



Let's Make Paper!

Submitted by: Noelle Kendig, Science/Art
University of North Georgia, Suwanee, Ga

Target Grade: 3rd Grade

Time Required: 2, 60 minute sessions

Standards

- S3L2. Obtain, evaluate, and communicate information about the effects of pollution (air, land, and water) and humans on the environment.

Lesson Objectives

Students will:

- Understand the affects that humans have on the environment
- Make their own paper out of recycled paper from the school.
- Express their understanding of recycling on the paper they create.

Central Focus

In this lesson, students will review how important recycling can be to the environment. They will have the opportunity to make their own paper from recycled paper found in the school.

Background Information

Students should have a firm understanding of what recycling means and what objects have the ability to be recycled in the environment.

Materials

- Sponge
- Cup (plastic or Styrofoam)
- Spoon
- Bucket
- Frame
- Screen (draining water)
- Clear mold window tube
- Blotter paper
- Pulp (blended up recycled paper)





Instruction

Introduction

1. Teacher will activate prior knowledge by asking students what recycling means to them. The teacher will remind them that recycling helps protect the environment because without it the world would just become cluttered and we would run out of natural resources.
2. The teacher will then play a video on YouTube that will catch the student's interest and get a discussion going. <https://www.youtube.com/watch?v=BaFpv03hq-4>
3. When the video is finished, the teacher will ask the students to name different things that can be recycled. The teacher will write each suggestion on the board as they call out items.
4. The teacher will then transition the conversation by asking if the students have ever wondered how paper is made. The teacher will tell students we do get paper from trees, but what about the paper we throw in the recycle bin every day. Think about all that paper that gets put in the recycle bin just in this school alone.
5. **Explanation of how paper is recycled:** The teacher will then explain how paper is recycled and the students get to make their very own paper today.
"All of this pulp in this bag (teacher holds up pulp), was made from the paper all of you have been putting in the recycle bin the past couple weeks. All you have to do is collect your used paper and put it in a blender. Big industries that recycle paper daily have a very big machine that shreds the paper into tiny little pieces. That is what I did with my blender. From here, all you need is the tools I have laid out on this table in front of me (teacher will hold up each one and place in correct position for making paper). My first tool is a bucket. This will catch the water. My second tool is a windowed frame, and I will put this onto of the bucket. This piece is a thin strainer, you can't even see the holes. It lets the water go through but keeps pulp to collect back onto paper. Now this clear plastic window tool goes on the very top of our tower we just made. This will hold the pulp in place to form the shape. Now watch me go through this all the way and then we do one together (teacher will begin showing students as she talks out loud). I am going to take 2 scoops of pulp of and put in this red cup. Then I am going to fill it up with water a little over halfway. Take your spoon and immediately start mixing to a creamy consistency, make sure you mix until you're ready to pour or the pulp will settle back at the bottom (teacher will walk around while mixing to show students cup). Next pour this mix into the top of our tower in the clear window, let out and move the cup around so it doesn't just fall in one area, you want it as even as possible. Let the water stop dripping and gently remove the clear window. Put the window screen over the pulp and gently pat with a sponge to mop up excess water. Put the blotting paper over it like so and flip over so the pulp is laying on the blotting paper. Put the window screen back over the pulp and press down to soak up excess water and flatten then paper you just made. That's all there is to it! Set aside to let it dry now.

Model activity

1. The teacher will make a piece of paper step by step having the class follow his/her every move.



- The teacher will say each of these directions out loud before performing the action and then watch and assess to make sure the students are following each direction given.

Step 1. "Get 2 scoops of pulp and dump it in your cup".

Step 2. "Fill your cup with water, a little over half way".

Step 3. "stir water and pulp together in cup with spoon, keep stirring until ready to pour or pulp will clump and sink".

Step 4. Pour into clear tube that I had you set up a couple minutes ago, move around as you pour to try and get the pulp even".

Step 5. "Now carefully lift the clear tube and set to the side, put the window screen over pulp and gently pat with a sponge to soak up excess water".

Step 6. "Now it is time for coaching, take your blotter paper and put on the pulp, flip over so the pulp is resting on the blotter paper".

Step 7. "Take your window screen and place on top of pulp, press more firmly to soak up excess water and flatten out newly formed paper".

Step 8. "That piece is done, place on your craft paper that has your name. Are there any questions? Okay now make your last 2 by yourself".

Independent Practice:

Students will repeat the steps stated above and continue making a total of 3 pieces of paper.

When they finish forming each paper they will set aside on a larger craft piece of paper with their name and allow it time to dry.

Closing

Teacher will ask students how the activity they just did related to recycling. The teacher will then ask for any questions from students. The students will then be handed an exit slip asking them to name three ways you can protect the environment.

Extension: When the student's paper dries, give them the opportunity to draw/color different ways to help the environment. Hang them up on display when they are finished.

Differentiation

The teacher modeled throughout this lesson and wrote the steps on the board for a visual. The video was used to help re-explain vocabulary words and give the students another visual of the words they



were hearing. This hands-on approach let the students see and work through the actual process of recycling something. This helps all students truly understand a concept instead of just knowing of a word.

Assessment

Formatively

Students will be formatively assessed throughout this lesson by teacher observation. They will also be given an exit slip at the end of the lesson asking them to say 3 ways they can help protect the environment.