Bee vs Wasp: How Will They Survive?

Author

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Grade Level

2 **Duration** 2 class periods

National Standards

GEOGRAPHY Element 3: Physical Systems

8. The characteristics and distribution of ecosystems and biomes on Earth's surface

Arizona Standards

ELA

Writing

Research to Build and Present Knowledge

2.W.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).

SCIENCE

Life Science

2. L2U1.9- Obtain, analyze, and communicate evidence the organisms need a source of engery, air, water, and certain temperature conditions to survive.

Arizona Social Science Standards

GEOGRAPHY

2.G1.1 Use maps, globes, and other simple geographic models to identify and explain cultural and environmental characteristics of places in the world based on the place or regions being studied. **Skills and Processes** 2.SP3.1 Use different kinds of sources.

SIOP Elements		
Preparation Adapting content Linking to background Linking to past learning Strategies used	Scaffolding Modeling Guided practice Independent practice Comprehensible input	Grouping Option Whole class Small groups Partners Independent
Integrating Processes Reading Writing Speaking Listening	Application Hands on Meaningful Linked to objectives Promotes engagement	Assessment Individual Group Written Oral

Arizona English Language Proficiency Standards

Stage II

Basic

Reading

Standard 4: The student will analyze text for expression, enjoyment, and response to other related content areas.

B-15: locating information from a completed graphic organizer.

B-16: following multiple-step written directions for classroom routines and academic activities.

Writing

Standard 3: Students use the steps of the writing process as a writing piece moves toward completion.

B-3: contributing to the writing of a draft of an idea or story based on a class/small group generated pre-writing plan with teacher/peer as scribe.

B-4: re-reading a class/small group draft for clarity and changing or adding relevant details as needed as modeled by teacher.



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B-7: finalizing a class/small group generated piece for sharing with an intended audience as modeled by the teacher.

Overview

Many of us are unaware of the differences between a bee and a wasp. In fact, we might just think of them as both being harmful.

Purpose

In this lesson students will learn about bees and wasps by completing research.

Key Vocabulary

physical characteristics: what something looks like habitat- the natural home of a living thing social-an insect or animal that lives in groups solitary- an insect or animal that lives alone pollination-insects, birds, and other animals take pollen from flower to flower so that the plant can make new seeds

Materials

- Various resources for research (age appropriate books and internet sites)
- Ipads or computers
- My Research worksheet
- Vocabulary Cards and Vocabulary Test
- World map http://geoalliance.asu.edu/sites/default/files/map s/World Continents.pdf
- · Summary Scoring Guide
- Story Map about Bees and Wasps https://arcg.is/1fDu1i

Objectives

The student will be able to:

- 1. Examine collected research from various sources.
- 2. Compare the physical and environmental differences between a bee and a wasp.

Procedures

Prerequisites: Students should have been introduced to types of habitats and life cycles.

Prior to the lesson: Gather age-appropriate books from the library. Bookmark several age-appropriate websites for students to use for their research.

Engage:

- To complete the "K" portion of a KWL chart, ask students to write one fact they may already know about bees on one color of sticky notes. Have students place their sticky notes about bees under the "K" of the chart. Discuss their contributions to the chart.
- 2. Repeat the process with a different color sticky note and have students document and discuss what they know about wasps.
- Now have students complete the "W" or what they would like to know about bees and wasps in the same manner as above. (Preparation: Linking to background)
- 4. As you read the book *Tell Me the Difference Between a Bee and a Wasp*, ask students to listen for what are the physical characteristics of bees and wasps. What is their natural habitat? Do they have any adaptations that help them survive? (Integrated processes: Listening)

Explore:

 Ask students to predict who has the best adaptations, a bee or a wasp? Have students discuss their reasons for picking one insect over another.

Explain:

- 6. Partner students in this manner: one who is researching bees and one who is researching wasps. (Grouping option: Partners)
- 7. Give each partner group a set of vocabulary cards. Explain the definitions of the words and have the students practice learning the definitions.
- Distribute the My Research worksheet to each student. Model how you would collect information as you read through a book or other website and write down information. (Scaffolding: Modeling) Distribute books to students.
- Remind students to complete their research in complete sentences. (Integrating Processes: Reading, Writing)

Elaborate:

10. Distribute a World map to each student. Present the story map to students (**Grouping option:** whole class). https://arcg.is/1fDu1i



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11. Discuss wasps and bees from different countries as you go through the story map. Have students use the world map as a graphic organizer and write some key words or phrases on the map as they learn about the bees or wasps. (Scaffolding: Guided practice)

Evaluate:

12. Have students use the My Research worksheet to write a 15 sentence paper summarizing their research on a bee or a wasp. Partners can work together to get ideas on what to write but their papers will be different because one is about a wasp and one is about a bee. They should use at least 4 of the vocabulary words for this lesson in their summaries. Share the Summary Scoring Guide with the students prior to final drafts of creating the summary so students can evaluate their rough drafts and make edits. (Scaffolding: Comprehensible input) (Assessment: Individual, Written)

Assessment

ELA and Science

Mastery will be considered correctly completing at least 80% of the My Research collection worksheet.

Mastery will be considered scoring 80% or higher on the Summary Scoring Guide.

Geography

Mastery will be considered correctly writing at least one fact for a bee or a wasp on each of the correct locations given in the story map.

Extensions

Have students read about hornets and list simalarities and differences between bees, wasps, and hornets.

Sources

About Honey bees

https://askabiologist.asu.edu/explore/honey-bees

https://askabiologist.asu.edu/honey-bee-anatomy

https://www.natgeokids.com/za/discover/animals/insects/honey-bees/

About Wasps

https://www.nationalgeographic.com/animals/invertebrates/group/wasps/

