



Park Hill School District

Building Successful Futures • Each Student • Every Day

Elementary Bridges Curriculum: Fourth and Fifth Grades

Scope and Sequence:

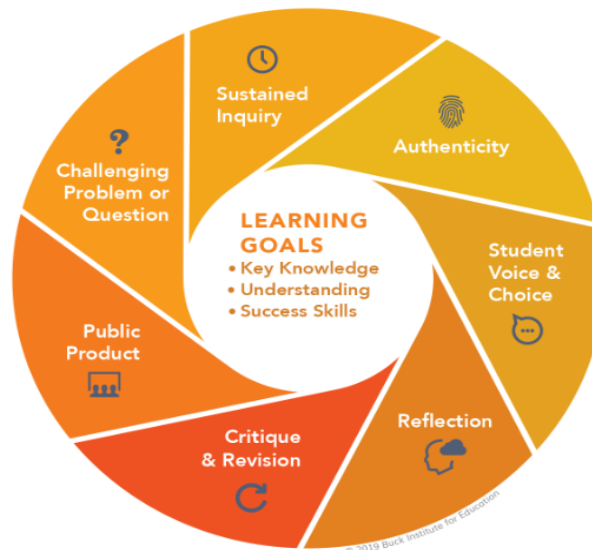
Unit	Instructional Topics
Sample Project-Based Learning Unit	Global Water Crisis • Launch Entry Event • Global Water Crisis • Tap v. Bottled Water • Water Impact on our Health • Water Filtration • Art for Water • Showcase Preparation

Instructional Framework

Project-Based Learning

Gold Standard PBL

Seven Essential Project Design Elements



Lesson

Teachers

- **Warm-Up:** Review of previous learning, the PBL Driving Question, and the day's Essential Questions. Engage students in new vocabulary they will encounter during the lesson.
- **Teaching Points:** Each Teaching Point will provide students with new knowledge they need to meet the goals of the challenging problem or question the students are tasked with during their sustained inquiry. These teaching points will include aspects of:
 - Creativity, critical thinking, communication and collaboration
 - Social and Emotional Learning
 - Design Thinking Process
- **Closure:** Revisit the day's Essential Questions and provide an opportunity for reflection about the day's learning and work.

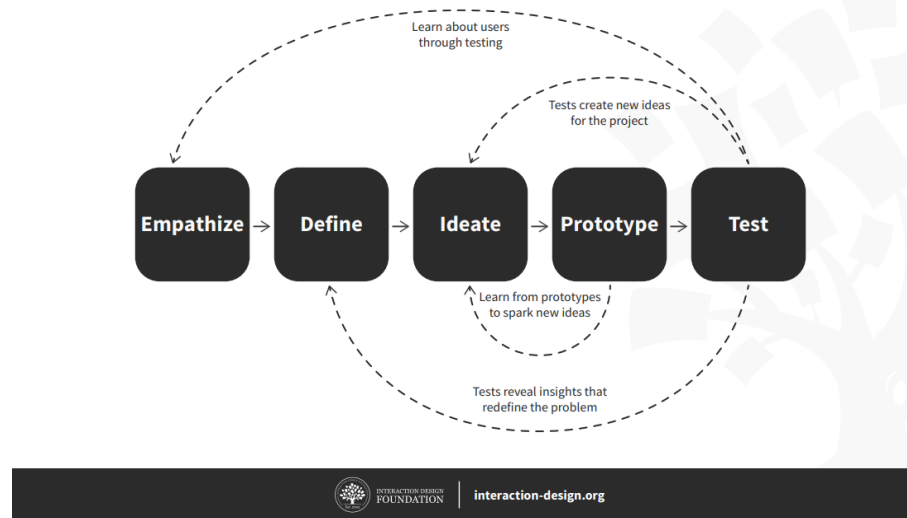
Students

- Display active listening skills.
- Take detailed notes using various note taking strategies.
- Share ideas through collaborative conversations.
- Work collaboratively with others to gain understanding of new concepts.

Application of Learning	
Students ● Utilize critical thinking, creativity, communication and collaboration skills through sustained inquiry. ● Research and take notes. ● Participate in authentic real-world applicable learning. ● Work on public products. ● Engage in the Design Thinking Process. ● Meet with Teacher. ● Collaborate with others. ● Give and receive feedback. ● Revise work based on feedback.	Teachers ● Provide opportunities for student voice and choice. ● Confer to check for understanding. ● Provide feedback and critique.
Reflection	
Students ● Through reflections, students will: ○ Summarize the work they did. ○ Describe the learning they did through the activities. ○ Summarize feedback they received and how they will use it. ○ Share their struggles and successes. ○ Provide images and uploads of artifacts that show their learning.	Teachers ● Evaluate the learning of the students. ● Confer to check for understanding and any misconceptions. ● Reteach concepts as needed for students to be successful.
Resources	
Students: ● Graphic organizers ● Curated digital resources ● Printed texts ● Online resources ○ Newsela, PebbleGo/PebbleGo Next, BrainPop Jr./BrainPop, etc	Teachers: ● Daily instructional slides ● Printable graphic organizers ● Curated digital resources ● Conferring notes ● Single Point Rubrics

Design Thinking

Design Thinking: A Non-Linear Process



Teachers

- **Warm-Up:** Introduce or revisit the steps of the Design Thinking Process. Engage students in any new vocabulary they will encounter during the lesson.
- **Teaching Points:** Each Teaching Point will provide students with new knowledge they need to meet the goals of the particular design challenge or question.
- **Closure:** Revisit the day's Essential Questions and provide a reflection opportunity about the day's learning.

Students

- Display active listening skills.
- Take detailed notes using various note taking strategies.
- Share ideas through collaborative conversations.
- Work collaboratively with others to gain understanding of new concepts.

Application of Learning

Students

- Engage in sustained inquiry.
- Empathize to gain knowledge and perspectives.
- Define to clarify the goal.
- Ideate to generate potential prototypes.
- Prototype to bring chosen idea to life.
- Test to receive feedback and plan next steps.

Teachers

- Provide inquiry-based Design Thinking questions, problems, or challenges.
- Facilitate the steps of the process.
- Provide opportunities for discussion, feedback, and reflection.
- Confer to check for understanding.

Reflection

Students

- Through reflections, students will:
 - Summarize the work they did.
 - Describe the learning they did through the activities.
 - Share their struggles and successes.
 - Provide images and uploads of artifacts that show their learning.

Teachers

- Evaluate the learning of the students.
- Confer to check for understanding and any misconceptions.
- Reteach concepts as needed for students to be successful.

Resources

Students:

- Design Thinking graphic organizer
- Makerspace materials, as need
- Curated digital resources

Teachers:

- Design Thinking instructional slides
- Printable graphic organizer
- Conferring notes
- Single Point Rubrics

Individualized Learning

Teachers

- The purpose of Individualized Learning time is to allow students the opportunity to explore topics of interest to them and to share their learning with others in a creative and meaningful way.

Students

- Apply the skills developed through Project Based Learning and the Design Thinking Process in order to learn about something new that is of interest to them.

Resources

Students:

- Note taking documents
- Printed texts
- Online resources
 - Newsela, PebbleGo/PebbleGo Next, BrainPop Jr./BrainPop, etc
- Digital creation tools
 - Canva, Google Suite, iMovie, etc.
- Makerspace materials, as need

Teachers:

- Learning Path templates to guide student work time
- Conferring notes
- Single Point Rubrics

Sample Project-Based Learning Unit: Global Water Crisis

Length of Unit: 1 semester

Overview of Unit: Fourth and fifth grade students will engage in authentic learning experiences to better understand the impact of the global water crisis while inspiring others to help with this humanitarian effort.

Standards for Unit:

4th Grade	5th Grade
Grade 4: <i>Critical Thinking:</i> • PS- I can reflect on learning experiences to identify successes and areas of growth. • SS- I can formulate thought-provoking questions. • SS- I can use my notes to summarize my learning. <i>Creativity:</i> • PS-Empathize: I can wonder and explore to increase my awareness of how others might feel, and what they might do and say. • SS-Ideate: I can look at the defined problem from different perspectives and generate an innovative solution. • SS-Prototype: I can use the most appropriate tools to help bring my idea to life. <i>Communication:</i> • PS- I can clearly and purposefully communicate my thinking. • SS- With support, I can listen respectfully to others to provide specific and constructive feedback. • SS- With support, I can receive feedback and respond appropriately. <i>Collaboration:</i> • PS- I can apply skills needed to work as a team. <i>Social & Emotional Learning:</i> • PS-Social-Awareness: I can understand the perspectives of others.	Grade 5: <i>Critical Thinking:</i> • PS- I can reflect on learning experiences for continuous improvement. • SS- I can use my notes to summarize learning and draw reasonable conclusions. • SS- I can reflect on my learning experiences for continuous improvement. <i>Creativity:</i> • PS-Empathize: I can wonder and explore to increase my awareness of how others might feel, and what they might do, say and think. • SS- Ideate: I can look at the defined problem from different perspectives and generate innovative solutions. • SS- Prototype: I can produce and investigate multiple prototypes to identify the best possible solution to the defined problem. <i>Communication:</i> • PS- I can clearly and purposefully communicate my thinking through both written and verbal expression. • SS- I can listen respectfully to others to provide specific and constructive feedback. • SS- I can receive feedback and respond appropriately. <i>Collaboration:</i> • PS- I can apply skills needed to work as a team. <i>Social & Emotional Learning:</i> • PS-Social-Awareness: I can demonstrate empathy and compassion.

Driving Question:

How can we, as humanitarians, gain and share knowledge about The Global Water Crisis?

Essential Questions:

- What challenges do people face around the world when it comes to basic needs?
- What is the Global Water Crisis?

- Should we consume tap or bottled water?
- How does water impact our health?
- How is our water filtered to ensure it is safe?
- How can contaminated water be filtered in developing countries that do not have water treatment plants?
- How can I design an innovative filter?
- How can we share our learning experience with others?

Unit Vocabulary:

- | | |
|----------------------------|--------------------------------------|
| • Empathy | • Epidemic |
| • Humanitarian | • Ethics |
| • Crisis | • Debate |
| • Global | • Affirmative/ Negative |
| • Water audit | • Rebuttal |
| • Infographic | • Filtration |
| • Tap water/ bottled water | • Clarity |
| • Consume | • SouthSudan, Africa |
| • Pros/cons | • The Lost Boys |
| • Opinion | • Fundraiser |
| • Scientific process | • Water for South Sudan organization |
| • Typhoid | • Professionalism |
| • Contagious | • Showcase |
| • Carrier | • Public audience |
| • Immune | |

Global Water Crisis

Engaging Experience 1

Title: Launch/Entry Event

Suggested Length of Time: 1 Session

Teaching Point: Today I will introduce our PBL to you. We will look carefully at our driving question, create a list of things we need to know, and go over the project information and rubric.

Detailed Description/Instructions:

The students will:

1. Complete a gallery walk and see-think-wonder of various images related to the Global Water Crisis.
2. Introduce the driving question and determine our need-to-knows for this unit. Need-to-knows include what we will need to learn and be able to do in order to meet the goal of the PBL.
3. Skim through project packets to find information about the project requirements and rubrics that will be used to guide learning through the PBL.
4. Read about water walks and then engage in a simulated water walk activity.
5. Reflect on their learning for the day.

Engaging Experience 2

Title: The Global Water Crisis

Suggested Length of Time: 1 Session

Teaching Point: Today we will explore the Global Water Crisis and share our learning with others in a creative way.

Detailed Description/Instructions:

The students will:

1. Review the driving question and need-to-knows, making additions and revisions as needed.
2. Discuss things they know and wonder about our vocabulary words.
3. Begin to learn about the Global Water Crisis using a variety of resources.
4. Create a One-Pager to showcase their new knowledge.
5. Reflect on their learning for the day.

Engaging Experience 3

Title: Tap v. Bottled Water

Suggested Length of Time: 1 Session

Teaching Point: Today we will research the pros and cons of tap and bottled water, conduct a taste test, and write a persuasive essay to convince others which option is the better one.

Detailed Description/Instructions:

The students will:

1. Review the driving question and need-to-knows, making additions and revisions as needed.
2. Discuss things they know and wonder about our vocabulary words.
3. Research and take notes about tap and bottled water.
4. Participate in a blind taste test to determine their opinion on the taste of tap versus bottled water.
5. Write a persuasive essay to convince others which is better to drink, tap or bottled water.
6. Reflect on their learning for the day.

Engaging Experience 4

Title: Water Impact on our Health

Suggested Length of Time: 3 Sessions

Teaching Point: Today we will learn about water borne illnesses and how they spread within communities.

Detailed Description/Instructions:

The students will:

1. Review the driving question and need-to-knows, making additions and revisions as needed.
2. Discuss things they know and wonder about our vocabulary words.
3. Learn about how the disease typhoid spread in the United States during the early 1900's.
4. Prepare for and participate in a debate about how the spread of the disease was handled.
5. Conduct an experiment about the spread of diseases and discuss what was discovered.
6. Reflect on their learning for the day.

Engaging Experience 5

Title: Water Filtration

Suggested Length of Time: 2 Sessions

Teaching Point: Today we will learn about water filtration and follow the Design Thinking Process to create an innovative water filtration system.

Detailed Description/Instructions:

The students will:

1. Review the driving question and need-to-knows, making additions and revisions as needed.
2. Discuss things they know and wonder about our vocabulary words.
3. Learn about the water treatment process happening in the United States.
4. Learn more about portable water filtration systems.
5. Follow the Design Thinking Process to create an innovative water filtration system.
6. Reflect on their learning for the day.

Engaging Experience 6

Title: Art for Water

Suggested Length of Time: 2 Sessions

Teaching Point: Today we will learn about how to help communities facing a water crisis and create a unique piece of African inspired art to give to our families.

Detailed Description/Instructions:

The students will:

1. Review the driving question and need-to-knows, making additions and revisions as needed.
2. Discuss things they know and wonder about our vocabulary words.
3. Review what we have learned about countries facing the water crisis.
4. Learn about the organization, Water for South Sudan, and how we can help them to bring clean, safe drinking water to the people of South Sudan, Africa.
5. Create African inspired paper bead necklaces to use as means to inspire families to help with the Global Water Crisis and Water for South Sudan.
6. Reflect on their learning for the day.

Engaging Experience 7

Title: Showcase Prep

Suggested Length of Time: 1 Session

Teaching Point: Today we will prepare and practice sharing our learning with others.

Detailed Description/Instructions:

The students will:

1. Review the driving question and need-to-knows, making additions and revisions as needed.
2. Discuss things they know and wonder about our vocabulary words.
3. Create a storyboard to plan out their showcase presentation.
4. Practice their showcase presentation.
5. Give and receive feedback about their presentations with a peer.
6. Reflect on their learning for the day.

Public Product

Showcase Night

Teaching Point: Students will present their learning through an interactive showcase evening with their families.

Suggested Length of Time: 1 Night

Detailed Description/Instructions:

The students will recreate the unit and walk their family through the various authentic learning experiences in which they engaged.

Interactive experiences include:

- Explanation of the driving question
- A water walk
- Presentation of innovative filtration designs
- Taste test of bottled and tap water
- Presentation of the story of Water for South Sudan

Summary of Engaging Learning Experiences for Topics

Topic	Engaging Experience Title	Description	Suggested Length of Time
Global Water Crisis	Launch/Entry Event	The students will: 1. Complete a gallery walk and see-think-wonder of various images related to the Global Water Crisis. 2. Introduce the driving question and determine our need-to-knows for this unit. Need-to-knows include what we will need to learn and be able to do in order to meet the goal of the PBL. 3. Skim through project packets to find information about the project requirements and rubrics that will be used to guide learning through the PBL. 4. Read about water walks and then engage in a simulated water walk activity. 5. Reflect on their learning for the day.	1 Session
Global Water Crisis	The Global Water Crisis	The students will: 1. Review the driving question and need-to-knows, making additions and revisions as needed. 2. Discuss things they know and wonder about our vocabulary words. 3. Begin to learn about the Global Water Crisis using a variety of resources. 4. Create a One-Pager to showcase their new knowledge. 5. Reflect on their learning for the day.	1 Session
Global Water Crisis	Tap v. Bottled Water	The students will: 1. Review the driving question and need-to-knows, making additions and revisions as needed. 2. Discuss things they know and wonder about our vocabulary words. 3. Research and take notes about tap and bottled water. 4. Participate in a blind taste test to determine their opinion on the taste of tap versus bottled water. 5. Write a persuasive essay to convince others which is better to drink, tap or bottled water. 6. Reflect on their learning for the day.	1 Session

Global Water Crisis	Water Impact on our Health	The students will: 1. Review the driving question and need-to-knows, making additions and revisions as needed. 2. Discuss things they know and wonder about our vocabulary words. 3. Learn about how the disease typhoid spread in the United States during the early 1900's. 4. Prepare for and participate in a debate about how the spread of the disease was handled. 5. Conduct an experiment about the spread of diseases and discuss what was discovered. 6. Reflect on their learning for the day.	3 Sessions
Global Water Crisis	Water Filtration	The students will: 1. Review the driving question and need-to-knows, making additions and revisions as needed. 2. Discuss things they know and wonder about our vocabulary words. 3. Learn about the water treatment process happening in the United States. 4. Learn more about portable water filtration systems. 5. Follow the Design Thinking Process to create an innovative water filtration system. 6. Reflect on their learning for the day.	2 Sessions
Global Water Crisis	Art for Water	The students will: 1. Review the driving question and need-to-knows, making additions and revisions as needed. 2. Discuss things they know and wonder about our vocabulary words. 3. Review what we have learned about countries facing the water crisis. 4. Learn about the organization, Water for South Sudan, and how we can help them to bring clean, safe drinking water to the people of South Sudan, Africa. 5. Create African inspired paper bead necklaces to use as means to inspire families to help with the Global Water Crisis and Water for South Sudan. 6. Reflect on their learning for the day.	2 Sessions

Global Water Crisis	Showcase Prep	The students will: 1. Review the driving question and need-to-knows, making additions and revisions as needed. 2. Discuss things they know and wonder about our vocabulary words. 3. Create a storyboard to plan out their showcase presentation. 4. Practice their showcase presentation. 5. Give and receive feedback about their presentations with a peer. 6. Reflect on their learning for the day.	1 Session
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Unit of Study Terminology

Big Ideas/Enduring Understandings: Foundational understandings teachers want students to be able to discover and state in their own words by the end of the unit of study. These are answers to the essential questions.

Engaging Experience: Each topic is broken into a list of engaging experiences for students. These experiences are aligned to priority and supporting standards, thus stating what students should be able to do. An example of an engaging experience is provided in the description, but a teacher has the autonomy to substitute one of their own that aligns to the level of rigor stated in the standards.

Engaging Scenario: This is a culminating activity in which students are given a role, situation, challenge, audience, and a product or performance is specified. Each unit contains an example of an engaging scenario, but a teacher has the ability to substitute with the same intent in mind.

Essential Questions: Engaging, open-ended questions that teachers can use to engage students in the learning.

Priority Standards: What every student should know and be able to do. These were chosen because of their necessity for success in the next course, the state assessment, and life.

Supporting Standards: Additional standards that support the learning within the unit.

Topic: These are the main teaching points for the unit. Units can have anywhere from one topic to many, depending on the depth of the unit.

Unit of Study: Series of learning experiences/related assessments based on designated priority standards and related supporting standards.

Unit Vocabulary: Words students will encounter within the unit that are essential to understanding. Academic Cross-Curricular words (also called Tier 2 words) are those that can be found in multiple content areas, not just this one. Content/Domain Specific vocabulary words are those found specifically within the content.