



Missoula Urban Demonstration Project
YOUTH EDUCATION PROGRAM in Sustainability
629 Phillips Street, Missoula, MT 59802
Office: 406.721.7513 Tool Library: 406.549.6790
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Recycled Rhythms!

Use rhythm, music composition and movement to learn about recycling!

Grade: 3-6 (This lesson has been successfully adapted for high school students by experienced music teachers. Non-music teachers are recommended to use the lesson with the indicated grades)

Objectives:

1. Students will learn about decomposition of trash
2. Students will learn which materials are recyclable in Montana and how this can be done.
(This could be easily adapted for other regions as well.)
3. Students will reduce the amount of trash they throw away.
4. Students will learn collaborative ways to create music.
5. Students will learn to keep a steady beat while playing various rhythms.

Montana Standards and Benchmarks: Grades K-4

Social Studies

3.3 Describe and illustrate ways in which people interact with their physical environment.

Arts

- 1.1. Students use a variety of materials and sources to experiment with an art form.
- 1.2. Students present their own work and works of others.
- 1.3. Students collaborate with others in the creative process.
- 2.3. Students explore solutions to a given problem through the arts.
(2.5. Students use standard symbols to identify meter, rhythm, pitch and dynamics)



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Decomposition Timeline

Materials:

- Trash Timeline date cards
- Banana peel card
- Paper bag
- Orange peel card
- Wool sock
- Cigarette butt card
- Plastic bag
- Leather boot card
- Tin can
- Aluminum can
- Disposable diaper card
- Plastic jug
- Styrofoam
- Glass bottle
- Decomposition Cheat Sheet

Preparation: Before students arrive prepare a timeline on the floor of the classroom space using the laminated cards provided.

Introduction: Welcome students to the station and explain that you will be talking about what happens to things that we throw away. Ask if any of the students remember what “decomposition” means. Discuss how decomposition is the process of breaking down into a natural state- turning into dirt. Ask if students know any other words for this process (rotting, biodegrading). Three things are required for decomposition to happen: air, water and sunlight. With these three elements, most objects will eventually decompose. But how long does this take?

Activity: Give each student one piece of trash and explain that they are going to form a timeline. Have students line up on the timeline at the number of years they think it will take for their object to decompose. Ask each student to share how long they think their item will take to decompose. Next, read off how long each item actually takes to decompose. Have students rearrange as necessary. After students take a seat, ask them for their reactions to this activity. Ask if they think that objects receive the air, water and sunlight that they need to decompose when they are in

the dump.

Glass is listed as never decomposing. Glass is primarily made of silica, which is basically sand. Because of this, ground glass is basically decomposed or returned to its original state. However, dyes and other chemicals are added to glass. Also, if it is thrown in a landfill, glass will continue to take up space forever.

See MUD’s “Talking Trash” Curriculum for more recycling and trash activities.



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Recycled Rhythms

Materials:

- Recycled Rhythms mat (laminated with Velcro to attach to cards)
- Recycled Rhythms Picture or Note Cards, (laminated with Velcro to attach to mat)
- Cardboard Squares w/ Velcro to attach cards.
- 24 jars (pitched with water to create 3 major or minor scales.)
- Enough recycled items so that each student has an instrument. Suggestions include: 5 gallon buckets, window shutters, dowels, cans with washers or other rattling objects, heater vent covers, pots and pans, etc.

Preparation: Before students arrive, fill jars with water so that desired pitch is produced when struck. MUD lends out a trunk with 24 jars (8 pitches per scale x 3 sets) that are already pitched. This combination allows for C major or C minor scales. Gather other recycled items that make sounds. MUD's Recycled Rhythms trunk has a set of items that are ready to use.

Before class starts, put a variety of Recycled Rhythm cards on each cardboard square. Each group of 3-5 students will need one cardboard square. Each square should contain several of each type of rhythm card. Teachers can choose between picture cards and cards with music notation depending on how much the youth know about reading music.

Introduction: After completing the decomposition timeline, ask students which items on the timeline can be recycled. The following items can be recycled in Missoula, MT. (This list may vary depending on location. Check with your local recycling center for an accurate list for your community.)

- | | |
|-------------|--------------|
| • Paper | • #1 Plastic |
| • Newspaper | • #2 Plastic |
| • Tin | • Corrugated |
| • Aluminum | • Cardboard |

Write each recyclable item on the board. For each item named that *can't* be recycled, emphasize how long that item sits in the landfill and, if possible, discuss why the item can't

be recycled (this usually has to do with the location of processing plants, and the market for the recycled items.)

Explain that each word can be used as a rhythm. Give an example of one word-rhythm (cor-rugated card - board).

Ask students to create word-rhythms for the other words on the list. Explain that they will be creating compositions using word-rhythms. Go through each word and make sure that all students are using the same rhythm for each word.



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Break students up into groups of 3-5. Give each group a Recycled Rhythms Mat and a set of Recycled Rhythms cards. Instruct the students to create a composition by arranging the different rhythms on their mat, filling all of the spaces provided. Instruct each group to assign a body percussion movement for each unique rhythm. A body percussion rhythm is a movement that creates sound using different body parts. Clapping, snapping fingers, stomping feet, drumming on the belly, etc can be combined to create different rhythms. Encourage students to be as creative as they can when creating their body percussion. Have each group perform their body percussion for their classmates. During this section, students should say the words while performing their body percussion, unless this interferes with their creative idea for their composition.

Once each group has performed, instruct them to select recycled instruments to perform their compositions. Rhythms will ideally be played without saying the words they are derived from. When groups are ready have them put their instruments down. Tell them that they will combine all of their compositions to make a group composition. Teach them the following rhyme:

We **RECYCLE** what we use,
Separate things and you should too!
Cardboard, paper, plastic, tin,
Go in your **RECYCLING BIN!**

****Make sure you choose a slow tempo for the rhyme because the students will need to play their compositions at the same speed that the rhyme is repeated.****

Have the students select one or two rhythms that will be the ostinatti, or repeated rhythms that will be played in between group compositions and while saying the poem. For example, one student (or group of students) could play the “cor-ru-ga-ted card - board” rhythm over and over again. Simultaneously, another student (or group of students) could play “tin - a-lu-mi-num” over and over again. It helps to have them practice the rhythms separately first, then practice them together.

Indicate which order the groups will play in, so that they feel prepared to participate. The song will be structured in the following manner:

- Ostinatti #1 enters. Plays alone for 8 beats (each square is 1 beat)
- Ostinatti #2 enters. The two play together for 8 beats
- Students say poem in unison (16 beats)
- Ostinatti play for 8 beats by themselves
- Group #1 plays their composition (ostinatti are silent) 8 beats
- Ostinatti play for 8 beats by themselves}
- Group #2 plays their composition (ostinatti are silent) 8 beats
- Ostinatti play for 8 beats by themselves
- Repeat until all groups have performed
- Ostinatti play 8 beats by themselves
- Students say poem in unison (16 beats)
- Ostinatti fade out slowly until silent



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- Note: students will need to be cued in order to come in at the right time. Give them lots of eye contact during the 8 beats before their entrance, and give them clear beats beforehand, giving them a big signal when it is time to come in. No conducting skills are needed, but they may need help with the entrance.

Optional additions:

- Give students the opportunity to improvise freely after saying the poem the second time. Then indicate the decrescendo (slow fade) to the end. See how quiet they can get before being entirely silent.
- This basic lesson can be expanded upon in many ways. Teachers that are familiar with music education may want to include the pitched jars in the lesson. Simple songs can be played using the jars, and students can either create their own melodies or can read melodies that are already written out. Jars can be labeled with note names (A,B,C, etc.) or with solfeggio (do, re, mi, etc.). Also, advanced groups can write multiple rhythms to be played simultaneously