

Introduction to ECOLOGY IS AWESOME - STEVE TRASH - STUDY GUIDE



Hi.

I'm Eco-Entertainer and Eco-Educator - Steve Trash®.

I've been lucky enough to tour the planet (Japan, Australia, Canada, Portugal, Spain and theaters all over the United States) sharing what I know about the environment and the ecological world with kids through comedy, cool illusions, and awesome ecology themed magic tricks. I've been lucky enough to do this for over 30 years.

Cool right?

I focus on making the ECOLOGY IS AWESOME - fascinating and fun. It's pretty easy to do because... hey... ecology... is... fascinating and fun.

The ECOLOGY IS AWESOME - starring Steve Trash - is a magical, ecological, and educational experience, filled with fun illustrations demonstrating how

everything in the natural world is connected and tips on how to Reduce, Reuse, Recycle. It's been described by many as, "the best field trip we've ever had."

The cool thing is, I don't just talk about this green message, I live it too! I live in an energy efficient, earth bermed home. I print my promotional materials on post consumer recycled paper. I am always seeking out new ways to reduce my carbon footprint (we just installed a solar PhotoVoltaic array at my home and studio), and most of all, I try to share my passion with kids through fun and magic.

Fortunately for me, I get to come to your community and share some of this fun and magic.

I've created this STUDY GUIDE to enhance the learning experience for your students. It should fit nicely into your required state science curriculum as well. Check our web site www.stevetrash.com/resources for a list of cross-correlated/state specific topics.

So, when it's appropriate (before my appearance), please introduce your students to the words, concepts, and videos in this STUDY GUIDE.

I look forward to meeting you.

Steve Trash - Rockin' Eco Hero & Upcycling Illusionist - www.stevetrash.com



What is ecology about, anyway?

Ecology is the relationship of living things to each other and to what's around them. So, if you are learning about what kinds of relationships fish have with other animals (including us!) and plants in their neighborhood, then you are learning about ecology.

The word ECOLOGY comes from Greek words meaning “study of the household.” That means that ecology is the study of the “household” of living things: their neighbors and neighborhood. Ecology includes not only how living things interact with each other, but how they interact with their physical environment: things such as climate, water, and soil.

Ecologists are the scientists who study ecology. They are curious and like to learn about living things by observing them, seeing what happens, and recording what they find. This is all part of the **scientific method**.

STUDY GUIDE

ECOLOGY IS AWESOME - Steve Trash Bus-In Show • www.stevetrash.com

OBJECTIVES – ECOLOGY IS AWESOME - BUS IN - SHOW

Objective #1 – Understand the interconnections that exist in the ecological world.

Objective #2 - Understand that all the Earth’s resources are limited and valuable and should be used wisely.

Objective #3 - Show kids how they can use resources wisely in non-polluting ways.

STUDENTS WILL LEARN – ECOLOGY IS AWESOME - BUS IN - SHOW

1. Ecology is the study of living things and their environment. Ecology is part of our daily lives. We need to be aware of our impact on the ecology around us and on the whole earth.
2. The Earth’s natural resources are limited and therefore, valuable.
3. What is “POLLUTION” and how we can help prevent it.
4. What things can be recycled and why trash is a natural resource.
5. How to “CLOSE THE LOOP” of recycling.
6. What is the “WEB OF LIFE?

Steve Trash “Ecology Is Awesome” Study Guide, page 3 of 7

7. What is the “SCIENTIFIC METHOD”?
8. What are renewable and non-renewable resources?

IDEAS FOR DISCUSSION – ECOLOGY IS AWESOME - BUS IN - SHOW

Please review these concepts and vocabulary words with your students. They cover ideas that are directly and indirectly addressed in the STEVE TRASH ECOLOGY IS AWESOME SHOW.

- Why should we care about ecology?
- All living creatures are “consumers”. They must consume resources to live. What natural resources do students use in their everyday lives?
- What is the “food chain” (or “food web”) and are we part of it?
- How do we change nature? (Today, we change ecology, whether we want to or not.)
- How can pollution affect our food, water and air?
- Can pollution harm animals?
- How does recycling help prevent pollution?
- Why is the recycle symbol one continuous loop? What systems in nature are closed/continuous loops as well?
- How is recycling household waste similar to the way our environment recycles water, dirt, and air?
- Why are trees so important in keeping the air we breathe healthy?
- What is “The Water cycle”?
- What is the “Scientific Method”?
- What are some things people do to help or hurt the environment?
- How can over population hurt the environment?
- Why would Steve Trash CHOOSE to do magic tricks with trash? Is he poor? Is he rich? Does he love natural resources so much he wants to share this love in a magic show?

- What are some of the differences between science and magic? How does magic APPEAR to violate natural laws?
- Have the students draw a picture of the living and non-living things in your environment. Discuss how these things are connected to each other biologically, chemically and atomically.

Want to send these pictures to Steve? Please do!

Steve Trash - The Upcycling Illusionist P.O. Box 1, Spruce Pine, AL 35585

VOCABULARY – ECOLOGY IS AWESOME - BUS IN - SHOW

Closed Loop – A system in which the waste or byproduct of one process or product is used in making another product.

Consumer - A person that eats or uses something. A person who buys goods or services.

Earth - the only planet in our solar system that supports life.

Ecology – Ecology is the study of living things and their environment. The scientific study of connections that exist in nature.

Ecologist - Ecologists are the scientists who study ecology. They are curious and like to learn about living things by observing them, seeing what happens, and recording what they find.

Environment – where a plant or animal lives and all the things that affect it there.

Food Chain – A food chain shows how living things gets food, and how nutrients and energy are passed from creature to creature. Food chains can begin with plant life, and end with animal life. Animals may eat plants or may eat other animals. Example: grass grows using energy from the sun and the earth, bugs eat grass, birds eat bugs, cats eat birds, etc.

Garbage or Trash - a natural resource you've decided is not valuable anymore. A natural resource, in the wrong place, at the wrong time, in the wrong amount.

Interconnection – two or more things linked together, that can sometimes depend on each other to survive.

Natural resource - Something, such as a forest, a mineral deposit, or fresh water, that is found in nature and is necessary or useful to humans.

Non-renewable resource - A natural resource from the Earth that exists in limited supply and cannot be replaced if it is used up.

Pollution – a subject or thing that is in or is introduced into the environment that has harmful or poisonous effects.

Renewable resource – A resource that can be totally replaced or is always available naturally, or that is practically inexhaustible.

Resources - the things that the Earth provides for us that we can use.

Rockin' Eco Hero - a person that works everyday to make the world a better place to live. (example: Steve Trash and kids like you!)

Recycle - to take a resource that's been used, remanufacture it, and use it again.

Reuse - to use an item more than once.

Reduce - to decrease the amount of waste or energy used.

Scientific Method – a method of research in which a problem is identified, relevant data is gathered, a hypothesis is formulated from this data, and the hypothesis is empirically tested. The hypothesis is a like a guess. It is what we think the answer to the problem might be. The data is the information which is collected by practical experiments by means of direct and indirect observation or experience. Scientists try to write very detailed procedures so that somebody who tries to repeat the experiment later will be able to repeat it.

The Web of Life - organisms in an ecological community that are linked to each other through the transfer of energy and nutrients.

Upcycling - Reuse of discarded objects or material in such a way as to create a product of higher quality or value than the original. *Upcycling* is the process of converting old or discarded materials into something useful and often beautiful.

Water Cycle - the natural movement of water through the biosphere from the atmosphere to surface of the Earth and back again.

VIDEO RESOURCES – ECOLOGY IS AWESOME - BUS IN - SHOW

These are videos I've created to help your kids learn more about the Steve Trash "Ecology Is Awesome" Study Guide, page 6 of 7

***science of ecology and the environment. You can view them online on my...
YOUTUBE channel***

www.youtube.com/stevetrashnetwork

Steve Trash is a member of the National Science Teachers Association, the National Recycling Coalition and the North American Association for Environmental Education. He is a lifetime member of the Alabama Association for Environmental Education, and a founding board member of Keep The Shoals Beautiful.

Recently his show was honored to receive the EEAA'S - BEST ENVIRONMENTAL EDUCATION PROGRAM AWARD for 2011 and the OUTSTANDING RC&D PROGRAM award. Online readers of FAST COMPANY MAGAZINE voted Steve Trash number eleven in the FAST 50 list of entrepreneurs making the world a better place to live.

He's appeared on many national and international TV shows including - CBS THIS MORNING, ESPN OUTDOORS, CBS MARKETWATCH, CNBC'S AMERICA'S TALKING, VH1 TOP 20 COUNTDOWN and was recently interviewed on Levar Burton's READING RAINBOW.

He's been featured in the NEW YORK TIMES, the LOS ANGELES TIMES, the DALLAS MORNING NEWS, FAST COMPANY MAGAZINE, MAGIC MAGAZINE and he's even been on the cover of the kids' magazine, THE WEEKLY READER.

Feel free to contact me at www.stevetrash.com or stevetrashrockinecohero@gmail.com.