

ARTS IMPACT PROJECT BASED LEARNING UNIT PLAN

Visual Arts and STEM Infused PBL Unit

Trash Bashers

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Grade Level: Kindergarten – First Grade



Project Idea:

Research what trash is, where it comes from and how it affects us. Study the journey of trash by implementing an experiment that shows decomposition. Discuss how to sort trash and reduce the impact of trash. Read books and watch videos and play games to explain the journey of trash. Become "Trash Bashers" and explain how to be good citizens. Educate others in the school community to reduce trash by making posters to show where landfill, recycle and compost items go, and displaying Recyclable Robots.

Driving Question:

How can we teach others the importance of sorting our trash?

Unit Summary (Completed at end of project. Use for sharing out public product.)

Students research all about trash and how it affects animals, people and our environment. They study the journey of trash. They discuss how to reduce trash and then create something new, a sculpture/robot from recycled materials. They design and create posters using real trash to educate the school community about saving the animals and our planet by reducing trash. They create capes for Trash Bashers, a job which become part of the classroom jobs chart.

Learning Targets and Assessment Criteria

Target: Understands that humans impact the environment.

Criteria: Participates in turn and talk discussion and research on how trash affects us and what the trash bashers can do to help.

Target: Understands different uses for trash/recyclables.

Criteria: Creates something new using recyclables: Collaborates to design and construct stable robot sculpture using recyclables.

Target: Educates the school and families on the importance of saving the animals and our environment by reducing trash.

Criteria: Creates and presents posters for the school community that communicate clearly what can be reduced, reused, recycled, and composted.

Vocabulary

Arts

2-D
3-D
Assemblage
Complementary color
Composition
Craftsmanship
Font
Graphic Design
Form
Point of view
Sculpture

Arts Infused:

Balance
Design
Model
Transparent
Observe
Journey

Science

Parts
Role
Whole
Technology

STEM:

Compost
Decompose
Non compostable
5 Rs: Reduce, Reuse,
Recycle, Respect, Responsibility

Materials

Resources (Websites, experts, texts)

Books: *Where Does the Garbage Go* by Paul Showers; Books by Eric Carle; *The Lorax* by Dr. Seuss; *Trash* by Andy Mulligan

Video: *Journey of Trash* YouTube: <https://youtu.be/BaFpv03hq-4>;

How to make a kids cape: www.advanceddisposal.com

Fieldtrips: Waste Management

Local experts: King County Waste Management

Museum Artworks or Performance

Artists for students to research who make art/sculptures out of recycled materials follow: Virginia Fleck, Jeremy Mayer, Miwa Koizumi

Washed Ashore – Art To Save The Sea is an organization that makes community art sculptures made out of plastic gathered that washes up on Oregon's beaches. <https://washedashore.org/>

Examples of effective graphic design in every day print/media/advertising.

Materials

Fabric, Ribbon, Metallic paint, Mod podge, Brushes, Containers, Glue, Tarp, Poster board, Clean recyclables, Stickers, Markers, Class assessment worksheet

Standards to Drive the Inquiry

Arts

WA Arts Learning Standards

For the full description of each anchor standard and the grade level performance standards, see:

<http://www.k12.wa.us/Arts/Standards>

Anchor Standard 1

Generate and conceptualize artistic ideas and work.

Performance Standard (VA:Cr1.1.1) Anchor Standard 1

Generate and conceptualize artistic ideas and work.

Performance Standard (VA:Cr1.2.1)

a. Use observation and investigation in preparation for making a work of art.

a. Engage collaboratively in exploration and imaginative play with materials.

Anchor Standard 2

Organize and develop artistic ideas and work.

Performance Standard (VA:Cr2.1.1)

a. Explore uses of materials and tools to create works of art or design.

English Language Arts

Common Core State Standards in ELA

For a full description of CCSS Standards by grade level see: <http://www.k12.wa.us/CoreStandards/ELAstandards/>

SL.K.2: Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.

SL.1.2: Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

Science, Technology, Engineering

Next Generation Science Standards

<http://www.nextgenscience.org/search-standards>

K-ESS3-3 Earth and Human Activity: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

Scientific and Engineering Practices

Obtaining, Evaluating, and Communicating Information

21st Century Skills

<http://www.p21.org/our-work/resources/for-educators>

- Creative Thinking: *Gathers ideas; considers and tries multiple solutions; makes artistic choices*
- Communication: *Actively listens; expresses ideas – visually/physically/verbally; responds to others*
- Collaboration: *Communicates ideas to others; makes compromises; and incorporates input/feedback*
- Perseverance: *Persists in adapting ideas to work through challenges*

Teacher Project Planning

(Questions for teachers.)

1. *What will the entry event be to launch this unit?*

(Teacher prepares by gathering day's worth of smelly trash)

Students will gather (3 K and 1 first grade) and examine what a few days of trash and recycling looks like. Students will use their senses to observe and discuss their thoughts and feelings around what they see.

We name the 5 Rs: let's talk about each of them!

Reduce means make smaller: "make less trash by using less" how can we make less trash?

Reuse means "use again" what can we reuse to make less trash?

Recycle means to us change the material through some sort of proces (heat, water, mechanical) then form into into something usable again. What are some things we can recycle?

Respect means to value, admire and take care of our environment and living things. How can we show respect for our environment?

Responsibility means a sense of doing your part in daily actions, or a job that needs to be done to help take care of our environment. Who is responsible? YOU!

Introduce the trash bashers and their role.

2. *What resources might we need?*

(Experts, fieldtrips, texts, websites, data, equipment, materials)

Books: *Where Does the Garbage Go* by Paul Showers,
The Lorax by Dr. Seuss

Fieldtrips: Waste Management

Local experts: waste management website

Cape (trash bashers)-red fabric and ribbon

www.advanceddisposal.com How to make a kids cape

3. *What is the duration of this unit?*

4-8 weeks

4. *What will be group work?*

Research, brainstorm, create something- informational posters for sorting, recycle creations (this could also be an individual activity), field trip to waste management-transfer station, final product, sorting trash

What will each individual student do?

Decomposing experiment-each student will record their observations over period of time.

5. *What will the formative assessments/moments for reflection be?*

(Journal entries, plans, outlines, rough drafts, sketches, turn and talk, idea mapping, diagramming)

Journal entries, verbal brainstorms, group trash robots, plans, student actions in the classroom and in the playground, legible posters

6. What will the summative assessment/ public product be?

(Performance, exhibition, publication, public presentation, website, installation)

Students will create a robot made out of recycled materials.

Students will create posters to aid with sorting.

Facilitating Student Understanding of the Problem

(Questions to guide student inquiry.)

- 1. What do we know about this problem before we begin?*
- 2. What do we need to learn in order to solve it?*
- 3. Where will we look for resources?*
- 4. Who is our audience? Who will be helped by our solution?*
- 5. How will we share our solution?*
- 6. How will we assess our own learning?*

PBL Unit Outline of Inquiry

(Begin each step with a question. Follow that with a brief description of what students do to address the question.)

1. Why is it important to put trash in its home?

- Students discuss what they see, how it makes them feel and what the possible implications are if it didn't get put in its proper place.
- What can we do? Who wants to be a trash-basher? (a superhero-like job that gets to wear a red superhero cape –that we make during one session).
- Students brainstorm trash basher job descriptions, i.e.: collects, sorts, encourages others to make good choices, rewards others.
- Students research what trash is, where it comes from, and what are the different kinds of trash (e.g. What materials decompose?).
- Students sort trash.

☑ Student reflection and assessment: Participates in turn and talk discussion and research on how trash affects us and what the trash bashers can do to help.

2. What is the journey of Trash?

- Students investigate process of how the trash gets from one place to another. (Book: *Where Does the Garbage Go?* by Paul Showers)

Video YouTube: <https://youtu.be/BaFpv03hq-4>

- Students create and implement an experiment that shows decomposition in action.
- Students go to the waste management facility to observe where trash goes.
- The students journal their observations of experiment and field trip.

☑ Student reflection and assessment: Makes journal observations of the decomposition experiment.

3. What visual arts concepts and skills will the students need to know to create an informative poster to hang around the school?

(Important for teacher to provide books, video and sketchbooks. Mod Podge should be used in small groups.)

- Writing/font size compared to art, poster.
- Spatial relationships in graphic design, complementary colors.
- How to work with mod podge-actual items will be used in the posters like crumpled trash, food items, etc.

☑ Student reflection and assessment: Creates and presents posters for the school community that communicate clearly what can be reduced, reused, recycled, and composted. (that are easy to read by others and show what belongs in each bin).

4. How can we create Trash Basher Super Hero Capes?

- Students work together to cut out, paint and put together special Trash Basher Super Hero capes (made with fabric, ribbon and paint) for those "on the job" to wear in the classroom and school.

☑ Student reflection and assessment: Works together to create Trash Basher capes for the classroom.

5. How can I reduce the impact of trash?

- Students ask: How can we make better choices in order to decrease the amount of trash?
- Students bring in bags from home with trash (i.e. recycled materials). (Teachers asked to bring in recyclables to donate to the project)
- Students create a sculpture from recycled materials –trash robots. Students work together in duo or small groups to plan/design and create a 3d robot made from recyclables that is balanced and stable.
- Students present what they created to an audience and explain how they have reduced the impact of trash. (There could be a spark video of robots.)

☑ Student reflection and assessment: Creates something new using recyclables: Collaborates to design and construct stable robot sculpture using recyclables.

Public Product/Sharing

Who is our audience?

The school community, other students

Begin with a question, followed by the description of the culminating event that shares the learning from the PBL unit.

How do we teach others to sort and reduce trash, and why is it important?

Students create posters to place around the school to educate the school community on how and why to reduce, reuse, recycle and compost trash so we can keep our environment clean.

Trash Bashers wear their powerful Super Hero capes and give special sticker prizes to students they catch using good trash disposal habits.

Students create Recycle Robots that are designed to "help the environment" and either display them or create a video for the school to see.

REDUCE, REUSE, RECYCLE

Words that we should know.

We have to save our planet,

So we can live and grow.

We may be only children

But we can try you see.

And we can save our planet,

It starts with you and me!

ARTS IMPACT LESSON PLAN Visual Arts and STEM Infused PBL Unit

Kindergarten – First Grade: *Trash Bashers*

CLASS ASSESSMENT WORKSHEET

Disciplines	VISUAL ARTS/SCIENCE			Total
Concept	Human Impact on Environment	Recycled Robot Sculpture	Communication	3
Criteria	Participates in turn and talk discussion and research on how trash affects us and what the trash bashers can do to help.	Collaborates to design and construct a stable robot sculpture using recyclables.	Creates and presents posters for the school community that communicate clearly what can be reduced, reused, recycled, and composted.	
Student Name				
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30.				
Total				
Percentage				

What was effective in the unit? Why?

What do I want to consider for the next time I teach this unit?

What were the strongest connections between arts discipline and STEM?

Teacher: _____ Date: _____

ARTS AND STEM INFUSED PBL UNIT: *Trash Bashers*

Dear Family:

We are engaged in a visual arts-infused project based learning unit in which we are trying to solve this challenge:

Driving Question:

How can we teach others the importance of sorting our trash?

- We asked what trash is and how we could make less trash it by reducing, reusing, recycling, and composting.
- We discovered what the journey of trash is and how to communicate it through words and movement.
- We created posters to teach others how to reduce trash in our school community.
- We created a classroom job of "Trash Basher": a super hero who helps educate others about reducing, reusing, recycling, and composting.
- We made special capes for our classroom Trash Bashers to wear out of fabric, ribbon and paint.
- We created recycled robots out of recycled objects and presented them.

At home, you could extend the learning by asking your student to help you sort the trash.