

Sustainable Jersey for Schools

Education for Sustainability UNIT Questionnaire

Complete this form to provide information about the unit that you are submitting for points under the Education for Sustainability (EfS) Integrated Unit action. **Be sure to fully answer Question 7** if the unit was delivered remotely and is to be considered for Digital Schools Star recognition.

1. List the name, position, grade level, and discipline of the educators and staff members involved with developing and delivering the unit.

This Unit for Second Grade, Living Things, Diversity of Life, was created by Project Lead the Way and is included in their curriculums for Second Grade. It was adapted to meet the Sustainability Standards by the STEM teachers, Lisa Roesch and Kelly Stone at the George L Catrambone School under the guidance of principal Jessica Alonzo and our supervisor Jenna Valdevieso to teach virtually during the current school year 2020-2021. Both teachers are K-5 STEM teachers and see all second-grade students weekly for 35 minutes. This unit was taught over the course of 14 weeks of school are reached 140 second grade students. Students will be evaluated at the end of the unit with a summative assessment which is included in the documentation. In addition, formative assessments are taken throughout the unit in the form of activities, observations, exit slips, work samples, and other such activities as stored digitally across platforms like, but not limited to google classroom and seesaw.

2. The unit must have taught about and assessed for at least **one** of the enduring understandings of education for sustainability listed below. Check off the enduring understanding(s) that the unit addressed:

☒ **A Healthy and Sustainable Future Is Possible**

We can learn how to live well within the means of nature. This viewpoint inspires and motivates people to act.

☐ **We Are All In This Together**

We are interdependent on each other and on the natural systems.

☐ **Healthy Systems Have Limits**

Rather than exceeding or ignoring the limits, tap the power of limits. Constraints drive creativity.

☒ **Recognize and Protect The Commons**

The Commons are the creations of nature and society that we inherit jointly and freely, and hold in trust for future generations. We all depend on them and we are all responsible for them.

☐ **Reconcile Individual Rights with Collective Responsibilities**

Responsible and ethical participation and leadership are required in order to make the changes we need to make. We must reconcile the conflicts that exist between our individual rights and our responsibilities as citizens.

☒ **Diversity Makes Our Lives Possible**

Diversity is required to support rich complex systems (like us), to build strength and to develop resilience in living systems. Biological diversity, cultural, gender, political and intergenerational diversity all serve this purpose.

☐ **Create Change at The Source Not the Symptom**

Distinguish problems from symptoms. Identify the most upstream problem within your sphere of influence.

_____ Think Far into the Future (1,000 Years)

Envision the kind of future we want and start working towards it. We should not sacrifice our children's future to meet our needs.

_____ Read the Feedback

We need to pay attention to the results of our behavior on the systems upon which we depend. If we keep our eyes on the feedback, we can adjust our thinking and behavior before we cross detrimental thresholds.

_____ It All Begins With a Change In Thinking

Thinking drives behavior and behavior causes results. As Einstein had observed, the significant problems we face cannot be solved with the same level of thinking we used to create them. Think systems, cycles and out of the box.

_____ Live By The Natural Laws

We must operate within the natural laws and principles rather than attempt to overcome them. It is nonnegotiable.

_____ We Are All Responsible

Everything we do and everything we don't do make a difference.

3. Describe the process for integrating sustainability enduring understandings checked off above into the unit plan.

In this module, students learn about biodiversity, the diversity of life in habitats. Students observe different habitats and the living things that grow in the different environments. They engage in different scenarios to learn the importance of having many different organisms in a habitat and how diversity is required to support these systems. Living things are impacted negatively when there is a lack of diversity. From these students will gain an understanding of not only how to live within nature but how to protect the world we live in by their choices. They will learn their connection to the natural world and how we are a part of the habitat there for responsible for caring for it and living within the means.

After students establish an understanding of the importance of biodiversity, they focus on plants. They investigate how much water and sunlight plants need to grow in an environment. Incorporating the knowledge and skills gained throughout the module, they use the design process to design a planter garden to grow in a specific environment.

4. Provide samples of exemplary student work that meet and/or exceed expectations from the summative assessment and the accompanying performance criteria. *(Either provide a link to the sample work on a shared drive or website, paste a picture of the sample into this document, or upload the sample as a separate file on the action submission page.)*

Exemplary work samples are included within the documentation.

5. Provide copies and explanation of assessment tools. *(Either provide a link to the assessment tools on a shared drive or website, paste a picture of the tool into this document, or upload the tool as a separate file on the action submission page.)*

Assessment samples are included within the documentation.

6. Teacher reflections on the unit's effectiveness: How did the attributes of education for sustainability that you selected add value to this unit?

The unit Living Things, Diversity of Life is so rich with lessons and concepts that align with the education for sustainability standards. Students were and are fully engaged in learning about the diversity of living things on our planet and ways in which they can support and defend these living things. Learning about habitats and the diversity we see in each led to so many positive and effective discussions where students gained understandings of their role in ensuring that the diversity of habitat and other habitats remain. From rich literature to sorting, developing food chains, planting experiments and many other activities students have been immersed in learning how to care for and protect the natural world. Their understanding of their unique roles in the survival of our planet is slowly emerging.

7. **For Remote Digital Units Only:** To apply points for a remotely delivered unit towards *Digital Schools Star* recognition, answer the questions below to describe how your unit was adapted to be most effective for a remote digital or hybrid learning environment:

- a. Describe the timing and sequence of the synchronous and asynchronous elements of the unit and how they are coordinated. *(For example: Did students have opportunities to review learning materials – such as videos, documents, webpages – on-demand on their own time to enhance live class discussions?)*

All learning, lessons, and activities were delivered in a hybrid setting with some students in school and the majority at home. All material was presented and discussed each week virtually through synchronous and asynchronous elements. Each week students met virtually (Both in and out of school) to discuss and learn about the topics addressed. Assignments were posted on virtual platforms for students to engage in during class and on their own time. Those students who were not able to engage in virtual meets each week were provided the videos, lesson, activities, literature and other materials electronically through platforms like seesaw, class dojo, google classroom, and nearpod. Multiple platforms were used to allow students to build comfort and ability through multiple learning experiences and reach all learners and their families. This unique way of presenting allowed families to get involved in lessons and participate in the learning process. Students played games that doubled as quizzes and completed assignments demonstrating what they learned through drawings, projects, and problem solving in a virtual atmosphere. While students had the ability to demonstrate and add to their tech savviness, teachers grew in their pedagogy and ability to present at teach in diverse engaging and unique ways.

- b. Describe the interactive elements to engage students in the unit and to give them the opportunity to demonstrate their learning. *(For example: Did students have break out rooms*

for peer to peer discussions? Were chats enabled? Were digital whiteboards shared or other collaborative spaces used?)

Throughout the module, students participated in lessons that included multiple ways and opportunities to demonstrate their learning. Sessions were offered in zoom weekly, during which students completed assignments through the google classroom using tools like google docs, google slides, and google draw. Students heard virtually read books, sometimes by the author of the story. Digital white boards were used to present and for class discussions and projects. Chats were enabled to ask and answer questions and for feedback. Students engaged in group discussions through platforms like google jamboards. Using the seesaw platform, students were able to participate in and submit assignments practicing what they learned through drawing, typing, writing and recordings. They videoed themselves completing projects, sent digital pictures of their work and showed many unique and exciting ways to demonstrate their understanding of topics and materials presented in addition to speaking and participating during class. The addition of the digital tools made it possible for students not only to participate after class hours and at times conducive to their schedules, but offered our reluctant learners the opportunity to participate in a safe, sheltered, and comfortable environment from their own homes. In addition, they were also able to work with the support of their families.

c. Describe the methods and tools used to assess student performance.

With the young age of our students, a large portion of our formative assessment was taken through observation and participation in synchronous and asynchronous activities. Their classwork was submitted and reviewed through Google Classroom and Seesaw for teachers to review and provide written and recorded feedback. Students were assessed through these activities, videos, recordings, photos, work samples, class participation in live sessions and submitted work. Students are assessed through the completion of projects in multiples ways using a rubric that is attached. Their summative assessment was provided virtually for students to complete through a word doc. They were able to add pictures, drawings, recordings, or videos to answer and complete questions. It was also shared in multiple ways so as to reach and offer the broadest range of acceptable ways to complete the assignment.

Established Standards/ Goals/Practices	Desired Results (Stage 1)
<p>For full details, see the <i>Connections to Standards</i> page in the <i>Teacher Guide</i>.</p> <p>Next Generation Science Standards</p> <p><u>Science and Engineering Practices</u></p> <ul style="list-style-type: none"> Asking Questions and Defining Problems Developing and Using Models Planning and Carrying Out Investigations Analyzing and Interpreting Data Constructing Explanations and Developing Solutions Engaging in Argument from Evidence Obtaining, Evaluating, and Communicating Information 	<p>Transfers: Students will be able to independently use their learning to...</p> <ul style="list-style-type: none"> T1: Evaluate a problem in a new and novel situation. T2: Apply a step-by-step design process to solve a problem. T3: Explore how diversity is essential to the survival of plants and animals. T4: Consider what plants need in order to grow.
<p>Essential Questions: Students will keep considering...</p> <ul style="list-style-type: none"> EQ1: How do scientists learn about the world? EQ2: How do diverse habitats meet the needs of organisms? EQ3: How can a step-by-step process help you design or improve a solution to a problem? 	
Meaning	Acquisition
<p>Understandings</p> <p>Understandings are long-term takeaways that go beyond factual knowledge into broader and more conceptual comprehensions.</p> <p>"Students will understand that..."</p>	<p>Learning Objectives</p> <p>Objectives articulate what students need to be able to do. (The learning objectives will become targets of assessment.)</p> <p>"Students will be able to..."</p>
<p>U1: Science and Engineering Practices</p> <p>Scientists and engineers use standard practices to explain the world or solve problems.</p>	<p>Knowledge and Skills</p> <p>Knowledge and skills include the essential facts and basic concepts that a student should know and be able to do to perform the competency.</p> <p>"It is expected that students will..."</p> <p>KS1.1.1: Define a simple design problem reflecting a need or a want.</p> <p>KS1.1.2: Brainstorm possible solutions to the problem.</p> <p>KS1.1.3: Make and use a model to test a design or aspects of a design, and to compare the effectiveness of different design solutions.</p>

Established Standards/ Goals/Practices	Meaning	Acquisition	
	Understandings	Learning Objectives	Knowledge and Skills
<u>Disciplinary Core Ideas</u> <ul style="list-style-type: none"> Interdependent Relationships in Ecosystems Biodiversity and Humans Engineering Design <u>Crosscutting Concepts</u> <ul style="list-style-type: none"> Cause and Effect <u>Connection</u> <ul style="list-style-type: none"> Scientific Knowledge is Based on Empirical Evidence 		O1.2: Use scientific reasoning to ask questions, make observations, and investigate ideas to make sense of phenomena and solve problems.	KS1.1.4: Evaluate a model solution through observations and/or measurements and consider what revisions to the initial model are needed. KS1.2.1: Ask and identify questions to gain knowledge or solve problems. KS1.2.2: Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. KS1.2.3: Make observations to draw conclusions of phenomena. KS1.2.4: Analyze data to look for patterns or to test whether data are consistent with an initial prediction.
<u>Common Core English Language Arts</u> <ul style="list-style-type: none"> Writing <u>Common Core Mathematics</u> <ul style="list-style-type: none"> Mathematical Practices Measurement and Data <u>CSTA K-12 Computer Science Standards</u> <ul style="list-style-type: none"> Data and Analysis 	U2: Biodiversity Different habitats contain different kinds of plant and animal life.	O2: Describe the diversity or difference of living things on Earth.	KS2.1: Recognize that a habitat is the home or environment in which a plant or animal lives. KS2.2: Identify similarities and differences between living things in different habitats. KS2.3: Identify the importance of diversity within a habitat. KS2.4: Observe and describe different types of organisms in a local habitat.

Established Standards/ Goals/Practices	Meaning Understandings	Acquisition	
		Learning Objectives	Knowledge and Skills
	U3 Plants Plants have needs that they must meet in order to survive.	O3: Investigate what plants need to live and grow.	KS3.1: Plan and conduct an investigation to determine what plants need to grow. KS3.2: Identify that plants need sunlight and water to grow. KS3.3: Support an argument, with evidence, of what plants need to live and grow. KS3.4: Recognize that different plants need varying amounts of sunlight and water.
	U4: Mathematical Thinking Mathematical thinkers apply complex thinking and reasoning strategies where thinking is intentional and reflected upon.	O4.1: Apply mathematical thinking to solve problems. O4.2: Apply measurement to solve problems.	KS4.1.1: Reason abstractly and quantitatively. [CCSS.MATH.PRACTICE.MP2] KS4.1.2: Model with mathematics. [CCSS.MATH.PRACTICE.MP4] KS4.1.3: Use appropriate tools strategically. [CCSS.MATH.PRACTICE.MP5] KS4.2.1: Measure the length of an object using appropriate tools. [CCSS.MATH.2.MD.A.1] KS4.2.2: Estimate the length of an object. [CCSS.MATH.2.MD.A.3] KS4.2.3: Measure to determine how much longer one object is than another. [CCSS.MATH.2.MD.A.4]

Established Standards/ Goals/Practices	Meaning		Acquisition	
	Understandings	Learning Objectives	Knowledge and Skills	
			KS4.2.4: Make repeated measurements of the same object. [CCSS.MATH.2.MD.D.9]	
		O4.3 Represent and interpret data to solve problems.	KS4.3.1: Draw a bar graph to represent a data set. [CCSS.MATH.2.MD.D.10]	
	U5: Collaboration Professionals function effectively and efficiently on multidisciplinary teams to be successful.	O5: Collaborate effectively on a diverse and multidisciplinary team.	KS5.1: Generate ideas as a team.	
			KS5.2: Value the contributions of each team member.	
			KS5.3: Demonstrate collaboration through effective communication.	
	U6: Communication Professionals communicate effectively with a variety of audiences using multiple modalities to be successful.	O6: Communicate effectively for specific purposes and settings.	KS6.1: Document work in an organized notebook.	
			KS6.2: Explain findings and justify evidence-based conclusions with others.	
	U7: Ethics Professionals conduct themselves so as to maximize benefits for society and minimize harm.	O7: Practice ethical behavior in all settings.	KS6.3: Present data and information accurately and effectively.	
			KS7.1: Engage in and maintain positive interactions and relationships with other children and adults.	

Evidence (Stage 2)		
Activity, Project, Problem (APB)	Show evidence of the student's ability to...	Assessment opportunities include...
Introduction Story <i>A Green Thumb</i>		<ul style="list-style-type: none"> Interpreting essential concepts through formative assessment <ul style="list-style-type: none"> Discussion
Activity 1 Habitats	LO1.2 LO2 LO5 LO6 LO7	<ul style="list-style-type: none"> Interpreting essential concepts through formative assessment <ul style="list-style-type: none"> PLTW Launch Log Discussion Reflecting on essential questions and conclusion questions through guided discussion
Activity 2 The Importance of Diversity	LO1.2 LO2 LO5 LO6 LO7	<ul style="list-style-type: none"> Interpreting essential concepts through formative assessment <ul style="list-style-type: none"> PLTW Launch Log Discussion Reflecting on essential questions and conclusion questions through guided discussion

Learning Plan (Stage 3)		
APB Description		Knowledge and Skills
Introduction Story The design challenge to design and plan a planter garden to grow in a specific environment is introduced.		
Activity 1 Students learn about the <i>characteristics of living things</i> . Students activate their prior knowledge of <i>habitats</i> . They are presented with pictures of <i>habitats</i> and identify the different living things in each habitat, compare and contrast the different living things within the habitat, and describe the <i>characteristics</i> of their habitat. Students engage in an interactive experience where they observe pictures of living things and determine which habitat they live in. Students match each living thing with the habitat they think is most appropriate and explain their reasoning.		KS1.2.1 KS6.1 KS1.2.4 KS6.2 KS2.1 KS6.3 KS2.2 KS7.1 KS5.3
Activity 2 Students continue building their knowledge of the importance of <i>biodiversity</i> . They explore the interdependence of <i>living things</i> within a <i>habitat</i> . Students observe the effect of how the removal of one <i>organism</i> affects other organisms in the habitat. This helps them understand why diversity of life within a habitat is important.		KS1.2.3 KS5.3 KS1.2.4 KS6.1 KS2.1 KS6.2 KS2.3 KS7.1

Evidence (Stage 2)		
Activity, Project, Problem (APB)	Show evidence of the student's ability to...	Assessment opportunities include...
Activity 3 Exploring a Local Habitat	LO1.2 LO2 LO5 LO6 LO7	<ul style="list-style-type: none"> • Interpreting essential concepts through formative assessment <ul style="list-style-type: none"> • PLTW Launch Log • Discussion • Reflecting on essential questions and conclusion questions through guided discussion
Project Will Plants Grow?	LO1.2 LO3 LO4.1 LO4.2 LO4.3 LO5 LO6 LO7	<ul style="list-style-type: none"> • Interpreting essential concepts through formative assessment <ul style="list-style-type: none"> • PLTW Launch Log • Discussion • Reflecting on essential questions and conclusion questions through guided discussion

Learning Plan (Stage 3)		
APB Description		Knowledge and Skills
Activity 3 Students apply their knowledge of living things and <i>habitats</i> as they explore the <i>organisms</i> found within a local habitat. First, students discuss which plants and animals may be found in the area where their school is located. Then, they complete an outdoor walk as a class while documenting their observations of the living things they see using a camera and their PLTW Launch Logs. Afterward, students create a presentation using a digital device to represent the biodiversity of a local habitat. They make claims about the biodiversity they observed, as well as what the living things need to survive. Students describe <i>patterns</i> they noticed along their walk.		KS1.2.3 KS5.2 KS1.2.4 KS5.3 KS2.1 KS6.1 KS2.2 KS6.2 KS2.3 KS6.3 KS2.4 KS7.1
Project Students are posed the question, "Do plants need water and sunlight to grow?" They are asked how they, as <i>scientists</i> , can answer that question with <i>evidence</i> . Students are guided through the <i>scientific inquiry process</i> in small groups, where each group is responsible for testing two <i>variables</i> —sunlight and water—to observe their effect on plant growth. Students complete their investigation as they make <i>observations</i> , measure plant growth, create a bar graph of the growth results, and draw conclusions about the effects of sunlight and water on plant growth. The concept that scientists use evidence to answer questions is reinforced as students answer the question presented at the beginning of the project with data from their investigation.		KS1.2.1 KS4.2.2 KS1.2.2 KS4.2.3 KS1.2.3 KS4.2.4 KS1.2.4 KS4.3.1 KS3.1 KS5.1 KS3.2 KS5.2 KS3.3 KS5.3 KS4.1.1 KS6.1 KS4.1.2 KS6.2 KS4.1.3 KS6.3 KS4.2.1 KS7.1

Evidence (Stage 2)		
Activity, Project, Problem (APB)	Show evidence of the student's ability to ...	Assessment opportunities include...
Problem Design a Garden	LO1.1 LO2 LO3 LO5 LO6 LO7	<ul style="list-style-type: none"> • Interpreting essential concepts through formative assessment <ul style="list-style-type: none"> • PLTW Launch Log • Discussion • With guidance, demonstrate an understanding of the design process • Interpreting essential concepts through summative assessment <ul style="list-style-type: none"> • Design and plan for a planter garden • Reflecting on essential questions and conclusion questions through guided discussion

Learning Plan (Stage 3)		
APB Description		Knowledge and Skills
Problem Students demonstrate the knowledge and skills they have developed to design and plan for a planter garden of their choice—indoors, outdoors in the sun, or outdoors in the shade. After determining the location of the planter garden, students use the <i>design process</i> to evaluate different plants, choosing the best plants for the garden depending on where the planter will be located. Then, they create labeled sketches of their garden design plan, and plant and care for their planter garden to identify its strengths and weaknesses.		KS1.1.1 KS3.4 KS1.1.2 KS5.1 KS1.1.3 KS5.2 KS1.1.4 KS5.3 KS2.1 KS6.1 KS2.2 KS6.2 KS2.3 KS6.3 KS3.2 KS7.1

Connections to Standards

PLTW programs are designed to empower students to thrive in an evolving world. As a part of this process, we take connections to standards into account when developing and updating our curriculum. The PLTW Launch modules address standards from the following:

- Next Generation Science Standards (NGSS)
- Common Core State Standards (CCSS) in English/Language Arts (ELA) and Mathematics
- Computer Science Teachers Association (CSTA) K-12 Computer Science Standards

This document lists the standards identified from each of these sources that apply to the Living Things: Diversity of Life module.

Next Generation Science Standards

Performance Expectations

- 2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow.
- 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.
- K-2-ETS1-1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- K-2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
- K-2-ETS1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

Science and Engineering Practices

- Asking Questions and Defining Problems. Asking questions and defining problems in K–2 builds on prior experiences and progresses to simple descriptive questions.
- Developing and Using Models. Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.
- Planning and Carrying Out Investigations. Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and

progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.

- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question.
 - Make observations (firsthand or from media) to collect data which can be used to make comparisons.
- **Analyzing and Interpreting Data.** Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.
- **Constructing Explanations and Designing Solutions.** Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and in designing solutions.
- **Engaging in Argument from Evidence.** Engaging in argument from evidence in K–2 builds on prior experiences and progresses to comparing ideas and representations about the natural and designed world(s).
- **Obtaining, Evaluating, and Communicating Information.** Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.

Disciplinary Core Ideas

- **LS2.A Interdependent Relationships in Ecosystems:** Plants depend on water and light to grow.
- **LS4.D Biodiversity and Humans:** There are many different kinds of living things in any area, and they exist in different places on land and in water.
- **ETS1.A: Defining and Delimiting an Engineering Problem.** Asking questions, making observations, and gathering information are helpful in thinking about problems.
- **ETS1.B: Developing Possible Solutions.** Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people.
- **ETS1.C: Optimizing the Design Solution.** Because there is always more than one possible solution to a problem, it is useful to compare and test designs.

Crosscutting Concepts

- **Cause and Effect.** Events have causes that generate observable patterns.

Connection to Nature of Science

- **Scientific Knowledge is Based on Empirical Evidence.** Scientists look for patterns and order when making observations about the world.

Common Core State Standards ELA and Mathematics

English Language Arts

- CCSS.ELA-LITERACY.W.2.7 Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).
- CCSS.ELA-LITERACY.W.2.8 Recall information from experiences or gather information from provided sources to answer a question.

Mathematics

- CCSS.MATH.PRACTICE.MP2 Reason abstractly and quantitatively.
- CCSS.MATH.PRACTICE.MP4 Model with mathematics.
- CCSS.MATH.PRACTICE.MP5 Use appropriate tools strategically.
- CCSS.MATH.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tape.
- CCSS.MATH.2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.
- CCSS.MATH.2.MD.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
- CCSS.MATH.2.MD.D.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
- CCSS.MATH.2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

CSTA K-12 Computer Science Standards

- 1A-DA-07 Identify and describe patterns in data visualizations, such as charts or graphs, to make predictions.

Sources

Computer Science Teachers Association. (2017). *CSTA K-12 Computer Science Standards, revised 2017*. Retrieved October 8, 2019 from <http://www.csteachers.org/standards>

National Governors Association Center for Best Practices, & Council of Chief State School Officers. (2010). *Common Core State Standards*. Washington, DC: National Governors Association Center for Best Practices, Council of Chief State School Officers.

NGSS Lead States. (2013). *Next Generation Science Standards: For states by states*. Washington, DC: The National Academies Press.



Living Things: Diversity of Life: End-of-Module Summative Assessment

	Basic	Proficient	Advanced
Criteria	A student who has reached the highest achievement of the Basic level should be able to do the following:	A student who has just reached the Proficient level should be able to do the following:	A student who has just reached the Advanced level should be able to do the following:
Science and Engineering Practices O1.1 – Follow a step-by-step method to solve a problem.	With support, student follows some steps of the design process as they design, create, and test a model.	With support, student follows all steps of the design process as they design, create, and test a model.	Student independently follows the design process as they design, create, and test a model.
Plants O3.1 – Investigate what plants need to live and grow.	With support, student designs and plans for a planter garden for a location—indoors, outdoors in the sun, or outdoors in the shade. Student attempts to provide evidence as to the amount of sunlight and water their plants need to grow in the chosen location.	Student designs and plans for a planter garden appropriate for a location—indoors, outdoors in the sun, or outdoors in the shade. With support, student provides evidence as to the amount of sunlight and water their plants need to grow in the chosen location.	Student designs and plans for a planter garden appropriate for a location—indoors, outdoors in the sun, or outdoors in the shade. Student independently provides evidence as to the amount of sunlight and water their plants need to grow in the chosen location.
Collaboration O5 – Collaborate effectively on a diverse and multidisciplinary team.	Student participates most of the time and shares ideas with others. Student demonstrates flexibility in thinking and behavior some of the time.	Student fully participates and shares their ideas with their group, while valuing the contribution of team members. Student demonstrates flexibility in thinking and behavior most of the time.	Student fully participates and shares their ideas with their group, while valuing the contributions of team members. Student models and encourages others to demonstrate flexibility in thinking and behavior.
Communication O6 – Communicate effectively for specific purposes and settings.	With support, student accurately describes findings from the Problem. Student attempts to use the Launch Log to communicate their thinking.	Student accurately and effectively describes findings from the Problem. Student uses the Launch Log to communicate their thinking.	Student justifies findings from the Problem with evidence-based conclusions. Student uses the Launch Log to communicate their thinking.
Ethics O7 – Practice ethical behavior in all settings.	With support, student engages in positive interactions and relationships with other children some of the time.	With support, student engages in and maintains positive interactions and relationships with other children. Student is kind and respectful when they disagree.	Student independently engages in and maintains positive interactions and relationships with other children. Student is kind and respectful when they disagree.



Living Things: Diversity of Life

Check for Understanding

1. Give an example of an organism and its habitat. Explain how the habitat meets the needs of the organism.

2. Why is biodiversity important?

3. Look at the picture of the wetland habitat. Describe the biodiversity of the habitat.



4. What do plants need in order to grow? Use evidence from the module to explain.

What would happen if there were only a few kinds of plants and animals in a habitat?

Copied from our Zoom Chat

From lexi to Everyone: 09:14 AM than we willl not get air

From lake bergman to Everyone: 09:14 AM we not get A I R

From lexi to Everyone: 09:14 AM or homes

From Ethan to Me: (Direct Message) 09:14 AM les air and no huny

From ETHAN M to Everyone: 09:15 AM whll we ware mit not srvr viv becos there onle 4 tres

From lake bergman to Everyone: 09:15 AM then we have to live outside

From Leyanne to Me: (Direct Message) 09:15 AM there wont have lots of animals or water

From Harmonee to Everyone: 09:15 AM nooo

From Rebecca to Everyone: 09:15 AM long branch would be a gost town

From Harmonee to Everyone: 09:15 AM we can get mony

From Jusani to Everyone: 09:16 AM bad and breathe

From Arthrur to Everyone: 09:16 AM we will be dead

From Harmonee to Everyone: 09:16 AM but

From Harmonee to Everyone: 09:16 AM are mom and dad can give us mony

From lexi to Everyone: 09:17 AM nothing

From veniece to Everyone: 09:17 AM we would not have anough nature

From Jusani to Everyone: 09:17 AM make honey

From Kelsey Rosas Montes to Everyone: 09:17 AM long branch will stay whitout plants

After Reading the book Many The Diversity of Life on Earth by Nicola Davies

How do we protect the planet from counting down. How do we keep it counting up and protect our world?

From ETHAN M to Everyone: 09:23 AM biy having a whare

From Leyanne to Everyone: 09:23 AM we clean up the mess

From JONATHAN to Everyone: 09:23 AM recycle

From Harmonee to Everyone: 09:23 AM you solllllll in the book

From ETHAN M to Everyone: 09:23 AM biy having a whor les plastic

From Harmonee to Everyone: 09:24 AM we help

From Leyanne to Me: (Direct Message) 09:24 AM clean the mess up

From veniece to Everyone: 09:24 AM stop cuting down trees and eating fish and make animals safe

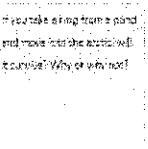
From Harmonee to Everyone: 09:24 AM we clean

From Kelsey Rosas Montes to Everyone: 09:24 AM to letting trees grow

From Harmonee to Everyone: 09:24 AM and warter in the plans

Lessons Taught with Activities in SeeSaw / Google Classroom / Nearpod Jamboards

This module was taught to all 8 second grade classes in GLC reaching 139 second grade students in the grade level at GLC.



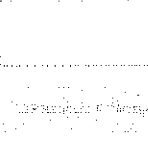
Habitats Follow Up

1. If you take a frog from a pond and move it to the arctic will it survive? Why or why not?

Answered 1/20/2021 12:45 AM

Answered 1/20/2021 12:45 AM

Answered 1/20/2021 12:45 AM



Diversity of Life

1. Give a reason why each of the many kinds of organisms live.

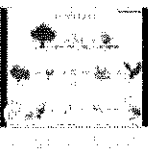
2. Give a reason why each of the many different kinds of animals live.

3. Give a reason why each plant lives.

Answered 1/20/2021 12:45 AM

Answered 1/20/2021 12:45 AM

Answered 1/20/2021 12:45 AM



Food Chains

1. List the food chain from the most to the least.

2. Explain why it is important to have a food chain in the world.

3. Explain why it is important to have a food chain in the world.

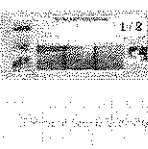
4. Explain why it is important to have a food chain in the world.

5. Explain why it is important to have a food chain in the world.

Answered 1/20/2021 12:45 AM

Answered 1/20/2021 12:45 AM

Answered 1/20/2021 12:45 AM



Habitat Matching

1. Give a reason why each of the many kinds of organisms live.

2. Give a reason why each of the many different kinds of animals live.

3. Give a reason why each plant lives.

Answered 1/20/2021 12:45 AM

Answered 1/20/2021 12:45 AM

Answered 1/20/2021 12:45 AM

In response to Habitats Follow Up

If you take a frog from a pond and move it to the arctic, will it survive? Why or why not?

It won't survive because it is in a cold place and it does not have a lot of food.

a feature of a sloth that helps it survive in its habitat. Explain how it helps.

they live in the rainforest because they have leaves and grass and lot of water



My Favorite Habitat

1. Write the **habitat** you like best.
2. Draw a picture of the habitat you like best.
3. Write a sentence about the habitat.
4. Draw the **animals** that live in the habitat.
5. Write a sentence about the animals.

1. I like the **habitat** of the **habitat**.

2. I like the **habitat** of the **habitat**.

3. I like the **habitat** of the **habitat**.

Habitats

1. Write the **habitat** you like best.
2. Draw a picture of the habitat you like best.
3. Write a sentence about the habitat.
4. Draw the **animals** that live in the habitat.
5. Write a sentence about the animals.

1. I like the **habitat** of the **habitat**.

2. I like the **habitat** of the **habitat**.

3. I like the **habitat** of the **habitat**.

What is a Green Thumb?

1. Write the **green thumb** you like best.
2. Draw a picture of the green thumb you like best.
3. Write a sentence about the green thumb.
4. Draw the **plants** that grow in the green thumb.
5. Write a sentence about the plants.

1. I like the **green thumb** of the **green thumb**.

What is a Green Thumb?

1. Write the **green thumb** you like best.
2. Draw a picture of the green thumb you like best.
3. Write a sentence about the green thumb.
4. Draw the **plants** that grow in the green thumb.
5. Write a sentence about the plants.

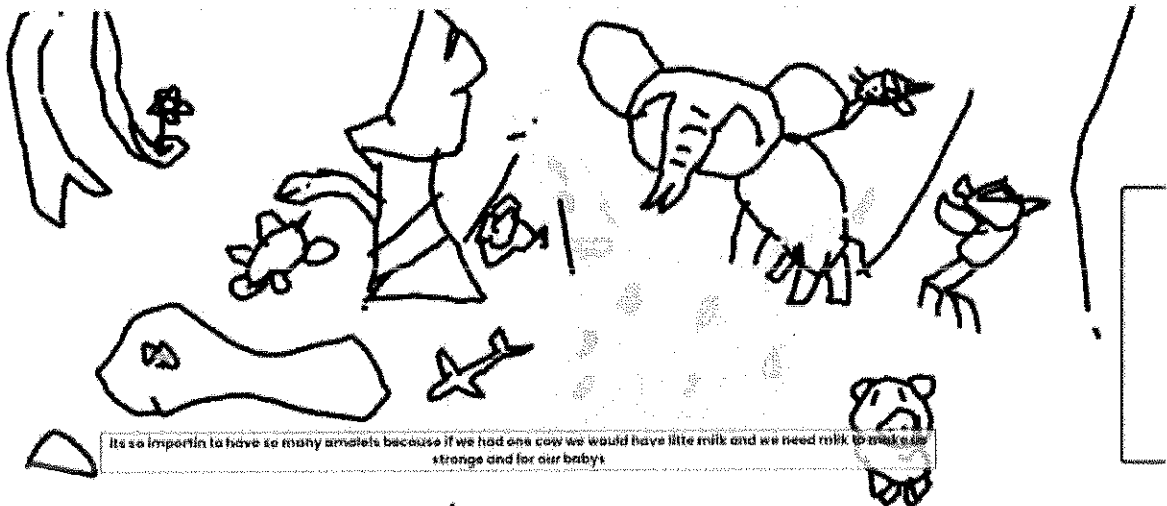
1. I like the **green thumb** of the **green thumb**.

2. I like the **green thumb** of the **green thumb**.

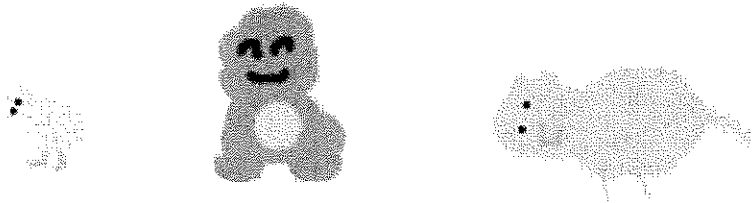
3. I like the **green thumb** of the **green thumb**.

Student Work Samples

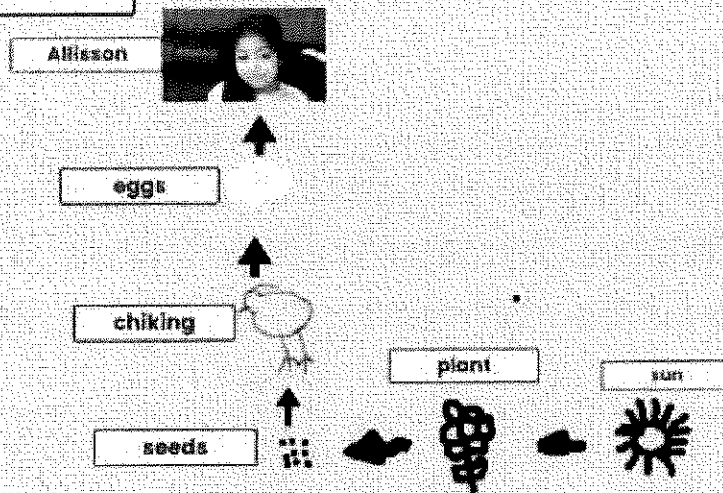
In response to: Diversity of Life



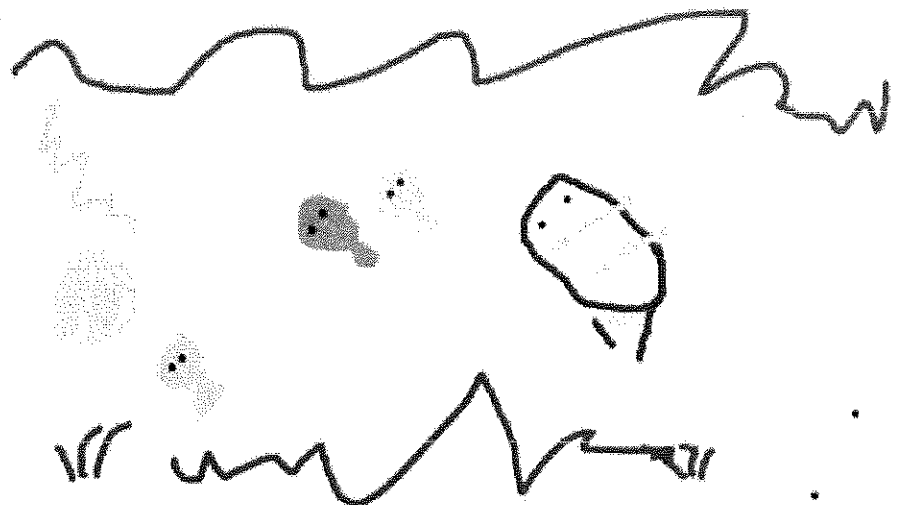
i saw a frog and much more and to help
the animals is to not throw garbige in
the ousid beacuse the animals can eat
them



My Food Chain



my favrit
habitat is
the ocean!
like the
place and
the fish and
sharks and
whales



What is a Green Thumb

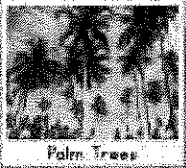
Draw a Picture and Write



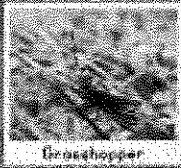
ITS VERY GOOD TO HAVE
A GREEN THUMB
BECAUSE IT HELPS THE
EARTH DO BETTER BY
PUTTING A PLANTS IN THE
WOODS AND TAKE CARE
OF IT

Handwritten text at the bottom of the page, mostly illegible due to blurriness.

Temperate Grasslands



Palm Trees



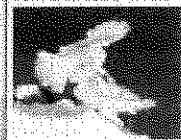
Grasshopper



Prairie Dog

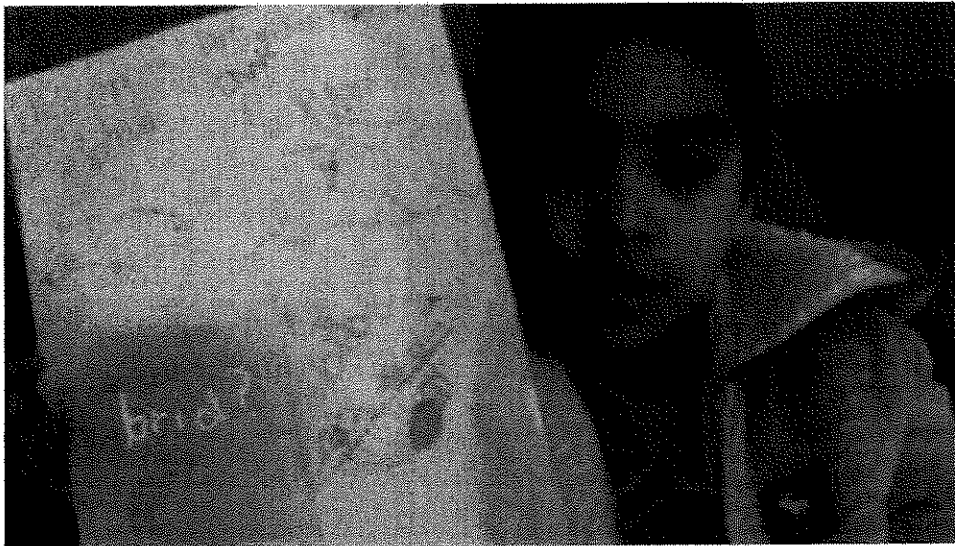


Wild Horses



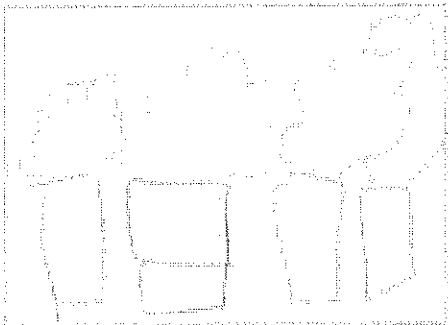
Snowy Owl



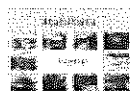


What is a Green Thumb?

Show a Picture and Write a Message



A green
thumb is
when you
love plants



Lesson
Habitats - Grade 2 Lesson 1

Slides Author
8 Kelly Stone

Teacher
Kelly Stone

Date Time
02/10 10:07

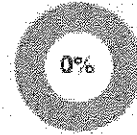
of Students



Student Participation



Quizzes
Correct Answers



Student List

#	Nickname	Other	Draw It	Collab	MP	#	Nickname	Other	Draw It	Collab	MP
1	Acimbr	gricia	50%	-	100%	2	Allison		50%	-	100%
3	bryan.g		50%	-	0%	4	Carlos		0%	-	0%
5	Dilan		50%	-	100%	6	harel	sanchez	50%	-	0%
7	heysel		0%	-	0%	8	kelly stone		0%	-	0%
9	Kelly Stone		0%	-	0%	10	lenny		50%	-	100%
11	lizeth		50%	-	100%	12	maria		50%	-	100%
13	michael		0%	-	100%	14	Nycollas		50%	-	100%

What do you have in common with other people? What makes you different?

+ Create

☐ Meet ☐ Google Calendar ☐ Class Drive folder

All topics

Living Things: Divers...

Properties of Matter

Materials and Propo...

Living Things: Diversity of Life



The Biodiversity Scenario Game

Posted Mar 7



Activity 1 - Vitale, Cale, Prieto, Morey

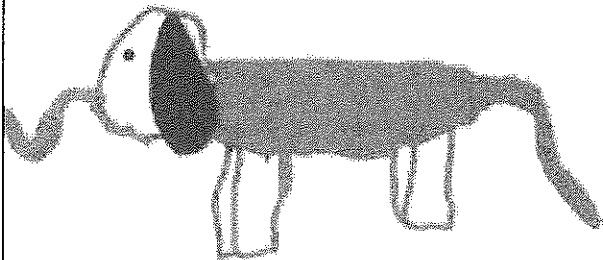
Posted Feb 9



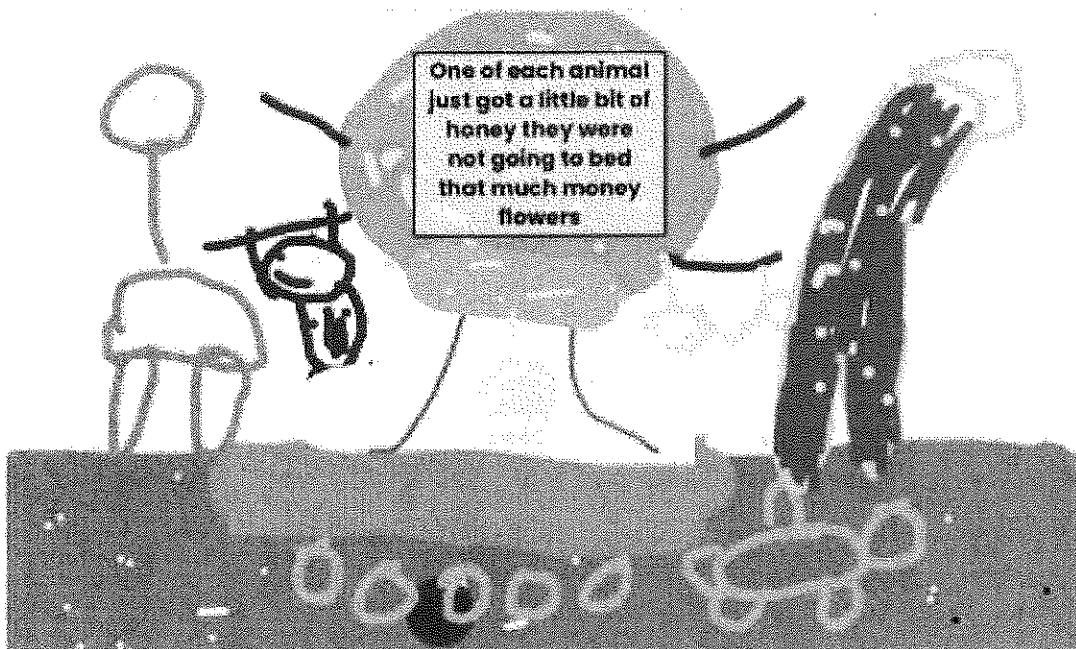
Activity 1 - (Soto, García, Mozo, Liska)

Posted Feb 5

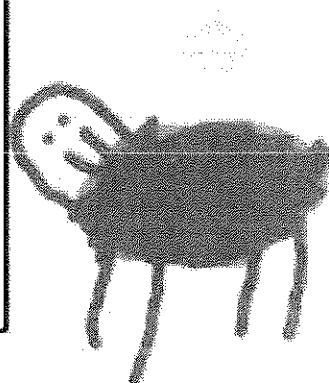
If we have one cow we
won't have a lot of milk.
trees give us air but
one tree won't give us a
lot of air. and paper is
made out of trees so
don't put paper in the
trash that is just a waste
of paper



One of each animal
just got a little bit of
honey they were
not going to bed
that much money
flowers



**we need animals like
bees too give us
honey and flowers
cows give milk and
we need milk to stay
strong and we need
trees too get clean air**



Food Chain

