Grade K Science

Unit 3: Life Science: Habitats

Overview: In this unit of study, students develop an understanding of what humans need to survive and the relationship between their needs and where they live. Students will demonstrate grade-appropriate proficiency in asking questions and defining problems, and in obtaining, evaluating, and communicating information.

Overview	Standards for Science	Unit Focus	Essential Questions
Unit 3 Life Science: Habitats	 K-LS1-1 K-ESS2-2 K-ESS3-1 WIDA 1,4 	 Communicating solutions with others, orally or in written form, using models and drawing Communicating solutions that will reduce the impact of humans on the land, water, air, and or other living things in the local environment Asking questions based on observations to find more information about the natural and/or designed world Define a simple problem that can be solved through the development of a new or improved object or tool. Ask questions, make observations, and gather information about a situation that people want to change in order to define a simple problem that can be solved through the development of a new or improved object or tool. 	 What do plants and animals need to live and grow? Where do plants and animals live and why do they live there? How can animals and plants change their
Unit 3: Enduring Understandings	 Asking questions, thinking about prob clearly understand t 	e their environments to meet their needs making observations, and gathering information are helpful in lems. Before designing and engineering a solution, it is important to	habitat?

Grade K Science

			Pacing	
Curriculum Unit	Standards		Days	Unit Days
3				
	K-LS1-1	Use observations to describe patterns of what plants and animals need		
Unit 3:		to survive.	10	
Life Science:				
Habitats	K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including) humans) can change the environment to meet their needs.	10	36
	K-ESS3-1	Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.	10	
	Assessment, Re-teach and Extension		6	

Grade K Science

Unit 3 Grade K				
Disciplinary Core Ideas	Indicator #	Indicator		
LS1.C: Organization for Matter and	K-LS1-1	Use observations to describe patterns of what plants and animals need to		
Energy Flow in Organisms		survive.		
All animals need food in order to live				
and grow. They obtain their food from	K-ESS2-2	Construct an argument supported by evidence for how plants and animals		
plants or from other animals. Plants need water and light to live and grow. (K-		(including) humans) can change the environment to meet their needs.		
LS1-1)				
LST 1)				
ESS2.E: Biogeology				
Plants and animals can change their	K-ESS3-1	Use a model to represent the relationship between the needs of different		
environment. (KESS2-2)		plants and animals (including humans) and the places they live.		
ESS3.C: Human Impacts on Earth				
Systems				
Things that people do to live				
comfortably can affect the world around them. But they can make choices that				
reduce their impacts on the land, water,				
air, and other living things. (secondary to				
K-ESS2-2)				
ESS3.A: Natural Resources				
Living things need water, air, and				
resources from the land, and they live in				
places that have the things they need.				
Humans use natural resources for everything they do. (K-ESS3-1)				
everything they do. (K-E333-1)				

Grade K Science

Unit 3 Grade K		
•	Assessment Plan	
 Class discussions Independent & group work/projects Teacher and/or book series provided quizzes, tests, and a performance task to assess student mastery Homework monitor and assess class work Benchmark assessments Teacher Observations Performance Task 	 Short Constructed Responses Students pretend to be a biologist and will plan, design and build a model of what a habitat would look like for an animal of their choice. In their model, students will show important structures of their animal, what their habitat would look like, an example of what they eat as well as a plant that would live in the type of habitat they created. 	
Resources	Activities	
 Chromebooks HSP Science Teacher Manual Lab Explorations Big Books pg. Leveled Readers Songs on CD Activity book Vocab activities vocab cards Group discussions Manipulatives SMARTboard / Mimio Technology Google Applications (Documents, Forms, Spreadsheets, Presentation) Linkit Readworks website NJ Department of Education 	 Students will discuss the ways people make life easier. Then they will discuss how these choices can hurt the environment. Then they will work together to create a poster to communicate how to minimize the effect on air, water, land, or living things. Read-Aloud Lesson: Where Do Polar Bears Live? Students identify and recall characteristics that allow polar bears to survive in the extremely cold Arctic environment. Students will create a poster highlighting the 5 R's. Recycling and Composting: Students will learn about the value renewable resources hold for our society and the broader community of living things. They expand their understanding of two important conservation activities we can engage in: recycling and composting. 	

Grade K Science

Unit 3: Life Science: Habitats

Instructional Best Practices and Exemplars		
1. Identifying similarities and differences	6. Cooperative learning	
2. Summarizing and note taking	7. Setting objectives and providing feedback	
3. Reinforcing effort and providing recognition	8. Generating and testing hypotheses	
4. Homework and practice	9. Cues, questions, and advance organizers	
5. Nonlinguistic representations	10. Manage response rates	

9.1 Personal Financial Literacy, 9.2 Career Awareness, Exploration, Preparation and Training & 9.4 Life Literacies and Key Skills

- **9.4.2.CT.1:** Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem (e.g., K-2-ETS1-1, 6.3.2.GeoGI.2).
- 9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).
- **9.4.2.CT.3:** Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
- **9.4.2.IML.1:** Identify a simple search term to find information in a search engine or digital resource.
- **9.4.2.IML.2:** Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).
- **9.4.2.IML.3:** Use a variety of sources including multimedia sources to find information about topics such as climate change, with guidance and support from adults (e.g., 6.3.2.GeoGI.2, 6.1.2.HistorySE.3, W.2.6, 1-LSI-2).

The implementation of the 21st Century skills and standards for students of the Winslow Township District is infused in an interdisciplinary format in a variety of curriculum areas that include, English language Arts, Mathematics, School Guidance, Social Studies, Technology, Visual and Performing Arts, Science, Physical Education and Health, and World Language.

Additional opportunities to address 9.1, 9.2 & 9.4:

Philadelphia Mint

https://www.usmint.gov/learn/kids/resources/educational-standards

Different ways to teach Financial Literacy.

https://www.makeuseof.com/tag/10-interactive-financial-websites-teach-kids-money-management-skills/

Grade K Science

Unit 3: Life Science: Habitats

Modifications for Special Education/504

Students with special needs: The students' needs will be addressed on an individual and grade level using a variety of modalities.

Accommodations will be made for those students who need extra time to complete assignment. Support staff will be available to aid students related to IEP specifications. 504 accommodations will also be attended to by all instructional leaders. Physical expectations and modifications, alternative assessments, and scaffolding strategies will be used to support this learning. The use of Universal Design for Learning (UDL) will be considered for all students as teaching strategies are considered.

- Small group instruction
- Audio books/ Text-to-speech platforms
- Leveled texts/Vocabulary Readers
- Leveled informational texts via online
- Modeling and guided practice
- Read directions aloud
- Repeat, rephrase and clarify directions
- Extended time as needed
- Break down assignments into smaller units
- Provide shortened assignments
- Modify testing format
- Repeat directions as needed
- Graphic organizers
- Study Guides, Study Aids and Re teaching as needed

Grade K Science

Unit 3: Life Science: Habitats

Modifications for At-Risk Students

Formative and summative data will be used to monitor student success. At first signs of failure, student work will be reviewed to determine support. This may include parent consultation, basic skills review and differentiation strategies. With considerations to UDL, time may be a factor in overcoming developmental considerations

- Audio books and Text-to-speech platforms
- Leveled texts/Vocabulary Readers
- Leveled informational texts via online
- Extended time as needed
- Read directions aloud
- Assist with organization
- Use of computer
- Emphasize/highlight key concepts
- Recognize success
- Provide timelines for work completion
- Break down multi-step tasks into smaller chunks
- Provide copy of class notes and graphic organizer

Grade K Science

English Language Learners	Modifications for Gifted Students
All WIDA Can Do Descriptors can be found at this link: https://wida.wisc.edu/teach/can-do/descriptors Grade K WIDA Can Do Descriptors: Listening Speaking Reading Writing Oral Language Students will be provided with accommodations and modifications that may include: Relate to and identify commonalities in science studies in student's home country Assist with organization Use of computer Emphasize/highlight key concepts Teacher Modeling Peer Modeling Label Classroom Materials - Word Walls	Students excelling in mastery of standards will be challenged with complex, high level challenges related to the topic. Raise levels of intellectual demands Require higher order thinking, communication, and leadership skills Differentiate content, process, or product according to student's readiness, interests, and/or learning styles Provide higher level texts Expand use of open-ended, abstract questions Critical and creative thinking activities that provide an emphasis on research and in-depth study Enrichment Activities/Project-Based Learning/ Independent Study Additional Strategies may be located at the links: Gifted Programming Standards Webb's Depth of Knowledge Levels and/or Revised Bloom's Taxonomy REVISED Bloom's Taxonomy Action Verbs

Grade K Science

Unit 3: Life Science: Habitats

Interdisciplinary Connections

Interdisciplinary Connections:

ELA Standards:

- **RI.K.1** With prompting and support, ask and answer questions about key details in a text. (K-ESS2-2)
- **W.K.**1 Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book. (K-ESS2-2)
- W.K.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (K-ESS2-2), (K-ESS3-3)
- **W.K.7** Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (K-LS1-1)

Math Standards:

K.MD.A.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. (K-LS1-1)

Integration of Computer Science and Design Thinking NJSLS 8

- **8.1.2.CS.1:** Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
- **8.1.2.DA.3:** Identify and describe patterns in data visualizations.
- **8.1.2.DA.4:** Make predictions based on data using charts or graphs.
- **8.2.2.ITH.1:** Identify products that are designed to meet human wants or needs.
- **8.2.2.ITH.5:** Design a solution to a problem affecting the community in a collaborative team and explain the intended impact of the solution.