

Session 18

Dress Rehearsal

Final Presentations

In This Session:

- A) Presentation Prep
(70 minutes)
 - Student Handout

- B) Take One!
(60 Minutes)
 - Student Handout

- C) Fair Logistics
(20 Minutes)
 - Student Handout

- Home Improvement
 - Student Handout

Get ready for the big event! In this session, students plan their presentations in *18A*:

Presentation Prep and practice them before their peers in *18B: Take One!* Friendly feedback from peers helps students further refine their presentations and get ready for the fair. In *18C: Fair Logistics*, the final details are worked out, and the venue is prepared for the fair. The Home Improvement activity, *Project Reflection*, gives students the opportunity to reflect on their own progress and their experience in *Design and Discovery*.

**Supplies**

- Flip chart and markers
- Video camera
- Tripod
- Videotapes (one 15-minute tape per student)
- Supplies for hands-on activities (if needed)
- Copies of Passport Scavenger Hunt (if needed)
- Copies of feedback forms
- Room decorations
- Food
- Prizes for scavenger hunt

Session 18, Activity A

Presentation Prep

Goal

Develop presentation criteria and plan presentations.

Outcome

Students plan their own presentations.

Description

The facilitator gives a mock presentation to the students. The students then critique the content and presentation skills and develop criteria for their own presentations. They then plan their own presentations.

Supplies

Flip chart and markers

Preparation

Prepare a brief presentation of a product that you "designed." This can be any product. Include the product, drawings, and models of the product. These can be pretty crude.

Procedures

Sample Presentation

1. Do a mock presentation for the students, modeling the content and delivery for their presentations. After the presentation, ask them to consider the following:
 - What did the presenter need to do in order to organize the presentation?
 - How was the presentation organized?
 - What did the presenter show during the presentation?
 - What presentation skills helped the presentation?
 - What could the presenter do to improve the presentation?
 - What will you need to explain in the presentation?
 - What will you need to show in the presentation?
 - What presentation skills will make your presentation successful?
2. Based on the discussion about the sample presentation, conduct a brainstorm on a flip chart of the following:
 - What will you need to explain in the presentation?
 - What will you need to show in the presentation?
 - What presentation skills will make your presentation successful?

18A: Presentation Prep (continued)

Presentation Criteria

1. Length of presentation: This will vary depending on the number of students, time available, and structure of the presentation. Most likely, if you are doing a Solutions Showcase, a 5-10 minute presentation with 3-5 minutes for questions and feedback is a workable time allotment. If you are doing a Mini-Engineering Fair, then students will be presenting either one-on-one or more informally to small groups.
2. With the group, develop criteria to help students prepare for their presentations. Criteria could include these items:

Presentation Content

- Problem clearly described
- Solution clearly explained
- Design process articulated
- Drawings, models, and prototypes explained
- Documentation on hand for questions

Drawing, Models, and Prototypes

- Design drawn in detail
- Models show how project works. Model may include parts and components
- Prototype is a working prototype
- Drawings, models, and prototypes explained in detail

Presentation Skills

- Presenter speaks clearly and explains project in detail
- Presenter is knowledgeable about all aspects of project and can answer questions
- Presenter is well prepared
- Speaker holds interest (maintains eye contact, uses gestures, varies voice inflection)

Your Presentation

1. Provide designers time to prepare their presentations. They can begin by completing the handout.
2. They can prepare note cards or an outline for their presentation.

Wrap Up

Time permitting, students may practice their presentations with one another. Encourage students to practice their presentations at home.

Follow With

The next activity, *18B: Take One!*, gives students time to practice their presentations and receive feedback from their peers.

Presentation Prep

Handout: Session 18, Activity A

To help you prepare for your presentation you will have an opportunity to see a sample presentation. Consider the following as you watch the presentation:

- What did the presenter need to do in order to organize the presentation?
- How was the presentation organized?
- What did the presenter show during the presentation?
- What presentation skills helped the presentation?
- What could the presenter do to improve the presentation?

As a group, we will come up with criteria for the presentations to help you develop a successful presentation. Record the final criteria that we develop.

Use the following questions to guide your own presentation preparation.

1. How will you start your presentation?
2. Describe the problem as you see it. Capture what's wrong or not working in a problem statement. This will be built upon what you wrote in the design brief. You will need to add more specific information to what you wrote.
3. Describe how your project works, and how it solves the problem. What is the rationale for your solution? What are the benefits of your solution?
4. How will you use your drawing to help explain your project?
5. How will you use your model and prototype to help explain your project?
6. What do you really want others to know about your project?
7. What challenges did you face throughout this design process? How did you overcome them?
8. What kind of feedback do you want?
9. How will you end your presentation?

Session 18, Activity B

Take One!

Goal

This activity gets students ready to share their ideas and projects in a more formal way.

Outcome

Students are ready for the fair.

Description

Students brainstorm guidelines to give each other constructive feedback during their presentations. They then practice presenting to their peers and receive constructive critique from one another to refine their presentations.

Supplies

- Flip chart and markers
- Video camera
- Tripod
- Videotapes (one 15-minute tape per student)

Preparation

Have a flip chart ready to record the brainstorm.

Set up the camera on a tripod. Ideally, purchase enough 15-minute videotapes so students can take them home and watch them.

Procedures

Friendly Feedback Guidelines

1. Explain that students will have a chance to practice their project presentations.
2. Discuss the purpose of practicing the presentations for each other. Ask students to consider what type of feedback they would like from their peers (this was question nine from the previous activity, *18A: Presentation Prep.*)
3. Together, use a flip chart to brainstorm some guidelines for giving friendly feedback to each other, such as:
 - Offer suggestions not just criticism.
 - Say something positive before saying something negative.
 - Consider how your comment will help the presenter.
 - Take turns.
 - Be polite.

18B: Take One! (continued)

4. Review the criteria from the previous activity so that students can keep this in mind when watching each other.

Practice Presentations

1. Ask learners to have the criteria handy and be prepared to take notes based on the criteria. They should take notes on a separate piece of paper and not write on the backs of the paper. Explain that after each presentation, they will have an opportunity to provide verbal feedback.
2. Explain the format of the presentations:
 - Introduce project
 - Explain what type of feedback you would like to receive.
 - Present project using drawings, models, prototypes, and display boards.
 - Ask for questions.
 - Receive friendly feedback.
3. Videotape presentations so that each student can view them at home.
4. Have students present, answer questions, and receive feedback.
5. Have students tear their papers and distribute their feedback to each other.
6. If time permits, pair up students and have them plan with a partner how they will incorporate the feedback that they received.

Wrap Up

Ask students to consider the feedback that they received and revise their presentations accordingly—they should try to find some practice time before the fair.

Follow With

Activity 18C: *Fair Logistics* helps students plan the final details for the fair.

Take One!

Handout: Session 18, Activity B

Feedback for Designers

During the presentations, remember to refer to the criteria that you developed in the previous session and jot down notes on separate pieces of paper to give your peers friendly feedback. Your notes can take the following format:

Name:

Project Title:

Strengths:

Areas of Improvement:

Suggestions for Improvements:

Session 18, Activity C

Fair Logistics

Goal

Students get last-minute details together for the fair.

Outcome

The fair is organized.

Description

Students should set up the room for the fair and prepare any other logistics needed.

Supplies

- Supplies for hands-on activities (if needed)
- Copies of Passport Scavenger Hunt (if needed)
- Copies of feedback forms
- Room decorations
- Food
- Prizes for scavenger hunt

Preparation

None

Procedures

Setting Up

1. Students should complete the feedback forms on the handouts so that the facilitator can make several copies for each of the projects.
2. The room should be set up. Depending on the format of the fair, you may have the chairs arranged facing a presentation area (for a Solutions Showcase) and the display boards around the edge of the room.
3. For a Mini-Engineering Fair, you will probably have tables scattered throughout the room with the display boards and projects on the tables. You will also need to set up stations for the engineering activities.
4. Be sure to have a place established for the welcoming address and/or keynote speaker.
5. The event should open with a welcoming address and/or a keynote speaker.
6. If serving food, designate a food area.
7. Decorate the room.
8. Have prizes ready for the scavenger hunt.

18C: Fair Logistics (continued)

9. Prepare certificates for the Design and Discovery students and plan time to present them.
10. Be sure to document the event with photographs.
11. Discuss students' roles.

Tips

Share the following tips with students:

- Be enthusiastic. The more enthusiastic you are the more others will be interested in your project.
- Dress professionally. Your attire represents your attitude towards the event. Dress for success!
- Be confident. You worked hard and you deserve to show off your work. Don't hesitate to share your knowledge with others.
- Smile. A smile invites people to talk with you.
- Initiate feedback. Here's your opportunity to get feedback from others about your ideas. Ask lots of questions and record the feedback.

Wrap Up

Encourage students to visit each other's projects during the fair.

Introduce the Home Improvement activity, Project Reflection, where participants reflect on their experience. This will be completed after the fair.

Follow With

Session 18 *Home Improvement*, *Project Reflection*, allows students to reflect on their accomplishments.

Fair Logistics

Handout: Session 18, Activity C

To make the fair a valuable experience, you will want to get feedback from the visitors. Decide what kind of feedback you would like and prepare some questions. The facilitator will make copies of the questions to distribute to the guests. You may find that you want to take your design project a step further based on the feedback. Write your questions on a separate piece of paper.

I am looking for the following feedback:

Project Reflection

Home Improvement: Session 18

Goal

To reflect on the fair, students' *Design and Discovery* experience, and to plan for next steps.

Description

Time should be set aside after the fair to reflect on the fair and students' Design and Discovery experience in general. Students who are planning to attend another science/engineering fair can begin to plan their project and presentation board revisions.

Procedures

1. After the fair, students should review the Project Feedback forms.
2. Ask students to take some time to answer the reflection questions individually.
3. Be sure to check in with students who are planning to participate in another science fair. Discuss their revision plans.
4. Thank students for their hard work and participation in *Design and Discovery*. Encourage them to pursue their interests in science and engineering.

Project Reflection

Handout: Session 18, Home Improvement

Project Reflection

1. In general, how do you feel about the fair? What did you like or dislike about it? How would you change it if you were to hold the fair again?
2. How did *Design and Discovery* meet or not meet your expectations?
3. Would you recommend *Design and Discovery* to a friend? Why or why not?
4. How did *Design and Discovery* influence the career you are considering?
5. How do you feel about your project?
6. Do you plan to submit your project to another science fair? If no, why not?
7. What changes are you planning to make on your project or presentation board?