

Lesson 2: Sequencing Recycling at our School

Grade Level:

3-5

Concepts Taught:

Sequencing, recycling, life cycles

Activity Time(s):

20 minutes (lesson)

50 minutes (follow-up)

Essential Questions:

- What happens to the paper once it leaves our school?
- What is a life cycle?
- What is the cycle of paper from start to finish?
- What is the cycle of plastic or aluminum?

N.C. CORE/Essential Standards:

Grade 3: ELA Standards for Informational Text 1, 2, 3, 5; Writing Standard 2, 7, 8; Speaking & Listening 4; Visual Art 3V.2.1, 3V.2.2, 3V.2.3; Soc Studies 3.G.1.3

Grade 4: ELA Standard for Informational Text 3,7,9,10; Writing Standard 1,2,7,8; Speaking & Listening 1,2,4; Soc Studies 4.G.1, 4.G.1.2, Science 4.P.1.1, 4.L.1.3;

Grade 5: ELA Standard for Informational Text #1,3,4,7,9,10; Writing Standards 1,2,7,8,9; Speaking & Listening 1,3,4,5; Technology 5.SI.1, 5.IN.1, 5.TT.1; Soc Studies 5.G.1.2; Visual Arts 5.V.2, 5.V.3;

Materials:

Scrambled recycling pictures (master included)

Recycling sequence pictures (master included)

Scissors, glue

Research material about the life cycle of paper, plastic, & aluminum

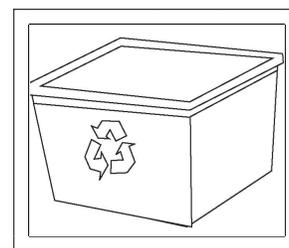
grading rubric (included)

Objectives:

- Students will determine the correct sequence of events for paper recycling.
- Students will work independently or collaboratively to create an interpretation of the sequence for paper, plastic, or aluminum recycling using writing and illustration skills.

Procedure:

1. Review the three-arrow symbol and the three-step process with students (*see background section*). Remind them that they will follow a certain procedure to recycle paper at their school. Explain that *sequencing* is putting something in order. Students may be familiar with sequencing events from the stories they read in class.
 2. Ask students to cut the pictures out of how paper is recycled. These pictures are a general summary of how paper recycling may happen and can vary according to your school.
 3. Students should then glue the pictures in order on the sequencing worksheet. Students who finish early may color their sequence or write their own sentences of the life cycle.
 4. Go over the answers to the sequence. Ask students to read aloud their captions.
 5. Students should create their own sequencing worksheet for the life cycle of paper, plastic, or aluminum. The worksheets can be created by groups or individually.
- [Background information for this lesson plan was taken from the National Energy Education Development Project (NEED) book entitled Talking Trash.



Feed the Bin

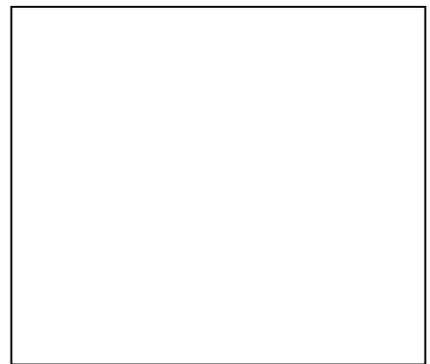
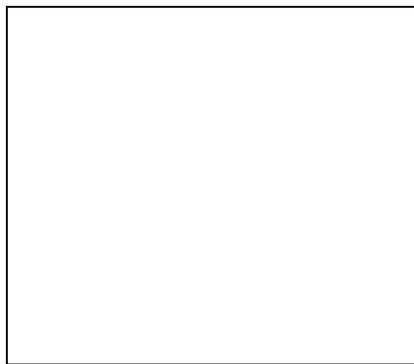
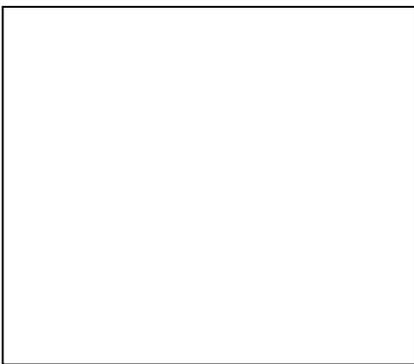
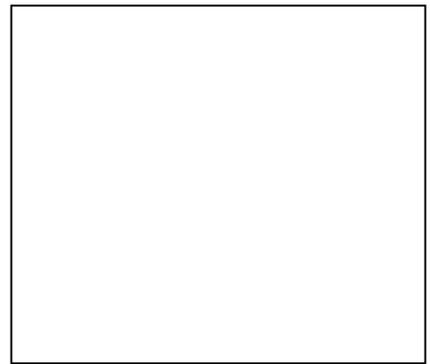
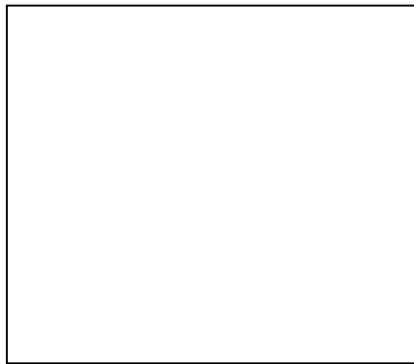
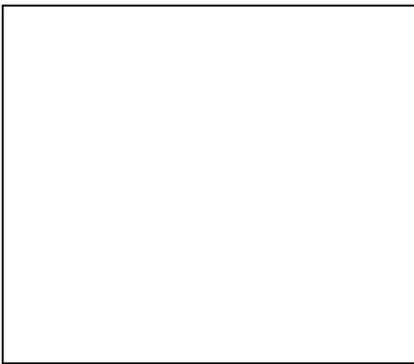
6. Students should do research on one of the life cycles using the research materials provided. They can also use the Internet if it is available.
7. After researching the life cycle of paper, plastic, or aluminum, students should draw pictures for each stage. Remind students that their life cycle should include detail (you may want to give a minimum number of 8 steps to include for each life cycle). Underneath each picture the students should write a description of what is happening in the step (1 sentence to 1 paragraph). Life cycles can be graded using the attached rubric.
8. Students should present their life cycles to the class and display them around the room.

Extension/Modification:

Students can complete a creative writing exercise in which they pretend they are a tree being cut down and processed into paper according to the life cycle given. Depending on the grade level, several sentences or a short paragraph can be written

Recycling Sequence

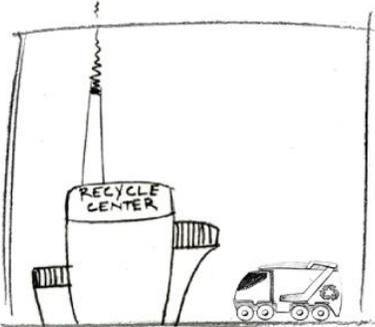
Place the pictures from the Scrambled Recycling in order of how paper is recycled at your school. Glue them in the correct order below.



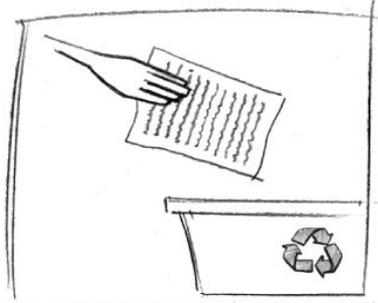
Feed the Bin

Scrambled Recycling Pictures

Cut out the pictures and sentences below. Place them in order of how paper is recycled at your school. Attach them to the Recycling Sequence worksheet.



The recycling truck takes the paper to the recycling center to be sorted.



The student places the used paper in the recycling bin.



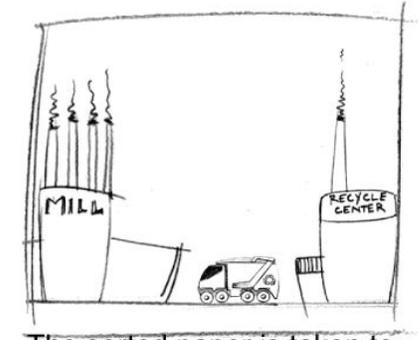
A student takes out a blank piece of notebook paper.



The student writes on the piece of notebook paper.



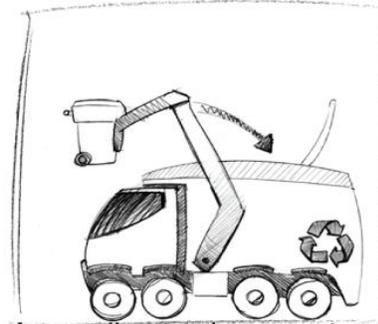
A recycled piece of notebook paper is created!



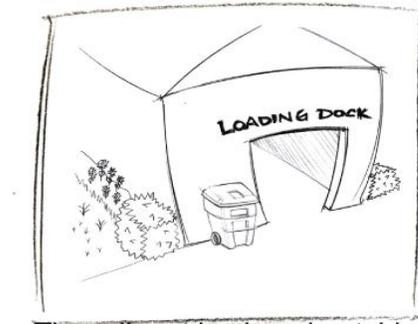
The sorted paper is taken to the paper mill where new paper is made.



The classroom bin is emptied into a roll cart.



A recycling truck comes to pick up the paper in the roll cart.



The roll cart is placed outside.

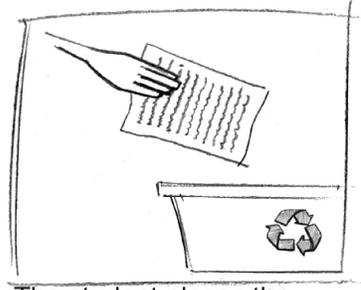
Scrambled Recycling Pictures-Answer Key



A student takes out a blank piece of notebook paper.



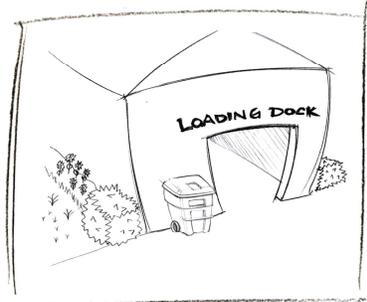
The student writes on the piece of notebook paper.



The student places the used paper in the recycling bin.



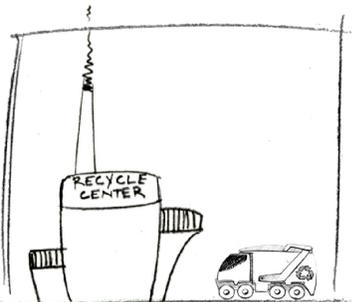
The classroom bin is emptied into a roll cart.



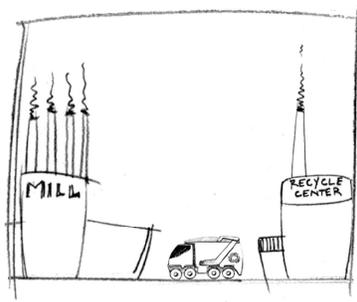
The roll cart is placed outside.



A recycling truck comes to pick up the paper in the roll cart.



The recycling truck takes the paper to the recycling center to be sorted.



The sorted paper is taken to the paper mill where new paper is made.



A recycled piece of notebook paper is created!

Rubric: Life Cycle of Paper, Plastic, or Aluminum

CATEGORY	4	3	2	1
Clarity and Neatness	Life Cycle is easy to read and all elements are so clearly written, labeled, and drawn that another student could understand the life cycle.	Life Cycle is easy to read and most elements are clearly written, labeled, and drawn. Another person might be able to understand the life cycle after asking one or two questions.	Life Cycle is hard to read with rough drawings and labels. It would be hard for another person to understand this life cycle without asking lots of questions.	Life Cycle is hard to read and one cannot tell what goes where. It would be impossible for another person to understand this life cycle without asking lots of questions.
Use of Time	Used time well during each class period (as shown by observation by teacher) with no adult reminders.	Used time well during most class periods (as shown by observation by teacher) with no adult reminders.	Used time well (as shown by observation by teacher), but required adult reminders on one or more occasions to do so.	Used time poorly (as shown by observation by teacher) in spite of several adult reminders to do so.
Spelling & Grammar	No spelling or grammatical mistakes on a life cycle with lots of text.	No spelling or grammatical mistakes on a life cycle with little text.	One spelling or grammatical error on the life cycle.	Several spelling and/or grammatical errors on the life cycle.
Content	All content is in the students' own words and is accurate.	Almost all content is in the students' own words and is accurate.	At least half of the content is in the students' own words and is accurate.	Less than half of the content is in the students' own words and/or is accurate.
Required Elements	Life Cycle included all 8 stages as well as a few additional stages.	Life Cycle included all 8 stages and one additional stage.	Life Cycle included all 8 stages.	One or more stage was missing from the life cycle.
Cooperation	Worked cooperatively with partner all the time with no need for adult intervention.	Worked cooperatively with partner most of time but had a few problems that the team resolved themselves.	Worked cooperatively with partner most of the time, but had one problem that required adult intervention.	Worked cooperatively with partners some of the time, but had several problems that required adult intervention.