

Activity #5

Invasive Species Jeopardy

Length:

Two class periods

Prerequisite Activity:

Invasive Species Module Unit 1 Activity #4 “Where Do They Come From? Where Can They Invade?”

Note: If you did not do the prerequisite activity above, you can use the flyers provided in that activity in place of student-generated cards.

Objectives:

- Investigate relationships between native Hawaiian and invasive species.
- Become familiar with invasive species, their origins, and characteristics.
- Use knowledge gained to create jeopardy questions.

Vocabulary

Characteristics

Impacts

Origins

Ecosystem

Invasive

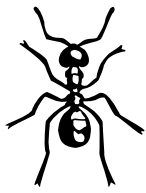
●●● Class Period One: *Creating Questions*

Materials & Setup

- Student-generated cards or flyers provided with Invasive Species Module Unit 1 Activity #4 “Where Do They Come From? Where Can They Invade?”

Instructions

- 1) Divide the class into five teams. Tell students they will invent “Jeopardy” game clues and answers based on the cards they made (or flyers provided) for Invasive Species Module Unit 1 Activity #4 “Where Do They Come From? Where Can They Invade?”
- 2) Before playing the game, each team will have a chance to review the information on the cards (or flyers). Teams are assigned the following categories:
 - Team #1 – Plants
 - Team #2 – Animals
 - Team #3 – Origins
 - Team #4 – Ecosystem Impacts
 - Team #5 – Invasive Characteristics
- 3) Each team will create clues and answers related to their category. There are five clues per round. Clues fall into increasing levels of difficulty: 10, 20, 30, 40, and 50 points. Clues are written as



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statements and their answers are framed as questions. Sample clue: This bunch grass has sharp edges and can grow up to 10 feet tall. Answer: What is pampas grass (*Cortaderia jubata*)?

- 4) For each round you'd like to play, ask teams to create five clues. Eg: fifteen clues for three rounds. Create a few "Double Jeopardy" clues of your own to insert randomly during the game. (See Teacher Background "Round 1" for examples.)
- 5) Have students keep their clues and answers secret from the other teams.

●●● Class Period Two: *Playing Invasive Species Jeopardy*

Materials & Setup

- Student-generated cards or flyers provided with Invasive Species Module Unit 1 Act #4 "Where Do They Come From? Where Can They Invade?"
- Master PDF "Invasive Species Jeopardy Rules" (p. 7)
- "Invasive Species Jeopardy Slideshow" or Master PDF "Game Board" (duplicated for each round) (p. 8)
- Overhead projector and screen
- Stopwatch or a watch with a second hand

Instructions for playing Jeopardy

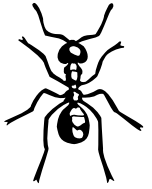
Note: Round 1 clues and answers have been provided as an example. Choose at random where to insert your Double Jeopardy clues.

- 1) Review the object, rules, and procedures for the game with students using the instructions given here and the rules on the Teacher Background "Invasive Species Jeopardy Rules" PDF (p.7).
- 2) Use either the "Invasive Species Jeopardy Slideshow" or Game Board PDF to begin the game. Cross off each category and point value as it is selected. Read the corresponding statement from "Invasive Species Jeopardy Round 1."

To use the slideshow: Open the file "Invasive Species Jeopardy Slideshow," on the DVD included with this curriculum or online at hoikecurriculum.org. Click "Slide Show" in the menu and select "View Show" OR press F5. "Click to Begin" in the bottom right corner of the Jeopardy title page.

Move the arrow cursor over the category to the students' chosen point value. Notice the cursor "arrow" change to a hand when rolling over the point value. Click on the chosen point value when the cursor changes to a hand. After clicking on the point value, the answer will appear. When you want to reveal the question (to verify the student's response), make sure the cursor is a "hand" by pointing it off of the text before clicking.

To return to the main game page, click away from the text, with the cursor as a "hand." (If you click on the answer with the cursor as an "arrow," the screen will continue to cycle through all of the answers and questions revealing that information.)

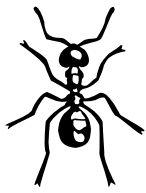


3) Teams have 15 seconds to respond to clues. Continue play by following the rules, and keep score. The team with the largest score wins.

4) Play subsequent rounds in the same manner, using a fresh game board and clues.

Note: To create additional Jeopardy rounds with new answers and questions, save the slideshow file with a new name and follow the instructions on the second slide.

5) Stop whatever round is in session at the end of the first class period, and determine a winner for whatever rounds have been played.



Teacher Background

Invasive Jeopardy Round 1

Plants — Round 1

10 points

This bunch grass has sharp edges and can grow up to 10 feet tall.

What is pampas grass (*Cortaderia jubata*)?

20 points

This plant's giant, umbrella-like leaves have purple undersides.

What is miconia (*Miconia calvescens*)?

30 points

The blades of this grass are cylindrical.

What is fountain grass (*Cenchrus setsceus*)?

40 points

This plant can be identified by its wing-like pairs of seedpods.

What is rubber vine (*Cryptostegia grandiflora*)?

50 points

This plant can grow four inches a day.

What is ivy gourd (*Coccinia grandis*)?

Animals — Round 1

10 points

This noisy animal keeps people up at night with its piercing, two-note mating call.

What is a coqui frog (*Eleutherodactylus coqui*)?

20 points

Keeping this animal is against the law and could cost you \$200,000 or three years in prison.

What is a veiled chameleon (*Chamaeleo calypttratus*)?

30 points

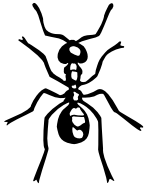
Veiled chameleons (*Chamaeleo calypttratus*) can grow up to this long.

What is two feet?

40 points

This common household chemical is used to control coqui frogs (*Eleutherodactylus coqui*).

What is citric acid?



50 points

Veiled chameleons (*Chamaeleo calyptratus*) are different from Jacksons' chameleons. Instead of horns, veiled chameleons have this on their head.

What is a bony, shark-like shield?

Origins — Round 1

10 points

Coqui frogs (*Eleutherodactylus coqui*) are celebrated here, in their native country.

What is Puerto Rico?

20 points

Pampas grass (*Cortaderia jubata*) is named for the grassy plains beneath these South American mountains.

What are the Andes?

30 points

Fountain grass (*Pennisetum setaceum*) is suited to the hot, dry climate found in its native home.

What is North Africa?

40 points

Veiled chameleons (*Chamaeleo calyptratus*) come from the mountainous regions of these countries.

What are Yemen and Saudi Arabia?

50 points

Rubber vine (*Cryptostegia grandiflora*) hails from this large island nation, which is also home to lemurs.

What is Madagascar?

Ecosystem Impacts — Round 1

10 points

Ivy gourd (*Coccinia grandis*) climbs other plants and does this to them.

What is smother?

20 points

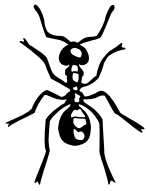
Veiled chameleons (*Chamaeleo calyptratus*) are large lizards and can prey on these types of species.

What are plants, insects, and birds?

30 points

The shallow roots of miconia (*Miconia calvescens*) don't function the same as a spongy mat of understory plants. Instead, they encourage these problems after a heavy rain.

What are erosion and run-off?



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40 points

If snakes were to escape into the wild in Hawai‘i, coqui frogs (*Eleutherodactylus coqui*) could serve as this for them.

What is a food source?

50 points

Wind whipping through the dead, dry leaves of fountain grass (*Pennisetum setaceum*) creates this condition.

What is a fire hazard?

Invasive Characteristics — Round 1

10 points

You can almost watch vines like ivy gourd (*Coccinia grandis*) spread because of this quality.

What is fast growing?

20 points

Both pampas (*Cortaderia jubata*) and miconia (*Miconia calvescens*) produce tens of thousands of seeds every year—an example of this characteristic.

What is highly fertile?

30 points

Some plants, like miconia (*Miconia calvescens*), don’t require much sunlight to grow. This characteristic allows them to grow just about anywhere.

What is shade-tolerant?

40 points

Rubber vine (*Cryptostegia grandiflora*) doesn’t just cover acreage with impenetrable thickets, it also possesses this quality—making it dangerous to human health and safety.

What is toxic?

50 points

Coqui frog (*Eleutherodactylus coqui*) populations are kept in check in Puerto Rico. But in Hawai‘i, they grow out of control because they lack these.

What are predators?

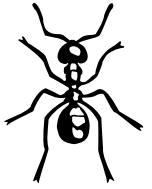
DOUBLE JEOPARDY

Some invasive plants, such as miconia (*Miconia calvescens*), have the ability to eliminate the other species in the forest, creating this.

What are monostands?

The fruits of this plant are red and shaped like small cucumbers.

What is ivy gourd (*Coccinia grandis*)?



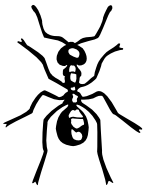
Invasive Species Jeopardy Rules

Object

Accumulate the largest amount of points by providing correct responses in 15 seconds or less.

Rules

- Each team selects a spokesperson to read the team's clues and give official answers. The spokesperson may consult with team members, but only the spokesperson's response will count.
- Team #1 begins the game, choosing any category besides its own. Play progresses in numeric order through the teams.
- Select a category and a point amount. The appropriate team's spokesperson will read the clue. Your team will have 15 seconds to respond. Your response must be framed as a question. For example:
Statement:
This bunch grass has sharp edges and can grow up to 10 feet tall.
Your answer:
What is pampas grass (*Cortaderia jubata*)?
- If your answer is correct, the point amount is added to your team's total score and your team selects another category and point amount, attempting to answer that clue. Your team continues as long as you answer the clues correctly. (For answers that involve species names, you may correctly state the Hawaiian, English or Latin name.)
- If you answer incorrectly, the next team in numerical order gets 15 seconds to answer the same statement (skipping the team who created the clue and answer.) Correct answers always result in adding the point amount to the answering team's score and selecting a new question. Incorrect answers always result in subtracting the point amount and the next team getting a chance to answer the same statement. If none of the teams can answer a statement correctly, the team who created the question will read the correct response and play continues with the team whose turn it was when that statement was first read.
- **DOUBLE JEOPARDY.** In each round, there is one "double jeopardy" clue. If your team chooses the double jeopardy clue, you may decide to bet a portion or all of your total score. Tell the class how much you are betting. If you answer the clue correctly, you add that amount to your score. If you answer incorrectly, subtract that amount from your score.
- Play continues until all clues have been answered or time runs out.



Game Board

Plants	Animals	Origins	Ecosystem Impacts	Invasive Characteristics
10 points	10 points	10 points	10 points	10 points
20 points	20 points	20 points	20 points	20 points
30 points	30 points	30 points	30 points	30 points
40 points	40 points	40 points	40 points	40 points
50 points	50 points	50 points	50 points	50 points

SCORE

Team #1:

Team #2:

Team #3:

Team #4:

Team #5: