LESSON FOURTEEN: INVASIVE SPECIES JEOPARDY

Duration: One 45-minute class period

Objectives:

To test students' knowledge of exotic invasive plant species taught in this unit.

Prepare in advance:

Practice using PowerPoint presentation before using in class

Materials:

- Computer and multimedia projector with Microsoft PowerPoint installed
- A copy PowerPoint Jeopardy game installed on computer.

Instructional sequence:

- **Remind** students of Jeopardy rules: *students supply a question* for a statement (the answer) given to them. For example, Answer the number of days in one week; student would supply the question, "What is 7?"
- Operating Instructions (from first slide on PowerPoint Jeopardy):
 - o Click anywhere on this screen to start the game.
 - o Select a category value and click on it.
 - o Click on the **ANSWER** button *FIRST*.
 - o THIS IS VERY IMPORTANT! Your first click **ANYWHERE** will reveal the answer (clue).
 - Click on QUESTION TO REVEAL CORRECT STUDENT RESPONSE.
 - Click on the **PINK HOUSE BUTTON** to return to the category screen.
 - o To END the PowerPoint, double click on any area of the screen.

OPERATING INSTRUCTIONS

Remember than in the game of jeopardy students supply a question for a statement (the answer) that the teacher gives them.

The teacher gives the answer and the student formulates a question for that answer.

E.g.: Answer – the number of days in one week Student would supply the question, "What is 7?"

PRACTICE USING THIS POWERPOINT BEFORE USING IT IN CLASS!

- 1. Click anywhere on this card to start the game.
- 2. Select a category value and click on it.
- 3. Click on the **ANSWER** button *FIRST*.
- 4. THIS IS VERY IMPORTANT! Your first click ANYWHERE will reveal the answer (clue).
- 5. Click on **QUESTION** TO REVEAL CORRECT STUDENT RESPONSE.
- 6. Click on the **PINK HOUSE BUTTON** to return to the category screen.
- 7. To END the PowerPoint, double click on any area of the screen.

Answer



Invasive Species Jeopardy				
Healthy Ecosystems	Relationships	Appalachian Invaders	Successful Strategies	Empower Me!
<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>
<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>
<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>
<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>
Final Jeopardy				

Healthy Ecosystems -100-

- **QUESTION:** "What is *the sun*?" » "What is *sunlight?*"
- **ANSWER:** the *energy source* on which everything in a healthy land or water ecosystem depends

Answer

Question



Healthy Ecosystems -200-

- **QUESTION:** What are *producers*, *consumers*, *and decomposers*?
- **ANSWER:** the kinds of living organisms in a healthy ecosystem (3)

Answer



Healthy Ecosystems -300-

- **QUESTION:** What are *land forms, water sources, soil, and rocks?*
- **ANSWER:** the non-living things in a healthy ecosystem (4)

Answer

Question



Healthy Ecosystems -400-

- **QUESTION:** What are *natural boundaries*?
- **ANSWER:** *physical limits* of a healthy ecosystem set by the living and non-living things in the ecosystem

Answer



Healthy Ecosystems -500-

- **QUESTION:** What is *biodiversity*?
- **ANSWER:** the number of *different species* in a particular habitat

Answer

Question



Relationships -100-

- **QUESTION:** What is a *producer*?
- **ANSWER:** a plant that can *change* the sun's radiant energy *into chemical energy*

Answer



Relationships -200-

- **QUESTION:** What are predators?
 »What is a predator?
- **ANSWER:** animals that hunt, kill and eat other animals

Answer

Question



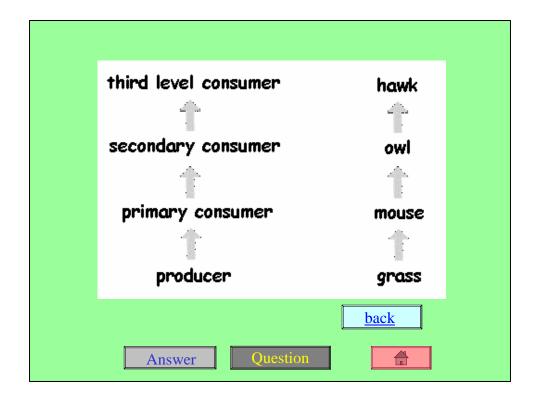
Relationships -300-

- **QUESTION:** What is a *habitat*?
- **ANSWER:** the place that provides food, shelter, and a suitable climate for an organism to live

Answer



Relationships -400 • QUESTION: What is a food chain? • ANSWER: a model that shows only one-to-one links between the levels of producers and consumers



Relationships -500-

- **QUESTION:** What are *exotic invasive plants*?
- **ANSWER:** rapid growth rates and reproduction rates allow *them* to overpower and displace existing native plants by using up valuable light, space, water, and nutrients

Answer

Question



Appalachian Invaders -100-

- **QUESTION:** What is *kudzu*?
- **ANSWER:** a fast-growing Asian vine from the *pea family*. Before 1953 it was often grown as *livestock forage* and to *stop erosion*.

Answer



Appalachian Invaders -200-

- **QUESTION:** What is tree of heaven?
- **ANSWER:** definitely *not* angelic! a tree most common along forest edges, often mistaken for *native sumac*

Answer

Question



Appalachian Invaders -300-

- **QUESTION:** What is *mimosa*?
- **ANSWER:** a small tree that re-sprouts quickly when cut, and seeds from *lacey pink flower "puffs"* may remain viable for 50 years or more

Answer



Appalachian Invaders -400-

- **QUESTION:** What is *Japanese honeysuckle*?
- ANSWER: a vine with sweet-smelling flowers. Its evergreen *leaves* photosynthesize in winter and its dense branches strangle small trees and shrubs

Answer

Question



Appalachian Invaders

!!!DOUBLE JEOPARDY!!!

- **QUESTION:** What is *oriental bittersweet*?
- ANSWER: a not so tasty climbing vine that reproduces often and grows so rapidly it damages or kills native plants by choking and shading them

Answer



Successful Strategies -100-

- **ANSWER:** the *ability* of a species to survive in a particular habitat, especially because of *changes* of form or behavior

Answer

Question



Successful Strategies -200-

- **QUESTION:** What is a *toxin*?
- **ANSWER:** the *deadly substance* given off by *roots* of some exotic invaders

Answer



Successful Strategies -300-

- **QUESTION:** What are *natural consumers*?
- **ANSWER:** Exotic invasive plants survive in new ecosystems because there are none of *these*.

Answer

Question



Successful Strategies -400-

- **QUESTION:** What are *tap roots and adventitious roots*?
- **ANSWER:** broad-leafed invaders often have one of *these two kinds of roots* that are very difficult to completely remove

Answer



Successful Strategies

!!!DOUBLE JEOPARDY!!!

• **QUESTION**: What is

'intentional habitat destruction'?

• **ANSWER:** Second only to *this*, invasive exotic plants are the greatest threat to natural ecosystems of the United States.

Answer

Question



Empower Me! -100-

- **QUESTION:** What is *identify* an exotic invasive plant?
- **ANSWER:** By *knowing* some of these things about a plant:
 - location (habitat)
 - leaf shape
 - flowers and/or seeds
 - root type

I can . . .

Answer



Empower Me! -200-

- QUESTION:
 - What is *get advice from an expert*?
- **ANSWER:** If I am *unsure* about planting an imported plant in my garden, I can . . .

Answer

Question



Empower Me! -300-

- **QUESTION:** What is tell her what you know about exotic invasives?
 - » What is *alert/inform others*?
- **ANSWER:** If my *next door neighbor* is getting ready to plant an invader in her garden, I can . . .

Answer



Empower Me! -400-

- **QUESTION:** What is a *volunteer*?
- ANSWER: a person who gives time freely to help identify and remove plant invaders in the Southern Appalachian Region

Answer

Question



Empower Me! -500-

• QUESTION:

What is an *Invasive Species club*?

• **ANSWER:** interested students who meet in a *group* to help find solutions to the exotic invasive species problems in the Southern Appalachian Region

Answer



FINAL JEOPARDY

• **ANSWER:** all the living things in an area plus the non-living things in the surrounding environment

question

