



## LESSON 9: Preparing for Competition

### LESSON OVERVIEW

This lesson is an extension lesson to provide support for students who may present their invention project in competition. The activities included will guide students to complete the elements required by state, regional and national invention conventions that have not been covered in previous lessons in the YIPLit Curriculum. Students will learn how to make a tri-fold display board and to improve their presentation pitch to meet invention convention standards.

This lesson is not designed to be used as a stand-alone lesson. It builds off the entire YIPLit curriculum. It is an extension lesson and only necessary for students who may wish to present their invention project in competition.

### OBJECTIVE

Students will be able to:

- Accurately and concisely describe their invention to another person.
- Determine the most important aspects of their invention to share with another person.
- Create a visual display to inform an audience about their invention and their design process.
- Present a well thought out pitch about their invention.

### MATERIALS

- Google Slides: YIPLit Lesson 9
- Book: **Walrus in the Bathtub** by Deborah Underwood, illustrated by Matt Hunt; ISBN-10: 0803741014 OR...
- Read-aloud Video: <https://youtu.be/-dIJrpgFoVs> Reading time- 5:33 (included in Google Slides)
- Video: *An Inventor Presentation: Team Bus Safety Stop*, (Included in Google Slides)  
Link: <https://youtu.be/EpPKDxBEnw4> (K-12 Inventure , 3:15 minutes)
- Timer (timer countdown included in Google Slides, or use a clock, phone, or other device)
- Invention Story Mountain Worksheet (included in YIPLit Inventor's Journal)
- Invention Display Board Requirements (included in YIPLit Inventor's Journal)
- Invention Display Template Worksheet (included in YIPLit Inventor's Journal)
- Cereal box (or other product advertisement)
- Materials for making display boards (item such as construction paper, computer and printer paper, glue, stickers, stencils, tape)
- Pencils, pens, markers or crayons for writing and drawing
- YIPLit Inventor's Journals

### NOTES FOR THE TEACHER

Teacher may use slides provided or lead instruction and discussion on their own.

This lesson is an extension and is intended to prepare students to compete in local, state, regional and national invention conventions. To participate in these events, student projects must meet certain requirements and include required elements. If students plan to present their invention project as part of a state/regional invention convention or the Invention Convention US Nationals, they must prepare a trifold visual display board, a presentation pitch and a video of their presentation, in addition to having a detailed drawing or model of the prototype and an invention journal. Preparation of the presentation and the display boards may be completed in class or at home. This lesson will include the instruction and activities to guide students through the processes of making a display board and refining their invention story to become the focus of their presentation video and live presentation pitch.

*NOTE: This lesson may be completed in class or at home. If asking students to complete their preparation for competition at home, please be sure to clearly explain all rules, requirements, expectations and deadlines to students **and** families so that they are best set up for successful completion of the project.*

*NOTE: More details about all competition requirements can be found on the YIP website:  
<https://www.unh.edu/leitzel-center/young-inventors-program/compete>.*

#### INSTRUCTION & ACTIVITIES

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

**Teacher Instruction:**

Talk to students about invention convention competitions. Explain that in addition to the work that they have completed in class through the YIPLit program, they must also prepare several more elements such as display board and a video of their presentation pitch.

In order to compete in state/regional and national invention conventions students must have the following things for their project:

- Invention Prototype (working or non-working)
- Inventor's Journal
- Tri-fold Display Board
- Live Presentation
- Video Presentation

They have already made a prototype, they have their Inventor's Journals, and they have drafted an invention story presentation in YIPLit. However, they still need to make a display board and they also may need to refine and elaborate on their presentation to make it more detailed and suitable for competition (and for video-recording).

The following activities will support them in their preparation.

*NOTE: If students completed a project with a team, these activities should be completed as a team as much as possible.*

*NOTE: Preparation may be completed in class or at home. See Notes for Teacher above.*

## **DISPLAY BOARD**

### **Teacher Instruction:**

*NOTE: You may provide the tri-fold display boards or ask students to purchase them and bring them in to class if you plan to work on them during class time.*

Tell students that they will use a tri-fold board to make their display. Ask students what they think makes a good display? Explain that a display should be visually appealing: neat, easy to read, and may illustrate a theme related to the invention or problem it solves.

Show students a cereal box (or use another product in its packaging; there is also a picture included in the Google Slides: Lesson 9). What do you like about it? What don't you like? How do companies make information look interesting to convince people to buy their product? Discuss use of colors (bring, bold, contrasting colors), logos and graphics (fun pictures!), as well as any words or language that is included. Space on a cereal box is small, so the company has to be sure that they are communicating only the most important information in a way that will capture the consumer's attention.

Show students some examples of displays (included in the Google Slides: YIPLit Lesson 9). What do they like about the display? What would they change in the display?

### **Activity: Make the Display Board**

*NOTE: If students completed a project as part of a team, the team should work together to make the display.*

Ask students to design and make their invention display. Encourage them to use the Invention Display Template (included in YIPLit Inventor's Journal) to draft their ideas before they start putting things on their display board. Remind students that as they make their display, they should think about how to highlight their invention. Use bold colors to stand out, they may even want a design theme, like rain, since our inventions focus on umbrellas to keep people dry from the Walrus in the bathtub. Use clear handwriting or print text from a computer and glue it to the board. Neatness is important.

*Note: Students may handwrite or type the text for their display. If typing, they can print their pieces, cut them out and attach them to the board.*

Explain to students your expectations and requirements for the displays (requirements are included in the back of the YIPLit Inventor's Journal for reference). *Distribute the display boards to the students.* Allow time to work.

*NOTE: Students may need more time, which you may be able to provide in class or ask them to finish at home (See Notes to Teacher.)*

*NOTE: You may change requirements as needed for the class. However, the following are required components for competition at the Northern New England Invention Convention and the Invention Convention US Nationals.*

### 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:

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

## **PRESENTING YOUR INVENTION**

### **Teacher Instruction:**

Remind students that they have already made a presentation to share their invention story (see YIPLit Lesson 8), but they may wish to add more detail or refine this presentation for competition. The presentation is a big part of the competition and it is the chance for them to share exactly what they invented, what makes their invention unique, how they designed and built it, why it is a good solution to the problem, and any challenges they had during the project.

Share the following video to show an example of a student presentation for invention convention.

### **Activity: Invention Convention Presentation- Team Bus Safety Stop (5 minutes)**

Watch video for the Team Bus Safety Stop, (included in Google Slides).

Ask students:

- Was the presenter(s) enthusiastic and passionate about their problem and solution? How so?
- Was it obvious he/she practiced the pitch a great deal before the presentation to an audience? How could you tell?
- Did the pitch grab your attention? What was the “hook”?
- Did they share feedback from the user and explain how they changed their prototype based on what they learned?
- Do you notice anything special about what the students are wearing?

### **Teacher Instruction:**

Tell students to think of their presentation story and then to think of how they might add to it so that it is ready for presentation at an invention convention. What information can they add to be more detailed?

### **Activity: Refine Your Presentation (10-20 minutes)**

Have students spend some time working on their presentation. You may wish to walk around to provide support as needed.

### **Activity: Practice Your Presentation (10-15 minutes)**

When ready, ask students/teams to work with a partner to practice their invention presentation.

Use a timer to make sure each student has equal time to practice (5 minutes each. A timer is included in the Google Slides). Ask partners/teams to share feedback with their peers. Students should use the TAG model for giving feedback.

- **T= Tell one thing** you like about the presentation.
- **A= Ask one question** you have about the presentation or the invention.
- **G= Give one suggestion** of something they can improve for the next time they present.

Finally, if time allows, have students share their presentations with the entire class or in a larger group.

*NOTE: You may choose to video the presentations so that students can watch themselves later. The videos are fun to watch, but are also valuable teaching tools as students can see themselves presenting and may be able to identify areas for improvement for the future.*

*NOTE: Students may need more time, which you may be able to provide in class or ask them to finish at home (See Notes to Teacher.)*

### IDEAS FOR VIRTUAL INSTRUCTION

#### **Make Your Display Board**

*Ask students to design and make their invention display. Encourage them to use the Invention Display Template (included in YIPLit Inventor's Journal). to draft their ideas before they start putting things on their display board. Or you may have them complete a virtual display board using Google Slides, Flip Grid or another virtual display template.*

#### **Team Bus Safety Stop**

*Have students watch the An Inventor Presentation: Team Bus Safety Stop, video.*

*Link: <https://youtu.be/EpPKDxBEnw4> (K-12 Invention, 3:15 minutes)*

*Ask them to discuss how the video relates to the Invention Process. Students can share their ideas in a chat, using a shared document or Zoom breakout rooms. You may also use this as an example of a good presentation as they write their own invention presentations.*

#### **Practice Your Presentation**

*Have students refine their presentation and then practice presenting it to an audience of family or friends at home. Students may submit their presentation by recording themselves and sharing it using the virtual format of choice, or you may host a group meeting and allow students to share virtually.*