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EED 480 PBL with 5E Framework TEMPLATE FOR OUTLINE

Submit Items I-IX ONLY for Outline



- I. **Title & Grade(s):** Trees, Trees, Trees! Trees on the Streets! Grades K-2
II. **Big Idea:** The Importance of Trees

- Why are trees important?
- What do trees provide?
- How do trees help the environment?
- What are some ways we can start being more kind and caring for our trees?
- What might be some things that we can do at school or home in which we can preserve trees?

- III. **JUSTIFICATION:** In this lesson series the students will be able to recognize why and how trees serve as a resource for our world and what they provide for us. They will examine different types of trees and their leaves as well as if they have similar or different characteristics. They will discuss why they think trees provide many benefits in our world. The students and their families can contribute to increasing the amount of trees for the future.

TASKS: We will do the following activities:

A. First, the story *The Giving Tree* by Shel Silverstein will be read. After the reading we will discuss different benefits trees serve to our planet and why they are important. Students will also have time to reflect how trees can help other wildlife such as animals and insects.

B. Next, plant their own seeds in little baggies where throughout the rest of the four week period see how their plant grows and the progress it makes.

C. Finally, we will have the students discuss the purpose they believe trees serve and how they can contribute to increasing the population of various kinds of trees.



- IV. **STANDARDS:** Kindergarten to 2nd Science, Social Studies, Language Arts, Mathematics

NGSS (Next Generation Science Standards):

K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.

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

Disciplinary Core Ideas:

LS1.C: Organization for Matter and Energy Flow in Organisms

All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. (K-LS1-1)

ESS3.A: Natural Resources

Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1)

ESS3.C: Human Impacts on Earth Systems

Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (K-ESS3-3)

LS4.D: Biodiversity and Humans

Populations live in a variety of habitats, and change in those habitats affects the organisms living there. (3-LS4-4)

Crosscutting Concepts

Patterns- Patterns in the natural and human designed world can be observed and used as evidence. (K-LS1-1)

Cause and Effect- Events have causes that generate observable patterns. (K-ESS3-3)

Systems and System Models- Systems in the natural and designed world have parts that work together. (K-ESS2-2),(K-ESS3-1)

SOCIAL STUDIES

CCSS.1.2.4: Describe how location, weather, and physical environment affect the way people live, including the effects on their food, clothing, shelter, transportation, and recreation.

ELA/Literacy


CCSS.RL.K.1:With prompting and support, ask and answer questions about key details in a text.

CCSS MATHEMATICS:

CCSS.MATH.CONTENT.K.MD.A.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.



V. MEASURABLE OBJECTIVES

- A. Students will provide characteristics of trees in order to describe the importance of trees in the environment.
- B. At the end of the lesson it is expected that students will be environmentally aware of how they can help their community conserve trees. 

VI. TOTAL TIME:

Launch event-One: DAY= 80 minutes

VII. [Social Skills and or Habits of Mind](#) to Engage/Assess to Promote Student Motivation and Success (Indicate which of SELs from the Placemat are relevant to your lesson)

- 1 Encourage each other.
- 2 Make sure everyone speaks.
- 3 Respect the opinion of others.

VIII. Level of Voice Appropriate for Each Day/Period of the PBL

0	• No voices. Lips are closed.
1	• 1 person can hear you.
2	• Normal voices.
3	• Group can hear you
4	• Everyone can hear you.

IX. Materials List

- *The Giving Tree* by Shel Silverstein
- Visuals of different kinds of trees
- Baggies
- Seeds
- Water
- Soil

AFTER INSTRUCTOR RESPONDS TO OUTLINE CONTINUE TO DEVELOP THE PBL USING THE FOLLOWING PLAN:

NASA/BSCS 5-e FRAMEWORK

X. ENGAGING CONTEXT: Hook- Launch activity

- The hook/launch activity for our lesson will be to read *The Giving Tree* by Shel Silverstein. During this part of the lesson, the students will be engaged both during and after the

read aloud. During the read aloud, they will be asked descriptive, personal interpretive, critical and creative questions. After the read aloud, they will participate in think-pair-share answering the big idea question. This will launch their interest and activate curiosity towards the topic.

EXPLORE Building Knowledge

We will pose the question, “What roles do trees have in our environment?”. We will use our inquiry skills of predicting (hypothesis testing) comparing and analyzing to investigate the importance of trees and the impact/role they have on our environment. Students will engage in an activity in which they will be paired in groups, observing and hypothesizing on the different types of trees there are so that they may obtain knowledge on the different benefits that trees serve.

This PBL will be led over 1 Class Period for an hour and 20min.

Beginning with the Checker all roles are assigned to the right (clockwise)

Materials Manager: get materials (worksheets and pencils) for group and collecting them

Checker: check that students are on task

Recorder: write down the students’ thoughts

Observer/Reporter: share what the group observed

EXPLAIN Students will have the following opportunities to show and share knowledge from Group Work or Individual Work. Here is where NGSS Claims and Evidence is activated and measured. As students complete the launch, inquiry, culminating activity they share their prior knowledge, observations and questions about the different benefits trees serve to our planet and why they are important. Students will also reflect how trees can help other wildlife such as animals and insects.

EXTEND/ELABORATE There are several formative and summative ways to assess learning in this engaged learning PBL. To extend student learning, the students will be planting their own seeds in individual baggies. As germination occurs, the students will observe the different parts of the plant which include: the roots, stem, leaves, and/or flowers.

Beginning with the Checker all roles are assigned to the right (clockwise)

Materials Manager: Gather materials for activity and collects

Checker: Check that the students are on task. Check that all baggies have included a seed, water, and soil.

Recorder: Write down the students’ observations about their seed growth.

Observer/Reporter: Observe growth of seeds and any plant parts that can be observed.

(Posters and visual presentations where students use art to draw a visual that helps them to describe the results can also be assessed or self-assessed with a checklist or rubric.)

Content Summative Assessment:

Student Name:	3	2	1
Cooperation	Student cooperated with his/her peers all the time.	Student cooperated occasionally with his/her peers.	Students did not cooperate with his/her peers.
Listening	Student listened to the group and shared his/her ideas.	Students listened occasionally to the group, and sometimes shared his/her ideas.	Student did not listen to the group and did not share his/her ideas.
Participation	Students participated in the group by performing their role.	Student participated in the group by doing most of their role	Student did not participate in the group at all.


Individual information detailing student learning takeaways from the Launch activity

Students will get an introduction to the topic that will be discussed and taught. They will gain insight on the characteristics of a tree and what a tree can provide for a human being. It explores the importance and purpose of trees. Students will take away a sense of sensibility and open mindedness towards nature as a whole, to care for trees, plants, etc. This will be a pathway to literacy environmental awareness.




Formative Assessment of Non-Cognitive Factors: Self-Assessment Using the Habits of Mind Check Sheet and Write-up Form (Course Docs).





Self assessment



How do you feel about your work?

My friend says...

Perfect! Great! Good effort OK Better next time

My teacher says...













Perfect! Great! Good effort OK Better next time

I say...

Perfect! Great! Good effort OK Better next time

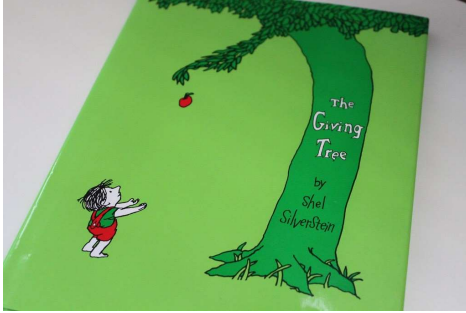
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My group member, _____, was...

Working			
Focused			
Sharing ideas			
Organized			

XI. Children's Literature that Supports the PBL:

The children's literature that supports the PBL is *The Giving Tree* by Shel Silverstein.



XII. Criteria to Assess the Value of Your PBL:

1. Does it include a driving question in any of the identified disciplines? - **Yes, in our explore section we ask the students “what role do trees have in our environment?”, which ties in to the identified disciplines in our lesson.**
2. Does it include new STEAM vocabulary words? - **Yes, during our lesson we talk about the scientific method, so as a result the vocabulary used during the lesson includes observations, hypotheses, and conclusion. Additionally, they are exploring and predicting during the last activity.**
3. Does it propose the development of a project--students/unit plan? - **Yes, at the end of the lesson, the students will be able to plant a seed together in which they will monitor it over the next few weeks.**
4. Does it assure that students show evidence that all team members were involved? - **Yes, in all aspects you are able to see evidence of student learning. For the hook activity, the students will be able to share what they discussed during think-pair-share, giving them all a chance to participate and share. During the groups of 4 activity in which the students will be walking around the classroom making observations, hypotheses, and conclusions each student will have their own piece of paper to write down what they came up with as a group. In the last activity, each student will get to plant their own seed and come up with a plan to care for it over the next few weeks, along with making a hypothesis about what they think their plant will look like at the end.**
5. Have you inserted a comment when submitting that shows evidence that you reviewed Koch chapters to assist in the NGSS aspects of the PBL? - **Yes. According to Koch the students will, “...examine attributes of trees, their leaf structure, leaf arrangement on a stem, bark, fruit, and, depending on the season, their flower” (Koch, Chapter 4).**

