



The Green Economy and You

EPISODE #209

LESSON LEVEL

Grades 6-9

KEY TOPICS

- Entrepreneurship
- Green economy
- Environmental awareness

LEARNING OBJECTIVES

- 1. Learn how we benefit from eco-friendly business practices.
- 2. Recognize how you can reduce, reuse, and recycle.
- 3. Identify alternative energy sources.
- 4. Learn financial terms.

EPISODE SYNOPSIS

Recycling is only the tip of the iceberg. The Biz Kid\$ are on a mission to understand their impact on the environment and explore different ways to become part of the green economy. There's green to be made in thinking green.

NATIONAL STANDARDS CORRELATIONS

Aligned to *National Financial Literacy Standards* from the **Jump\$tart** Coalition for Personal Financial Literacy.

Financial Responsibility and Decision Making

Standard 1: Take responsibility for personal financial decisions.

Standard 4: Make financial decisions by systematically considering alternatives and consequences.

Planning and Money Management

Standard 4: Apply consumer skills to purchase decisions.

Aligned to *Voluntary National Content Standards in Economics* from the **Council for Economic Education.**

Standard 2: Decision Making Standard 14: Entrepreneurship

Aligned to **Common Core State Standards Initiative's** standards for *Literacy in History/Social Studies, Science and Technical Subjects.*

Standard 1: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

Standard 4: Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

Standard 7: Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.

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LESSON PREP & SCREENING

Getting Started

Familiarize yourself with the episode ahead of time. It will serve as a springboard for student learning, discussions, vocabulary exploration, and hands-on activities. Determine what equipment is required to show the episode in your classroom and request it if needed. Choose an activity (each one takes between 45-60 minutes), and gather supplies. Students will need a pen or pencil and copies of the activity worksheets. Have fun!

Screening

Introduce the series and the episode. Explain that Biz Kid\$ is a public television series that teaches kids about money and business. Mention that the bizkids.com website has lots of video clips, games, a blog, and other resources to help kids start businesses and learn about money. Prior to playing the episode, lead your students in a discussion with the preview questions on this page.

About the Episode

Recycling is only the tip of the iceberg. The Biz Kid\$ are on a mission to understand their impact on the environment and explore different ways to become part of the green economy. There's green to be made in thinking green.

Episode Preview Questions

Before you show this Biz Kid\$ episode, lead your students in a brief discussion of the following questions:

- What does the phrase "go green" mean?
- Have you ever collected cans or bottles or paper for recycling?
- Do you know what a carbon footprint is?

Next Steps

Show this episode. After the episode, read the Summary and Conclusion to the class.

Summary and Conclusion

This episode gave you answers and information about ways to use our resources wisely, and to become more aware of things we can do as individuals and as business owners to help the environment. People can still make money while making environmentally friendly choices.

Family Connection

Distribute a copy of the Family Activity Sheet to each student to share what they've learned with their families.



FAMILY ACTIVITY SHEET

Episode Synopsis

Recycling is only the tip of the iceberg. The Biz Kid\$ are on a mission to understand their impact on the environment and explore different ways to become part of the green economy. There's green to be made in thinking green.

Activity Suggestions

Together as a family, discuss specific ways that you reduce energy use and conserve resources in your own home. Make a chart of things you do now, and set a goal to add one new green behavior to your family routine (and your chart) each week for one month. Remind each other that simple changes do make a difference to save money and the environment.

Need ideas for how to go green? Take a look at the list below, and see how many of these you already practice at home.

Bring your own re-usable cloth shopping bags to the grocer's.

Look for e-waste recycling events for old electronics.

Look for hazardous waste events to dispose of dead batteries.

Buy rechargeable batteries instead of single use.

Recycle glass, paper, cardboard, plastic, and metal.

Purchase biodegradable products made with recycled materials.

Compost natural food scraps like banana peels and orange rinds.

Keep your car's tires inflated properly and save gasoline.

Conserve water - turn off the faucet while you brush your teeth.

Turn off lights and unplug electronics that are not in use.

Use drought tolerant plants in your garden to conserve water.

Bring a travel mug to the coffee shop, save the paper cup.

Use energy efficient light bulbs at home.

Buy local, such as at farmer's markets, it reduces transportation pollution.

Carpool, walk, bicycle, or take the bus, trolley, or train.

Repair items that can be mended.

Upcycle items that can be redesigned or reused in different ways.

Freecycle - give unneeded items to someone who can use them.



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Activity #1: BZZTERMS

WORKSHEET FOR STUDENTS

Biz Term\$

- Biodegradable
- Biofuels
- Compost
- Carbon footprint
- Eco-friendly
- Global warming
- Hybrid
- Recycle
- Solar energy
- Wind energy

Directions

With students, read aloud the Biz Term\$ and each question. Call on volunteers for answers, and have them explain why they chose the term they believe to be correct.

Biz Term\$ Episode Review

| 1. A mixture of organic substances (like egg shells, grass, and so forth used for fertilizing soil is |
|-------------------------------------------------------------------------------------------------------|
| 2. A car uses more than one energy source. |
| 3. Something that is not harmful to the environment is |
| 4. Climate change that may result from the greenhouse effect is called |
| 5. The amount of carbon compounds emitted into the atmosphere by you and others is your |
| 6. Fuels, such as wood or ethanol, which are derived from organic mater are called |
| 7. Energy derived from the sun's radiation is |
| 8. To process or treat used materials to make them reusable is to |

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CURRICULUM CONNECTIONS

Language Arts

- Have students construct sentences, write a paragraph, or create a story, skit, or dialog using Biz Term\$.
- Have students create a class Dictionary of Financial Terms using Biz Term\$
- Have students start their own Journal of Personal Financial Education and continue to add to it.

History/Social Studies

• In what year, and for what purpose, was the U.S. Environmental Protection Agency (EPA) founded? The EPA divides the U.S. into regions. Which region is your state in? What is a Superfund site? Are there any Superfund sites in your state?

Mathematics

• Using the internet, have students calculate their own carbon footprint at (http://www.cooltheworld.com/kidscarboncalculator.php). Public libraries may provide internet access if your school does not.

Economics

• In the global economy, we are beginning to take notice of environmental effects and the expense involved when we ship items internationally. Research the trend called 'nearshoring' in the United States. Make a list of all of the environmental and economic benefits that you can think of when a company decides to manufacture items closer to home.

Optional Vocabulary Extensions

Make Art!

Ask students to create personal illustrated glossaries using sketches or cartoons to visually represent the meaning of each Biz Term.

Make It Personal!

Provide students with dictionaries and ask students to re-write formal definitions for each Biz Term in their own words to demonstrate comprehension.



Activity #2: DAN'S DOO=TY

WORKSHEET FOR STUDENTS

Directions

Prince of

In this episode we met Dan, the Compost & Recycling Coordinator at the Woodland Park Zoo, who is responsible for composting the animal poop. He had all sorts of clever titles for the work he does.

1. Try to remember Dan's funny titles by filling in the blanks below.

| | World Leader | GM of |
|-------------------|-----------------------------|------------------------------------|
| Duke of | | Master of |
| 2 Can you think o | f another job title for Dan | that he has not already mentioned? |

Emperor of

- 3. Now, make a poster to advertise the zoo poop compost product that is sold at the Zoo gift shop. Try to include the following facts:
- Before the Zoo started composting, they spent about \$60,000 a year to haul poop to the landfill.
- Now, they make more than \$15,000 a year from selling the compost.
- It smells like dirt and not like poop when the compost process is completed.
- A small Pint size container is sold for \$5 while a larger 2-Gallon container is sold for \$13.
- The name of the product is "Zoo Doo" compost.
- The compost is made from a mixture of giraffe, oryx, hippo, gazelle, zebra, and elephant poop.
- 4. What do giraffes, oryx, hippos, gazelles, zebras, and elephants have in common that makes their poop good for composting?
- 4. If the Zoo makes \$15,000 in one year from selling compost, and if they only sold small Pint-size containers at \$5 each, how many containers of poop would they sell in one year to make \$15,000? How many per month? How many each week? How many each day? (Hint: There are 12 months in a year, 26 weeks in a year, and 365 days in a year.)

Have students share their answers and posters with the class.





Activity #3:

ALTERNATIVE FUEL CARS

WORKSHEET FOR STUDENTS

Directions

There are many options on the market today for alternative fuel cars. Compare the models below.

| Fuel | Description | Example | Mileage City | Mileage Highway | Price |
|------------------|------------------------------|----------------|-----------------|--------------------|----------|
| Flex Fuel | Mix of gasoline and ethanol. | Ford Focus E85 | 26 | 38 | \$16,600 |
| Hybrid Electric | Gasoline plus a battery. | Toyota Prius | 51 | 48 | \$24,200 |
| Electric Plug In | All electric, no gas tank. | Nissan Leaf | 129 | 102 | \$21,300 |

| Ι. | which vehicle gets the best mileage? | | |
|----|--------------------------------------|--|--|
| | | | |

- 2. Which vehicle has the lowest price?
- 3. What is the difference in price between the Flex Fuel car and the Hybrid Electric car?
- 4. The Flex Fuel car has a lower starting price, but the Hybrid Electric has better mileage. If gas is \$4 per gallon, how many miles do you have to drive to make the purchase of the more expensive car 'worth it' financially? (Hint, take the difference in price and divide by price per gallon.)

5. If the average driver drives 1,000 miles per month, how many months would it take for the more expensive

car to be 'worth it' financially? What about environmentally?

Have students discuss these ideas and share their answers with the class.



BIZTERMS DEFINITIONS

- Biodegradable: Capable of decaying through the action of living organisms.
- Biofuels: Sources of energy that come from organic matter such as wood or corn.
- *Compost:* A mixture of organic substances used to fertilize the soil.
- *Carbon footprint:* The amount of carbon dioxide or other carbon compounds emitted into the atmosphere by the activities of an individual.
- *Eco-friendly:* Not harmful to the environment.
- *Global warming:* An increase in the earth's atmospheric temperature that causes corresponding changes in climate that may result from the greenhouse effect.
- *Hybrid*: Something that is powered by more than one source of power.
- Recycle: To treat or process used or waste materials to make them suitable for reuse.
- Solar energy: Energy derived from the sun in the form of solar radiation.
- Wind energy: Energy derived from harnessing wind power.



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