

## Food Waste Lesson Jigsaw (90 minutes)

### Activities and Time Break Down

<i>Title</i>	<i>Time</i>	<i>Activity</i>	<i>Evaluation</i>	<i>Lead</i>
<b>Engage and establish the problem</b>	10	Full class discussion	Students' reaction	
<b>Individual Read</b>	15	Class reading	Student writing	
<b>Group Food Tray Discussion</b>	20 min	Individual Quiet Read	Students Writing	
<b>Tray Jigsaw</b>	25 min	Small group discussion	Student Journal Writing	
<b>Tray Discussion</b>	15 min	Whole Classroom Discussion	Student Responses	
<b>Wrap up</b>	5 min	Class lecture	# of surveys returned	

### Lesson Goal:

- **Students will be able to use evidence to pick a preferable lunch tray for their school.**

### Lesson Objectives:

- **Students will read an article about school lunch trays**
- **Students will discuss the article with other students**
- **Students will use the articles to pick which lunch tray is preferable**

### Engage and establish the problem (10 min)

1. Gather students' attention. Ask the class  
 TT: If you could change one single thing about the school's cafeteria, what would it be? Turn and talk with someone sitting next to you.  
 Allow for some share out.
2. Provide students with the hypothetical school and the problem.  
 Example TT: Well, there is this school called Coopers Elementary Hall, or Coopers for short, that wants to purchase new trays for their cafeteria. The trays

might not seem like a glamour purchase, but the cafeteria needs them, because students have to eat on them every day. Coopers has 500 students and they go to school for 180 school days in a year. They wanted to enlist help of school tray experts and thought the students who eat on trays from a cafeteria would provide quality insights. They want our class to become school tray experts and help them make a decision of which trays to purchase. Do you all want to become school tray experts and help Coopers out?

Allow students to indicate if they are interested in becoming tray experts.  
Get students excited about the opportunity.

3. Setup the need to read.

Example TT: We want to know which school tray is the best. We know about school trays from our own experience, but that does not make us experts. How can we become an expert at something?

Allow students to share out. Lead students to practice and study as possible ways to become an expert.

4. Introduce the 4 tray selection and the reading process.

TT: To become school tray experts, we are going to have to do some research. Coopers has narrowed down its list of trays to four possible tray types. They have found scientific environmental health articles on each of the four trays, and given them to us. Everyone of you will read just one article in a group for about 10 minutes and find one interesting fact in the article. These are college level readings, but we know you can handle them. We then want you to write down the fact in your own words on the colorful sheet of paper. We also will have you write down other facts the article mentions as well. After that we are going to discuss the interesting facts in your table group.

### **Individual Read (15 min)**

1. Distribute the articles and corresponding colorful sheets of paper numbered for the jigsaw. Have students quietly read and record a fact onto their color full sheet of paper.
2. While students are reading, copy or reveal the word bank on the board.
3. Distribute School Tray Journals to early finishers and have them begin filling out their school tray Expert Handout on page 1 of the Journal. Keep this a quiet read. Circulate and check for understanding. Give timing updates.

**Group Food Tray Discussion (15 min)**

1. Gain students' attention. Group students in fours.

TT: Experts also talk to other experts to see what more they can learn. We are going to make groups of 3-4 with people who read the same article. Everyone will go to a group with the same color sheet and same article.

Example TT: If you have a red sheet, raise your hand. You four over there and you three over there.

Repeat for yellow, green, and blue.

2. Facilitate group discussion. Below are some possible questions to ask.

TT: Now we are going to discuss our articles in our groups. Everyone should share the one fact you found interesting. I will write some other questions your group should consider on the board, and you can discuss them as well.

Write these on the board

- a. Do you believe the article? Why?
  - b. Do you care about what the article is communicating? Why or why not?
  - c. Which fact do you think is the most important? Why?
  - d. Is there anything in the article that was confusing?
  - e. How could the article be made better?
3. Distribute the rest of the School Tray Journals. Have students write down the fact or facts they find most compelling from their article. Also have students fill out the first chart in the school tray journal. Allow some time to fill out the writing section.

**Tray Jigsaw (10)**

1. Gain students' attention.
2. Mix up the students. Using the numbering on the colorful sheet, re-randomize the reading groups into 3-4. Make sure at least 3 articles are represented in each group.

TT: Experts also share their expertise with non-experts. We are going to mix up the groups and allow everyone to share their expert information. There is a circled number on your color slip of paper. All the 1s please go over there. All the 2s... Bring both your slip of paper and activity journal.

Repeat for 3-9. Make sure students are in a group of 3-4. Place other students in groups to make sure all colors are represented.

TT: Before we begin, did anyone not believe the facts in the articles?

Allow students to raise hands to indicate. If so, ask them why. If not say,

TT: Since we believe these articles we are going to call the facts evidence now. Begin discussing the evidence of the articles.

3. Explain Jigsawing task. Have students turn to page 2 in the School Tray Journal. Have them follow the color coding as you read through it. Display the larger chart in the School Tray Journal on the DOC cam or projector.

Example TT: Now that we have read and discussed the article, we are going to share our expertise with other students. We are going to put you in groups with other experts, and everyone is going to share out the evidence from the article they think is most compelling or interesting with the other experts. Everyone must write down one piece of evidence from each article, so everyone has to share out once, and listen 3 times.

Check for understanding.

4. Allow them Circulate and check for understanding. Provide time checks.
5. Have students pick in their groups which is the preferred Tray for a school.

Example TT: If your group of experts had to make a recommendation for Cooper Elementary Hall to pick a tray, which of these four trays would you pick? Write that down in your Journal. Be prepared to explain why you would pick that type of tray.

### **Tray Classroom Discussion (15 minutes)**

1. Facilitate Classroom group discussion. Below are some possible questions to ask. Write these on the board.
  - a. Which piece of evidence (cost, chemistry, or environment) was most important to you when making your decision? Why?
  - b. Which piece of evidence do you think could help convince a school to change its use of the trays?
  - c. Which tray is most like the trays we have at our school for lunch?

- d. Why do you think we have the type of tray we have at school? How does that make you feel?
- e. How do these pieces of evidence change how you feel about school lunches?

Allow students to share out and discuss with themselves.

- 2. Have students write down one thing that is most important to them about lunch trays.

### **Wrap up (5 min)**

- 1. Provide students with identity.  
Example TT: Now that we are tray experts, we can transform into anthropologists. To become an anthropologist, we will need to take action at school. To do this we will need to look at the school's lunch waste.
- 2. Explain the basics of the waste audit. Optional: Distribute the permission slip and photo releases if needed.
- 3. Tell students to think about their school lunch trays during lunch or recess.
- 4. Collect jigsaw articles (maybe journals as well), and have students clean up. Wrap up the lesson.