
Discuss different types of graphic files
Group objects
Add text to a shape
Set background transparency
Add text to a graphic
Apply graphic effects
Access graphic libraries

Word Processing

The creation, retrieval, storage, and printing of text using a computer or other electronic equipment (Encarta)

Learning Objectives
Open and close a file
Save and name a file
Enter text into a document
Insert a graphic into a document
Delete text
Format font style and size
Format font color
Print Preview and Print a file
Cut, Copy, and Paste
Change text alignment
Use Spelling and Grammar Check
Add bullets and numbers
Increase and Decrease Indents
Insert Headers and Footers

Database

A systematically arranged collection of computer data, structured so that it can be automatically retrieved or manipulated (Encarta)

Learning Objectives
Open and close a file
Save and name a file
Enter text and numbers into a cell
Format font style, size, color, or other text format
Print Preview and Print a worksheet
Select an area on the worksheet
Cut, Copy, and Paste
Use Spelling and Grammar Check
Insert Headers or Footers
Merge cells
Insert cell borders
Format cell shading

Sample

Multimedia

Programs, software, and hardware capable of using a wide variety of media such as film, video, and music as well as text and numbers (Encarta)

Learning Objectives
Save and name a file
Insert a graphic or object
Change the size of a graphic
View a slide show
Format font style, size, color, or other format
Animate an object
Resize a text box
Insert graphics
Insert a background or Slide Design
Insert transitions
Print a slide show
Insert a new slide
Format Slide Layout
Use Spelling and Grammar Check
Cut, Copy, and Paste
Insert a video clip
Insert a Hyperlink
Format Color Theme
Insert text
Use Notes section of a slide

Desktop Publishing

The use of a personal computer and specialist software to design, layout, and produce typeset-quality documents for output on a computer printer or for commercial printing (Encarta)

Learning Objectives
Save and name a file
Insert a text box
Format a text box
Insert a graphic
Format WordArt
Insert WordArt

Sample

Operating System

The essential program in a computer that maintains disk files, runs applications, and handles devices such as the keyboard, mouse, monitor, and printer (Encarta)

Learning Objectives
Turn on the computer and peripherals
Launch a program
Use a scroll bar
Navigate the folder directory
Open a file from a directory
Create a New Folder
Rename a file or folder

Sample

Creating Change, Developing Solutions Project Outline

Unit 1: Researching and Launching the Campaign

Project 1	Introduction and Brainstorming	2 classes
Project 2	Introduction to Coding	1 classes
Project 3	Campaign Mascot	2 classes
Project 4	Research Database	2 classes
Project 5	Campaign Blog	1 class
	Extension Projects	
Project 6	Campaign Logo	2 classes
Project 7	Mission Statement	1 class

Parent Letter

Creating Change, Developing Solutions - Unit 1

Dear Parents,

This year's computer lab curriculum at **School Name** is called Creating Change, Developing Solutions. Your student will be challenged to identify a pressing social or global issue that is important to them and create a campaign to address that issue. This curriculum contains four units: Researching and Launching the Campaign, Raising Awareness, Interacting with the Cause, and Presenting the Cause. Each unit will lead students through exciting new technology areas, teaching them 21st century computer skills that foster critical thinking, global awareness, and creativity.

Throughout the four units, students will use ten major technology areas to create campaign projects. These technology areas are:

- Word Processing
- Databases
- Multimedia
- Desktop Publishing
- Graphics
- Operating Systems
- Internet
- Programming
- Blogging
- Video Production

The Creating Change curriculum focuses heavily on computer programming skills using a web tool called Scratch. Scratch teaches students programming logic in an exciting, accessible format. Students will make animations, interactive activities and interactive infographics for their campaign using Scratch. See the attached "Learning with Scratch" document from the Scratch website.

In Unit 1: Researching and Launching the Campaign, students will decide on the cause they will campaign for. They will conduct online research and create a database of facts, quotes and statistics relating to the cause. They will use this database in future projects as a source of information. They will also create a logo, tagline, and mission statement for their campaign and will start blogging about their cause.

The finished projects and lists of completed objectives will be sent home for your review at the end of each unit. Students will also post links to completed projects on their blogs where you can review them. I look forward to meeting your student.

Sincerely,

Teacher's Name

Computer Lab

Introduction to Creating Change and Brainstorming Word Processing Unit 1 - Project 1

Notes & Preparation

- Load file *Brainstorming a Cause Sample* to show students
- Load file *Suggested Websites - Unit 1*
- Print *Student Permission Slips* to be reviewed and signed by students and parents/guardians by the next class
- Software: Microsoft Word
- Project length: 2 classes



Concepts and Terms

Issue:

- a) a matter that is in dispute between two or more parties

Cause:

- c) something (such as an organization, belief, idea, or goal) that a group or people support or fight for

Source:

Merriam-Webster

Welcome students to the computer lab. Let them know that this year they will be launching a *campaign for a cause* in response to an important social or global issue they feel passionately about. After selecting an important issue, they will decide on a specific angle for their campaign and will set out to raise awareness and propose solutions by creating a variety projects throughout the year.

Begin brainstorming by asking students to share about issues that they are aware of (e.g., bullying, pollution, poverty, etc.). Discuss how one could identify a cause that responds to these issues. Explain that a cause should be specific and should have clear, practical goals. For example, a cause that responds to the issue of bullying might focus on an educational campaign at schools focusing on the power of words. Encourage students to focus on promoting positive changes. Students can brainstorm as a class to decide on one issue to address or choose individual topics. .

Explain that students will use a variety of advanced technology tools to create their projects. In addition to familiar technology areas (Word Processing, Databases, Graphics and Multimedia Presentations), students will explore the basics of computer coding, blogging, and video production.

Students will use the Internet extensively to both locate and create content. Discuss proper Internet etiquette. Hand out and review the Internet Policies and Procedures. Tell them to take it home, have their parent/guardian sign it and bring it back to class.

Tell the students that the goal of their first project is to brainstorm and decide on an issue and corresponding

cause. They will also set up their Student Folder in which they will save projects throughout the year.

Learning Objectives/ Demonstrations

Learning Objectives:
40, 43, 44, 46, 47, 51,
54, 59, 60, 61, 63, 70,
89, 90, 92, 93, 94

In the Operating System - Demonstrate:

- Turning on the computer
- Understanding the folder directory
- Creating a new folder
- Renaming a folder
- Understanding the difference between a menu bar and toolbar
- Understanding the difference between Save and Save As
- Shutting down the computer

In Microsoft Word - Demonstrate:

- Launching a program
- Opening and closing a file
- Saving and naming a file
- Inserting a Header
- Entering text into a document
- Deleting text
- Formatting text
- Inserting Shapes
- Formatting Shapes
- Formatting a table
- Using Undo
- Saving a document
- Printing a document

Project: Student Activity



Today you will brainstorm and select an issue that is important to you. You will decide on a way to respond to that issue by creating a campaign for a cause.

To brainstorm issues, you will create a bubble map in Microsoft Word, identifying multiple issues that interest you, and entering information about each of them. From there you will focus on one issue, think of a name for your campaign, and write several sentences about why you chose that particular cause and what change you hope to see as a result of your cause.

Brainstorming Steps

Folder Setup

1. Turn on the computer
2. Open Documents
3. Create a student folder with student name

4. Create four folders inside student's folder titled as follows:
 - Launching the Campaign
 - Raising Awareness
 - Interacting with the Cause
 - Presenting the Cause

Brainstorming a Cause

Online Brainstorming Tools

- Mindmeister.com
- Mindmup.com

Note: Both websites require a login.

5. Launch Microsoft Word
6. Open template named *Brainstorming a Cause Template* or *Brainstorming a Cause Template - SmartArt*
7. Save and rename
8. Enter Header
9. Type student name
10. Close Header
11. Enter title 'Brainstorming a Cause'
12. Position cursor in the center shape
13. Type 'Issues that are Important to Me'
14. Type four issues into the shapes surrounding the center shape. **Note: If students would like to include more than four issues in the brainstorming process, they may Copy and Paste an existing shape or add SmartArt shapes.**
15. Insert an Oval shape adjacent to the first issue. **Note: For SmartArt add a shape and click Demote.**
16. Copy and Paste the shape at least twice for a total of at least three shapes
17. Record thoughts and information about the cause in each Oval, weighing pros and cons, identifying whether the issue is relevant, too big, too small, etc.
18. Resize the shapes as necessary to accommodate text
19. Change font size as necessary
20. Repeat steps to record thoughts and information for each issue. **Note: Inform students that the goal is to identify which issue would be the most interesting, most applicable for a campaign and most relevant to them and the world around them.**
21. Insert Line shapes connecting the issues with their respective Ovals
22. Format shapes with fill and line colors
23. Format title font style and color
24. Format additional font styles and colors
25. Save file
26. Choose an issue to pursue for the campaign and share that issue with the class

Basic Campaign Information

27. Launch Microsoft Word
28. Open template named *Campaign Information Template*
29. Enter title "Campaign Information"
30. Enter a description of the selected cause after 'Issue:'
31. Enter a specific focus for the campaign after 'Specific Cause:' **Note: Explain that effective non-profits and campaigns focus on a specific response to an issue instead of tackling the whole issue.**
32. Type a few sentences answering the first three questions
33. Discuss what makes an effective campaign name and tagline as a class
34. Have students each share their campaign focus and collaborate with students for campaign name and tagline ideas
35. Enter several campaign name ideas in the bulleted list
36. Type a tagline in the appropriate cell
37. Enter a list of information you need to proceed with your campaign in the bulleted list
38. Leave the Mascots cell empty, as it will be completed in a later project



Have students share the basic information about their campaign - its name, specific angle and why they chose it.

Remind the students to get the Policies and Procedures handout signed, and return it next session. Let students know that they will be starting their research during the next class. Encourage students to continue thinking about what kinds of information they need to educate themselves about the issue.

Have students check off the learning objectives they covered during the project.

Student Handout

Introduction to Creating Change and Brainstorming

Word Processing

Unit 1 - Project 1

Project: Student Activity



Today you will brainstorm and select an issue that is important to you. You will decide on a way to respond to that issue by creating a campaign for a cause.

To brainstorm issues, you will create a bubble map in Microsoft Word, identifying multiple issues that interest you, and entering information about each of them. From there you will focus on one issue, think of a name for your campaign, and write several sentences about why you chose that particular cause and what change you hope to see as a result of your cause.

Brainstorming Steps

Folder Setup

1. Turn on the computer
2. Open Documents
3. Create a student folder with student name
4. Create four folders inside student's folder titled as follows:
 - Launching the Campaign
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 - Interacting with the Cause
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Brainstorming a Cause

Online Brainstorming Tools

- Mindmeister.com
- Mindmup.com

Note: Both websites require a login.

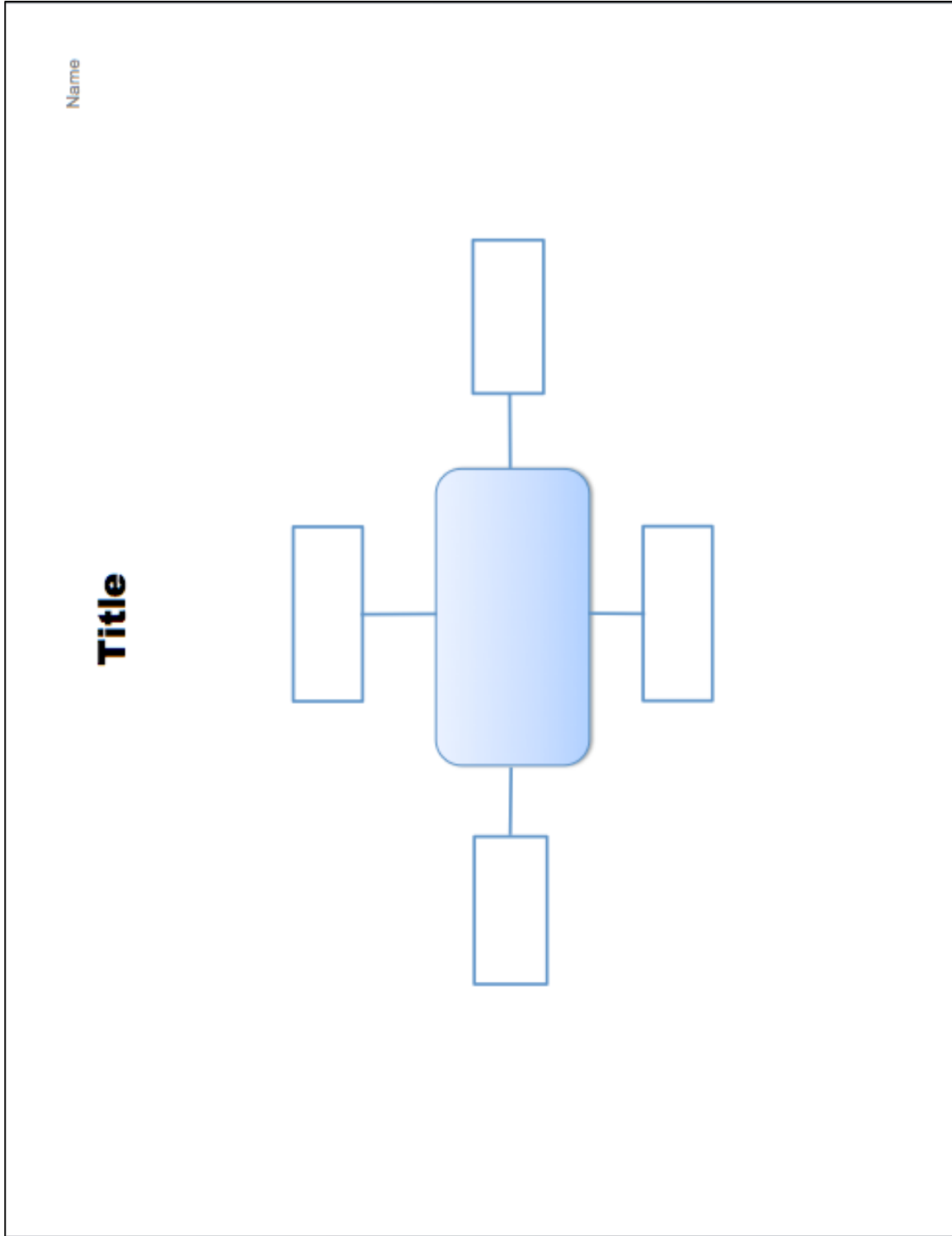
5. Launch Microsoft Word
6. Open template named *Brainstorming a Cause Template* or *Brainstorming a Cause Template - SmartArt*
7. Save and rename
8. Enter Header
9. Type student name
10. Close Header
11. Enter title 'Brainstorming a Cause'
12. Position cursor in the center shape
13. Type 'Issues that are Important to Me'
14. Type four issues into the shapes surrounding the center shape. **Note: If students would like to include more than four issues in the brainstorming process, they may Copy and Paste an existing shape or add SmartArt shapes.**

15. Insert an Oval shape adjacent to the first issue. **Note: For SmartArt add a shape and click Demote.**
16. Copy and Paste the shape at least twice for a total of at least three shapes
17. Record thoughts and information about the cause in each Oval, weighing pros and cons, identifying whether the issue is relevant, too big, too small, etc.
18. Resize the shapes as necessary to accommodate text
19. Change font size as necessary
20. Repeat steps to record thoughts and information for each issue. **Note: Inform students that the goal is to identify which issue would be the most interesting, most applicable for a campaign and most relevant to them and the world around them.**
21. Insert Line shapes connecting the issues with their respective Ovals
22. Format shapes with fill and line colors
23. Format title font style and color
24. Format additional font styles and colors
25. Save file
26. Choose an issue to pursue for the campaign and share that issue with the class

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34. Have students each share their campaign focus and collaborate with students for campaign name and tagline ideas
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38. Leave the Mascots cell empty, as it will be completed in a later project

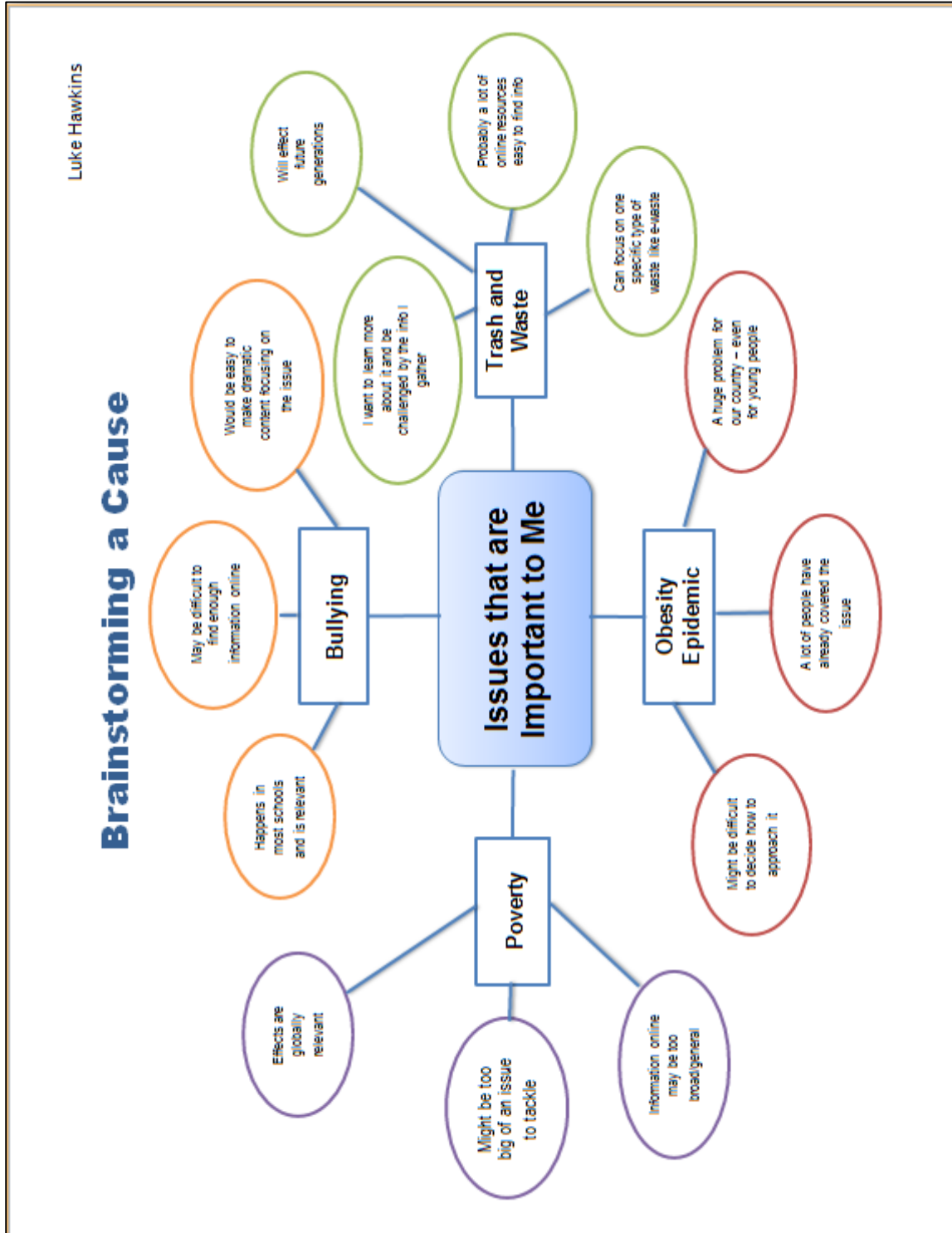
Template



Template-



Name	
Title	
Issue:	Specific Cause:
How have I seen or experienced this issue?	
What could happen if nothing is done?	
What can I personally do to help?	
Campaign Name Ideas: •	Tagline:
Information I Need: •	Mascots:

Sample



Sample

Luke Hawkins

Campaign Information	
Issue: Trash and Waste	Specific Cause: Reducing Waste through repair, reuse, and repurposing
How have I seen or experienced this issue? People buy new cell phones every two years even when the one they have is working fine. When someone's phone is not working, they get a new one instead of seeing if they can fix the old one.	
What could happen if nothing is done? All the cell phones, computers, and other electronics that are thrown out have toxic components that are harmful to people and the environment. It gets in our soil and drinking water and the ones that melted down pollutes our air.	
What can I personally do to help? I can buy less, repair and reuse my stuff, and only produce less waste.	
Campaign Name Ideas: <ul style="list-style-type: none"> • "Waste Not" • "Repair, Repurpose, Reuse" • "E-rase" • "E-eliminating E-Waste" 	Tagline: "E-rase the Waste"
Information I Need: <ul style="list-style-type: none"> • Statistics on E-Waste • Info about landfills and recycling • Current proposed solutions • A list of reasons why people might care/not care about the issue 	Mascots:  

Campaign Logo Graphics and Word Processing Unit 1 - Project 6 Extension

Notes & Preparation

- Load Logo Samples files to show students
- Load Suggested Websites file to show students examples of non-profit logos
- Research logos on the Internet
- Software and tools: Microsoft Word, Microsoft Paint, Pixlr
- Project length: 2 classes



Terms and Concepts

A logo is used by an organization on its letterhead, advertising material, and signs as an emblem by which the organization can easily be recognized.

Source:
Microsoft Encarta

Open *Logo Samples* document, and ask students to identify the logos. Discuss what makes the logos memorable.

Explain to students that almost all companies, non-profit organizations and campaigns have logos. Ask students why they think logos are so important. Navigate to the Non-Profit Logos website in the *Suggested Websites* file and view the first page of non-profit logos. Read the bulleted list of logo qualities. Discuss what makes the sample logos effective. Explain that the best logos are simple and easy to recognize. They usually have some graphical element that relates to the theme of the company or organization. What basic elements make up a logo?

- Picture
- Words
- Colors
- Lines
- Objects

Let students know that they will:

- Use the Internet to locate and edit graphics for their logo
- Layer text and graphics
- Save their logos in different file formats
- Properly cite the sources for the graphics used

Learning Objectives/ Demonstrations

On the Internet - Demonstrate:

- Launching a browser
- Navigating to a website
- Saving a site to Favorites/Bookmarking a website
- Saving a graphic in student folder from the Internet
- Using web tool to edit graphics

Learning Objectives:

24, 27, 41, 42, 45, 48,
49, 50, 51, 52, 53, 54,
55, 56, 57, 58, 62, 65,
83, 84, 85, 86, 87, 88,
91

19, 21, 26, 28, 29, 43,
44, 46, 47, 59, 60, 70

Project:
Student Activity



Logo Steps

In Microsoft Word - Demonstrate:

- Copying and pasting graphics
- Formatting graphics
- Inserting and formatting text boxes
- Inserting and formatting shapes
- Layering and grouping objects

In Paint/Pixlr - Demonstrate:

- Inserting graphic from the Internet, a file, and a Word document
- Using various tools to edit graphics
- Saving in different graphic formats

Over the next 2 classes you will be creating a logo and tagline for your campaign. You will use an Internet browser, Microsoft Word, and Paint to generate your logo. The logo and tagline will be used throughout the year on many of your campaign projects, including:

- Animation
- Infographic
- Public Service Announcement
- Campaign Presentation

Creating a Logo

1. Launch Internet browser
2. Browse for graphics to use in your logo
3. Bookmark graphics in Campaign Sites folder in order to cite the URLs later
4. Save graphics to Student Folder
5. Navigate to http://www.fontsquirrel.com/fonts/list/find_fonts
6. Bookmark page by adding to Favorites
7. Navigate to <http://pixlr.com>
8. Bookmark page by adding to Favorites
9. Launch Microsoft Word
10. Save file as *Campaign Logo* in Student Folder
11. Insert a Header with student name
12. Click Switch to Footer
13. Type 'Image Sources:'
14. Navigate to bookmarked graphics to be used in logo
15. Copy and Paste URLs in Footer
16. Close Footer
17. Insert and manipulate saved graphics to create a basic design for your logo
18. Create a text box or use WordArt to type your campaign name and arrange it in the logo

19. If additional fonts are desired use the bookmarked

- font website and perform the following steps:
- a. Select a font
 - b. Click 'Test Drive' from the font toolbar
 - c. Type campaign name
 - d. Save text as an image file (.jpg) in student folder
20. Add shapes and color if desired
 21. Select each object and Group. **Note: Office 2007 will not group drawing objects with picture objects.**
 22. Save file
 23. Copy Grouped objects
 24. Launch Paint and paste your logo
 - a. Experiment with each of the tools
 - b. Try different colors with the different tools
 - c. Experiment with rotate and attributes
 25. Save file as a *Campaign Logo.jpeg* in student folder
 26. Print Preview file
 27. Print file

Pixlr (Alternative Steps)

28. If additional editing capabilities are desired, use Pixlr to design logo instead of Microsoft Word and Paint. **Note: Students may still create a Microsoft Word document to store graphics and text as they plan their logo.**
29. Navigate to bookmarked Pixlr website
30. Select Pixlr Editor
31. Create a New Image
32. Select the check box next to 'Transparent'
33. Click OK
34. Insert saved graphics. **Note: Each inserted graphic will be placed on a new Layer. Demonstrate how to view and hide layers and delete layers.**
35. Insert saved graphic of text from the font website or add text in Pixlr by selecting the 'A' tool
36. Arrange graphics and text as desired
37. Use editing tools to change the appearance of the various objects
38. Save project as *Campaign Logo.png* in Student Folder

Have the students share their logos with the class, explaining why they chose various elements of each. They

can use their logos in the majority of the upcoming projects.

Have students check off the learning objectives that were covered today.

Sample

**Student Handout
Campaign Logo
Graphics and Word Processing
Unit 1 - Project 6
Extension**

**Project:
Student Activity**



Over the next 2 classes you will be creating a logo and tagline for your campaign. You will use an Internet browser, Microsoft Word, and Paint to generate your logo. The logo and tagline will be used throughout the year on many of your campaign projects, including:

- Animation
- Infographic
- Public Service Announcement
- Campaign Presentation

Logo Steps

Creating a Logo

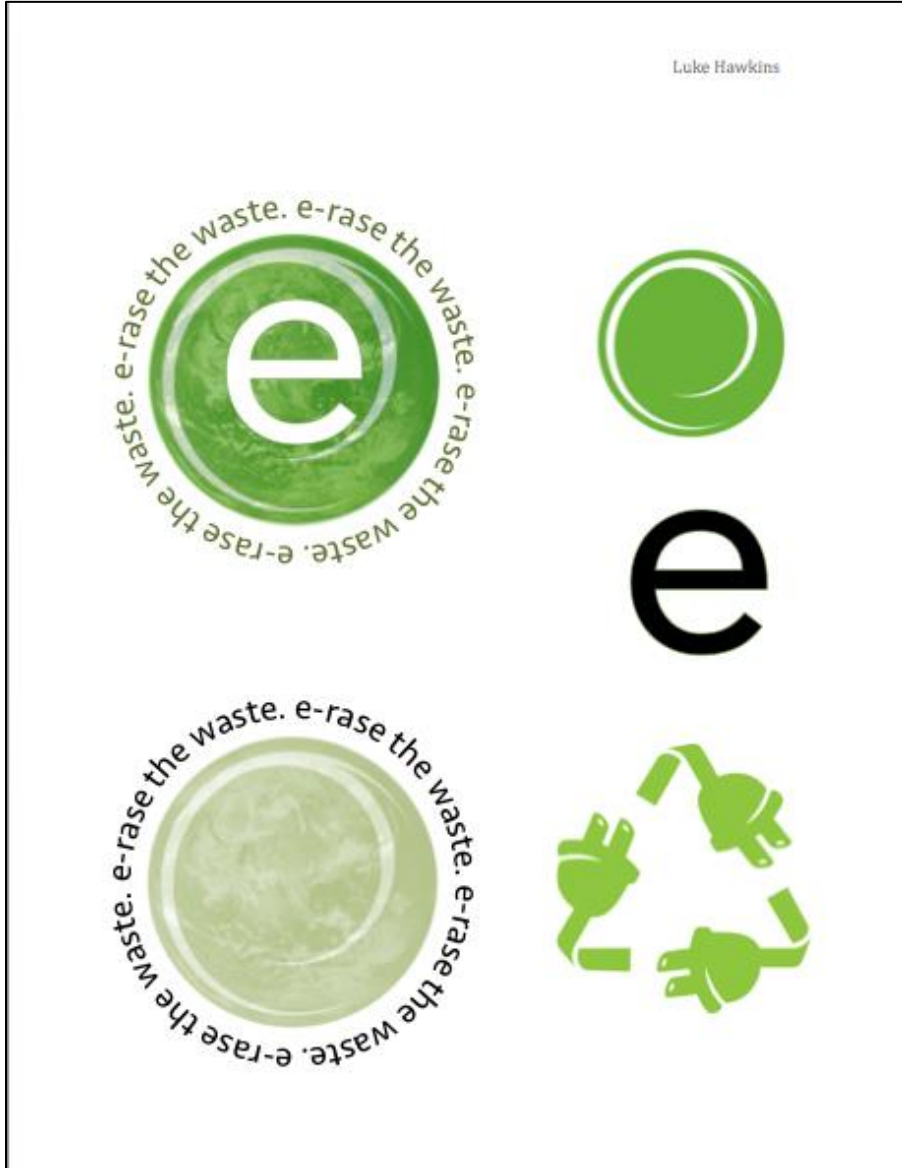
1. Launch Internet browser
2. Browse for graphics to use in your logo
3. Bookmark graphics in Campaign Sites folder in order to cite the URLs later
4. Save graphics to Student Folder
5. Navigate to http://www.fontsquirrel.com/fonts/list/find_fonts
6. Bookmark page by adding to Favorites
7. Navigate to <http://pixlr.com>
8. Bookmark page by adding to Favorites
9. Launch Microsoft Word
10. Save file as *Campaign Logo* in Student Folder
11. Insert a Header with student name
12. Click Switch to Footer
13. Type 'Image Sources:'
14. Navigate to bookmarked graphics to be used in logo
15. Copy and Paste URLs in Footer
16. Close Footer
17. Insert and manipulate saved graphics to create a basic design for your logo
18. Create a text box or use WordArt to type your campaign name and arrange it in the logo
19. If additional fonts are desired use the bookmarked font website and perform the following steps:
 - a. Select a font
 - b. Click 'Test Drive' from the font toolbar
 - c. Type campaign name
 - d. Save text as an image file (.jpg) in student folder
20. Add shapes and color if desired

21. Select each object and Group. **Note: Office 2007 will not group drawing objects with picture objects.**
22. Save file
23. Copy Grouped objects
24. Launch Paint and paste your logo
 - e. Experiment with each of the tools
 - f. Try different colors with the different tools
 - g. Experiment with rotate and attributes
25. Save file as a *Campaign Logo.jpeg* in student solder
26. Print Preview file
27. Print file

Pixlr (*Alternative Steps*)

28. If additional editing capabilities are desired, use Pixlr to design logo instead of Microsoft Word and Paint. **Note: Students may still create a Microsoft Word document to store graphics and text as they plan their logo.**
29. Navigate to bookmarked Pixlr website
30. Select Pixlr Editor
31. Create a New Image
32. Select the check box next to 'Transparent'
33. Click OK
34. Insert saved graphics. **Note: Each inserted graphic will be placed on a new Layer. Demonstrate how to view and hide layers and delete layers.**
35. Insert saved graphic of text from the font website or add text in Pixlr by selecting the 'A' tool
36. Arrange graphics and text as desired
37. Use editing tools to change the appearance of the various objects
38. Save project as *Campaign Logo.png* in Student Folder

Sample



Creating Change, Developing Solutions Project Outline

Unit 2: Raising Awareness

Project 1	Campaign Announcement Storyboard and Script	1 classes
Project 2	Animated Comic Dialogue	2 class
Project 3	Animated Comic Actions	2 classes
Project 4	Finalizing Animated Comic	2 class
Project 5	PSA Script	1 class
Project 6	PSA Production	3 classes

Parent Letter

Creating Change, Developing Solutions - Unit 2

Dear Parents,

Your student has successfully completed Unit 1 of the Creating Change, Developing Solutions curriculum. Students have thought of a relevant social or global cause to campaign for and have begun to research and launch a campaign for that cause. Your student has researched the issue extensively, thought of a campaign name, created a logo, generated a tagline and mission statement, and created a blog to chronicle the process of launching the campaign. Unit 2 focuses on utilizing the research and planning from Unit 1 to raise awareness about the cause.

In Unit 2: Raising Awareness, your student will be introduced to programming in Scratch and video production using Movie Maker. Projects for Unit 2 include:

- *A Campaign Announcement animation in Scratch*
- *An Animated Comic in Scratch*
- *Public Service Announcement Script*
- *Public Service Announcement filmed and edited in Movie Maker*

In Scratch, students will set up an account that will host all of their projects. They will learn the basics of creating programming scripts using code blocks. The Campaign Announcement will give them an introduction to the basics of Scratch programming. After completing two Scratch projects, your student will write, film, and edit a Public Service Announcement pertaining to the issues of the campaign.

The Scratch projects are viewable on your student's Scratch profile. Your student will also be continuing to post links to completed Scratch projects on the campaign blog.

Sincerely,

Teacher's Name

Computer Lab

Animated Comic Dialogue Internet and Programming Unit 2 - Project 2

Notes & Preparation

- Load examples of Scratch animations from the *Suggested Websites* file to show students
- Software: Internet browser
- Project length: 2 classes



Why Learn Scratch?

“Learning to program offers benefits for everyone: it enables students to express themselves more fully and creatively, helps them develop as logical thinkers, and helps them understand the workings of the new technologies that they encounter everywhere in their everyday lives.”

Source:
<http://lk.media.mit.edu/scratch/Learning-with-Scratch.pdf>

Discuss the basics of computer programming. Ask students if they know how apps are created. Ask if they know how websites are built. Explain that apps, websites, and computer programs all begin with programmers. Programmers are people who use specialized computer languages to design technology tools like apps and games.

Remind students that in Scratch, they can make games, animations, stories, and many other digital projects. Tell students that they will use Scratch to make several projects for their campaign. Scratch uses a unique programming language based on blocks of ‘code’ that are stacked in order to give commands. Though it is much simpler than other programming languages, most of the basic principles of Scratch hold true in more complex programming. Discuss and review the introduction to coding they did in a previous project.

Show students several sample Scratch projects including the Advanced Animation and Basic Animation projects from the *Suggested Websites* file. Explain that while some of the samples seem quite simple, they can take a long time to create since the programmer must tell each individual piece of the project what to do and when.

Explain that students will be learning to use Scratch by creating an Animated Comic Campaign Announcement. Their Campaign Announcement will introduce their cause to the public, offering important facts about the issue and ending with a call to action. Show students the Campaign Announcement Sample from the *Suggested Website* file. Click the ‘See Inside’ button to show students what the block sequences look like.

Remind students that they will use the storyboard and script they created to build their comic. They will have the opportunity to search online for graphics to use in their programs as backdrops, characters, or props. They will also be able to find sounds from Royalty-Free websites.

Encourage the students to record the information to cite the websites for graphics and sounds used for their program. They will need to insert a simple attribution citation in the Notes section for their Scratch project. Discuss the importance of citing their resources.

They will begin the project by inserting their mascot sprites and building the dialogue between the two mascots.

Learning Objectives/ Demonstrations

Learning Objectives:

1, 2, 3, 4, 5, 6, 7, 8,
17, 24, 29, 31, 32, 38,
39, 44, 45, 46, 47, 48,
50, 51, 52, 55, 56, 57,
61

In Internet browser - Demonstrate:

- Accessing a web page by entering a URL
- Bookmarking a website
- Saving graphics from the Internet

In Programming - Demonstrate:

- Launching coding application
- Identifying profile tools and menus
- Creating a new project
- Titling a project
- Identifying project editor tools, menus, and work areas
- Identifying backdrops, sprites, and script blocks
- Creating, selecting or uploading backdrops
- Deleting or duplicating an area of a backdrop
- Creating, selecting or uploading sprites
- Using code blocks to begin action
- Using code blocks for dialogue and thought
- Using code blocks to affect timing and triggers
- Deleting code blocks
- Previewing a section of code
- Previewing a project

In Kidblog - Demonstrate:

- Logging in to blog website
- Inserting a blog title
- Writing new blog post
- Formatting post with standard text formatting options
- Using Spell Check
- Adding tags to blog post
- Previewing post
- Publishing blog post
- Logging out of blog website

Project: Student Activity



Today you will begin your Animated Comic Campaign Announcement in Scratch. You will learn to work with the key elements of Scratch such as backdrops, sprites, and dialogue code blocks.

Your Campaign Announcement will be the first introduction of your campaign to the public. You will include key facts about the issue you are tackling. The announcement will end with a call to action, requesting that people do something in response to the information you present.

Record the information to cite the websites for graphics and sounds used for their program. You will insert a simple attribution citation in the Notes section for their Scratch.

Animated Comic Dialogue Steps

Scratch Basics

1. Click 'Create' on the toolbar
2. Change the project title from 'Untitled' to 'Campaign Announcement - [Cause]'
3. Locate the following areas and the buttons/options they contain in the project editor:
 - a. Preview area (white space with cat sprite)
 - b. Sprites area
 - c. Scripts area
 - d. Scripts, Costumes, and Sounds tabs
 - e. Stage area with backdrops
 - f. Toolbar with drop-down menus
 - g. Play flag and stop sign
 - h. Tips section
4. Explore the available blocks in the Scripts menu
5. Right-click cat sprite and delete

Backdrops

6. Select Backdrops tab.
7. Click 'Choose backdrop from library' to select a pre-loaded backdrop
8. Click the Scripts tab
9. Drag the Events block 'When Flag Clicked' into the Scripts area
10. Drag and snap the Looks block 'switch backdrop to [first backdrop]' under the Event block

Sprites

11. Insert sprites for the announcement
12. Add a mascot sprites by clicking 'Upload sprite from file' and browsing for their mascots
13. Resize mascots as desired
14. Position them on the backdrop as desired
15. Notice the x and y coordinates for the sprite's position
16. Insert a 'go to' motion block to specify the x and y position for each sprite

17. Insert a hide block to hide any sprites not needed at the beginning of the scene. **Note: Sprites deleted from the backdrop will be deleted from the Sprites menu.**

Scripts

18. Begin to add scripts for each sprite
19. Select a sprite
20. Add Looks blocks for speech and thoughts
21. Add thought or dialogue to the first sprite with the 'think _' or 'say _' Looks blocks
22. Type character thought or dialogue in the text field
23. Use the timed 'say' and 'think' blocks to adjust how long the thought or word bubble remains on the scene
24. Add a Control block such as 'Wait _ secs' to have one sprite wait for the action or dialogue of another sprite
25. Continue to snap in Looks and Control blocks to create the dialogue form their script
26. Continue adding scripts for the various sprites

Review Scratch

27. Click the flag to play as you continue to add and edit scripts, sprites, and sounds in order to make sure everything is working
28. Adjust timing of Wait blocks and dialogue blocks to adjust the pace of the dialogue
29. Arrange scripts vertically and horizontally for each sprite
30. Log out

Blog Post

1. Navigate to bookmarked Kidblog class page
2. Log in
3. Write and publish a new post briefly introducing your Campaign Announcement discussing the process of creating dialogue in Scratch
4. Log out



Have several students share what was challenging about using Scratch to create dialogue. What was particularly fun? Explain that students will be inserting additional backdrops and animations in their Campaign Announcement.

Student Handout

Animated Comic Dialogue

Internet and Programming

Unit 2 - Project 2

Project: **Student Activity**



Today you will begin your Animated Comic Campaign Announcement in Scratch. You will learn to work with the key elements of Scratch such as backdrops, sprites, and dialogue code blocks.

Your Campaign Announcement will be the first introduction of your campaign to the public. You will include key facts about the issue you are tackling. The announcement will end with a call to action, requesting that people do something in response to the information you present.

Record the information to cite the websites for graphics and sounds used for their program. You will insert a simple attribution citation in the Notes section for their Scratch.

Animated Comic **Dialogue Steps**

Scratch Basics

1. Click 'Create' on the toolbar
2. Change the project title from 'Untitled' to 'Campaign Announcement - [Cause]'
3. Locate the following areas and the buttons/options they contain in the project editor:
 - a. Preview area (white space with cat sprite)
 - b. Sprites area
 - c. Scripts area
 - d. Scripts, Costumes, and Sounds tabs
 - e. Stage area with backdrops
 - f. Toolbar with drop-down menus
 - g. Play flag and stop sign
 - h. Tips section
4. Explore the available blocks in the Scripts menu
5. Right-click cat sprite and delete

Backdrops

6. Select Backdrops tab.
7. Click 'Choose backdrop from library' to select a pre-loaded backdrop
8. Click the Scripts tab
9. Drag the Events block 'When Flag Clicked' into the Scripts area
10. Drag and snap the Looks block 'switch backdrop to [first backdrop]' under the Event block

Sprites

11. Insert sprites for the announcement
12. Add a mascot sprites by clicking 'Upload sprite from file' and browsing for their mascots
13. Resize mascots as desired
14. Position them on the backdrop as desired
15. Notice the x and y coordinates for the sprite's position
16. Insert a 'go to ' motion block to specify the x and y position for each sprite
17. Insert a hide block to hide any sprites not needed at the beginning of the scene. **Note: Sprites deleted from the backdrop will be deleted from the Sprites menu.**

Scripts

18. Begin to add scripts for each sprite
19. Select a sprite
20. Add Looks blocks for speech and thoughts
21. Add thought or dialogue to the first sprite with the 'think _ ' or 'say _ ' Looks blocks
22. Type character thought or dialogue in the text field
23. Use the timed 'say' and 'think' blocks to adjust how long the thought or word bubble remains on the scene
24. Add a Control block such as 'Wait _ secs' to have one sprite wait for the action or dialogue of another sprite
25. Continue to snap in Looks and Control blocks to create the dialogue form their script
26. Continue adding scripts for the various sprites

Review Scratch

27. Click the flag to play as you continue to add and edit scripts, sprites, and sounds in order to make sure everything is working
28. Adjust timing of Wait blocks and dialogue blocks to adjust the pace of the dialogue
29. Arrange scripts vertically and horizontally for each sprite
30. Log out

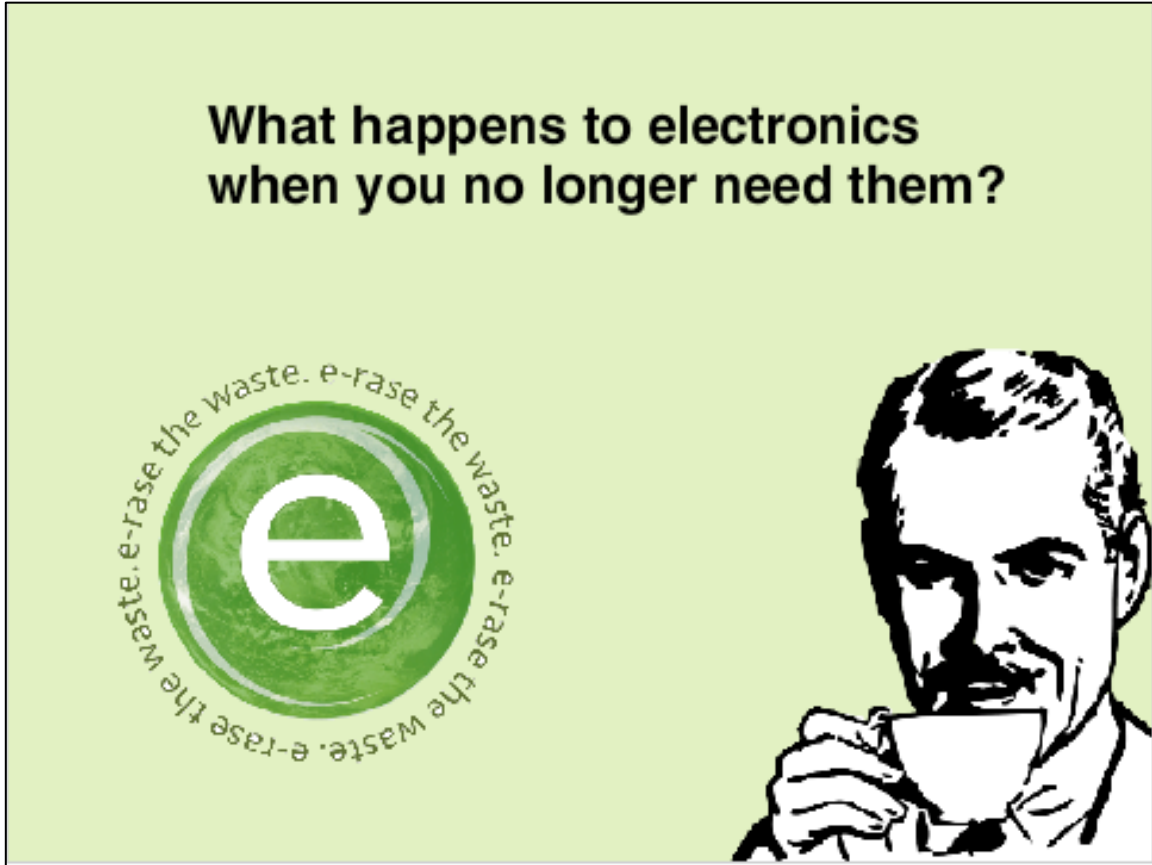
Blog Post

5. Navigate to bookmarked Kidblog class page

6. Log in
7. Write and publish a new post briefly introducing your Campaign Announcement discussing the process of creating dialogue in Scratch
8. Log out

Sample

Sample



Creating Change, Developing Solutions Project Outline

Unit 3: Interacting with the Cause

Project 1	Interactive Scratch Project Outline	1 class
Project 2	Interactive Scratch Project - Setup	2 classes
Project 3	Interactive Scratch Project - Initial Scripts	2 classes
Project 4	Interactive Scratch Project - Advanced Elements	4 classes
	Extension Project	
Project 5	Community Interviews	2 Classes

Parent Letter

Creating Change, Developing Solutions - Unit 3

Dear Parents,

Your student has programmed two campaign projects using Scratch and has produced a Public Service Announcement to educate the public about the selected issue. The Scratch projects taught students the process of building a logical sequence of code known as a script. These scripts function like instructions for the different images, text, and backgrounds students create. In Unit 3, your student will learn more advanced programming skills by creating an interactive project relating to the campaign.

In Unit 3: Interacting with the Cause, your student will outline and create a complex Scratch project that focuses on user interactivity. Students will choose what type of interactive project would best serve their campaign (a game, an adventure story, or an animation). Interactivity in programming involves building scripts that allow users to control the action with the keyboard or mouse. This project will take the majority of the unit to complete.

In addition to the lengthy programming project, your student will continue to blog about the campaign, reviewing and commenting on other student blogs. The blogging component of the curriculum develops writing, critical thinking, and digital community skills.

As with the previous unit, the Scratch project will be available to view on your student's Scratch profile and will be linked on the blog.

Sincerely,

Teacher's Name

Computer Lab

Interactive Scratch Project - Advanced Elements Internet and Programming Unit 3 - Project 4

Notes & Preparation

- Review Sensing, Operators, and Data categories of code blocks in Scratch in order to assist students as they work on their projects
- Software: Internet browser
- Project length: 4 classes



Tell students that over the next several classes they will incorporate interactive scripts into their projects. The code blocks they choose will depend on what kind of project they are working on and what interactivity is needed.

Review the categories that have most of the 'advanced' block (Sensing, Operators, and Data). Explain that blocks in all categories may be used together to create an interactive dynamic, but the aforementioned categories are key.

Explain to students that before they attempt to make their own project interactive, they will be exploring the scripts in the sample project. They will be able to put any scripts that seem useful in their backpack for later use. They can then change the scripts to suit their own uses. Advise students that all they have to do to pull scripts into the backpack is drag them out of the Scripts area into the backpack area.

Learning Objectives/ Demonstrations

Learning Objectives:

17, 20, 23, 24, 27, 28,
29, 30, 32, 32, 33, 34,
35, 36, 37, 38, 39, 40,
41, 42, 43, 44, 45, 46,
47, 48, 49, 50, 51, 52,
53, 54, 55, 56, 57
1, 16, 18, 19, 21, 22,
58, 59

In Internet - Demonstrate:

- Accessing a web page by using a bookmark
- Using a search engine
- Copying or saving a graphic from the Internet

In Programming - Demonstrate:

- Using code block to begin action
- Using code blocks to repeat action
- Using code blocks to move sprites
- Using code blocks to change costumes and appearance
- Using code blocks to affect timing and triggers
- Using code blocks to switch backdrops
- Using code blocks for dialogue and thought
- Using code blocks with if/then operators
- Using code blocks for keyboard and mouse triggers
- Arranging scripts vertically and horizontally in the scripts area
- Storing code blocks for later use

- Previewing a project
- Sharing a project
- Adding tags to a project
- Commenting on a project
- Searching for a project by tag
- Adding a project to favorites
- Following a user

In Kidblog - Demonstrate:

- Logging in to blog website
- Writing new blog post
- Formatting post with standard text formatting options
- Using Spell Check
- Inserting Hyperlink into blog post
- Adding tags to blog post
- Previewing post
- Publishing blog post
- Commenting on blog post
- Reviewing and accepting comments
- Logging out of blog website

**Project:
Student Activity**



You will continue working on your interactive project over the next several weeks. The project will include interactive scripts that will allow a computer user to control or interact with a portion of your project. In order to accomplish this, you will use some familiar blocks and some new ones.

You will start by exploring the scripts in a sample interactive Scratch project. Identify the new blocks that you have briefly discussed as a class. As you preview various scripts, you can drag them into your backpack to use or modify in your project.

Over the next several classes, your goal will be to get your project working smoothly with interactive components. Additional sprites may need to be created as you work through your project.

**Project Advanced
Elements
Steps**

Exploring Scripts

1. Launch Internet browser
2. Navigate to bookmarked Scratch website
3. Log in to account
4. Navigate to <http://scratch.mit.edu/projects/22238117/> (E-Rase the Waste Interactive Project in *Suggested Websites* file)
5. Click 'See Inside'

6. Explore scripts for the superhero sprite, phone, and tool sprites and 'You Win' sprite
7. Identify Sensing, Operators, and Data code blocks in the various scripts
8. Click the scripts to see the code blocks at work
9. Pull any scripts or portions of scripts into the backpack area to use in your project

Interactive Scripts: Movement

10. Click the folder on the toolbar to navigate to 'My Stuff'
11. Click on '[Campaign Name] Interactive Project'
12. Click 'See Inside'
13. Select a sprite that you would like to be interactive
14. Add Looks and Motion blocks to cause the sprite to appear where you want it
15. Select the Sensing category to explore blocks
16. Sensing blocks can make sprites interactive in the following ways (and more):
 - a. When clicked, action occurs
 - b. When touched by another sprite or color, action occurs
 - c. When a key is pressed, action occurs
 - d. When mouse is down, action occurs
 - e. When a certain distance from another sprite or the mouse pointer, action occurs
 - f. When sprite is in a certain x or y position, actions occurs
17. Drag 'key space pressed' Sensing block into the Scripts area
18. Select the Control category to locate an appropriate block to contain the Sensing block
19. Drag 'if _ then' Control block into the Scripts area
20. Snap Sensing block into the empty slot in Control block
21. Drag 'change x by 10' Motion block and snap it into the Control block
22. Drag 'forever' Control block and snap around existing script. **Note: The 'forever' causes the scripts to repeat endlessly for the duration of the project.**
23. Click script and press space bar to see action
24. Right-click and duplicate the 'if _ then' Control block and snap the duplicated script under the original script
25. Select the Operators category to locate a block that expands or further defines the conditions of the Sensing block
26. Drag the 'not _' Operators block into the Scripts area

27. Pull the 'key space pressed' block out of the duplicated script
28. Snap the 'key space pressed' block into the empty slot in the 'not _' block
29. Set the duplicated 'change x by 10' value to '-10'
30. Click the script and press and release the space bar to see the sprite move forward and backward
31. More complex movement can be achieved by using additional Control and Operator blocks to set if/then, either/or and equal/not equal conditions. **Note: Have students review the Tips for each item they are considering using.**
32. Delete the script if desired or drag it down to the Backpack section to be used or modified later

Interactive Scripts: Question and Answer

33. To create question and answer interaction between the user and a sprite, drag the 'ask _ and wait' Sensing block into the Scripts area
34. Type 'What is your favorite color?' in the text field
35. The user will be able to type an answer and press Enter
36. To make the answer visible on the backdrop, click the check box next to 'answer'
37. To set up question and answer conditions, construct the following script:
 - a. 'ask _ and wait' Sensing block
 - b. 'if _ then' Control block
 - c. '_ = _' Operators block snapped into the empty slot in the Control Block
 - d. 'answer' Sensing block snapped into the Operators block
 - e. 'blue' typed on the other side of the equals sign in the Operators block
 - f. 'say _ for 2 secs' Looks block snapped into the Control block
 - Type 'Blue is my favorite color too!' into Looks block
38. Click the script and answer the question with 'blue'
39. To make the sprite reply with an alternate response if the answer is something other than 'blue,' use an 'if _ then, else' Control block
40. Delete the script if desired or drag it down to the Backpack section to be used or modified later

Interactive Scripts: Data Variables

41. To keep score or count objects, you can make data variables
42. Select the Data category and click 'Make a Variable'
43. Type 'Points' as the variable name
44. Click either 'For all sprites' or 'For this sprite only' and click 'OK'
45. Click the check box next to 'Points' to display the points on the backdrop
46. Drag the 'when flag clicked' Events block into the Scripts area
47. Drag 'set Points to 0' Data block and snap it under Events block
48. Drag 'if _ then' Control block and snap it under Data block
49. Drag 'touching _' Sensing block and snap it into the empty slot in the Control block
50. Click the drop-down arrow in the Sensing block and select another sprite
51. Drag 'change Points by 1' Data block and snap it into the Control block
52. Select the sprite you chose from the drop-down menu
53. Move the sprite so that it is touching the previous sprite
54. Click the play flag and note that the points will change to 1
55. When using data variables to keep track of objects collected by a sprite, program the objects to hide when they have been touched by the sprite

Creating Clones and Randomizing

56. To create clones of a sprite, select the sprite you would like to clone. **Note: This is necessary to generate multiple flying objects to collect or avoid.**
57. Drag a 'when flag clicked' Events block into the Scripts area
58. Drag a 'hide' Looks block and snap it under the Events block
59. Drag a 'forever' Control block and snap it under the Looks block
60. Drag a 'wait 1 secs' Control block and snap it into the 'forever' block
61. Drag a 'create clone of myself' block and snap it under the 'wait' block
62. To tell the clones where to go, drag a 'when I start as clone' Control block into the Scripts area
63. Drag a 'show' Looks block and snap it under the Control block

64. Drag a 'go to x_ y_' Motion block and snap it under the Looks block
65. Drag a 'pick random _ to _' Operators block into the x and y fields
66. Set x and y ranges as x: -240 to 240 and y: -180 to 180
67. Click play flag to see how randomized clones are created
68. To make clones move, add Motion blocks such as 'change by -10'
69. To make clones disappear, use 'If _ then' Control block to establish conditions, and snap 'delete this clone' below conditions

Finishing the Project

70. Use the new code blocks explored to create the desired interactivity with your various sprites
71. Create interactive buttons that allow users to switch backdrops (such as play buttons that have the 'when sprite clicked' Events block)
72. Use message broadcasting code blocks to trigger actions and changes
73. Use Sensing blocks so that sprite proximity and location cause actions and changes
74. Use Operators blocks with Control blocks to fine tune conditions for interactivity
75. Create a final transition to the end/win screen by setting up a score, answer, or time condition (i.e. when 10 coins are collected, switch backdrop to win screen)
76. Preview entire interactive project by clicking the play flag
77. Click 'See project page'
78. Type instructions for the interactive project in the Instructions section
79. Under Notes and Credits, cite the URLs and owner/creator information of any sounds or graphics used from the Internet
80. Add three tags:
 - a. BTE
 - a. CreatingChange
 - b. [subject of your cause]
81. Click the 'Share' button
82. Click on Explore
83. Search using the BTE tag
84. Locate a classmate's interactive project
85. Click the play flag and navigate through the project
86. Post a constructive comment about the project
87. Choose projects to add to favorites

88. Choose classmates to follow
89. Log out

Blog Post

1. Navigate to bookmarked Kidblog class page
2. Log in
3. Write and publish a new post briefly introducing your Interactive Project with a link to the Scratch project
4. Navigate to a classmate's blog
5. Insert constructive comments
6. Navigate to student Control Panel
7. Review and approve comments on their blog
8. Log out



After students have left comments on at least one of their classmates' projects, have students share about what they liked from the projects they previewed. Discuss how an interactive project might generate interest in a cause.

Have students check off learning objectives they focused on today.

Creating Change, Developing Solutions Project Outline

Unit 4: Presenting the Campaign

Project 1	Infographic Planning	1 class
Project 2	Interactive Infographic	5 classes
Project 3	Campaign Presentation	2 classes
	Extension Project	
Project 4	Blog Recap	1 class

Sample

Parent Letter

Learning Objectives – Unit 1

Name: _____
Learning Objectives

Blogging			✓
1	Log in to blog website	1	
2	Customize blog and profile settings	2	
3	Insert a blog title	3	
4	Write new blog post	4	
5	Format post with standard text formatting options	5	
6	Spell Check blog post	6	
7	Insert Hyperlink into blog post	7	
8	Insert media into blog post	8	
9	Set alignment of media or text	9	
10	Caption media	10	
11	Save draft	11	
12	Add tags to blog post	12	
13	Preview post	13	
14	Publish blog post	14	
15	Discuss commenting etiquette	15	
16	Comment on blog post	16	
17	Review and accept comments	17	
18	Log out of blog website	18	
Internet			✓
19	Launch an Internet browser	19	
20	Use the Back and Forward buttons	20	
21	Bookmark a web page	21	
22	Access a web page by using a bookmark	22	
23	Describe proper Internet etiquette	23	
24	Reference a website	24	
25	Refresh or stop a web page	25	
26	Access a web page by entering a URL	26	
27	Copy or save a graphic from the Internet	27	
28	Use a search engine	28	
29	Conduct online research	29	
30	Evaluate content of a web page	30	
31	Describe what a domain name is	31	
32	Use advance search techniques	32	
33	Describe domain suffixes	33	
34	Create a Bookmark Folder	34	
35	View web page in full-screen mode	35	
36	Open a new tab or window	36	
37	Copy URL from address bar	37	
38	Return to the browser Home Page	38	
39	Access a web page by using a link	39	

	Graphics		✓
40	Insert a graphic or shape	40	
41	Change the size of a graphic	41	
42	Delete an object	42	
43	Resize an object	43	
44	Position an object	44	
45	Flip and rotate an object	45	
46	Fill an object with a color	46	
47	Format line color or style	47	
48	Draw a shape	48	
49	Crop a graphic	49	
50	Layer objects	50	
51	Duplicate an object	51	
52	Discuss different types of graphic files	52	
53	Group objects	53	
54	Add text to a shape	54	
55	Set background transparency	55	
56	Add text to a graphic	56	
57	Apply graphic effects	57	
58	Access graphic libraries	58	
	Word Processing		✓
59	Open and close a file	59	
60	Save and name a file	60	
61	Enter text into a document	61	
62	Insert a graphic into a document	62	
63	Format font style and size	63	
64	Format font color	64	
65	Print Preview and Print a file	65	
66	Cut, Copy, and Paste	66	
67	Change text alignment	67	
68	Use Spelling and Grammar Check	68	
69	Add bullets and numbers	69	
70	Insert Headers and Footers	70	
	Database		✓
71	Open and close a file	71	
72	Save and name a file	72	
73	Enter text and numbers into a cell	73	
74	Format font style, size, color, or other text format	74	
75	Print Preview and Print a worksheet	75	
76	Select an area on the worksheet	76	
77	Cut, Copy, and Paste	77	
78	Use Spelling and Grammar Check	78	
79	Insert Headers or Footers	79	
80	Merge cells	80	
81	Insert cell borders	81	
82	Format cell shading	82	

	Desktop Publishing		✓
83	Save and name a file	83	
84	Insert a text box	84	
85	Format a text box	85	
86	Insert a graphic	86	
87	Insert WordArt	87	
88	Format WordArt	88	
	Operating System		✓
89	Turn on the computer and peripherals	89	
90	Launch a program	90	
91	Use a scroll bar	91	
92	Navigate the folder directory	92	
93	Open a file from a directory	93	
94	Create a New Folder	94	

Sample

Learning Objectives – Unit 2

Name: _____
Learning Objectives

	Programming		✓
1	Log in and log out of coding application	1	
2	Identify profile tools and menus	2	
3	Create a new project	3	
4	Title a project	4	
5	Identify project editor tools, menus, and work areas	5	
6	Identify backdrops, sprites, and script blocks	6	
7	Create, select, or upload backdrops	7	
8	Delete or duplicate a backdrop	8	
9	Title a backdrop	9	
10	Use drawing tools to design a backdrop	10	
11	Add shapes, lines, or graphics to a backdrop	11	
12	Add text to a backdrop	12	
13	Add color to a backdrop	13	
14	Erase an area of a backdrop	14	
15	Select an area of a backdrop	15	
16	Delete or duplicate an area of a backdrop	16	
17	Create, select, or upload sprites	17	
18	Title a sprite	18	
19	Delete or duplicate a sprite	19	
20	Use drawing tools to design sprites	20	
21	Create sprite costumes	21	
22	Duplicate sprite costumes	22	
23	Edit sprite costumes	23	
24	Use code blocks to begin action	24	
25	Use code blocks to repeat action	25	
26	Use code blocks to show and hide sprites	26	
27	Use code blocks to move sprites	27	
28	Use code blocks to change costumes and appearance	28	
29	Use code blocks to affect timing and triggers	29	
30	Use code blocks to switch backdrops	30	
31	Use code blocks for dialogue and thought	31	

32	Delete code blocks	32	
33	Select or upload sounds	33	
34	Use code blocks to play sounds	34	
35	Use code blocks for keyboard and mouse triggers	35	
36	Specify position using x and y coordinates	36	
37	Arrange scripts vertically and horizontally in the scripts area	37	
38	Preview a section of code	38	
39	Preview a project	39	
40	Share a project	40	
41	Add a project description	41	
42	Add tags to a project	42	
43	Cite resources used in a project	43	
	Blogging		✓
44	Log in to blog website	44	
45	Insert a blog title	45	
46	Write new blog post	46	
47	Format post with standard text formatting options	47	
48	Spell Check blog post	48	
49	Insert Hyperlink into blog post	49	
50	Add tags to blog post	50	
51	Preview post	51	
52	Publish blog post	52	
53	Comment on blog post	53	
54	Review and accept comments	54	
55	Log out of blog website	55	
	Internet		✓
56	Launch an Internet browser	56	
57	Bookmark a web page	57	
58	Access a web page by using a bookmark	58	
59	Reference a website	59	
60	Access a web page by entering a URL	60	
61	Copy or save a graphic from the Internet	61	
62	Conduct online research	62	
63	Download a file from the Internet	63	
64	Access a web page by using a link	64	

	Video Production		✓
65	Writing a script	65	
66	Storyboard video ideas	66	
67	Rehearsing video following a script	67	
68	Film video	68	
69	Transfer video files to computer	69	
70	Import video files to editing program	70	
71	Adjust the view of the clip timeline	71	
72	Trim video clips	72	
73	Delete video clips	73	
74	Insert still image	74	
75	Arrange video clips	75	
76	Take pictures from clip previews	76	
77	Insert narration	77	
78	Insert audio media	78	
79	Adjust audio volume	79	
80	Adjust audio fade in or out	80	
81	Insert screen effects	81	
82	Insert transition effects	82	
83	Insert titles, captions or credits	83	
84	Save as a video file	84	
85	Save as a project file	85	
	Graphics		✓
86	Insert a graphic or shape	86	
87	Set background transparency	87	
88	Access graphic libraries	88	
	Word Processing		✓
89	Open and close a file	89	
90	Save and name a file	90	
91	Enter text into a document	91	
92	Delete text	92	
93	Print Preview and Print a file	93	
94	Cut, Copy, and Paste	94	
95	Use Spelling and Grammar Check	95	
96	Insert Headers and Footers	96	
	Operating System		✓
97	Navigate the folder directory	97	
98	Rename a file or folder	98	

Final Certificate

**CREATING CHANGE,
DEVELOPING SOLUTIONS**

THIS CERTIFIES THAT
[NAME]

HAS SUCCESSFULLY COMPLETED THE CREATING CHANGE, DEVELOPING SOLUTIONS COURSE AND
IS THEREFORE AWARDED THIS
CERTIFICATE OF ACHIEVEMENT

GIVEN THIS ___ DAY OF _____, 20___

Teacher Name

TEACHER