

2nd PBL 1st Nine Weeks Plan

Grade: 2nd	Teacher: Allen, Cowart, Cromer, Dysart, McCollum	Dates: August - October
General Problem/Phenomenon: How can we provide enrichment activities for the chickens?		
Ongoing Question: How can we create a self-sustaining environment that would benefit our chickens?		

	Science	Social Studies	Math	Reading	Writing
Standards	S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction).		2.PAR.4 Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns. 2MDR.5 Estimate and measure the lengths and distances of objects		ELAGSE2W7 Participate in shared research in writing projects

Technology	Resources/Supplies Needed	STE(A)M Integration	Community Partnerships
3D Printer Tinker Cad iPad or Laptop Cart	STEM journals		K & T Farming

PBL Lesson Plans

DT Stage	DTP Plan
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Ask	Timeframe: 1 week Probing Questions: What problems have you noticed with the chickens? Progression of Tasks: • Begin with a reminder of the vocabulary push and pull. • Table Discussion- What have we noticed about the chickens? Are there any problems? • Share with group- they are escaping. • Why might the chickens want to escape? They want different food, bored, play with other people • Begin whole group research into chicken enrichment. Looking at different ways we can enrich their lives. • They will decide if they want to design an item that requires a push or a pull. Resources: https://www.canva.com/design/DAGQY7XqjZo/M5EPgvpvXQLPqX-4hNZ91Jw/edit?ui=eyJlljp7lkEiOnRydWV9fQ https://www.thefarmerscupboard.com/blogs/chickens-poultry/best-chicken-coop-toys	Standards during this Stage <i>(insert language of standard):</i> S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction). ELAGSE2W7 Participate in shared research in writing projects
Imagine	Timeframe: 1 week Probing Questions: How can we help keep the chickens in the coop? Progression of Tasks: • Students will start imagining ideas in their journals for chicken enrichment. • They will discuss their ideas with a group and determine if they will require a push or a pull like they wanted. Resources: Journals https://www.canva.com/design/DAGQY7XqjZo/M5EPgvpvXQLPqX-4hNZ91Jw/edit?ui=eyJlljp7lkEiOnRydWV9fQ	Standards during this Stage <i>(insert language of standard):</i> S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction). ELAGSE2W7 Participate in shared research in writing projects
Plan	Timeframe: 2 weeks Probing Questions: How can we use the research and what we know about chickens to make a plan for how to keep them from trying to get out of their cage? Progression of Tasks: • Students will determine what kind of push/pull needed for their plan • Students will choose 1 idea to design a plan for chicken enrichment.	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction).

	Students will choose materials needed to create their project and determine how much is needed Resources: Tinker Cad Journals Supply bins	
Create	Timeframe: 4 weeks Probing Questions: What can I create to better enrich the chickens' lives? Progression of Tasks: - Create on Tinker Cad (Possibly 3D print) - Students can model using Play-Doh, magnet tiles, Legos, etc. Choose a few to print and test with chickens work in groups to design and print. could have toys to switch out Resources: Tinker Cad Journals Supply bins	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms.
Improve	Timeframe: 1 week Probing Questions: How can I improve upon my design to better promote a stimulating environment for the chickens? Progression of Tasks: - Monitor chicken behavior changes from different stimulation types - Monitor egg production rates - Plan changes needed from additional enrichment-based research - Make changes to original enrichment projects as needs arise from the chickens Resources: STEM journals iPad/computers Chicken Enrichment articles Graph for egg production monitoring	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms.

PBL 2nd Nine Weeks Plan

Grade: 2nd	Teacher: Allen, Cowart, Cromer, Dysart, McCollum	Dates: October - December
General Problem/Phenomenon: The coop is too small and getting washed out from the rain. The feeders are being polluted with hay and dirt.		
Driving Question: How can we create a self-sustaining environment that would benefit our chickens?		
Unit Question: How can we design a permanent coop to promote a more self-sustaining environment?		

	Science	Social Studies	Math	Reading	Writing
Standards	S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction).		2.PAR.4 Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns. 2MDR.5 Estimate and measure the lengths and distances of objects 2.MDR.5.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.		ELAGSE2W7 Participate in shared research in writing projects

Technology	Resources/Supplies Needed	STE(A)M Integration	Community Partnerships
IPad or Laptop Cart	STEM journals	How can we design a permanent coop to promote a more self-sustaining environment?	K & T Farming

PBL Lesson Plans

DT Stage	DTP Plan	
Ask	Timeframe: 1 week Probing Questions: What problems have you noticed with the chicken feeders and our water system? How can we change the chicken feeders and water system to make them more efficient?	Standards during this Stage <i>(insert language of standard):</i> S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction).

	How can you create and design a new chicken feeder that will be waterproof and hold more food? How is the coop affected by bad weather such as rain and storms? How are the chickens affected by the size of the coop? Progression of Tasks: • Observation of the chicken coop/feeder • Table Discussion- What have we noticed about the chicken feeders? How can we change the chicken feeders to make them more efficient? • How are the chickens affected by the size of the coop? Resources:	ELAGSE2W7 Participate in shared research in writing projects
Imagine	Timeframe: 1 week Probing Questions: How is the coop affected by bad weather such as rain and storms? How are the chickens affected by the size of the coop? Progression of Tasks: • Students will start imagining ideas for a permanent chicken coop. • They will discuss their ideas with a group and determine which design best meets the criteria. Resources: Journals https://www.canva.com/design/DAGQY7XqjZo/M5EPgvpvXQLPqX-4hNZ91Jw/edit?ui=eyJllip7IkEiOnRydWV9fQ	Standards during this Stage <i>(insert language of standard):</i> S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction). ELAGSE2W7 Participate in shared research in writing projects
Plan	Timeframe: 2 weeks Probing Questions: How is the coop affected by bad weather such as rain and storms? How are the chickens affected by the size of the coop? Progression of Tasks: • Students will measure the size of the current coop and estimate how much more space is needed to expand the coop. • Students will measure the new coop area and design a plan for the new coop and chicken run. • Students will choose materials needed to create their project and determine how much is needed Resources: Journals Rulers/Yardsticks	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. 2MDR.5 Estimate and measure the lengths and distances of objects

Create	Timeframe: 4 weeks Probing Questions: How are the chickens affected by the size of the coop? Progression of Tasks: - Students will collaborate with K and T Farming by sharing their designs for the coop. - Students will build a 3D diorama of their chicken coop design with their group. Resources: Journals Shoeboxes and other materials from the STEM room	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. 2.MDR.5.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.
Improve	Timeframe: 1 week Probing Questions: How can I improve upon my design to better accommodate the new feeder and watering system? Progression of Tasks: - Check placement measurements for the new coop - Check to see if egg production has been affected by the new size of the coop. Resources: STEM journals Graph for egg production monitoring	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. 2.MDR.5.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.

PBL 3rd Nine Weeks Plan

Grade: 2nd	Teacher: Allen, Cowart, Cromer, Dysart, McCollum	Dates: January-March
General Problem/Phenomenon: Life Cycle of a Chicken Driving Question: How can we create a self-sustaining environment that would benefit our chickens? Unit Question: What are the stages of the life cycle of a chicken?		

	Science	Social Studies	Math	Reading	Writing
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Standards	S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms.		2.PAR.4 Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns. 2MDR.5 Estimate and measure the lengths and distances of objects 2.MDR.5.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.	RI7: Explain how specific images (diagram, illustration, etc.) contribute to and clarify a text	ELAGSE2W2 Write informative texts in which students introduce a topic, use facts to develop points, and provide a concluding statement.
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Technology	Resources/Supplies Needed	STE(A)M Integration	Community Partnerships
Incubator	STEM journals Chicken Life Cycle Models		K & T Farming UGA Extension Office Stacy Gheesling

PBL Lesson Plans

DT Stage	DTP Plan	
Ask	Timeframe: January Probing Questions: What do you already know about chickens? Progression of Tasks: • Introduction of Chicken Life Cycle • UGA Extension Office Guest Speaker Resources: UGA	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. RI7: Explain how specific images (diagram, illustration, etc.) contribute to and clarify a text

Imagine	Timeframe: January/February Probing Questions: What changes do the eggs go through while in the incubator? Progression of Tasks: • Show students the chicken life cycle models • Show chicken life cycle posters • Have students draw the life cycle of a chicken in their STEM journals • Informational writing about life cycle of a chicken Resources: Incubator	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. ELAGSE2W2 Write informative texts in which students introduce a topic, use facts to develop points, and provide a concluding statement. 2.MDR.5.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.
Plan	Timeframe: February-March Probing Questions: What do we need to sustain an environment for the chicks indoors? Why is the coop not a suitable environment for the chicks in this stage of the cycle? Progression of Tasks: • Students/classes will determine what the chicks will need to survive before we can transfer them to the coop. Resources: Journals	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. 2.PAR.4 Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns. 2MDR.5 Estimate and measure the lengths and distances of objects 2.MDR.5.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.
Create	Timeframe: March Probing Questions: Progression of Tasks: • Students will observe and measure the chick's growth by recording their height and wingspan. • They will research and then create a coop in Minecraft that has everything the chick needs. Resources: STEM journals, rulers, data collection	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. 2.MDR.5.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.

Improve	Timeframe: End of March/April Probing Questions: As the chicks grow, what needs to be changed to accommodate their new stage of their life cycle? Progression of Tasks: Students will monitor chicken needs and determine when they are ready to go outside.	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. 2.MDR.5.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life. ELAGSE2W2 Write informative texts in which students introduce a topic, use facts to develop points, and provide a concluding statement.
	Resources: STEM journals	

PBL 4th Nine Weeks Plan

Grade: 2nd	Teacher: Allen, Cowart, Cromer, Dysart, McCollum	Dates: March - May
General Problem/Phenomenon: Life Cycle of a Chicken Driving Question: How can we create a self-sustaining environment that would benefit our chickens? Unit Question: What plants could we grow to help feed our chickens?		

	Science	Social Studies	Math	Reading	Writing
Standards	S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms.		2MDR.5 Estimate and measure the lengths and distances of objects 2.MDR.5.4 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life. 2.NR.3: Work with equal groups to gain foundations for multiplication through real-life, mathematical problems.	RI7: Explain how specific images (diagram, illustration, etc.) contribute to and clarify a text	ELAGSE2W2 Write informative texts in which students introduce a topic, use facts to develop points, and provide a concluding statement.

Technology	Resources/Supplies Needed	STE(A)M Integration	Community Partnerships
	STEM journals Herb Packets Planters Soil		K & T Farming UGA Extension Office Stacy Gheesling

PBL Lesson Plans

DT Stage	DTP Plan	
Ask	Timeframe: March- April Probing Questions: How can we expand the chicken's diet to where it is varied and nutritional? Progression of Tasks: - Research different plants/herbs that chickens can eat - Research when to grow the plants/herbs - Research the best environment Resources: Herbal Academy	Standards during this Stage <i>(insert language of standard):</i> S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. RI7: Explain how specific images (diagram, illustration, etc.) contribute to and clarify a text