



TEACHER DIRECTED ADAPTATIONS FOR VIRTUAL CONSIDERATION

LESSON 8: Presenting Your Invention

LESSON OVERVIEW

In this multiday lesson, students will begin to consider how to present their invention to others in a visual and oral presentation. This lesson guides students through the process of naming their invention and designing a creative and informative display that effectively communicates the purpose of the invention and the process followed to create it. Basic marketing and communication elements will introduce students to develop an effective “pitch” to share their invention ideas.

OBJECTIVE

Students will be able to identify the features of their invention that make it original and then create a name and a display to highlight the uniqueness of their idea. Students will understand aspects of marketing in order to best present their invention. Students will be able to evaluate optimal color combinations, fonts, and sizes for displaying information. They will also learn to summarize information and decide what information is most important to share. Students will be able to understand what elements are required to make a compelling and persuasive presentation to an audience. Students will be able to develop an effective and purposeful speech within a given time limit and will be able to strategize to eliminate anxiety associated with public speaking.

MATERIALS

Resources Provided by Teacher:

- Slide Deck: Invention Presentation
- Slide Deck: Font Samples
- Video: Inventor Commercials
<https://www.youtube.com/watch?v=REfhL8P9d98> (12:35)
- PDF: Invention Name Word Ideas
- PDF: Display Board Template
- PDF: Commercial Storyboard
- Optional: YIP Digital Display Board Template
- Cereal Box (or other product advertisement)
- Colored paper
- Markers or colored pencils

Materials from Home:

- Pens/pencils
- Notebook or other paper for writing and drawing
- Colored paper
- Markers or colored pencils

- Notebook or other paper for writing and drawing
- YIP Inventor's Journal (or other logbook)

VIRTUAL CONSIDERATIONS

Teacher may lead the following lesson plan with flexibility to adapt as needed to fit technology and class format:

Note: This is a multi-day lesson that requires teacher guidance as well as independent work time. Students will develop their presentation- making a display board and presenting the invention to others. Much of the work can be done at home. Teachers should give clear and specific instructions to assign students independent work to be done at home. Teachers may ask students to submit a record of their progress during this time.

Instruction: Naming Your Invention

1. Teacher will explain that students will finally be able to showcase their inventions with others (peers, family members, friends, judges, etc.) To create an effective presentation students highlight the most important features of their invention and then explain the purpose for developing the idea and how it works. Using clear descriptions and making a visually appealing display will strengthen a project.
2. Share Slide Deck- Presenting Your Invention (use modified ICW slides)
Teacher will begin by asking students to name their invention. Just like a product we see in the store, an invention needs a strong, descriptive name. Teachers will ask students to think about the names of products they like. Why do they like these names or why do they stand out? Remind students that invention names should be easy to pronounce and easy to remember. Names should also describe the invention in some way.

Ideas for Virtual Instruction:

1. *Teachers may do a Think-Pair Share to discuss product names using a Zoom Breakout room, Google Classroom or other virtual format.*
2. *Teachers may ask students to find an example of a product at home that has a strong name, or a name they like and a product that has a poor name or one they don't like and then explain why they chose these products. Students may take a photo or a video to submit their responses.*

Activity: Name that Product

This activity is optional but may be helpful to help get students thinking creatively about naming their inventions.

1. Teacher will ask students to imagine that they work in a company that has a new product on the market. They must think of a name for the product.
Assign each group one of the following products:
 - A new dog or cat food
 - A new carnival ride
 - A new toothpaste
 - A new kid's magazine

2. Teacher will give students 5 minutes to brainstorm and select a name. Then teacher will bring groups together to share their product names with the class.

Assignment: Naming Your Invention

1. Following the activity, the teacher will ask the students to develop a name for their invention.
2. Teacher will ask the students to use the PDF: Invention Name Word Ideas to guide students in their brainstorm, especially if they are struggling to come up with a name. Ask students to select one word/prefix/phrase from Group A and one word/suffix/phrase from Group B that seem to “fit” their invention. Encourage students to put these words together, then to try saying them quickly, then in reverse order. Add other descriptive words and try different combinations to see if they can find something catchy. Students should record all name ideas in their YIP Inventor Journal and then use this list to select their final choice for an invention name.
3. Teachers should ask students to submit the name they have chosen for their invention in the desired format.

Ideas for Virtual Instruction:

1. Teachers may divide students into small groups to complete the activity using Zoom Breakout room, Google Classroom or other format.
2. Teachers may ask students to complete the activity independently and then create a space for the students to share their product names. Students may draw a picture of the product with the name clearly visible which can be shared with the class, or students may record a video of themselves sharing, or they may write their responses and submit them.

Next teachers will discuss the display board component of the project.

Instruction: The Display Board

1. Teacher will explain that students will design and make a display board for their invention. This display will be shared with others in the Inventor Showcase and/or School Invention Fair. Displays may be tri-fold boards or digital displays. Teacher may choose to assign students to create a traditional tri-fold display board, or to use the YIP Digital Display Board using the digital template provided.
2. Teacher will explain what makes a good display- it must be visually appealing: neat, easy to read, and may illustrate a theme related to the invention or problem it solves.
3. Teacher will show students a cereal box (or other example of a product advertisement). Teacher will ask students how companies make information look interesting to convince them that they need to buy a product.

Ideas for Virtual Instruction:

1. Ask students to find an advertisement at home (such as a product box or packaging, or ad from a magazine or newspaper) and explain how the company makes the product look desirable and what special words they use to get someone to buy it.

Teacher may choose to do all or some of the following short activities to highlight the different features of a display:

Activity: What Colors Look Best?

1. Share Slides: Slide Deck- Presentation (use modified ICW slides)

Teacher will explain how the colors, lettering and overall layout of the display contribute to its effectiveness at communicating information.

2. Teacher will show examples of different color writing on different color backgrounds (such as blue ink on purple or black paper, yellow ink on white paper, blue ink on white paper). Ask for student reactions to these examples. Then, ask students to try different color combinations on their own using colored paper and markers or colored pencils. Which combinations do they like best? Which are easiest to read?

Ideas for Virtual Instruction:

1. Ask students to try the color combinations at home and then poll family members or friends to see which combination is preferred. Then have students submit their best color combination.
2. Create a class gallery or use a class blog to allow students to take a photo of their color combinations so that their peers can view and make comments.

Activity: What Lettering Looks Best?

1. Share Slides: Slide Deck- Presentation (use modified ICW slides)

Teacher will explain that fonts (for typed and virtual displays) and lettering (for handwritten displays) affect how well people can read their information. Ask students what could be good and bad about using a typed or handwritten display.

2. Teacher will share font examples with the class (using a screen share, FlipGrid, slides, or other virtual format) and ask students to decide which fonts work for titles (big words) and for descriptions and summaries (sentences and/or paragraphs). Student can discuss what works and what doesn't as they look at the fonts. What makes a font easier or harder to read?

Ideas for Virtual Instruction:

1. Ask students to find examples of different fonts used in product packaging or advertisements and to explain what works and what doesn't. They may take photos and write or record their responses and submit them.
2. Ask students to submit a "Sampler" to demonstrate one good and one bad font. In a "Sampler" students will write the alphabet or use the sentence "A brown quick fox jumps over the lazy dog" in two different font types. Note: this particular sentence uses every letter in the alphabet!

Activity: What Display Looks Best?

1. Share Slides: Slide Deck- Presentation (use modified ICW slides)

Teacher will show students examples of both good and fair display boards. Have students decide which boards they like best and why. Discuss which features on the boards worked and which did not work.

Ideas for Virtual Instruction:

1. Ask students to look at examples of good and fair display board independently at home and then ask them to write or video record a response that tells which board is their favorite and why.

Assignment: The Display Board

1. Following the Display Board Activities, the teacher will tell students that they will be making their own display boards to present their inventions. Teacher will explain the expectations and requirements for the displays. Teachers may choose to assign students to make a traditional tri-fold display board or to use a digital display board. YIP provides the digital display template for use if needed.

Display Board Requirements:

The maximum size of the tri-fold boards, with the wings folded in, the Display Board can only take 24" of table space. Display boards must have the following information in one consolidated place on the poster:

- o Student(s) Name(s)
- o Name of Invention
- o Student(s) Grade(s)
- o Student(s) School
- o School City, State
- o Statement of the problem
- o Explanation of the invention as a solution to the problem
- o Details of model construction
- o Diagrams of design

2. Teacher may ask students to use the PDF/Worksheet: Display Board Template or virtual Display Board Template as a draft to help them plan the layout of their display.

Ideas for Virtual Instruction:

1. Ask students to take a photo or upload their completed display board template to track progress and provide feedback before students begin their final display.
2. Ask students to work in pairs using Google Classroom, Zoom or school's preferred platform to discuss the features of their display boards and their layout plans.
3. Host an "office hours" for students to share display board plans, ask questions and receive feedback before they begin their final display.
4. Encourage students to show their display board plans and their displays to family members or others as they work to get feedback along the way.

Next teachers will discuss the oral presentation component of the project.

Instruction: The Invention Presentation

1. Show video: (<https://www.youtube.com/watch?v=REfhL8P9d98>)

Note: This You Tube video is about 12 minutes long, you may want to preview the video and pre-select only a few commercials to share with the class.

2. Teacher will facilitate a short discussion:
 - Which commercials/inventions were most memorable? Why?
 - Which invention do you want to buy after seeing the commercial? Why?
 - What qualities made for a strong “pitch”?
 - Why is it important for an inventor to be able to advertise or talk about their invention to others?

Activity: Commercial Storyboard

1. Teacher will tell students that they will be given time to work at home and they will make a **one-minute** commercial for their invention and present it to the class. They should spend about 30-45 minutes at home to develop and practice the commercial before they share it with the class.
2. Teacher may ask the students to use the PDF/Worksheet: Commercial Storyboard to help them plan and develop their commercial.

Ideas for Virtual Instruction:

1. *After students have had time to prepare their commercials at home, have a class meeting or set up smaller group meetings to allow students to present their commercials “live” in front of peers.*
2. *Ask students to record a video of their one-minute commercials to teacher or to share through a class blog or other virtual sharing platform used by the school.*
3. *Teacher is encouraged to create some system to provide feedback to student on their oral presentation to help them as they think about and prepare their final invention presentation.*
4. *Encourage students to practice their commercials in front of someone at home to get more comfortable speaking aloud and to get feedback.*

Assignment: The Invention Presentation

1. Following the Invention Presentation Activity, the teacher will tell students that they will be making their own oral presentation about their invention. Teacher will explain the expectations and requirements for the presentations.
2. Share slides: Slide Deck- Presentation (use modified ICW slides)
Teacher will explain the elements of a strong oral presentation.
3. Teacher should provide guidelines on how much time students should be using to prepare their invention presentations and request check-in during the independent working period to help students manage their time and the project’s final preparations.
4. Teachers should emphasize each student must do the following in their oral presentation:
Presentation Requirements:
 - State their name and age
 - State the name of their invention
 - Give a short description of what their invention does
 - Highlight the originality of their invention and why someone should buy it

- State the cost of the invention and where someone can buy it
- Use words and visuals that will make their invention sound or look interesting and appealing

Ideas for Virtual Instruction:

1. *Ask students to provide a written script or outline of a script to show their plans for their invention presentations.*
2. *Ask students to work in pairs using Google Classroom, Zoom or school's preferred platform to discuss and practice their invention presentations.*
3. *Host an "office hours" for students to share their presentation plans, ask questions and receive feedback as they prepare.*
4. *Encourage students to practice their presentations in front family members or others as they work to get feedback along the way.*

CHECK FOR UNDERSTANDING

Teacher may wish to do one of the following to check for understanding:

1. In the format of the teacher's choice, ask students to write one thing they learned about presenting and displaying their invention.
2. In the format of the teacher's choice, ask students to write down the one thing they are most concerned or nervous about when they think about their display and presentation and one thing they are most excited to share about their invention.
3. In the format of the teacher's choice, ask students to explain why communication is important in the invention process.