



#5 Life Cycles and Survival STP (23-24)

Duration: 6 Weeks, 2 hours

Unit dates: 23rd Aug 2023 - 4th Oct 2023

Subjects: Language, Library Media, Social Studies, Science, English

Grades: 3

Planning



Transdisciplinary theme

Sharing the planet

Transdisciplinary theme focus



Central idea

A number of factors can influence the well-being of living things.



Learner profile attributes

Caring, Principled



Key concepts

Causation, Connection, Form

Concepts question

Connection

Students described connection between living things, human activity and the environment such as: the affect that humans have on animals when humans litter; the affect that humans have on animals when humans invade the animal habitat



Related concepts

Concepts

- **Causation:** interdependence
- **Connection:** stewardship

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- **Form:** life cycle
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Lines of inquiry

- The role of interdependence in ensuring the survival of living things (interdependence, causation)
 - How life cycles of living things are similar and different (life cycle, form)
 - The ways we care for and respect living things and the environment (stewardship, connection)
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Approaches to learning

Research Skills

Research Skills

Research Skills (General)

Teaching the ATL skills

SEL Journeys- Responsible Decision Making



Subject standards

Science

Structures and Processes

Developing and Using Models

- 3-LS1-1 Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.

Biological Evolution: Unity and Diversity

Analyzing and Interpreting Data

- 3-LS4-1 Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.

Engaging in Argument from Evidence

- 3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

Constructing Explanations and Designing Solutions

- 3-LS4-2 Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

Ecosystems: Interactions, Energy, and Dynamics

Engaging in Argument from Evidence

- 3-LS2-1 Construct an argument that some animals form groups that help members survive.

Heredity: Inheritance and Variation of Traits

Analyzing and Interpreting Data

- 3-LS3-1 Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.

Constructing Explanations and Designing Solutions

- 3-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment.

English

Reading: Informational Text

Craft and Structure

- CCSS.ELA-LITERACY.RI.3.5 - Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently. *(CCSS.ELA-LITERACY.RI.3.5)*

Integration of Knowledge and Ideas

- CCSS.ELA-LITERACY.RI.3.8 - Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence). *(CCSS.ELA-LITERACY.RI.3.8)*
- CCSS.ELA-LITERACY.RI.3.7 - Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). *(CCSS.ELA-LITERACY.RI.3.7)*

Key Ideas and Details

- CCSS.ELA-LITERACY.RI.3.3 - Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. *(CCSS.ELA-LITERACY.RI.3.3)*

Writing

Production and Distribution of Writing

- CCSS.ELA-LITERACY.W.3.6 - With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. *(CCSS.ELA-LITERACY.W.3.6)*

Range of Writing

- CCSS.ELA-LITERACY.W.3.10 - Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. *(CCSS.ELA-LITERACY.W.3.10)*

Research to Build and Present Knowledge

- CCSS.ELA-LITERACY.W.3.7 - Conduct short research projects that build knowledge about a topic. *(CCSS.ELA-LITERACY.W.3.7)*



Prior learning

Pre-assessment: What do you know about habitats? What do you know about adaptations?
Observations of time management during student work blocks and discussions



Teacher questions

- What adaptations allow animals to survive in their environment?
- How do human activities impact the environment?

- How can animals adapt to a changing environment?
- What generalizations can we make about the life cycle of different living things?
- What environmental conditions will require living things to adapt in order to survive?
- Provocations
- Tape forefingers to thumbs to remove the opposable thumb. Complete activities without thumbs (tying shoe, writing name, etc.) (adaptation)
- Endangered animal video: [.youtube.com/watch?v=7k8CcAU2Lt0](https://www.youtube.com/watch?v=7k8CcAU2Lt0) (sustainability, impact)



Student questions

- Students asked questions about how animals adapted, how does adaptation happen? Why do animals adapt?
- Why do people poached animals? Or Did other things that hurt animals,
- What can be done to help animals in danger?
- Why some animals become extinct?

Implementing



Learning experience library



IMMERSE 10: Wildlife Biologist Career Spotlight

Amy Rios



IMMERSE 3: Brain Pop Jr.- Food Chain/Food Webs

Amy Rios



EXPLORE/CREATE: Newsela: Hurricane Irma destroys record number of turtle nests on Florida coast

Amy Rios



IMMERSE 8: SciShow Kids- Endangered Animals

Amy Rios



EXPLORE/CREATE: Newsela: Florida manatees should survive through coming century

Amy Rios



IMMERSE 5: Bird Beak Adaptations (video)

Amy Rios

Revisit IRA book, "Shell, Beak, Tusk"



EXPLORE 1: List of Endangered Species



Amy Rios

This is where students choose their endangered animal to research. From here they will do research using EXPLORE resources and books selected from the library with Ms. Liz's help.



IMMERSE 1: Animal and Plant Life Cycles

Amy Rios



EXPLORE: PebbleGo- Endangered and Threatened Animals

Amy Rios



IMMERSE 7: Invasive Species (Brain Pop)

Amy Rios



EXPLORE: UoI Text Set, "Encyclopedia of Animals"

Amy Rios



IMMERSE/EXPLORE (ongoing): Guided Reading

Amy Rios

There are lots of titles in the Reading Room!

When choosing books, think "Plants and Animals."

Also, don't forget to check out the "Sharing the Planet" titles.



IMMERSE 2: Brain Pop- Ecosystems

Amy Rios



EXPLORE/IMMERSE: Newsela: More than half the world's sea turtles have eaten plastic, study claims

Amy Rios



EXPLORE/CREATE: Newsela: Warming climate making sea turtles almost all girls

Amy Rios



EXTRA - Animal & Plant Adaptations Activities

Amy Rios



EXPLORE/CREATE: Elephants

Amy Rios



EXPLORE/CREATE: Newsela: Florida's manatee count rebounds to a record, boom has a dark side

Amy Rios

**EPIC List of Books & Videos - Sharing the Planet**

Amy Rios

**IDENTIFY and CREATE: Summative assessment task**

Amy Rios

Task: Students will research the relationship between an endangered or threatened animal, human activities and the environment and share their knowledge. The research will address the following questions at a minimum:

What is this animal's life cycle?

What structural and/or behavioral adaptations does this animal have?

What are the challenges facing it (now and/or near future)?

What are the factors involved in these challenges (other animals, lack of resources, human activities, climate change)

Can the animal adapt (behavioral/physical) in time to survive these challenges

If a person wanted to take responsibility to do something to help this animal, what could he/she do?

Evidence:

description of life cycle with all stages for that animal or insect

description of structural and/or behavioral adaptations description of the challenges facing it (now and/or near future)

What are the factors involved in these challenges (other animals, lack of resources, human activities, climate change)

Can the animal adapt (behavioral/physical) in time to survive these challenges

Actions that would help this animal that a person could take to show responsibility

Teacher notes

*Provide list of endangered species for students to select from

Student options for summative:

- Poster
- Report (add visuals)
- Video or Google Slides

Be sure students include some sort of action in their project

- How can they inform others? (ASMM, Morning Announcements, visit classrooms)

**EXPLORE/CREATE: Brain Pop Jr.- Extinct and Endangered Species**

Amy Rios

**EXPLORE/CREATE: Manatee Video on Epic!**

Amy Rios

There's a video on the Manatee.

Login to EPIC! and type "Manatee - An Endangered Species" into the search bar.

**IMMERSE 6: UoI Text Set, "How to Clean a Hippopotamus" (symbiosis)**

Amy Rios

**Explore / Create - Research Essay**

Amy Rios

Day 1-Select animal (check to make sure there's enough info in books or epic/pebblego/newsela)

Day 2-research and take notes - describe animal (prepare intro para)
Day 3-research and take notes - adaptations and life cycle
Day 4-research and take notes - habitat
Day 5-research and take notes - why are they endangered
Day 6-write intro para
Day 7-writing para 2
Day 8-write para 3
Day 9-write para 4
Day 10-write conclusion
Day 11-edit/revise
Day 12-publish/create



IMMERSE 9: Brain Pop Extinction

Amy Rios



EXPLORE/CREATE: Pandas

Amy Rios



IMMERSE 4: Introduction to Behavioral and Structural Animal Adaptations (video length 8:20)

Amy Rios



EXPLORE/CREATE: epic!

Amy Rios

Login to epic! and type "endangered animals" in the search bar.
Lots of different titles come up, but be sure that the animal you're reading about is actually endangered!
If you hover your cursor over the cover, the short description will tell you if the animal is endangered.



EXPLORE: UoI Text Set, "The Atlas of Endangered Animals"

Amy Rios



OPEN: Opposable Thumb Activity

Amy Rios



Explore/Create: Newsela - Scientist in Belize says manatees are in trouble, and U.S. can help

Amy Rios



Learning experiences

develop an understanding of the concepts identified in "What do we want to learn?"

Connection: Students described connection between living things, human activity and the environment such as: the affect that humans have on animals when humans litter; the affect that humans have on animals when humans invade the animal habitat

Form: Students studied physical/structural adaptations that helped animals survive in their

habitat (ie: webbed feet for marine birds, hollow hair tubes for polar bears to insulate, wider feet for animals living in Arctic areas)

Causation: Students described the effects of negative/positive human activities (deforestation, poaching, climate changes, pollution, ecotourism, conservation campaigns, environmental laws, awareness campaigns) on animals' ability to survive, as well as

demonstrate the learning and application of particular transdisciplinary skills?

Research Skills: collecting data (note-taking): students used various resources to gather information for reports; a variety of note taking templates were used

Thinking Skills: synthesis (using notes to write report): Students paraphrased notes to write paragraphs in their own words

Self-Management: time-management: students used a project to calendar to gauge their products; timers were used to pace daily instruction

develop particular attributes of the learner profile and/or attitudes?

Learner Profile: balanced, caring, thinker:

Class discussions/social conferences re: caring for each other, thinking through problems, searching for solutions, keeping problems in perspective; also applied in terms of caring for environment, thinking of the impact of human actions, and balancing human wants/needs with those of other living beings

Attitudes: commitment, curiosity, integrity:

Class discussions/social conferences re: being committed to working through your work with best effort, curiosity about the natural world and how animals adapt, integrity in terms of doing the right thing even when others aren't looking or when it requires effort, related to care of environment



Supporting student agency

Record student-initiated actions taken by individuals or groups showing their ability to reflect, to choose and to act.



Student self-assessment and peer feedback

Research process (Developing ideas, creating):

Modeling research process using panda bear information: generating questions, researching, refining questions and researching more, synthesizing information across texts. Content

knowledge: life cycle, group behavior (behavioral adaptations) contributing to survival, structural adaptations for survival in polar ecosystem, Research resources: pandacam, A-Z panda book, newsela panda/extinction texts

Students will collect information from various sources (books, fact cards, internet), take notes, and synthesize to write reports

Create a descriptive writing piece so their classmates can guess which animal they chose.

Students discuss and document in their journal their personal adaptations to a new culture and environment.(developing ideas) Read fictional books (i.e. books where characters move to a new culture) or view fictional movies and discuss how characters adapt to their environments.

Field trip: Peabody

Ant behavior adaptations (developing ideas)

Adaptation simulations-(developing ideas) (blubber w. ziplocs, ice, air); (Daddy penguin & egg), camouflage(colored toothpicks in grass), bird beak/food (utensils to pick up items)

Classroom vermi farm to promote composting, recycling, and observing the behaviors of the vermi.(developing ideas)



Teacher questions

- How do human activities impact the environment?
- How can animals adapt to a changing environment?
- What generalizations can we make about the life cycle of different living things?
- What environmental conditions will require living things to adapt in order to survive?
- Provocations
- Tape forefingers to thumbs to remove the opposable thumb. Complete activities without thumbs (tying shoe, writing name, etc.) (adaptation)
- Endangered animal video: [youtube.com/watch?v=7k8CcAU2Lt0](https://www.youtube.com/watch?v=7k8CcAU2Lt0) (sustainability, impact)



Student questions

Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.

Students asked questions about how animals adapted, how does adaptation happen? Why do animals adapt?

Why do people poached animals? Or Did other things that hurt animals,

What can be done to help animals in danger?

Why some animals become extinct?

At this point teachers should go back to box 2 “What do we want to learn” and highlight the teacher questions/provocations that were most effective in driving the inquiries.



Resources

- [Food Web Without Producers Or Sunlight ! |... - SafeShare](#)
- [Brainpop FoodChain... - SafeShare](#)
- [BrainPOP Invasive Species... - SafeShare](#)
- [Ecosystems BrainPOP... - SafeShare](#)
- [The Life Cycle Song_| Science Songs_| Scratch Garden](#)
- [BrainPOP Jr Extinct and Endangered Species... - SafeShare](#)
- [G3 STP Puentes Book Collection on Epic](#)

-  [STP Book Collection on Epic](#)
-  [Kidtopia--a Google custom safe search engine for elementary age students](#)
-  [Kiddle - visual search engine for kids](#)
-  [Species List | Endangered, Vulnerable, and Threatened Animals | WWF](#)
-  [Adaptations of Living Things nteractiveIBPYPScienceUnitofInquiry](#)
-  [Wildlife Biologist - Career Spotlight](#)
-  [Newsela | Hurricane Irma destroys record number of turtle nests on Florida coast](#)
-  [Instantly access over 40,000 of the best books & videos for kids on Epic](#)
-  [Newsela | Sea turtles are munching on plastic garbage floating in the ocean](#)
-  [Newsela | Warming climate making sea turtles almost all girls](#)
-  [Newsela | Florida manatees should survive through coming century, experts say](#)
-  [Invasive Species - BrainPOP](#)
-  [Food Chains - BrainPOP](#)
-  [Food Webs - BrainPOP](#)
-  [Newsela | Dark side of the boom: Florida's record manatee count may hurt this species](#)
-  [Instantly access over 40,000 of the best books & videos for kids on Epic](#)
-  [Ecosystems - BrainPOP](#)
-  [Elephants - BrainPOP](#)
-  [Newsela | U.S. manatees on the mend, but maybe they should stay on endangered list](#)
-  [Pandas - BrainPOP](#)
-  [Extinction - BrainPOP](#)
-  [Food Chain - BrainPOP Jr.](#)
-  [Extinct and Endangered Species - BrainPOP Jr.](#)
-  [Species List | Endangered, Vulnerable, and Threatened Animals | WWF](#)
-  [The Life Cycle Song | Science Songs | Scratch Garden](#)
-  [Animal Adaptations for Kids, Learn about physical, life cycle, and behavioral adaptations of animals](#)
-  [Animal & Plant Life Cycles](#)
-  [bird beak adaptations for kids - Google Search](#)
-  [Google Docs - create and edit documents online, for free.](#)
-  [Google Docs - create and edit documents online, for free.](#)
-  [Endangered Animals!](#)
-  [PebbleGo](#)
-  [Panda Cam - Zoo Atlanta](#)
-  [Endangered Animals!](#)