

ARTS IMPACT PROJECT BASED LEARNING UNIT PLAN

Dance and STEM Infused PBL Unit

Save Our Seagulls

Authors: K. Mills, C. Farrell, L. Meekins, H. Cumming, M. Sales, C. Perry-Menon, A. Dungan,
N. Radosevich with D. Gilbert
Grade Level: Kindergarten – First Grade

Project Idea:

Research what trash is, where it comes from, and how it affects the animals. Study the journey of trash by implementing an experiment that shows decomposition. Choreograph a dance that shows the journey of trash. Discuss how to reduce the impact of trash. Make something from recycled materials. Create a plan to save the animals by reducing trash. Educate others in the school community to reduce trash by presenting a PSA video, poster, or other means decided upon by the students.

Driving Question:

How can we help the animals in our community that are being hurt by trash?

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

Students research all about trash and how it affects seagulls and other animals. They will study the journey of trash and create a dance that shows that. They will discuss how to reduce trash and then create something new (3-D sculpture, game, etc.) from recycled materials. They will create a plan for saving the animals by reducing trash and share the plan with the school community (PSA video, poster, etc.).

Learning Targets and Assessment Criteria

Target: Understands that humans impact the environment.

Criteria: Dances the journey of trash, showing four different outcomes.

Target: Understands different uses for trash/recyclables.

Criteria: Creates something new using recycleables.

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

Criteria: Produces and presents a plan to reduce, reuse, and recycle to the school community through a PSA video, poster, or other presentation to the school community.

Vocabulary

Arts:

Energy
Levels
Self and General Space
Shape
Time

Arts Infused:

Observe
Journey

STEM:

Compost
Decompose
Non-compostible
Recycle

continued

Materials

Resources (Websites, experts, texts)

Books: *Where Does the Garbage Go* by Paul Showers, *10 Little Rubber Ducks* by Eric Karl, *The Lorax* by Dr. Seuss
Fieldtrips: aquarium, Constellation beach
Local experts: park department staff, aquarium staff
Photographs/videos of animals affected by pollution

Museum Artworks or Performance

Meany Center for the Performing Arts
Pacific Northwest Ballet

Materials

An image of a dead bird that has ingested garbage (e.g. internet image)
Chart paper or whiteboard and markers
Music for dance (e.g. *Garbage Blues* by Tickle Tune Typhoon)
Music player and/or drum
Class assessment worksheet

Reduce
Reuse
Trash

English Language Arts:
Persuade

Social Emotional Learning:
Change
Save

21st Century Skills:
Critical Thinking
Communication
Collaboration

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 2: Organize and develop artistic ideas and work.

Performance Standard (DA:Cr2.1.K): a. Improvise dance that has a beginning, middle, and end. b. Express an idea, feeling, or image through improvised movement, moving alone or with a partner.

Performance Standard (DA:Cr2.1.1): a. Improvise a series of movements that have a beginning, middle, and end, and describe movement choices. b. Choose movements that express an idea or emotion, or follow a musical phrase.

Anchor Standard 5: Develop and refine artistic techniques and work for presentation.

Performance Standard (DA:Pr5.1.K): a. Demonstrate same-side and cross-body locomotor and nonlocomotor movements, body patterning movements, and body shapes. b. Move safely in general space and start and stop on cue during activities, group formations, and creative explorations while maintaining personal space. c. Move body parts in relation to other body parts and repeat and recall movements upon request.

Performance Standard (DA:Pr5.1.1): a. Demonstrate a range of locomotor and non-locomotor movements, body patterning, body shapes, and directionality. b. Move safely in general space through a range of activities and group formations while maintaining personal space. c. Modify movements and spatial arrangements upon request.

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*

Teacher Project Planning

(Questions for teachers.)

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

The teacher could show the students a large image of a dead seagull that has ingested garbage. The teacher may choose to begin by showing a video of what a healthy seagull looks like. The students improvise a three-part dance in response to the disturbing image (1. the healthy bird 2. bird ingesting garbage 3. the bird carcass.) They improvise a dance that communicates how they feel in response to the bird (e.g. repulsed, curious, wondering, sad, mad). They talk about what they discovered through the experience. Chart what the students wonder (e.g. Why did this happen? When did this happen? What can we do to make an impact? Are there other animals that are hurt by trash? Who is already helping? How can we help?) Share the driving question. Discuss.

2. *What resources might we need?*

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

Books: *Where Does the Garbage Go* by Paul Showers, *10 Little Rubber Ducks* by Eric Karl, *The Lorax* by Dr. Seuss

Fieldtrips: aquarium, Constellation beach

Local experts: park department and/or aquarium staff

Photographs/videos of animals affected by pollution

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

4-8 weeks

4. *What will be group work?*

Research, brainstorm, create something (e.g. 3-D sculpture, game, teaching tool) (this could also be an individual activity), journey of trash dance, final product

What will each individual student do?

Improvise movement for a three-part dance about the seagull, research, journal writing, identify and draw the journey of trash

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

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

Journal entries, verbal and body brainstorms, group trash dances, plans, performer and audience response, reflections

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

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

Presentation to the school community of the plan to save the animals by reducing trash. The students will decide if the plan will be presented as a video PSA, poster, or another way.

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 there trash inside a seagull?

- The students will discuss why trash is inside the seagull. They discuss the impact of the trash.
- The students will research what trash is, where it comes from, and what are the different kinds of trash (e.g. What materials decompose?).
- The students share their research.

Student reflection and assessment: In a turn and talk or group discussion, participates in research and talk about trash.

2. What is the journey of trash?

- The students investigate from how the trash gets from one place to another. (Book: *Where Does the Garbage Go* by Paul Showers?)
- The students create and implement an experiment that shows decomposition in action.
- The students journal their observations and then begin to create a dance to show how their observations relate to the journey of trash.
- Other options: Electronically track a piece of trash to see where it goes. Research the rubber duck accident. Read *10 Little Rubber Ducks* by Eric Karl.

Student reflection and assessment: Journals and dances observations of the decomposition experiment.

3. What dance concepts and skills will the students need to know to create a trash dance?

- The students define the classroom norms for physical and emotional safe and creative dancing.
- The students brainstorm dance concepts and skills they will need to know.
- The students warm up with a BrainDance and explore each concept and skill they listed.

Student reflection and assessment: Lists and explores dance concepts and skills.

4. How can we dance the journey of different kinds of trash?

- The students identify and draw the four different trash journeys (eg: decomposition, non-compostable waste, reuseable, recyclable).
- The students will choose four objects to show the trash journeys (eg: banana: decomposition, plastic fork: non-compostable waste, milk carton: reuseable, tires: recyclable) and then dance the four trash journeys using the dance concepts and skills they have explored.
- The students perform their dances and respond to the dances.
- The students discuss how they used creative thinking, communication, and collaboration to create their dances.

Student reflection and assessment: Dances the journey of trash, showing the four different outcomes. Uses creative thinking, communication, and collaboration.

5. How can I reduce the impact of trash?

- The students ask: How can we make other choices?
- The students bring in bags from home with trash (i.e. recycled materials).
- The students create something from recycled materials (eg: 3-D sculpture, games, a teaching tool). (teacher note: This could be an individual, duo, or small group activity.)
- The students present what they created to an audience and explain how they have reduced the impact of trash.

Student reflection and assessment: Creates something new using recycleables.

6. What can we do to save the animals?

- The students brainstorm ideas for how to save the animals, such as sorting and building a compost bin. (teacher note: share info about trash sorting and how to build your own compost bin.)
- The students make a plan to persuade people they can save the animals by reducing trash through reducing, reusing, and recycling.

Student reflection and assessment: Participates in creating a plan for saving the animals by reducing trash.

7. How do we teach others to reduce trash and why it is important?

- The students create a video PSA or posters, make classroom visits, and/or perform their plan during an assembly for the school community.
- The students reflect on their final product and its presentation and response.
- The students reflect on what they can each do to save the animals in their community by reducing trash.

Student reflection and assessment: Produces and presents a plan to reduce, reuse, and recycle to the school community through a PSA video, poster, or other presentation to the school community. Reflects on their presentation and response and their own personal actions.

Public Product/Sharing

Who is our audience?

The school community

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 reduce trash, and why its important?

Create and present a PSA video, poster, or other student designed way to educate the school community on how and why to reduce, reuse, and recycle trash so we can help the animals in our community.

ARTS IMPACT LESSON PLAN Dance and STEM Infused PBL Unit

Kindergarten – First Grade: *Save Our Seagulls*

CLASS ASSESSMENT WORKSHEET

The following assessment checklist can be used along with other assessment tools developed by teachers and students.

Disciplines	Dance/Science	Arts/Science	Arts/Science	Total 3
Concept	Choreography	Models	Communication	
Criteria	Dances the journey of trash, showing four different outcomes.	Creates something new using recycleables.	Produces and presents a plan to reduce, reuse, and recycle to the school community through a PSA video, poster, or other presentation to the school community.	
Student Name				
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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: *Save Our Seagulls*

Dear Family:

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

Driving Question:

How can we help the animals in our community that are being hurt by trash?

- We learned about how trash has affected seagulls.
- We asked what trash is and how we could make less trash it by reducing, reusing, and recycling.
- We discovered what the journey of trash is and how to communicate it through words and movement.
- We created and presented a way (e.g. video PSA, poster, presentation) to teach others how to reduce trash to save our animals.

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