PBL lesson plan

Day 1

I. Title and Grade Level:

Zoo animals; kinder

II. BIG IDEA:

Why do we go to the zoo to see animals?

III. TASKS: We will

- A. Think pair share with your shoulder partners what animals we see at the zoo.
- B. Share what animals we think we will see and if it is possible for them to be at the zoo
- C. Think pair share why do we go to the zoo to see animals.
- D. Work in pre-made groups and choose an animal from a blind bag.
- E. Sit with our groups
- F. Log into our SKIES learn app (only the recorder will type into the iPad, the checker may help if checker may help if needed)
- IV. JUSTIFICATION This lesson series integrates technology with the use of the iPad and the app SKIES. It integrates science because the students have to research an animal, what they eat and their habitat/ they do have to create a poster by drawing the animal and its environment which integrates the arts. Students use math to determine how much time they have left to finish their tasks. Language arts is used because students are able to write an informative piece (STEM and Social Studies Integration).

V. STANDARDS: Grade Level and Subject Area: Kindergarten

Science, Language Arts, Mathematics, Art

Art: k.AV.4.3- make informed judgments: discuss how and why they made a specific work of art

ELA/Literacy: w.k.7 participate in research and writing projects

CCSS MATHEMATICS: count to 100s by 1s and 10s

NGSS (Next Generation Science Standards)

A. Disciplinary Core Ideas

LS2: ecosystems: Interactions, Energy and Dynamics

- **B.** Science and Engineering Practices
 - 3. Planning and carrying out investigations.
- c. Crosscutting Concepts

2. Cause and effect: Mechanism and explanation.

VI. ENGAGING CONTEXT: Hook- Launch activity

Can an elephant live in my house? Why do we go to the zoo to see animals like the elephant?

IVII. MEASURABLE OBJECTIVES

- A. As student thinking drives this lesson, students can pursue their own inquiry: What happens of the leave the zoo? Why do animals live there? What do they eat?
- B. As the culminating activity of this PBL students will create a project or presentation that meets the objective of the Big idea.

VIII TOTAL TIME:

Launch Event-One: 1 Class Period of 45 minutes

Building Knowledge: 1 Class Periods 40 minutes

IX. Social Skills and or Habits of Mind to Engage/Assess

[] Persistence	[] Problem posing
[] Decreasing impulsivity	[] Drawing on past knowledge
[] Empathic listening	[] Application to new situations
[] Flexibility in thinking	[] Precision of language and
[] Metacognitive awareness	thought [] Using all the senses
[] Checking for accuracy	1 3
[] Questioning	[] Ingenuity, originality, insightfulness and creativity
	[] Inquisitiveness, curiosity
	[] Enjoyment of problem solving

IX. Level of Voice Appropriate for Activity:

Noise Levels



X. BSCS 5-E Framework

Engage:

Why do we go to the zoo to see animals? Can I just go to the pet store and see them?

 DIRECT INSTRUCTION: forming groups, assigning roles, describing roles and tasks

I will have the groups formed already by putting a range of learners per group and all they have to do is pick an animal out of a blind bag. Each group will have 5 students and a total of 5 groups will be formed.

Each group will sit together in a table and the roles will be distributed by me.

Materials Manager: Make sure their team receives and uses the materials without dropping them; they are responsible for putting the iPads and other materials away. They will make sure they return everything.

Ask 2 other teams Before ME, you can go to another team to answer your question or see what they have learned about their animal that they still need to learn about yours.

Spy Tasks: will go to these groups and preview their posters so they can help the team with what they are missing if anything.

Checker's Tasks — Make sure the time limits are observed. Keep an eye on the timer. Help others complete their tasks. Let instructor know when your team has completed the research.

Recorder's Tasks: Carefully type or write your answers to your research of what your animal eats, their habitat and how they look like. Ask for help form the checker when needed.

Encourager/Observer's Task - be the cheerleader of the group. Coach the team to persevere and stay together while sharing and turn-taking. Fill out the checklist as your team works by identifying who is working in the group and who is not doing their part. (Observer records individual performance)

Checklists and Rubrics provided for student goal setting and self-assessment; Peer Assessment (Team Performance Rubric) [Rate Your Mates] Content Assessment (poster)

Peer assessment

Commented [SB1]: I am not clear as to how you will do this.

Commented [SB2]: Each of these assessments need to be designed to be comprehensible to the young children. You might consider using images for the headings. Do check out some of the science and PBL lessons and units from classmates that will be on the website.

Name	Task	

Grading Myself

	Unsatisfactory Effort (0 points)	Effort Needs Improvement (1 point)	Satisfactory Effort (2 points)	Outstanding Effort (3 points)
I contributed to the team work.				Ĵ
I exhibited scientific thinking.				
I maintained a positive attitude.				ĵ
I completed the building task.				
I reflected on my work.				1

Grading My Team

	Unsatisfactory Effort (0 points)	Effort Needs Improvement (1 point)	Satisfactory Effort (2 points)	Outstanding Effort (3 points)
My team worked well together.			i	
My team displayed problem-solving skills.				
My team had a positive attitude.				
My team completed the building task.			10	
My team discussed and reflected on our work.				

Graded By My Teacher

	Unsatisfactory Effort (0 points)	Effort Needs Improvement (1 point)	Satisfactory Effort (2 points)	Outstanding Effort (3 points)
Student cooperated with team.			373.0	-
Student exhibited scientific thinking.				
Student maintained a positive attitude.				
Team completed the building task.	31			
Student reflected on work.				

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Content assessment

When observing the group I will use this checklist

QROUP OBSERVATION CHECKLIST

Project: Observe A group for Ove to:	Date! ten nimutes Check the boxes th
best describe the group ment	
380 130	0 000 1000 1000 1000
When standing to a second	el en estado est
When starting a new ta	sk. group members
Agree on a plan	
Begin promptly	
Have materials	
Problem solve	
Shore responsibilities	
When conducting resear	reh. group membersi
Primary sources	
Take notes	
Evaluate	
Information	
Stay on task	
When discussing project	work, group membersi
Ask questions	0 50 7 20 1
Take turns	
Make decisions	
Record plans	
Stay on topic	
	ect work, group member:
Ask questions	
Take turns	
Make decisions	
Record plans	
Stay on tople	

OC and S. Oule http://www.touchenga.ntachen.com/Stree/Acome-To-Oule

Explore: We will use our inquiry skills of predicting comparing and analyzing as students will research their animal and explore their habitat and write a reason as to why we go see their animal at the zoo. They will look through pictures for their animal and notice what is the same and what is different. The recorder will make notes of it.

5 groups of 5 students.

Explain: As students complete the inquiry activity they share their answer to the questions that goes hand in hand with their animal. They will have to figure out why some pictures are different and if all habitats have what is needed for that animal to survive.

Extend/Elaborate: In small groups and in the final performance students have opportunities to extend their knowledge about the animals they see at the zoo and they can then ask other questions such as why are they at the zoo? Why doesn't the zoo have other animals? How does the zoo get this animal?

XI. Materials List

- iPads
- Animal books
- Animal pictures
- Name sticks
- · Paper and pencil
- SKIES learn QR codes

Evaluate: (Assess):

There are several formative and summative ways to assess learning in this engaged learning PRI

The first is in the individual questions and answers that show students' answer to our question of why we go to the zoo to see animals

The students may also write about what they will see their animal do at the zoo.

(Poster and visual presentation where students use the internet to help them present their animal also serves as an assessment)

Content Summative Assessment:

Individual information detailing student learning takeaways from the Launch activity; students work on social skills when working in groups as well as learning responsibilities since they each have a role. The students also work on research skills in order to respond to the questions that were given about the habitat, diet and what they look like. Why they live at the zoo as well.

Criteria:

- 1. Does it include a driving question in any of the identified disciplines?
- 2. Does it include at least three new science vocabulary words?
- 3. Does it propose the development of a project—students/unit plan-teachers?
- 4. Does it show evidence that all team members were involved?

Formative Assessment of Non-Cognitive Factors: Self Assessment give your self a 4 3 2 1 be honest with your self and say why.

Commented [SB3]: This is too advanced for kinders⊕

PBL lesson Day 2

• Title and Grade Level:

Zoo animals; kinder

• BIG IDEA:

Why do we go to the zoo to see animals?

• TASKS: We will

1.present the animals that were researched

- 1. Finally, draw a picture of an animal that was presented that was not their own and write a fact about it.
- 2. share what we saw at the zoo with your group.

- 3. Draw a picture of the zoo animal that you want to know more about
- JUSTIFICATION This lesson series integrates technology in the use of their iPad to
 present their project. It uses science because students have to present about the animals
 habitat. Students use language arts to present their project and take turns presenting as
 well. The students are able to work and present in groups as well as use their social skills.
- STANDARDS: Grade Level and Subject Area: Kindergarten Science, , Language Arts, and the Arts
 - **ELA/Literacy:** w.k.2 use a combination of drawing, dictation, and writing to compose informative texts in which they share what they are writing about and supply information about the topic.
 - Art: k.AV.4.3- make informed judgments: discuss how and why they made a specific work of art

NGSS (Next Generation Science Standards)

D. Disciplinary Core Ideas

LS2: ecosystems: Interactions, Energy and Dynamics

- E. Science and Engineering Practices
 - 3.Planning and carrying out investigations.
- F. Crosscutting Concepts
 - 2. Cause and effect: Mechanism and explanation.

VI. ENGAGING CONTEXT: Hook- Launch activity

Why does a flamingo, a seal, a snake, an alligator, and a monkey live in a zoo?

VII. MEASURABLE OBJECTIVES

A. As student thinking drives this lesson, students can pursue their own inquiry: why do animals live at the zoo?

B. As the culminating activity of this PBL students will create a project or presentation that meets the objective of the Big idea.

VIII TOTAL TIME:

Launch event-Two: 1Class Periods of 45

minutes;

Showing Knowledge (Claims and Evidence) 6 minutes. They will have 6 minutes to present their animal and answer questions from students.

(Students develop and revise products and or performances)

IX. Social Skills and or Habits of Mind to Engage/Assess

[] Persistence	[] Problem posing
[] Decreasing impulsivity	[] Drawing on past knowledge
[] Empathic listening	[] Application to new situations
[] Flexibility in thinking	[] Precision of language and thought
[] Metacognitive awareness	
[] Checking for accuracy	[] Using all the senses
[] Questioning	[] Ingenuity, originality, insightfulness and creativity
	[] Inquisitiveness, curiosity
	[] Enjoyment of problem solving

IX. Level of Voice Appropriate for Activity: this activity they will present in a power voice. They will work on their own in a top secret mission voice.



X. BSCS 5-E Framework

Engage:

DIRECT INSTRUCTION: forming groups, assigning roles, describing roles and tasks

Materials Manager Make sure your team receives and uses the materials without dropping them:

question following Three Before ME go to another team to answer your question [or see what they have learned]

Make sure everybody in the group has a paper to write and draw after the presentations.

Spy Tasks: will go to these groups and preview their posters so they can help the team with what they are missing if anything.

Checker's Tasks - Make sure the time limits are observed. Help others complete their tasks. Let instructor know when your team has finished presenting their animal so the class can ask questions.

Recorder's Tasks: draw a picture of the other animals to remember a fact from that certain animal so they can share with the group. Wrote down questions to ask after the prevention and share with the group before asking a question.

Encourager/Observer's Task - Coach the team, be the energizer of the group. persevere and stay together while sharing and turn-taking. Notice, identify and record occurrence of team members' social skills and habits of mind. Make a list of who is paying attention while others are presenting, only the students from your group. (Observer records individual performance)

Checklists and Rubrics use Content Assessment (poster) use a speaking listening checklist to make sure all students are participating.

Explore: We will use our inquiry skills to answer the question, why do animals live in the zoo? Look at the presentations and come up with a reason as to why they can not live in a house or pet store.

5 groups of 5 students

Explain: As students complete the launch, inquiry, culminating activity they share what they learned about their animal and what else they will like to know so we can explore at another time.

Extend/Elaborate: In small groups and in the final performance students have opportunities to extend their knowledge and to elaborate on their ideas. When students ask questions of an animal and the student doesn't have the answer, the teacher will search and bring it up to help the group. The spy will go with the teacher to find out the answer.

XI. Materials List

iPads
Animal pictures
Name sticks
Skies learn QR codes
Paper and Pencil

Evaluate: (Assess):

There are several formative and summative ways to assess learning in this engaged learning PBL.

The first is in the individual assessment that shows students facts and pictures about an animal that was presented.

(Poster and visual presentations where students use Art to draw a visual that helps them to describe the animal and the fact also serves as an assessment

Content Summative Assessment:

Individual information detailing student learning takeaways from the Launch activity

Students will be able to learn about animals and how to research when eve they have questions. They work as. Team so they work on social skills at the same time.