



**Steve Trash**

School Show Study Guide  
from the Artist

Luther Burbank Center for the Arts  
Oct 1-31, 2021

## STUDY GUIDE – VOCABULARY – QUESTIONS

STEVE TRASH SCIENCE – PRESENTED BY LUTHER BURBANK CENTER FOR  
THE ARTS – SANTA ROSA – October 2021

SEGMENT 1. POLLINATORS    SEGMENT 2. RENEWABLE VS NON-RENEWABLE  
SEGEMENT 3. THE WATER CYCLE    SEGMENT 4. REDUCE REUSE RECYCLE  
SEGMENT 5. POLLUTION    SEGMENT 6. EARTH IS WICKED AWESOME

TOTAL RUNNING TIME 60 MINUTES

### EPISODE 1. TITLE: POLLINATORS - MESSY BABIES AND POLLINATORS SUBJECT: POLLINATION AND POLLINATORS

WHAT IS POLLINATION?  
HOW DOES NATURE MAKE POLLINATION HAPPEN?  
WHAT ARE SOME POLLINATORS WE SEE AROUND US?  
WHY ARE POLLINATORS IMPORTANT?  
WHAT IS POLLEN AND HOW DOES IT HELP MAKE NEW PLANTS? HOW CAN  
HUMANS HELP POLLINATORS?

#### VOCABULARY:

NECTAR POLLINATION POLLEN POLLINATOR PISTIL OVULE SYMBIOSIS  
HABITAT

### EPISODE 2. RENEWABLE VS NONRENEWABLE - THE BIG MATCH-UP - RENEWABLE VS NONRENEWABLE

**SUBJECT:** RENEWABLE AND NON RENEWABLE RESOURCES.

WHAT ARE NATURAL RESOURCES?  
GIVE 3 EXAMPLES OF A NATURAL RESOURCE.  
HOW ARE RENEWABLE RESOURCES DIFFERENT FROM NON RENEWABLE  
RESOURCES?  
GIVE EXAMPLES OF RENEWABLE AND NON RENEWABLE RESOURCES.  
EXPLAIN WHY TREES ARE A RENEWABLE RESOURCE.  
ABOUT HOW LONG DOES IT TAKE A WATER MOLECULE ON EARTH'S SURFACE  
TO TRAVEL THROUGH THE WATER CYCLE?  
WHAT ARE TWO NATURAL RESOURCES THAT CAN BE USED TO MAKE POWER?  
NAME THREE SPECIFIC CYCLES IN NATURE.  
GIVE TWO EXAMPLES OF FOSSIL FUELS.

HOW DO WE GET ENERGY OUT OF FOSSIL FUELS?  
HOW HAVE FOSSIL FUELS HELPED AND HARMED HUMANS?  
NAME THREE ALTERNATIVE RENEWABLE ENERGY SOURCES.  
HOW CAN WIND AND SUN PRODUCE ELECTRICAL ENERGY?  
HYDRO POWER IS ENERGY CAPTURED FROM WHAT?  
WHERE IS GEOTHERMAL ENERGY MADE?  
HOW IS BIOMASS OR BIOFUEL ENERGY MADE?  
HOW IS USING RENEWABLE INSTEAD OF NONRENEWABLE RESOURCES  
PREFERABLE?

**VOCABULARY:**

NATURAL RESOURCES RENEWABLE NON RENEWABLE WATER CYCLE WIND  
ENERGY MAGMA FOSSIL FUEL COAL ALTERNATIVE ENERGY SOLAR PANEL  
HYDRO OR WATER POWER GEOTHERMAL BIOMASS BIOFUEL

**EPISODE 3. WATER CYCLE - WATER WATER WATER CYCLE**

**SUBJECT:** WHAT IS THE WATER CYCLE AND WHY IT IS IMPORTANT?

WHAT DRIVES THE WATER CYCLE?  
CAN WE DRAW A PICTURE REPRESENTING THE WATER CYCLE?  
WHAT PERCENTAGE OF WATER ON EARTH IS USEABLE FRESHWATER? WHY IS  
IT IMPORTANT TO HAVE SAFE, CLEAN WATER?  
WHY SHOULD WE NOT DUMP ANYTHING INTO STORM DRAINS?  
WHAT ARE SOME WAYS TO CONSERVE WATER?  
WHAT THREE PHYSICAL FORMS CAN WATER BE FOUND IN?  
DOES THE OVERALL AMOUNT OF WATER ON EARTH EVER CHANGE?

**VOCABULARY:**

WATER CYCLE CONDENSATION PRECIPITATION INFILTRATION EVAPORATION  
GROUNDWATER RUN OFF TRANSPIRATION

**EPISODE 4. REDUCE REUSE RECYCLE – WASTE AND NATURAL  
RESOURCES**

**SUBJECT:** WHAT IS “GARBAGE” AND HOW WE CAN REDUCE THE AMOUNT OF  
GARBAGE WE HAVE.

ON AVERAGE, HOW MUCH GARBAGE DO AMERICANS MAKE? WHAT EFFECT  
DOES GARBAGE HAVE ON THE PLANET? WHAT DOES “REDUCE, REUSE AND

RECYCLE” MEAN?  
HOW CAN WE MAKE LESS GARBAGE?

WHAT DOES “UPCYCLE” MEAN?  
WHAT THINGS CAN BE RECYCLED?  
WHAT ARE THE STEPS IN THE RECYCLING PROCESS? HOW DOES NATURE RECYCLE?

**VOCABULARY:**

LANDFILL REDUCE REUSE RECYCLE RECHARGEABLE BATTERY DISPOSABLE BATTERY UPCYCLE POST CONSUMER WASTE CLOSED LOOP WATER CYCLE RESOURCE

**EPISODE 5. POLLUTION - OH YUCK POLLUTION**

**SUBJECT:** POLLUTION AND WHAT CAN WE DO TO PREVENT IT.

WHAT IS THE DEFINITION OF POLLUTION?  
WHAT ARE THE 3 MAIN TYPES OF POLLUTION?  
IS MOST POLLUTION CAUSED BY HUMANS?  
DEFINE “LITTER” AN GIVE EXAMPLES OF IT.  
HOW CAN LITTER HARM ANIMALS?  
WHAT SHOULD WE DO WITH USED MOTOR OIL AND WHY?

NAME ONE KIND OF POLLUTION THAT WE CANNOT SEE.  
CAN THE EARTH JUST “TAKE CARE” OF POLLUTION BY ITSELF?  
WHAT EFFECT DOES POPULATION GROWTH HAVE ON POLLUTION?  
EVERYTHING IN THE NATURAL WORLD IS \_\_\_\_\_. (CONNECTED)  
NAME 3 THINGS WE CAN DO TO LIMIT POLLUTION.

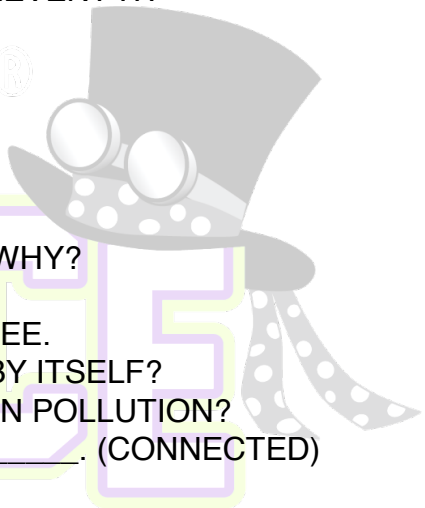
**VOCABULARY:**

POLLUTION LITTER CARBON MONOXIDE RECHARGEABLE BATTERIES DISPOSABLE BATTERIES

**EPISODE 6. EARTH IS WICKED AWESOME**

**SUBJECT:** EARTH: IT’S PLACE IN THE UNIVERSE AND WHY IT IS UNIQUE.

WHAT FORCE HOLDS THE UNIVERSE TOGETHER?  
IN ADDITION TO THE 8 PLANETS, WHAT ELSE MAKES UP OUR SOLAR SYSTEM?  
WHAT ARE SOME CHARACTERISTICS OF THE PLANETS IN OUR SOLAR SYSTEM?  
WHY IS EARTH THE ONLY PLANET THAT SUPPORTS LIFE?  
WHAT ARE EARTH’S 4 MAJOR NATURAL SYSTEMS (OR SPHERES) AND HOW



ARE THEY CONNECTED?  
WHY ARE WE CALLED “CARBON BASED LIFE FORMS”?  
HOW DOES EARTH’S ATMOSPHERE BENEFIT THE PLANET?  
WHAT IS THE WATER CYCLE?

**VOCABULARY:**

GALAXY  
MILKY WAY SOLAR SYSTEM STAR ASTEROIDS COMETS HABITABLE SPHERES  
BIOSPHERE GEOSPHERE ATMOSPHERE HYDROSPHERE BIO  
POLLUTION

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