LESSON LEVEL
Grades 6-8

KEY TOPICS
- Decision Making
- Green Business Practices
- “Green-washing”

ENTREPRENEURS & STORIES
- Sporting-Sails – Billy & Nick
- Back to the Roots – Nikhil & Alex
- Sweet (Dis)Solve – Haley
- Non-toxic cosmetics – Ava
- Athenian School – Kavi

EPISODE SYNOPSIS
Going green is worthwhile and good for the bottom line. Explore the profitable side of going green, and learn how to distinguish between what’s hype and what’s hip. Meet two college graduates who learned how to make a profit from the coffee grounds up.

LEARNING OBJECTIVES
1. Identify various ways businesses can go green.
2. Determine the costs and benefits of going green.
3. Distinguish between “real green” products and products that try to appear green but are not.
4. Identify materials that can be recycled or re-purposed.

NATIONAL STANDARDS CORRELATIONS
Aligned to National Financial Literacy Standards from the JumpStart Coalition for Personal Financial Literacy.

Financial Responsibility and Decision Making
Overall
Competency: Apply reliable information and systematic decision making to personal financial decisions.
Standard 1: Take responsibility for personal financial decisions.
Standard 4: Make financial decisions by systematically considering alternatives and consequences.

Planning and Money Management
Overall
Competency: Organize personal finances and use a budget to manage cash flow.
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 4: Incentives

CONTENTS
- Lesson Prep & Screening
- Activity #1
- Curriculum Connections
- Activity #2
- Biz Terms Vocabulary
- Family Activity Sheet
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 is required to show the episode in your classroom and borrow equipment if needed. Choose an activity (each one takes between 45-60 minutes), and gather supplies. Have fun!

Equipment & Supplies
For all activities, students will need a pen or pencil. Additional equipment needs are identified on activity pages.

Screening
Introduce the series and the episode. Then, prior to playing the episode, lead your students in a discussion with the preview questions on this page. Explain that Biz Kids is a public television series that teaches kids about money and business. Also mention that the bizkids.com website has lots of video clips, games, a blog, and other resources.

About the Episode
Going green is worthwhile and good for the bottom line. Explore the profitable side of going green, and learn how to distinguish between what’s hype and what’s hip. Meet two college graduates who learned how to make a profit from the coffee grounds up.

Preview Questions
- In what ways do you or your family recycle products?
- Are you aware that some companies advertise that they are “green” or eco-friendly, but in fact they are not?
- Does it matter to you to make careful use of resources? Why or why not?

Summary & Conclusion
There are many inventive ways that entrepreneurs are going green, from harvesting kinetic energy for lighting a dance floor, to harvesting the sun’s rays to operate toys. Companies are going green with recycling programs and by using alternative energy sources. All of these practices are good for the environment, and may even lower operating costs in the long run. Even consumers are more aware of how their choices affect the environment, and they will often select an eco-friendly product over a similar product that is not green. Now that you know more about the green economy, what new choices will you make, Biz Kid?

Family Connection
Distribute a copy of the Family Activity Sheet to each student to share what they’ve learned with their families.
Activity #1:
INVESTMENT PLAN

Activity Learning Objectives
- Identify green business practices.
- Introduce *Biz Terms* and definitions used in the episode.

Episode Details
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Directions
Read the episode details out loud to the class. Hand out the worksheets titled “For Students” and discuss them together in class. Read the *Biz Terms* and discuss the vocabulary/episode review questions. Call on volunteers for answers, and have them explain to the group why they chose the term they believe to be correct.

Then, give the students time to complete worksheets. Finally, acting as a facilitator, allow students to discuss the issues. See Curriculum Connections on page 7 for additional ways to work with *Biz Terms*. (Note: the definitions are on page 9.)

Activity Wrap-Up
Thank the students for their participation, and remind them that going green can be both environmentally and economically beneficial and fun! There are new technologies arriving that are energy-saving and cool looking. Consumers must be able to distinguish between companies that are actually environmentally friendly and those that just label themselves “green” to boost sales. Consumers can choose, so which product is right for you? Remember, your dollar has a voice!
INVESTMENT PLAN

WORKSHEET FOR STUDENTS

Biz Terms
- Biodegradable
- Carbon footprint
- Conservation
- Eco-friendly
- Energy efficient
- Green products
- Green-washing
- Pollution
- Quick response manufacturing
- Recycled materials
- Solar cells
- Sustainable materials

Episode Review
1. If you dispose of something that will decay and break down naturally, it is ________________.

2. Making a product sound like it’s good for the environment when it may not be is called ________________________.

3. ________________ gather energy from sunlight to use as electricity.

4. Things that can be grown over and over again, like Nikhil and Alex’s mushrooms, are called ________________________.

5. Trash or litter on the land or in the sea is a form of ________________.

6. Your ________________ is determined by the amount of carbon compounds put into the air by things you do or use.

7. Careful use of natural resources, like what Kavi and her classmates do at school, is called ________________________.
INDOOR CLASSROOM GARDEN

WORKSHEET FOR STUDENTS

Nikhil and Alex found a great way to grow edible pearl oyster mushrooms* in used coffee grounds. In fact, you can grow plants in many different materials.

1. Have you ever grown plants in a classroom before? If so, what did you grow and what was it planted in?

__________________________________________________________________________

2. Lima beans are edible, and they just need a little water in order to start growing. List three waterproof containers that you could recycle and use to grow a lima bean plant in.
   
a. _______________________________________________________________________
   
b. _______________________________________________________________________
   
c. _______________________________________________________________________  

3. There are several ways to grow plants without soil, and these include hydroponics and aquaponics. What is the main difference between these? (Use the library or the internet for research.)

__________________________________________________________________________

__________________________________________________________________________

Which of these systems is the most sustainable?

__________________________________________________________________________

Why is this the most sustainable system?

__________________________________________________________________________

*NOTE: Be aware that not all mushrooms are edible, and some can be poisonous. These pearl oyster mushrooms are edible.
INDOOR CLASSROOM GARDEN

WORKSHEET FOR STUDENTS

4. Compost made from organic waste, like coffee grounds, can be used to grow plants in. Can you think of three other types of organic waste from local businesses, besides coffee grounds, that could be recycled to grow plants in?

a. 

b. 

c. 

Hint: Nikhil and Alex found some additional organic waste to divert from landfills and use in their own business, read about it here:

http://www.backtotheroots.com/community

5. How can you apply what you’ve learned in this episode and in the activities to your life?

____________________________________________________

____________________________________________________

____________________________________________________

Extra Credit

Order a “Back to the Roots” kit* and grow it in your classroom. Here is the website for ordering:

http://store.backtotheroots.com/product_p/mushroom-kit.htm.* Be aware some mushrooms are poisonous.

Extra Credit

Conduct an interview with school officials or club officials on what kind of green services they have considered and what kind of services they have they used. Are there any services they have considered but not bought? Why? Expenses? Reliability? Existing contracts? What do they feel are the advantages of “going green” in their organization? Could students help the school or organization go green? Organize a recycling program and research organizations that would take the materials. In some cases, a company will pay for recyclables, which could even make this a fundraiser.
CURRICULUM CONNECTIONS

Language Arts
- Have students construct sentences; write a paragraph; or create a story, skit, or dialog using Biz Terms.
- Have students create a class dictionary of financial terms.
- Have students start their own journal of personal financial education and continue to add to it.

History/Social Studies
- Investigate the history of recycling.
- Research recycling and green practices in your school or community.

Mathematics
- Do a cost comparison, short term and long term, between incandescent light bulbs, compact fluorescent light bulbs, and LED light bulbs. Make a case for the least harmful choice.

Economics
- How does recycling affect the economy today? In what ways have businesses changed their attitudes and practices toward “green” materials and behaviors?

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: RESEARCH EVERYDAY PRODUCTS

Activity Learning Objectives
- Read and understand the health hazard scores for everyday products.
- Identify hazardous ingredients.

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Supplies Needed
Computers, access to Internet, and printers.

DIRECTIONS FOR STUDENTS

Ava used a website to look up the products she uses every day to find out if they are toxic. At the computer, connect to the internet and go to http://www.ewg.org/skindeep/.

This database is not just for cosmetics, it includes things such as bar soap, toothpaste, and shampoo – things we use every day. Each product is given an overall score from 0-10 with 0 being the lowest risk and 10 being the highest risk of health hazards.

Look up the following items that you use at home:

1. Toothpaste
   Brand I use: ___________________________________________
   Overall score: ________________________________________

2. Soap
   Brand I use: __________________________________________
   Overall score: ________________________________________

3. Shampoo
   Brand I use: __________________________________________
   Overall score: ________________________________________

Now that you see the answers, are you surprised at any of the results? Go back to the listing for your bar of soap. Scroll down the page and you will see a list of ingredients. Each ingredient also has a score.

What ingredient in your soap has the highest hazard rating?

Ingredient: ____________________________________________
Score: ________________________________________________

Extra Credit
With your class, make a chart or graph of all the soaps that students use and what their scores are.
**Biz Terms Definitions**

- **Biodegradable:** An item that will break down or decay quickly and naturally through the action of living organisms such as bacteria.

- **Carbon footprint:** The amount of carbon dioxide or other carbon compounds which are put into the air by one individual, by one company, or by one country. The smaller your carbon footprint is, the better it is for the environment.

- **Conservation:** The careful use of natural resources, such as water, so they will not run out.

- **Eco-friendly:** Not harmful to the environment.

- **Energy efficient:** Something that uses less energy to get the same result.

- **Green products:** Products which are better for the environment because of the ingredients used to make them or because of better manufacturing processes that cause less harm to the environment.

- **Green-washing:** Making a product sound like it’s good for the environment when it may not be.

- **Pollution:** Things such as trash or litter on the land, chemicals in the water supply, or chemicals in the air, which do not belong there naturally and may harm the environment.

- **Quick response manufacturing:** Using technology to manufacture items in a way that creates less waste.

- **Recycled materials:** Materials or products that have been used for one purpose previously, which are now being re-used for another purpose instead of being thrown away.

- **Solar cells:** A way to gather energy from sunlight and put it to use as electricity.

- **Sustainable materials:** Something that will not run out, that can be grown over and over again (like a plant), or something that is free and abundant like sunlight.
FAMILY ACTIVITY SHEET

Episode Synopsis
Going green is worthwhile and good for the bottom line. Explore the profitable side of going green, and learn how to distinguish between what’s hype and what’s hip. Meet two college graduates who learned how to make a profit from the coffee grounds up.

Activity Suggestions
There are many ways to “go green” which everyone can do. Going green can be both environmentally and economically beneficial. Remember, your dollar has a voice. Have a family discussion about going green, and see what you can do together.

Are you willing to consider:
- Carpooling or using public transportation?
- Reusable travel mugs instead of paper, plastic, or Styrofoam cups?
- Turning off and unplugging lights or electronics when they are not being used?
- Installing more efficient heating or cooling systems in your home?
- Composting?
- Purchasing recycled products?
- Using environmentally friendly paint on interior surfaces?
- Buying products that have less wasteful packaging?
- Purchasing food that is locally grown with fewer or no chemicals used in the growing process?
- Adding solar cells or energy panels to your home or other equipment like solar lamps?
- Replacing older, less efficient appliances with new models that are more energy efficient?

For more information on businesses and products that contribute to a cleaner and healthier environment, check out The Green Business Chamber website at http://www.greenbusinesschamber.com/. See if your community has listings in the Green Business Directory.
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