

A Dangerous Garden, Things that sting and poke

Grade 1

Come and learn about the adaptations that plants and animals have that allow them to survive.

Overview of Unit:

- Pre-assessment
- What animals eat
 - Introduce herbivore, carnivore, omnivore
 - How an animal can stay safe
- How humans stay safe in nature
- How plants stay safe
- Field Trip
 - Plant adaptations
 - Insect defenses
 - Build a mini defense from nature
- Make a plant using knowledge of adaptations
- Post-assessment
- Glossary

Students will know:

- Related vocabulary
- Purpose of features of plants and animals, adaptations
- How humans use and make similar external adaptations
- The adaptations of specific plants and insects
- How to apply adaptations to a specific environmental challenge

Students will be able to:

- Create a mini glossary
- Relate humans, plants, and animals
- Support ideas with evidence
- Learn directly from nature through making careful observations
- Apply knowledge to a new task

Links to Standards

- Common Core
 - ELA
 - CCSS.ELA-Literacy.RI.1.1
 - CCSS.ELA-Litaracy.RI.1.5
 - CCSS.ELA-Litaracy.RI.1.7
 - CCSS.ELA-Litaracy.RI.1.10
 - CCSS.ELA-Litaracy.WI.1.8

- CCSS.ELA-Literacy.SLI.1.1
 - CCSS.ELA-Literacy.SLI.1.2
 - CCSS.ELA-Literacy.SLI.1.5
 - CCSS.ELA-Literacy.L.1.4
 - CCSS.ELA-Literacy.L.1.6
 - Math
 - CCSS.Math.Content.1.MD.A.2
- Next Generations Science Standards
 - Coming soon...
- NM Science Standards
 - Strand 1, Standard 1, Grade 1, Benchmark 1, #1
 - Strand 1, Standard 1, Grade 1, Benchmark 3, #1
 - Strand 2, Standard 2, Grade 1, Benchmark 1, #1, #2, #3

Lesson Plans:

- Pre-assessment
 - *Purpose:*
 - Assess what students already know about the topic
 - Ask students to support their thinking with evidence
 - *Time:*
 - 15 minutes

- What animals eat
 - *Purpose:*
 - Introduce terms:
 - Herbivore
 - Carnivore
 - Omnivore
 - Predator
 - Prey
 - *Time:*
 - 20 minutes
 - *Intended Structure:*
 - Anticipatory set
 - First reading is intended for guided reading
 - Ask students what they think they will be learning about
 - Look at text structure
 - Activity
 - Read the paragraph together
 - Underline the vocabulary
 - Have students draw a picture above each that will help them remember what each term means. E.g. a leaf above “herbivore”
 - Independently have students answer the question

- Read the paragraph together
 - Have students brainstorm in small groups the answer
 - Share answers
 - Students independently answer in writing
 - Closing
 - Enter definitions into the glossary
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- How humans stay safe in nature
 - *Purpose*
 - Connect adaptations of animals with human made objects
 - Review concepts from introduction
 - *Time*
 - 20 minutes
 - *Intended structure*
 - Anticipatory set
 - Ask students what they think this section will be about and why
 - Activity
 - Small group reading for paragraph 1 and the instructions
 - Brainstorm some potential answers
 - Have students work independently
 - Closing
 - Come back together and share answers
 - If time, introduce idea that engineers design the tools we use
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- How plants stay safe
 - *Purpose*
 - Introduce idea of adaptations
 - Plants, animals, and humans all have adaptations
 - Represent ideas visually and be able to explain the drawing
 - *Time*
 - 20 minutes
 - *Intended Structure*
 - Anticipatory set
 - Introduce what an adaptation is
 - Guided reading of paragraph
 - Enter vocabulary into glossary and review previous terminology
 - Activity
 - Brainstorm ways that the plant could stay safe and show the
 - Have students create their plant
 - Closing
 - Share the drawing in small group

- Field Trip
 - Structure of Field Trip
 - 20 minutes – Begin as a group
 - 90 minutes – Rotate through 3 Activities
 - 20 minutes – Closing activity as a group
 - Plant adaptations
 - *Purpose*
 - Make close observations of nature
 - Apply academic knowledge to reality
 - Record observations visually
 - Find examples of plant adaptations
 - *Time*
 - 30 minutes
 - *Structure*
 - Introduce the lesson
 - Learn names
 - Review what was learned in class
 - Draw plants
 - Share favorite
 - Insect defenses
 - *Purpose*
 - Make close observations of nature
 - Apply academic knowledge to reality
 - Record observations visually
 - Find examples of animal adaptations
 - *Time*
 - 30 minutes
 - *Structure*
 - Introduce the lesson
 - Learn names
 - Review what was learned in class
 - Find insects and study them
 - Build a mini defense from nature
 - *Purpose*
 - Create a plan, implement it, and revise
 - Use what was learned in class to think about how to design a home made of natural materials
 - *Time*
 - 30 minutes
 - *Structure*
 - Introductions
 - Names
 - Make a tiny person and make a house for the person

- Make a plant using knowledge of adaptations
 - *Purpose*
 - Reinforce knowledge learned from readings and hands-on experiences
 - Assess understanding
 - Allow creativity in a learning environment
 - *Time*
 - 30-45 minutes
 - *Intended structure*
 - Anticipatory Set
 - Reflect back on field trip
 - Share what was learned over the course of the unit
 - Activity
 - Have students select a place card and an challenge card
 - Each student must create their own plant with adaptations suited for their challenge and habitat
 - Closing
 - Share the invented plants, making sure each student discusses:
 - What the challenge was
 - Their response to the challenge
 - Defining the adaptations

- Post-assessment
 - *Purpose*
 - Assess what was learned
 - *Time*
 - 15 minutes
 - *Intended structure*
 - Have students complete the final assessment independently