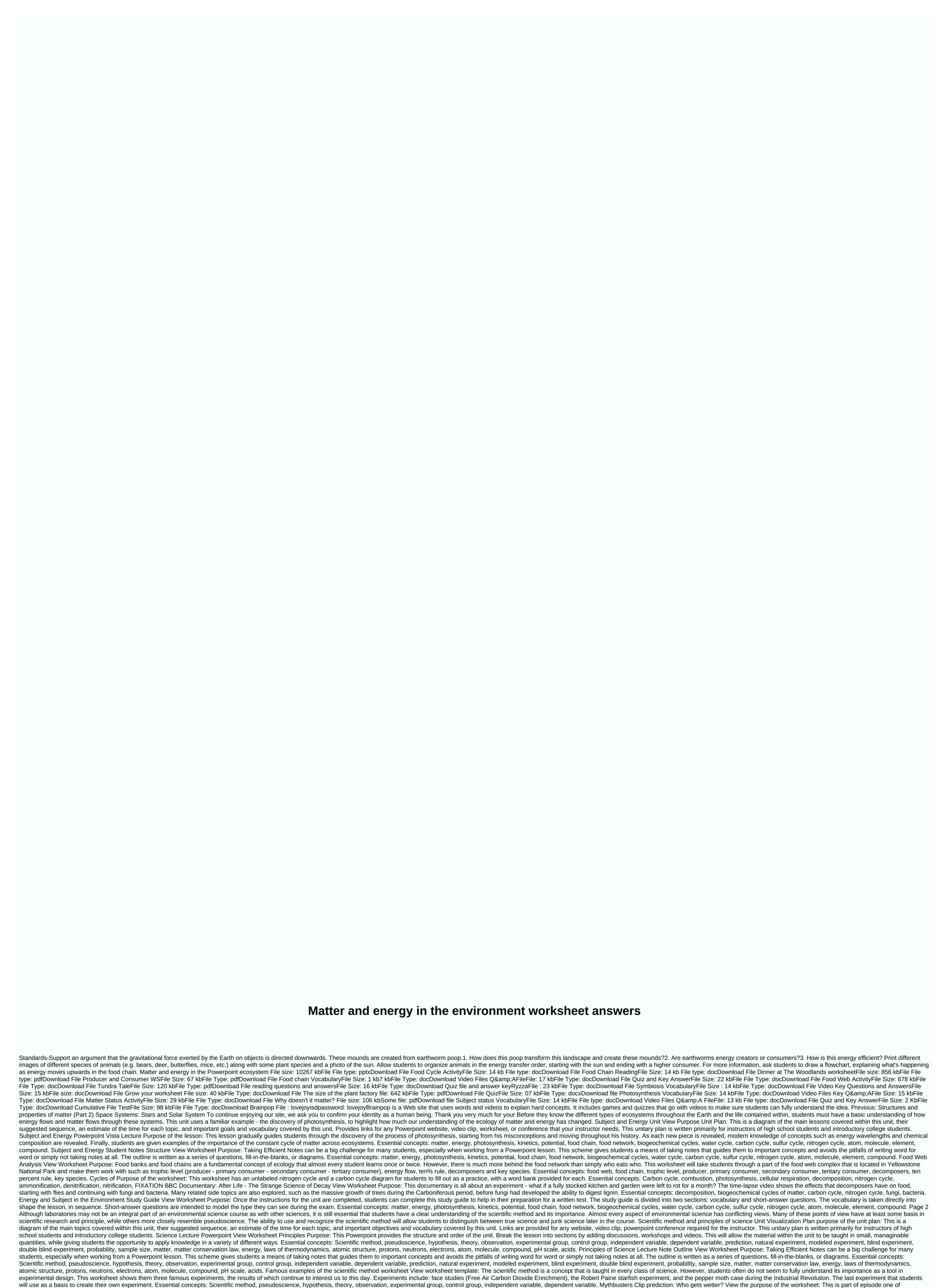
I'm not robot	U
	reCAPTCHA

Continue



Mythbusters seen on the Discovery Channel, titled Magic Bullet, Exploding Toilet, Who Gets Wetter? Most segments of the TV show are great for illustrating the scientific method. This in particular is effective, as shown by the actual raw quantitative data collected in the experiment. Students can perform their own analysis and evaluate the validity of the conclusions of this segment. Essential Essential Scientific method, experimental design, quantitative data, graphs, independent variables, dependent variables, sample size, natural experiments. The Eyes of Nye: Pseudoscience View Worksheet Purpose: This episode of Eyes of Nye offers students a short tour of some of the most famous examples of modern pseudoscience. Bill Nye applies the scientific method to extraordinary statements such as astrology, fortune storytelling, palm reading, tarot cards, fire walks, and others. Essential concepts: Pseudoscience, scientific method, bias, experimental design, astrology, zodiac, fire walk, tarot cards, psychics, cold reading. Fake News Analysis Assignment - Vaccine Death View Worksheet Purpose: This task will present students with three articles about vaccines: one from the Washington Post, one from Natural News, and the other from a website called Vaccines.news. Students will be guided through an analysis of the articles, including the identification of clickbait, the search for the background of the authors and judge the validity of different statements within the articles. Essential concepts: Pseudoscience, fake news, news analysis, sources. Lab: Does Dowsing Rods really work? View Worksheet Purpose: The best way to learn the scientific method

```
is to actually apply it in a practical way. This lab allows students to test an unusual claim -- that copper dowsing rods as another example of pseudoscience, and this lab helps guide students in building an blinded
experiment in which they test the claimed properties of dowsing rods themselves. Essential concepts: scientific method, observation, experiment, independent variable, dependent variable, hypothesis, conclusion, data analysis, bias, pseudoscience. Astrology as Pseudoscience: Analysis of a Horoscope and Zodiac Signs View Worksheet
Purpose: Astrology is a great modern example of pseudoscience, but a deeper look exposes a complete lack of any scientific methodology. This is a one-part activity that will help students explore what astrology is
all about and question its tenants. Essential concepts: Pseudoscience, scientific method, bias, experimental design, astrology, zodiac. PBS Nova Documentary: Secrets of the Psychics View Worksheet Purpose: This documentary explores multiple supernatural claims made by psychics, healers of faith and others. Students will see that
when the scientific method is applied to each of these claims, they fall apart pretty quickly. Essential concepts: Pseudoscience, scientific method, experiment behind curved curve View the purpose of the worksheet: This documentary tries to understand the Flat
Earth movement. Although this might seem like an unusual topic to address in a class of science, it is actually a great example of pseudoscience, the scientific method, and prejudice in the modern era. People who believe that the Earth is flat have an inherent mistrust in many institutions -- government, science and education. As such,
they try to find out what the truth is, and in doing so, build and conduct many of their own experiments. This documentary offers a lot of opportunities for class discussion of the basis of their distrust, prejudice, and where exactly in the scientific method, they are going wrong. Essential concepts: Pseudoscience, scientific method,
experimental design, bias. Scientific Method and Principles Study Guide View Worksheet Purpose: Once the instructions for a written test. The study guide is divided into two sections: vocabulary and short-answer questions. The vocabulary is
taken directly into shape the lesson, in sequence. Short-answer questions are intended to model the type they can see during the exam. Essential concepts: Scientific method, pseudoscience, hypothesis, theory, observation, experiment,
modeled experiment, blind experiment, blind experiment, double blind experiment, probability, sample size, matter, matter conservation law, energy, laws of thermodynamics, atomic structure, protons, neutrons, electrons, atom, molecule, compound, pH scale, acids. Page 3 The passage and amendment of the Clean Air Act has had a huge impact on air
quality in the United States. A number of polluting criteria have been identified and legal limits have been set. Although these pollutants continue to exist in our air, they generally occur at lower levels. This unit explores each of the polluting criteria, their physical properties, their effects on health, their environmental effects, what their main
producers are and what can be done to reduce the levels of each. The purpose of the Vista Powerpoint air pollution lesson: this lesson begins with two case studies: the Donora fluoride fog disaster and the great London Smog of 1952. These accidents are used to illustrate the terrible health and environmental effects of air pollution when
it is not regulated. The rest of the lesson revolves around the passage of the Clean Air Act and its subsequent amendments. Specific pollutants are reviewed, such as carbon monoxide, which are controlled by this act. Students will learn the primary sources of each pollutant and what measures have been taken to reduce each one's
emissions. A note structure for students is also available for this lesson. Essential concepts; air pollution, greenhouse gases, carbon monoxide, particulate matter, ozone, lead, vocs, volatile organic compounds, air pollutant criteria, clean air act, emissions, point source, non-point source, non-point source.
primary pollutant, secondary pollutant, dispersion, air quality, acid precipitation, temperature reversal, ozone layer, CFC, Montreal Protocol. Outline View Air Pollution Notes The purpose of the worksheet: Taking efficient notes can be a big challenge for many students, especially when working from a Powerpoint class. This scheme gives
students a means of taking notes that guides them to important concepts and avoids the pitfalls of writing word for word or simply not taking notes at all. The outline is written as a series of guestions, fill-in-the-blanks, or diagrams. This scheme is based on the PowerPoint lesson written specifically for this unit. Essential concepts: air
pollution, Greenhouse gases, carbon dioxide, nitrogen oxides, carbon monoxide, particulate matter, ozone, lead, vocs, volatile organic compounds, air pollutant, dispersion, air quality, acid precipitation, temperature reversal
ozone layer, CFC, Montreal Protocol. Reading assignment: The Donora Fluoride Fog View Worksheet Purpose: In the days before Halloween in 1948, a bag of cold air settled in the town of Donora, Pennsylvania. This created a thermal inversion that trapped emissions from steel and zinc plants over a period of four days. This disaster
has helped trigger a public movement that requires air quality standards. This eventually led to the Clean Air Act of 1970. This assignment uses a chapter in Devra Davis 'book When Smoke Ran Like Water to take students to Donora in 1948 to understand what happened, why it happened, and how they responded. Essential concepts:
air pollution, temperature reversal, coal, toxicity. Acid Rain and pH Visualization Lab View Worksheet Purpose: This lab tries to give students are familiar with the concept of the pH scale and understand how to read it. However, few
appreciate the exponential nature of the scale. For example, an acid of pH 4.0 is ten times stronger than an acid of pH 5.0. Students will perform a titration of eight samples of rainwater simulated with sodium hydroxide (NaOH) to gain a more concrete sense than the strongest of an acid different levels of pH are. Essential concepts: acid,
pH, acid precipitation, rainwater, air pollution, sulphur dioxide, sulphuric acid, nitric oxide, nit
students will create a color-coded map of their status based on the information provided by this website. Essential concepts: air quality, air pollution, ground-level ozone, particulate matter. EPA AirData Activity - Finding the Biggest Polluter View Purpose Worksheet: The EPA AirData website gives the public access to air quality
measurements taken by the EPA in every U.S. county. This is a great resource to provide local context for the polluting criteria as defined by the Clean Air Act. Air pollution study guide: Once the unit instructions are complete,
students can complete this study guide to help prepare a written test. The study guide is divided into two sections: vocabulary and short-answer questions are intended to model the type they can see during the exam. This study guide is based on
the Powerpoint lesson from this Essential Concepts unit: Air pollution, greenhouse gases, carbon dioxide, sulphur dioxide, nitrogen oxides, carbon monoxide, particulate matter, ozone, lead, vocs, volatile organic compounds, air pollutant criteria, clean air act, emissions, point source, non-point source, primary pollutant, secondary
pollutant, dispersion, air quality, acid precipitation, temperature reversal, ozone layer, CFC, Montreal Protocol. Page 4 Alongside the discovery of antibiotics, the advent of modern water treatment has had the greatest impact on human life expectancy. Water is an absolute requirement for all known life forms. Although there is a large
amount of water on Earth, most of it is in the ocean. In addition, the water supply on Earth for milleny. This makes the problem of water withdrawal, consumption and degradation disturbing. Water Pollution Conference Powerpoint View Purpose of the
lesson: The first part of this lesson delves into the importance of water, its role in the climate, and its distribution around the Earth. The accidental creation of the salton Sea in Southern California is used as an example of how water is needed, how it was manipulated, and some of the unforeseen consequences of how we use it. Students
will learn about different water tanks, how they relate to the water cycle, and how we access them. The Last of the conference focuses on water pollution. Students distinguish between point and non-point sources of all major types of pollution that will cause altered water. Pollution of the oceans is also covered, with the main aim
of oil and plastic. During the second part of the lesson, students are shown examples of different types of pollutants, ranging from salts and inorganic acids to organic products such as wastewater. Data from fish in Lake Michigan, as well as water test results from tap water in Illinois are used as examples of how pollutants find their way
into our diet. Finally, oil pollution in the ocean is highlighted, with the Exxon Valdez and Deepwater Horizon spills serving as examples of what can go wrong. A note structure for students is also available for this lesson. Essential concepts: water pollution, hydrological cycle, water cycle, evaporation, condensation, water balance, water
resources, water supply, groundwater, fresh water, icebergs, ice caps, glaciers, infiltration, water table, runoff, aquifer, recharging zone, wetlands, water consumption, water table, runoff, aquifer, recharging zone, wetlands, water consumption, water degradation, dams, dam construction, water consumption, water consumption, water degradation, dams, dam construction, water consumption, water consumption, water degradation, dams, dam construction, water consumption, water degradation, dams, dam construction, water consumption, water consumption, water degradation, dams, dam construction, water degradation, dams, dam construction, water consumption, water degradation, dams, dam construction, water consumption, water degradation, dams, dam construction, water consumption, water degradation, dams, dam construction, dam const
altered water, tap water, bottled water, spring water, reverse osmosis, distillation, pile leaching, mining, Pacific waste vortex, oil spills, oil tankers, Exxon Valdez, Deepwater Horizon, Oil Pollution Act, dissolved oxygen, biological oxygen demand, eutrophication, Clean Water, Note Outline View Worksheet Purpose: Taking efficient notes
can be a big challenge for many students, especially when working from a Powerpoint lesson. This scheme gives students a means of taking notes that guides them to important concepts and avoids the pitfalls of writing word for word or simply not taking notes at all. The outline is written as a series of questions, fill-in-the-blanks, or
diagrams. This scheme is based on the PowerPoint lesson written specifically for this unit. Essential concepts: water table, runoff, aquifer, aduifer, water supply, groundwater, fresh water, salt water, icebergs, ice caps, glaciers, infiltration, water table, runoff, aquifer, aduifer, aduifer, and a supply in this unit.
recharging zone, wetlands, water consumption, water
tankers, Exxon Valdez, Deepwater Horizon, Oil Pollution Act, dissolved oxygen, biological oxygen demand, eutrophication, Clean Water Act. Tapped Documentary View Worksheet Purpose: The documentary Tapped, released in 2009, presents a compelling against the use of bottled water. Particular attention is paid to Nestle, which
owns many of the most popular bottled water brands in the United States, including Poland Springs and Ice Mountain. It explains the impact of water vithdrawal on individual communities, as well as the relative lack of FDA supervision of the water itself, especially with respect to the municipal tap water requirement. A second argument
against the use of bottled water is the presence of bisphenol A (BPA) in the plastic itself. Essential concepts: water quality, water consumption, bottled water, water treatment, groundwater, BPA, endocrine hormone disruptors, Pacific garbage vortex. Dead Ahead - The Exxon Valdez Disaster (Movie) View Worksheet Purpose: Until the
2010 Deepwater Horizon oil spill, the Exxon Valdez was the worst oil spill in the United States. Although a large amount of oil was spilled from the tanker, much of its severity is the result of the disorganised cleaning effort it has brought. Prince William Sound, the Alaska area affected by this spill, has yet to fully recover more than 20 years
later. This HBO film is a re-enactment based on the real events of the wreck, the spill and the possible cleanup effort of the Exxon Valdez, Oil Cleaning Water Pollution Study Guide View Purpose: Once the unit instructions are completed, students can complete this
study guide to help in their preparation for a written test. The study guide is divided into two sections: vocabulary and short-answer guestions are intended to model the type they can see during the exam. This study guide is sequentually based
on the Powerpoint lesson of this unit. Essential concepts: water pollution, hydrological cycle, water cycle, evaporation, water supply, groundwater, fresh water consumption, water balance, water supply, groundwater, fresh water consumption, water supply, groundwater, fresh water, salt water, icebergs, ice caps, glaciers, infiltration, water table, runoff, aquifer, recharging zone, water consumption, water consumption, water supply, groundwater, fresh water, salt water, icebergs, ice caps, glaciers, infiltration, water table, runoff, aquifer, recharging zone, water consumption, water caps, glaciers, infiltration, water table, runoff, aquifer, recharging zone, water consumption, water caps, glaciers, infiltration, water table, runoff, aquifer, recharging zone, water consumption, water caps, glaciers, infiltration, water table, runoff, aquifer, recharging zone, water consumption, water caps, glaciers, infiltration, water table, runoff, aquifer, recharging zone, water consumption, water caps, glaciers, infiltration, water table, runoff, aquifer, recharging zone, water consumption, water caps, glaciers, infiltration, water table, runoff, aquifer, recharging zone, water consumption, water caps, glaciers, infiltration, water caps, glaciers, water caps, glaciers, glaciers, glaciers, glaciers, glaciers, glaciers, glaciers, glaciers, glaciers, glacie
degradation, dams, dam construction, water conservation, point sources, point sou
Horizon, Oil Pollution Act, oxygen demand for biological oxygen, eutrophication, Clean Water Act. Page 5 Waste flow is a term that refers to the flow of solid waste from agriculture, mining, industry and individuals. There are a limited number of ways in which we, as a society, deal with this waste, each of which can be costly from an
economic and environmental point of view. Lesson on waste and water treatment View purpose for lessons: This presentation explores the idea of municipal waste disposal are compared, from open landfills to sanitary landfills to
incinerators. The Love Channel tragedy is used as follows in the treatment of hazardous waste, RCRA, and the CERCLA (Superfund) laws. Finally, students are shown how wastewater is treated and eventually released into the environment. A note structure for students is also available for this lesson. Essential concepts: sanitary landfills,
waste, waste stream, open landfills, incineration, mass burns, waste-derived fuel, hazardous waste, CERCLA, RCRA, superfondo, recycling, waste water treatment, become fully treatment, tertiary treatment, tertiary treatment, tertiary treatment, secondary treatment, secondary treatment, tertiary treatment, secondary treatmen
challenge for many students, especially when working from a Powerpoint class. This scheme gives students a means of taking notes that guides them to important concepts and avoids the pitfalls of writing word for word or simply not taking notes at all. The outline is written as a series of questions, fill-in-the-blanks, or diagrams. This
scheme is based on the PowerPoint lesson written specifically for this unit. Essential concepts: sanitary landfills, waste, waste stream, open landfills, incineration, mass burns, waste derived fuel, hazardous waste, cerclay treatment, secondary treatment, tertiary treatment.
Superfund Webquest View Worksheet Purpose: This Superfund webquest has students discover sites within their state or county that have made this list of national priorities (NPLs). They will read the previous identity of the hazardous waste site, the toxic chemicals that were discovered there, and the measures taken by the EPA through
the Superfund law to clean up and clean up the site. Finally, they will access a dangerous chemical database to determine the health risks associated with specific contaminants found at these Superfund, hazardous waste, toxic chemicals, toxicology, health effects, EPA, carcinogens,
teratogens, endocrine disruptors. Study guide for the study of waste and water treatment: Once the instructions for the unit are completed, students can complete this study guide to help in their preparation for a written test. study guide is divided into two sections: vocabulary and short-answer questions. The vocabulary is taken directly
into shape the lesson, in sequence. Short-answer questions are intended to model the type they can see during the exam. This study guide is sequentually based on the Powerpoint lesson of this unit. Essential concepts: sanitary landfills, waste, waste streams, open landfills, incineration, mass burns, waste fuel, hazardous waste,
CERCLA, RCRA, superfondo, recycling, wastewater treatment, primary treatment, primary treatment, secondary treatment, tertiary treatment, tertiary treatment, tertiary treatment, secondary treatment, tertiary treatment, tertiary treatment, tertiary treatment, tertiary treatment, secondary treatment, tertiary treatment, tertiary treatment, tertiary treatment, tertiary treatment, secondary treatment, tertiary treatment, terti
ecosystem will be explored. Differences will be made between tropical, temperate and polar. Students will also spend time learning about the different types of aquatic ecosystems, both freshwater and marine. Land Biomes Unit Plan: This is a diagram of the main lessons covered within this unit, their suggested
sequence, an estimate of the time for each topic, and important goals and vocabulary covered by this unit. Provides links for any Powerpoint website, video clip, worksheet, or conference that your instructor needs. This unitary plan is written primarily for instructors of high school students and introductory college students. Territory
Ecosystem and Ecological Succession Powerpoint View Lesson Purpose: This lesson provides students with an overview of the main types of biomes, or terrestrial ecosystems. The main geographical features influencing the climate are explored, including latitude and proximity to water. Climatographers are used to compare and
compare temperature and precipitation within each of the ecosystems. Finally, a brief overview of ecological succession is provided. Essential concepts: Biomes, ecosystems, rain shadow effect, latitude, climatogram, climatogram, climatogram, climatogram, climatogram, and precipitation within each of the ecosystems, rain shadow effect, latitude, climate, critical factor, desert, grasslands, mountain, forests, rainforest, tropical, temperate, polar, tundra, climatogram, 
worksheet, powerpoint, lesson, habitat, niche, abiotic factors, ecological succession, primary succession, secondary s
a Powerpoint lesson. This scheme gives students a means of taking notes that guides them to important concepts and avoids the pitfalls of writing word for word or simply not taking notes at all. The outline is written as a series of questions, fill-in-the-blanks, or diagrams. Essential concepts: Biomes, ecosystems, rain shadow effect,
latitude, climate, critical factor, desert, grasslands, mountain, forests, rainforest, tropical, temperate, polar, tundra, climatogram, worksheet, lesson, habitat, niche, abiotic factors, ecological succession, primary succession, secondary succession. Climatogram, worksheet, lesson, habitat, niche, abiotic factors, ecological succession, primary succession, secondary succession. Climatogram, worksheet, lesson, habitat, niche, abiotic factors, ecological succession, primary succession, primary succession.
the worksheet: climatograms, also known as climatograms, take the two most important factors for ecosystems on earth and hand them out together. This is a set of worksheets that has students practicing creating climatograms for different types of
forests, deserts, and grasslands. Essential concepts: Climatogram, climate, temperature, precipitation, deserts, forests, grasslands. Interactive stationer tool hosted by National Geographic to get students to build a map showing the world's main temperature zones.
This is a good activity for students with a weak background in geography, as they will need to locate the equator, the tropics, the Arctic Circle and the Antarctic Circle, tropics, temperate zone, altitude. Environmental Science
Journal - Endangered Species View Worksheet Purpose: Students are often left in awe of the biodiversity of many of the planet Earth, Blue Planet and Life are particularly good at conveying the depth of biodiversity in different areas. This activity has
students document the different vertebrate animals they observe in a nature documentary, then visit the IUCN website and identify if the animals are in danger, the website offers some details on why. Essential concepts:
biomes, ecosystems, biodiversity, endangered species, extinction. Planet Earth Series by BBC Nature View Resources Purpose: The Planet Earth series was revolutionary when it was published. It contained breathtaking images of ecosystems and organisms never recorded before on video. This unit is ideal for showing one or more of
these episodes. This section of Aurum Science has a collection of resources specifically for the Planet Earth series, taiga, tundra, deserts, shallow seas, fresh water, deep ocean. Planet Earth II Series by BBC Nature View Resources
Purpose: This is a second Planet Earth series conducted by the BBC. While each episode isn't as ecologically rich as the first, it has some pretty remarkable footage, and shows some unusual biomes, including islands and cities. Essential concepts: Planet Earth II, grasslands, forests, deserts, cities, mountains, islands. Google Earth Field
Trip - Rainshadow Effect View Worksheet Purpose: The rain shadow effect describes the differences in precipitation levels between the windy of a mountain range, overlooking the incoming hermetic drafts, and the leeward side, which is located in the dry shadow of the mountain. On this virtual field trip, students will use Google Earth to
areas on both the leeward side and the cascade mountains wind in the Pacific Northwest of the United States, the Andes in South America and the Himalayan mountains, temperate rainforest, evergreen forest, desert, altitude, temperature.
precipitation, ecosystems. Land ecosystem and ecological succession study guide to help in their preparation for a written test. The study guide is divided into two sections: vocabulary and short-answer guestions. The
vocabulary is taken directly into shape the lesson, in sequence. Short-answer questions are intended to model the type they can see during the exam. This specific study guide covers only the terrestrial ecosystems section of this unit Essential concepts: biomes, ecosystems, rain effect, latitude, climatogram, climat
climatogram, climatogram, worksheet, powerpoint, lesson, habitat, niche, abiotic factors, biotic factors, biotic factors, ecological succession, primary succession, p
assignment. Students will be assigned specific ecosystems from different locations across the Earth. They will find and document examples of animal and plant adaptations, speciation, abiotic factors and interspecies relationships. This assignment uses the PBS documentary series Living Edens produced in 1996-1998. The availability of
the documentary is limited, but it appears from time to time on the National Geographic channel. Videos can also be available online if you know where to look. Essential ecosystems, aquatic ecosystems, adaptations, speciation, climate, latitude, natural selection, convergent evolution, divergent
evolution, co-evolution, biotic factors, abiotic factors,
infectious and non-communicable disease. This chapter provides a good basis for some of the health problems arising from air and water pollution, which are covered in successive units. Human Health and Environmental Toxins Powerpoint View Worksheet Purpose: This lesson covers both living and non-living causes of disease The
first section compares the main diseases caused by parasites, bacteria, viruses and prions. Examples of such as swine flu and SARS. Students will also learn about chemical toxins, how they are evaluated and the different effects on the human body. The last section describes the risk assessment and how health issues were prioritized.
Essential concepts: environmental toxins, diseases, emerging diseases, zoonoses, bacteria, viruses, protozoa, prions, malaria, food bourne disease, teratogens, mutagens, carcinogens, ld50, lethal dose, risk, risk assessment, heavy metals, neurotoxins, endocrine hormonal disruptors, toxicity, antibiotic resistance. Human Health and
Environmental Toxins Lesson Notes Outline View Worksheet Purpose: Taking Efficient Notes can be a big challenge for many students, especially when working from a Powerpoint class. This scheme gives students a means of taking notes that guides them to important concepts and avoids the pitfalls of writing word for word or simply
not taking notes at all. The outline is written as a series of guestions, fill-in-the-blanks, or diagrams. This scheme is based on the PowerPoint lesson written specifically for this unit. Essential concepts: environmental toxins, diseases, emerging diseases, zoonoses, bacteria, viruses, protozoa, prions, malaria, food bourne disease,
teratogens, mutagens, carcinogens, Id50, lethal dose, risk, risk assessment, heavy metals, neurotoxins, endocrine hormonal disruptors and prey,
parasites, and guests. Much of the episode focuses on the evolution of drug resistance in diseases. Because bacteria can reproduce much faster than larger species can, antibiotic resistance in action. Essential concepts:
antibiotics, antibiotic resistance, sub-theraputic antibiotics for every eyes covers the issue of antibiotics View Purpose worksheet: This episode of Nye's eyes covers the issue of antibiotics, bacteria, infectious diseases Nye's eyes covers the issue of antibiotics, bacteria, infectious diseases Nye's eyes covers the issue of antibiotics, bacteria, infectious diseases Nye's eyes covers the issue of antibiotics, bacteria, infectious diseases Nye's eyes covers the issue of antibiotics, bacteria, infectious diseases Nye's eyes covers the issue of antibiotics, bacteria, infectious diseases Nye's eyes covers the issue of antibiotics.
problem of antibiotic resistance and its roots. Finally, interview scientists looking for future alternatives to antibiotics, bacteria, infectious diseases Lead Poisoning Graph Analysis Activity View Purpose of the worksheet: the IO data taken from young children
living near a metal melting plant that could be exposed to lead contamination. Students will graph the ratio of blood lead concentration to IO, then issue recommendations to the city based on their results. Essential Concepts: Risk Risk neurotoxins, lead, lead poisoning. Measuring Toxicity with LD50 Graphs View Worksheet Purpose: This
activity presents students with LD50 data taken from the administration of two different toxins to a population that was killed by each subsequent dosage of the toxin, then use those graphs to determine the LD50 of each compound. At
the end of the activity, students will compare the relative values of LD50 for several other compounds. Essential concepts: LD50, lethal dose, toxicity, animal testing, risk assessment. Human Health and Environmental Toxins Study
guide to help in their preparation for a written test. The study guide is divided into two sections: vocabulary and short-answer questions are intended to model the type they can see during the exam. Essential concepts: human population,
exponential growth, linear growth, linear growth, pronanatalist factors, antinatal factors, fertility rate, immigration, demographic transition model, developed countries, developing countries. Page 8 Despite the need for food for our survival, many of us have a very limited understanding of where
it comes from and how it is produced. This is a by-product of the growing urbanization of our culture. This unit tries to give students a basic understanding of the Dust Bowl, and how much agriculture has changed since the beginning of the 20th
century. Students will learn about the green revolution and all the advances in irrigation, pesticide enforcement, fertilizers and even the use of genetically modified organisms. Plant Agriculture Powerpoint View Powerpoin
European settlers first moved to the Midwest plains of the United States. Students will learn about the importance of soil, plant crops and the huge amount of change that has occurred in agricultural technology since the 1960s. Finally, i.e. the future of agriculture, in particular as regards the increase in the proliferation of genetically
modified organisms. Essential concepts: food and agriculture, plant ag
Efficient Notes can be a big challenge for many students, especially when working a Powerpoint lesson. This scheme gives students a means of taking notes at all. The outline is written as a series of questions, fill-in-the-
blanks, or diagrams. This scheme is based on the PowerPoint lesson written specifically for this unit. Essential concepts: food and agriculture, plant agriculture, p
organisms. Dust Bowl Activity View Worksheet Purpose Chart: There were many factors that made the Dust Bowl the ecological disaster it was, but the biggest was the prolonged drought that hit the region in the early 1930s. This activity will guide students through some datasets that compare monthly levels of precipitation before and
during drought to the average levels that occur today. Students will use climatographers, giving a good connection with the topics covered during the Terrestrial Ecosystems unit. Essential concepts: Dust bowl, climatographers, giving a good connection with the topics covered during the Terrestrial Ecosystems unit. Essential concepts: Dust bowl, climatographers, average temperature, average precipitation, drought. Soil Testing Lab - Chemical and physical properties Displays
the purpose of the worksheet: Soil is a complex mixture of sand, sile, clay, humus and microorganisms that is absolutely essential for plant agriculture. In this laboratory, students will mix a soil sample with water in a jar of mason, allow it to separate, and measures the composition of each component. Then, they will perform four chemical
tests on the ground: pH, nitrogen, phosphorus and potassium. Students will then perform calculations to determine which (if any) amendments should be made to the ground before it can be used for plant farming. Essential concepts: soil composition, sileme, sand, clay, soil types, soil triangle, soil nutrients, nitrogen, phosphorus,
potassium, pH. Student Worksheet View Worksheet Purpose: This 2009 documentary covers many of the invisible consequences of the industrialized agricultural system, including impacts on plants. The second segment
examines the effects of a heavy diet in processed foods on human health. Finally, a debate is shown on the future of food and the growth of the organic industry. This worksheet contains critical thinking questions that students can consider and answer while watching segment of the documentary. Essential concepts: Agriculture, industrial
revolution of the 1960s and 1970s, and how government subsidy programs affected our entire food system. Two friends go to lowa and rent an acre of farmland to grow their own corn. In the process, they learn about fertilizers, tractors, herbicides and the final fate of the corn they produce - probably as animal feed or a sweetener called
high fructose corn syrup. Essential concepts: vegetable agriculture, corn, herbicides, fertilizers, green revolution, agriculture is the importance of soil. A quick look at a map of the most altered terrain around
the world reveals that this is a growing problem, especially in the most productive areas. Multiple famines throughout history, the Dust Bowl is the most famous, they are the direct result of abuse and abuse of the soil. This documentary tries to show students the importance of taking care of the soil, giving perspectives to people from
different cultures. Essential concepts: agriculture, industrial agriculture, industrial agriculture, monocultures, upper soil, altered soil, erosion. Food Evolution Documentary View Worksheet Purpose: Genetically modified organisms - corn, soybeans and papaya, have been legal to use in the United States for decades. However, many
questions are still being asked as to whether the use of these crops is really beneficial and whether it poses risks to our health and the environment. Food Evolution is the most balanced documentary I've ever seen on the issue of GMOs that explains technology, acknowledges concerns, and addresses some of the pseudoscience behind
the anti-GMO movement. Essential concepts: plant agriculture, genetically modified organisms, integrated pest management, use of pesticides and herbicides. Labelling of genetically modified organisms Wise Assignment View Worksheet Purpose: The use of genetically modified maize and soybeans is easily one of the most controversial
aspects for our food system. Trying to solve this problem is extremely difficult given the amount of information, misinformation and opinion available. This office narrows the issue down to an important point: should genetically modified foods be labelled? Students will watch an episode of the BBC Horizon TV show called Jimmy's GM Food
Fight to be the backdrop, then read an editorial that will discuss every side of the issue before finally putting their ideas on paper. Essential concepts: genetically modified organisms GMOs, food labelling. Writing Prompt - Mysterious Ingredients View Worksheet Purpose: This diary writing task has students take a list of ingredients from an
elaborate food item, search for each of them, and determine its purpose. The goal is to draw attention to the huge number of corn and soybeans that are added to many foods to improve their flavor, texture, or shelf-life. Essential concepts: food processing, food additives, nutrition, ingredients, food labelling. Vegetable Farming Study
Guide View worksheet: Once the unit instructions are completed, students can complete this study guide to help in their preparation for a written test. The study guide is divided into two sections: vocabulary and short-answer guestions are
intended to model the type they can see during the exam. Essential concepts: food and agriculture, plant agr
units on food production. Here, students will learn about the harvesting or production of fish and seafood. Fishing and aquaculture Powerpoint View Powerpoint
methods, including longline and trawling, overfishing, maximum sustainable yield, overfishing, maximum sustainable yield, overfishing, maxime reserves, marine-
trophic index, aquaculture, aquaponics. Fishing and Aquaculture Lesson Note Outline View Worksheet Purpose: Taking Efficient Notes can be a big challenge for many students, especially when working from a Powerpoint class. This scheme gives students a means of taking notes that guides them to important concepts and avoids the
pitfalls of writing word for word or simply not taking notes at all. The outline is written as a series of questions, fill-in-the-blanks, or diagrams. This scheme is based on the PowerPoint lesson written as a series of questions, fill-in-the-blanks, or diagrams. This scheme is based on the PowerPoint lesson written as a series of questions, fill-in-the-blanks, or diagrams.
overfishing, marine reserves, marine-trophic index, aquaculture, aquaponics. The End of the Line Movie Worksheet View Worksheet View Worksheet Purpose: This 2009 documentary by Rupart Murray examines the extent of overfishing worldwide and its immediate and long-term effects on ocean ecosystems. The they will learn some of the actions that
will be needed to protect fishing around the world, including tigher regulation, increased use of marine reserves and increased consumer responsibility for what they buy. Essential concepts: Fishing, longline, trawling, trawli
Purpose worksheet: This is a documentary about alternative methods of agriculture. Many different farmers and their operations are present, including Joel Salatin's free-field farm, Will Allen's urban farm, and David Ball's local farmers' cooperative. The cool is a good contrast to some of the other documentaries covering the industrialized
food system, as it has a more positive and uplifting message of change. Essential concepts: agriculture, organic farming. Journal Assignment - The Seafood Watch Program View Worksheet Purpose: This is an internet-based brief assignment where students will access the
Monterey Bay Seafood Watch website and search for ratings for different common types of seafood. They will then evaluate some different options on a restaurant menu and determine what the area of more ecologically friendly choices. Essential concepts: overfishing, trawling, long-term fishing, sustainable fishing. Fishing and
Aquaculture Study Guide View Worksheet: Once the unit instructions are complete, students can complete this study guide to help in their preparation for a written test. The study guide to help in their preparation for a written test. The study guide to help in their preparation for a written test. The study guide to help in their preparation for a written test. The study guide to help in their preparation for a written test. The study guide to help in their preparation for a written test. The study guide to help in their preparation for a written test. The study guide into two sections: vocabulary and short-answer guestions.
questions are intended to model the type they can see during the exam. Essential concepts: Fishing, pole-caught, longline, trawling, tra
This time the focus is on how the industrialization of the food system has affected the way we breed livestock, including pigs, cattle and chickens. Animal Agriculture Powerpoint View Powerp
will learn the basic principles behind how these animals are bred, what they are fed, and all the external drugs (hormones or antibiotics) that are administered. Comparisons will also be drawn with shapes outside, without cages and other alternative forms of animal husbandry for food. Essential concepts: food and agriculture, animal
agriculture, domestication, ruminants, pastures, farms, concentrated animal feed operations dairy cattle, beef, finishing, pasteurization, growth hormones, antibiotics, Federal Humane Slaughter Act, cage free, free range, certified human, organic. Animal Agriculture Lecture Note Outline View Worksheet Purpose: Taking
Efficient Notes Can Be a Big Challenge for Many Many especially when working from a Powerpoint lesson. This scheme gives students a means of taking notes at all. The outline is written as a series of guestions, fill-in-the-
blanks, or diagrams. This scheme is based on the PowerPoint lesson written specifically for this unit. Essential concepts: food and agriculture, domestication, ruminants, pastures, farms, concentrated animal feed operations (CAFO), dairy cattle, beef, beef, finishing, pasteurization, growth hormones,
focuses on the euthanasia methods provided at the farm. The worksheets include sections of the Ohio State Statute dealing with the cruelty of animal agriculture, euthanasia, animal cruelty. Fresh Student Worksheet View Worksheet Purpose: This is a documentary about alternative
methods of agriculture. Many different farmers and their operations are present, including Joel Salatin's free-field farm, Will Allen's urban farm, and David Ball's local farmers' cooperative. The cool is a good contrast to some of the other documentaries covering the industrialized food system, as it has a more positive and uplifting message
of change, Essential concepts; agriculture, industrial agriculture, open field agriculture, organic farming, Measurement of bacteria on Chicken Wings Lab View Worksheet Purpose; A method of measuring the level of bacterial contamination on a surface is to make a count of colony formation units, or CCU. This lab
guides students through this process, using raw chicken wings as a testable surface. Essential concepts: bacterial contamination, units that form colonies, CCU. Newspaper Assignment - Egg Types and Costs View Purpose: This is a short writing task where students visit their local grocery store and record the different types of eggs
available (conventional, cageless, etc.) as well as their prices. They then reflect on the different egg prices and whether it is worth paying for the increase in the cost of alternative forms. Essential concepts: eggs, without cages, organic, within the free range. Animal Farming Study Guide View worksheet: Once the unit instructions are
complete, students can complete this study guide to help in their preparation for a written test. The study guide is divided into two sections: vocabulary is taken directly the lesson, sequentially. Short-answer questions are intended to model the type they can see during the exam.
Essential concepts: food and agriculture, animal agriculture, domestication, ruminants, pastures, farms, concentrated animal feed operations (CAFO), dairy cattle, beef, fineshing, pasteurization, growth hormones, antibiotics, Federal Humane Slaughter Act, cage free, free range, human certified, organic. Page 11 As in
terrestrial biomes, aquatic ecosystems have some factors that define them. In this unit, students will be able to classify aquatic ecosystems and freshwater ecosystems are included. Aquatic Ecosystem Unit Plan View Unit Purpose: This is a
diagram of the main lessons covered within this unit, their suggested sequence, an estimate of the time for each topic, and important goals and vocabulary covered by this unit. Provides links for any Powerpoint website, video clip, worksheet, or conference that your instructor needs. This unitary plan is written primarily for instructors of
high school students and introductory college students. Aquatic Ecosystems Lecture Powerpoint View Lec
wetlands, and then moves into the ocean. Abiotic factors and biodiversity are compared between each ecosystems, salinity, marina, fresh water, lentils, lothic, rivers, waterways, lakes, oceans, light areas, bento. Aquatic Ecosystems Student Notes Structure View Worksheet Purpose: Taking
Efficient Notes can be a big challenge for many students, especially when working from a Powerpoint lesson. This scheme gives students a means of taking notes at all. The outline is written as a series of questions, fill-in-the-
blanks, or diagrams, Essential concepts: Biomes, ecosystems, rain shadow effect, latitude, climate, critical factor, desert, grasslands, mountain, forests, rainforest, tropical, temperate, polar, tundra, climatogram, worksheet, powerpoint, lesson, habitat, niche, abiotic factors, biotic factors, ecological succession, primary
succession, secondary succession. Purpose of the sheet Work Of cropping and pasting the activity view of the ocean areas: in this activity, students will be provided with a basic diagram of the ocean and label each of the three levels: photic, dysphotic and apotic. They will also label the continental shelf and the intertidal zone. Next, they
use colored pencils to shade each of the three light zones to differences in the penetration of sunlight. Finally, they are equipped with a page of clippings of organisms, each of which has a clue as to where that species should be placed. Essential concepts: ocean zones, continental shelf, seabed, lesson plan, aphotic, disphotic, photic,
midnight, dusk, daylight, bentic, pelagic, coastal, intertidal. Sharkwater View Worksheet Purpose: Sharkwater is a 2008 documentary produced by Rob Stewart about the many misconceptions people have about sharks and how these better predators are rapidly experiencing population decline – often with the result that they become
endangered species. The film spends a lot of time talking about the practice of fin, where sharks are collected (often illegally) through long-term fishing, then fins are cut to be sold for shark fin soup or as a medicinal treatment. Many students will find their attitude to sharks changed and will begin to feel a lot of concern about the loss of
these predators from their aquatic ecosystems. Essential concepts: shark fin, long-term fishing, poaching, overfishing, endangered species, food chains, plankton. Journal entry: Endangered Sharks View Worksheet Purpose: This could be used as a follow-up assignment to the documentary Sharkwater or as a separate research activity.
Students will choose an endangered or threatened shark species and use the IUCN Redlist website to research the cause of its demographic decline. Essential concepts: sharks, endangered species, overfishing. The Blue Planet: Seas of Life view Worksheet Purpose: The Blue Planet: Seas of Life is in many ways a prequel to the Planet
Earth series. Although it does not have the recognition of the name or popularity of Planet Earth, it still contains wonderful images of different aquatic ecosystems from all over the world. Each of the different aquatic ecosystems from all over the world. Each of the different aquatic ecosystems from all over the world. Each of the different aquatic ecosystems from all over the world. Each of the different aquatic ecosystems from all over the world.
worksheets and resources written specifically for each episode of this series. Essential concepts: aquatic ecosystems, tidal zone, ocean light zones, bento, coasts. Planet Earth, Ocean Deep and Shallow Seas View Worksheet Purpose: The Planet Earth series has dedicated three episodes to aquatic ecosystems. Freshwater takes a look
at the different features of rivers, lakes, and inland wetlands. Ocean deep explores the dark bottom of the ocean, while shallow seas remain along the lower, warmer, sunlit coastline. Essential concepts: aquatic ecosystems, tidal zone, coasts, freshwater ecosystems, ponds, lakes, wetlands, rivers. Guide to studying aquatic ecosystems
View worksheet: Once the unit instructions are completed, students can complete this study guide to help in their preparation for a written test. The vocabulary is taken directly into shape the lesson, in sequence. Short-answer guestions are intended to model the
type they can see during the exam. This specific study guide covers only the terrestrial ecosystems, rain shadow effect, latitude, climatogram, critical factor, desert, prairie, mountain, forests, rainforest, tropical, temperate, polar, tundra, climatogram, climatogram, critical factor, desert, prairie, mountain, forests, rainforest, tropical, temperate, polar, tundra, climatogram, climatogram, critical factor, desert, prairie, mountain, forests, rainforest, tropical, temperate, polar, tundra, climatogram, climatogram, critical factor, desert, prairie, mountain, forests, rainforest, tropical, temperate, polar, tundra, climatogram, climatogram, critical factor, desert, prairie, mountain, forests, rainforest, tropical, temperate, polar, tundra, climatogram, climat
powerpoint, lesson, habitat, niche, abiotic factors, ecological succession, primary succession, primary succession, secondary succession, primary succession, secondary succession, secondary succession, primary succession, primary succession, primary succession, secondary succession, secondary succession, secondary succession, primary succession, primary succession, primary succession, primary succession, secondary succession, primary successi
reluctant to adopt it as an alternative to fossil fuels, despite recognition of the damage caused by the use of coal, oil and natural gas. Nuclear Energy Lecture Powerpoint View Lecture Powerpoint V
that steam spins a giant turbine. However, instead of burning a carbon-based fuel, a chain reaction is underway that divides the nucleus of uranium atoms. Uranium atoms. Uranium atoms. Uranium atoms. Uranium atoms are among the most damaging singular
events that have ever occurred. This Powerpoint presentation will cover each of these topics, using Castle Bravo, Three Mile Island, and Chernobyl as case studies for the risks of this technology, Essential concepts; nuclear energy, uranium, U235, nuclear fission, nuclear reactor, nuclear waste, control rods, fuel rods, moderator, nuclear
fusion, Three Mile Island, Chernobyl, Castle Bravo, nuclear relapse, radiation disease. Nuclear Energy Students a means of taking notes that guides them worksheet Purpose: Taking Efficient Note Outline View Worksheet Purpose: Taking Efficient Notes can be a big challenge for many students, especially when working from a Powerpoint class. This scheme gives students a means of taking notes that guides them
to important concepts and avoids the pitfalls of writing word for word or simply not taking notes at all. The outline is written as a series of questions, fill-in-the-blanks, or diagrams. This scheme is based on the PowerPoint lesson written as a series of questions, fill-in-the-blanks, or diagrams. This scheme is based on the PowerPoint lesson written as a series of questions, fill-in-the-blanks, or diagrams.
effects Baker's nuclear explosions are capable and fired. Essential concepts: Operation Crossroads, nuclear fallout. Worksheet has students label each of the main components of a pressurized water nuclear reactor. They will also be the color
code the different water rings to show the areas of steam and liquid water. Essential concepts: nuclear reactor, fuel rods, control rods, cooling tower. The Eyes of Nye - Nuclear fission chain reaction, but most of the
episode actually focuses on nuclear waste. Bill Nye shows the on-site disposal and storage systems currently used for nuclear waste and also interviews an engineer working on yucca mountain nuclear storage tunnels. Essential concepts: nuclear energy, nuclear collapses, nuclear fission, nuclear reactors, nuclear waste, nuclear waste, nuclear storage tunnels.
emissions, PBS Nature - Radioactive Wolves Worksheet View Worksheet Purpose: Radioactive wolves is a documentary produced by PBS Nature that explores the rebirth of the ecosystem in the exclusion zone surrounding the Chernobyl nuclear reactor. Since humans left the area, many other species have thrived, including the best
predators such as wolves. This documentary is a good way to alleviate some of the misconceptions people have about radioactive fallout, ecosystem regeneration, food network, biomagnification. Worksheet Nuclear Reactor Diagram
View Worksheet Purpose: This worksheet has students label each of the main components of a pressurized water nuclear reactor. They will also be the color code the different water rings to show the areas of steam and liquid water. Essential concepts: nuclear reactor, fuel rods, control rods, cont
View Worksheet Purpose: One of the biggest challenges facing nuclear power is how to deal with waste. Spent fuel has accumulated for decades in the scientific community has not established any long-term disposal plans. In this lab, students will use colored water to simulate
strontium-90 decay, while doing some calculations to see how long it takes the radioactive isotope to become harmless. Concepts nuclear waste, radioactive life. Nuclear Energy Study Guide to help prepare them for a written test. The study
guide is divided into two sections: vocabulary and short-answer questions. The vocabulary is taken directly into shape the lesson, in sequence. Short-answer questions are intended to model kind that they can see on the exam. This study guide is sequentually based on the Powerpoint lesson of this unit. Essential concepts: nuclear
energy, uranium, U235, nuclear fission, nuclear reactor, 
skyrocket. Humanity's search for cheap and reliable energy has led to a large number of environmental disasters. Non-renewable energy sources are the ones we use the most, but they are also the most harmful. This unit explores the environmental costs of generating energy from coal, oil and natural gas. Students will learn about the
extraction of these resources, the political consequences of oil and air pollution and the waste produced by each of them. Fossil Fuels Lecture Powerpoint View Lecture Powerp
include surface and underground coal mining, oil drilling and spills and the debate on hydraulic fracturing. Essential concepts: non-renewable energy, fossil fuels, coal, natural gas, oil, oil, coal mining, oil drilling, electricity production, power plants, generator, turbine, hydraulic fracturing. Fossil Fuels Student Note Outline View
Worksheet Purpose: Taking Efficient Notes can be a big challenge for many students, especially when working from a Powerpoint class. This scheme gives students a means of taking notes at all. The outline is written as a
series of questions, fill-in-the-blanks, or diagrams. This scheme is based on the PowerPoint lesson written specifically for this unit. Essential concepts: non-renewable energy, fossil fuels, coal, natural gas, oil, oil, coal mining, strip mining, oil drilling, electricity production, power plants, generator, turbine, hydraulic fracturing. Walking With
Monsters, Episode 2 - Reptile's Beginnings View Worksheet Purpose: The BBC series Walking With Monsters takes the known pieces of fossil documentation from some of the main evolutionary moments in earth's life story and brings them to life. This it began in the Carboniferous period, when most of earth's coal fields were formed.
Because the oxygen content of the atmosphere was much higher, terrestrial arthropods evolved to be huge in size. Essential concepts: coal period, Permian period, coal. 30 days - Working in a coal mine worksheet View purpose: This is the first episode of Season 3 of Morgan Spurlock's documentary series Spurlock Fx. Originally from
the Hills of West Virginia, Morgan has a close connection to the coal industry, and decides to spend 30 days living and working with the miners of the Double Bonus Coal Company. Students will gain insight into the dangers of underground mining, the health risks faced by longtime workers, and the specific techniques used to try to
manage the danger. Morgan is also taken on a short tour of a surface extraction operation, and is able to witness an explosion at the top of the mountain as he learns about the environmental dangers of this practice. Essential concepts: fossil fuels, coal mining, underground mining, surface extraction, removal of mountain tops, black lung
```

isease. Coal-fired power plant webquest: This online activity takes students to an interactive website where they will look step by step at the process of converting coal energy into electricity. It will then identify the coal-fired power plants near them using the Sierra Club's website. Finally, they will examine a live wind map to see where air ollution from the nearest plant will go. Essential concepts: coal, coal-fired power station, air pollution, wind. Gasland (Movie) View Worksheet Purpose: Hydraulic fracturing, also known as fracking, is a process in which natural gas is extracted from underground shale deposits. In this 2010 documentary he exposes the consequences of
ydraulic fracturing on the groundwater quality of local communities. Students will also learn about the Energy Policy Act of 2005 and how it loosened the regulation of natural gas extraction. This is a great documentary to illustrate the complexities of energy policy and the wide variety of influences that determine politics. Essential
oncepts: natural gas, water quality, compromised water, hydraulic fracturing, Energy Policy Act of 2005 HydraulicFracturing Webquest View Worksheet Purpose: In this online task, students will access an interactive animation produced by Halliburton to understand step by step how the fracking process works. They will then visit an teractive map produced by Earth Justice to see where the rift is occurring around them, and if there have been incidents nearby. Essential concepts: natural gas, hydraulic fracturing, fracking. Fossil Fuel Study Guide View Worksheet: Once the unit instructions are completed, students can complete this study guide to help in their
reparation for a written test. The study guide is divided into two sections: vocabulary and questions Short. The vocabulary is taken directly into shape the lesson, in sequence. Short-answer questions are intended to model the type they can see during the exam. This study guide is sequentually based on the Powerpoint lesson of this unit. sential concepts: Non-renewable energy, fossil fuels, coal, natural gas, oil, oil, coal mining, strip mining, oil drilling, electricity production, power plants, electricity production, power plants, turbine, hydraulic fracturing. Page 14 The first environmental science unit aims to give students an atmosphere for the types of issues that will be covered in the course.
ome fundamental concepts that will reappear several times during the year will also be taught here. Particular emphasis is placed on the course, such as excessive resource consumption, pollution and biodiversity loss. Moreover, the importance of developing a sense of
nvironmental ethics is a central theme. Hetch Hetchy's famous debate is used to frame much of this lesson. Introduction to the Environmental Science Unit Plan View Purpose Unit Plan V
esigned for the first class of an environmental science course in an investigation. The conference briefly covers many of the fundamental ideas and issues underlying the discipline and serves as a good preview for the material covered in the rest of the course. The Powerpoint starts with an introductory narration to frame the rest of the rest of the and serves as a good preview for the material covered in the rest of the course. The Powerpoint starts with an introductory narration to frame the rest of the discussing some of the service environmental ethics - resource environmentalists and nature conservationists. The rest of the conference is devoted to discussing some of the
eneral environmental issues: conservation of resources, pollution, developed countries and developing and ethical countries. This conference is based on material from G. Tyler Miller's Environmental Science, Cunningham's Principles of Environmental Science, and my research. Essential concepts: environmental science, renewable
esources, non-renewable resources, pollution, biodiversity, environmental ethics, Tragedy of municipalities, developed countries, developed countries, notes in the View Worksheet Structure Purpose: Taking Efficient Notes can be a big challenge for many students, specially when working from a Powerpoint lesson. This scheme gives students a means of taking notes that to important concepts and avoids the pitfalls of writing word for word or simply not taking notes at all. The outline is written as a series of questions, fill-in-the-blanks, or diagrams. Essential Essential Essential Environmental science,
enewable resources, non-renewable resources, pollution, biodiversity, environmental ethics, Tragedy of municipalities, developed countries, developed countries, developed countries, sustainability. Introduction to Environmental Science Pre-Test View Worksheet Purpose: A good way to be introduced to your students and the basic knowledge they bring to be countries, sustainability. Introduction to Environmental Science Pre-Test View Worksheet Purpose: A good way to be introduced to your students and the basic knowledge they bring to be countries, and true/false questions. Each of the main units typically covered in an introductory course in environmental science is addressed under this pretext. One way to incorporate this into the first day of class is to first allow students to do the pre-test,
nen go around the room one at a time, have the students show up, and ask them to answer one of the questions. This will provide the opportunity to break the ice, encourage some basic discussions on some important environmental issues, and provide some information about the interests and backgrounds of all those enrolled in the
ourse. Where was my shirt made? Economic conditions in developing countries display the purpose of the worksheet: many consumer goods in developing countries are produced in developing countries - often in unsafe and unhealthy working conditions, for a minimum wage. This activity tries to give students a view of a category of see products - our clothing. Each students will find out in which country their shirt was made, then do some simple research to determine the per capita of less than \$2000,
nd much of the output is in Southeast Asia or Central America. Journal Writing Entry - The Hetch Hetchy Decision View Worksheet Purpose: An important part of the first unit in environmental science is gaining awareness of its environmental ethics. Most of the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and problems faced by environmental scientists have no clear new or same that it is not to be a supplied to the decisions and the decisions are supplied to the decisions and the decisions are supplied to the decisions are su
olumne River, but the Hetch Hetchy Valley it crosses is on federal land. Essential concepts: environmental ethics, environmental ethics, environmental history, conservation of aesthetic nature, John Muir, Teddy Roosevelt, Hetch Hetchy Valley, dam construction, resources Journal Writing Entry - Environmental Ethics:
hopal, and Dow Chemical View Worksheet In 2004, the twentieth anniversary of the Bhopal disaster in India, a man falsely claims to be a dow chemical by Chemical would accept full responsibility for cleaning, cleaning up and returning victims om the 1984 Bhopal disaster. Immediately after this interview, Dow Chemical's share price fell 4.2%, or \$2 billion in market Purpose: The
orax (1972 TV movie version) is really all about the tragedy of the commons. Once-ler entrepreneurship comes in a diverse natural area that must be a Commons - there is no property on anyone's part nor is there any regulation. The many do what often happens to the commons, explode it for short-term gain. Although this is a great access for him initially, in the long term, the earth becomes polluted, unforested and completely useless. Essential concepts: environmental ethics, anthropocentrism, depletion of resources, pollution, biodiversity, tragedy of municipalities. Introduction to the Environmental Science Study Guide View Worksheet Purpose: Once the unit
structions are complete, students can complete this study guide to help prepare them for a written test. The study guide is divided into two sections: vocabulary is taken directly into shape the lesson, in sequence. Short-answer questions are intended to model the type they can see during the
xam. Essential concepts: environmental economy, environmental ethics, excessive consumption, use of resources, developing countries, the environmental science course focuses on the biotic or living parts of the environment. Students will learn about the importance of biodiversity, the sterconnectedness of life and the different types of relationships that all living things share with each other. This unit also includes a brief introduction to natural selection and its relationship to the diversity of forms observed throughout the biosphere. Evolution and Ecology Unit Plan Plan Purpose: This is a diagram of the main lessons
overed within this unit, their suggested sequence, an estimate of the time for each topic, and important goals and vocabulary covered by this unit. Provides links for any Powerpoint website, video clip, worksheet, or conference that your instructor needs. This unitary plan is written primarily for instructors of high school students and
niversity-level students Evolution and Ecology Lesson Powerpoint View Worksheet Purpose: This lesson introduces students to the first three levels of evolution and natural selection, student students the different types of symbiotic relationships, competition and predator-prey. Different types of niches will also be explored as students learn the role of individual species within a community, niche, interactions between species, symbiosis, mutualism, dinerism, parasitism, intraspecific competition,
terspecific competition, predator, prey, food web, evolution, natural selection, artificial selection. Evolution and Ecology Lecture Notes can be a big challenge for many students, especially when working from a Powerpoint class. This scheme gives students a means of taking notes at all. The outline is written as a series of questions, fill-in-the-blanks, or diagrams. Essential concepts: Ecology, ecological organization, populations, community, niche, interactions between species, symbiosis, mutualism,
inerism, parasitism, intraspecific competition, interspecific competition, interspecific competition, predator, prey, food web, evolution, natural selection, artificial selection. PBS Evolution is a six-part documentary film created by NOVA in 2001. Each episode covers a different aspect of
volution. While each episode is exceptionally well done, the episode Why Sex? is particularly relevant to this chapter. This documentary explores the evolution has over asexual reproduction. More examples are analyzed both in the human world and in the animal world. Essential concepts: volution, natural selection, sexual selection, sexual reproduction, asexual reproduction, adaptations. Cosmos, Episode 2: Some of the things molecules show purpose worksheet: The second episode of Cosmos (2014) documentary miniseries focuses on life and evolution. Neil DeGrasse Tyson offers a brief, but very succinct overview of
rtificial and natural selection using examples that are familiar to us - breeding dogs from wolves, the evolution of the eye, and exploring the possibility of life on Saturn's moon, Titan. Essential concepts: Evolution, natural selection, origin of life, summer life. Journal Writing Assignment: Adaptations View Worksheet urpose: Students with a solid understanding of natural selection theory should begin to observe it in the world around them. The biological design of each organism has a purpose. One of the best places to start is the amazing diversity of multicellular life you find the whole Earth. This task requires students to choose a multicellular
rganism, identify each of its adaptations and related these adaptations to the habitat of the organism and and Essential concepts: Evolution, natural selection, adaptations, habitat, niche, biodiversity. Tolerance Range Chart View Worksheet Purpose: The range that a particular organism will inhabit depends largely on some critical
actors. In this activity, students will graph the influence that factors such as oxygen level and temperature have on the size of the population of a species of fish. They will then label the optimal range, stress zone and area of intolerance for this species. Essential concepts: tolerance range, critical factor, optimal range, physiological stress zone and area of intolerance. Natural Selection of Cereal Lab View Worksheet Purpose: A great way to model the natural selection process is to have students prey on different pieces of colored grains, such as fruity pebbles, distributed on colorful fabrics. The idea is that, depending on the color of the cloth, some colors (strokes) will be
wored and increase in frequency over time, while others will decrease. Essential concepts: Natural selection, camouflage, predation. St. Matthew Island, located near Alaska, had a reindeer population introduced in 1944. The population exploded, as the land had no predators or other factors to slow their growth rate. Over time, the deer used the island's resources, eventually experiencing severe dieback due to lack of food. In this activity, students will graph the population change of the deer, then identify and discuss the dieback. Essential concepts: transport capacity, exponential
rowth, dieback. Deer Dilemma - Class Debate View Worksheet Purpose: Deer Dilemma is an activity modified by the wild project! Curriculum. Students will take on the roles of several community members attending a meeting to address a deer overpopulation problem plaguing a large forest reserve. The meeting's views include a hunter,
nimal rights activist, university instructor, and farmer. Essential concepts: transport capacity, exponential growth, dieback, population control. Turkey Problems is an activity from the WILD project program that studies the growth of an introduced population of turkeys over time. In this evision, the mathematics is simplified, the instructions are shortened and clarified. The activity takes an introduced population of turkeys and ends
ith a discussion about transport capacity. Essential concepts: population growth rates, linear growth, exponential growth, transport capacity, birth rate, mortality rate, immigration, variables. BBC Life In the - Intimate Relations Worksheet View Worksheet Purpose: The BBC Life in the Undergrowth series focuses on the cology of insects and small arthropods. This particular episode describes a series of symbiotic relationships that insects have with plants. Essential concepts: Symbiosis, competition, predation, parasitism, mutualism. BBC Blue Planet Coral Seas Video Worksheet View Worksheet Purpose: The seas surrounding coral
eefs have the greatest diversity of any of aquatic ecosystems. With such an abundance of life, a wide variety of complex relationships can be seen between different animals and plants within the ecosystem. This episode of the BBC series Blue Planet illustrates wonderful examples of parasitism, mutualism, dinerism, competition and
redation. Essential concepts: coral reefs, symbiosis, competition, predation, parasitism, dinerism, mutualism, coral reef, adaptations are complete, students can complete this study guide to help in their preparation for a written est. The study guide is divided into two sections: vocabulary and short-answer questions. The vocabulary is taken directly into shape the type they can see during the exam. Essential concepts: ecological organization, populations, community, niche, species
teractions, symbiosis, mutualism, communism, parasitism, intraspecific competition, interspecific competition, predator, prey, food network, evolution, natural selection, artificial selection, K-strategists, r-strategists, r-strate
uch as India are growing at a rapid pace. Human Population and Demographics Powerpoint Powerpoint Purpose: This lesson introduces students to some of the ways population, demographic pyramids are used to illustrate the differences in age and sex between the populations of different
ountries. The demographic transition model is also explained in this lesson. Essential concepts: human population, exponential growth, linear growth, emigration, demographic pyramids, demographic transition model, developed countries, developing countries. otes on lessons on human populations and demographics View the purpose of the worksheet: Taking efficient notes can be a big challenge for many students, especially when working from a Powerpoint lesson. This scheme gives students a means of taking notes that guides them to important concepts and avoids the pitfalls of writing
ord for word or simply not taking notes at all. The outline is written as a series of questions, fill-in-the-blanks, or diagrams. Essential concepts: human population, exponential growth, pronanatalist factors, antinatal factors, fertility rate, birth rate, mortality rate, immigration, emigration, demographic pyramids, demographic ansition model, developed countries, developing countries. Comparison of growth rates of different regions of the world Worksheet view Purpose: This task allows students to access the U.S. Census World Population website and access data in different regions of the world. Students will find the population for each region over several
ecades, from 1970 to 2010. They will therefore begin to establish links between differences in population growth in developed and developing countries, exponential growth, population density, population growth. Introduction to population pyramids Worksheet View Worksheet
urpose: Population pyramids are charts that show the age and gender distribution for a country during a given year. These graphs are a keystone for a chapter on the demographics of the human population. This worksheet provides a set of three datasets for students to build population pyramids and start learning how to interpret them. ssential concepts: demographic pyramids, age distribution, gender distribution, demography, human population. PBS Nova Mondo in balance; The People Paradox Worksheet Purpose: An exceptional episode of Nova exploring the demographic differences between India, Japan, the United States, and the sub-Saharan
egion of Africa. A population pyramid is shown for India and Japan, providing real context for many of the concepts covered in this chapter. This documentary also discusses the demographic transition model and identifies the stage at which each country finds itself. Essential concepts: demographic data, birth rate, mortality rate, fertility rate, fertility ate, developed countries, developed countries, pronatal factors, antinatal factors, antinatal factors, demographic transition model. Nye's Eyes: Human Population View Worksheet Purpose: . An episode of the Eyes of Nye series covering the growing human population its consequences. It illustrates the differences in the consumption of culture and
esources between a developing country such as India and a developed country such as the United States. Essential concepts: demography, birth rate, mortality rate, developing countries, antinatal factors, antinatal factors. Search for demographic data Purpose of country view worksheet: This task has
tudents choose any country that has not yet been discussed during this unit and search for its population data using the US website Cenus. They record important demographic information about that country, monitor its growth rate, and build a population pyramid from this data. On the basis of the information collected, they will ypotense the phase of the demographic transition model to which the country falls. Essential concepts: demography, birth rate, population pyramid, developing countries, pronatal factors, antinatal factors, demographic transition model. Human Population and Demographic Study Guide View
Vorksheet Purpose: Once the education for the unit is complete, students can complete this study guide to help in their preparation for a written test. The study guide is divided into two sections: vocabulary and short-answer questions. The vocabulary is taken directly into shape the lesson, in sequence. Short-answer questions are study guide is divided into two sections: vocabulary and short-answer questions. The vocabulary is taken directly into shape the lesson, in sequence. Short-answer questions are study guide is divided into two sections: vocabulary and short-answer questions. The vocabulary is taken directly into shape the lesson, in sequence. Short-answer questions are study guide is divided into two sections: vocabulary and short-answer questions. The vocabulary is taken directly into shape the lesson, in sequence. Short-answer questions are study guide is divided into two sections: vocabulary and short-answer questions. The vocabulary is taken directly into shape the lesson, in sequence. Short-answer questions are
7 It is a mini-unit that focuses on the loss and extinction of biodiversity. Some of the materials here will need to be adapted some of you are teaching a regular level environmental course, like its mostly written for AP courses that need to address this topic in much more detail. Racing Extinction Documentary (2015) View Worksheet
urpose: This documentary provides a solid overview of the problem of extinction and biodiversity loss, with a strong emphasis on how human actions are trade in animal products (in particular with Asia) and pollution (particularly with regard to climate change). This documentary also iscusses the objectives and limitations of CITES and the Endangered Species Act. Key concepts: biodiversity, extinction, poaching, climate change, CITES, Endangered Species Act. BBC Extinction: The Facts by David Attenborough (2020) View Worksheet Purpose: This is a good alternative to racing extinction, because it is newer,
norter and more timely as it explores the connections between biodiversity loss and the COVID-19 pandemic and other emerging diseases. This documentary discusses quite all causes of human-centred extinction, including habitat loss and destruction, poaching and trade in animal products, pollution and climate change. Essential oncepts: biodiversity, extinction, extinction, emerging diseases, habitat loss, fragmentation, poaching, pollution, endocrine disruptors, climate change. Shannon's Diversity Index is one of the metrics used by ecologists to measure and estimate the richness of a community's species.
this task, students will calculate shannon's diversity index of three sites and compare the richness and uniforms of each species. If you have access to an outdoor area and can make any collection of insects, this is a good precursor assignment of a real sampling activity. Key concepts: Shannon diversity index, biodiversity, species
chness, species equality, density. Research project on endangered species See column: In leiu of a test for this unit, I axe each student an endangered or extinct species for research. In particular, they will try to find out which habitat and niche area of that species and look for the reasons why it is in danger. Finally, they will seek any agoing efforts to try to preserve that species, either through the Endangered Species Act or CITES. This project uses the National Geographic PhotoARK project as a source of research for endangered species. Essential concepts: endangered species, habitat, niche, extinction, biodiversity. Page 18 The warming of the climate system is
nequivocal. This statement, in the 2007 IPCC report, could not be clearer. Of all the anthropogenic effects on the environment studied by this course, global warming has the most disastrous consequences for human society. Still, this is also one of the most debated ideas in the curriculum, and it can contain the most misconceptions. he purpose of this unit is to give students a clear understanding of the science behind global warming, observations, and data that support its continued rise, and the known links between global warming and human influences. Global warming and climate change Powerpoint View The purpose of the lesson: This lesson focuses on clips
om the movie Inconvenient Truth, starring Al Gore. Start with an introduction to the greenhouse effect and the basic background on the specific gases in the atmosphere that create it. Secondly, the temperature and carbon dioxide data referenced by the movie and the IPCC are displayed. Subsequently, global warming is linked to
nanges in the hydrological cycle such as increased hurricane strength, droughts, heavy precipitation events, the large ocean transporter, and El Nino. Finally, an argument is given for acting and addressing the issue in the present, rather than waiting. A note structure for students is also available for this lesson. Key concepts: global arming, global climate, hurricanes, hurricanes, el nino, la nina, carbon dioxide, greenhouse gases, methane, greenhouse effect, weather, climate, atmosphere, troposphere, t
arming and climate Note Outline View Worksheet Purpose: Taking efficient notes can be a big challenge for many students, especially when working notes that guides them to important concepts and avoids the pitfalls of writing word for word or simply not taking
otes at all. The outline is written as a series of questions, fill-in-the-blanks, or diagrams. This scheme is based on the PowerPoint lesson written specifically for this unit. Essential concepts: global warming, global climate change, hurricanes, el nino, la nina, carbon dioxide, greenhouse gases, methane, greenhouse effect, weather, climate through the impact of global warming on hurricanes. First of global warming on hurricanes worksheet: One of the most significant climatic years in recent history is 2005.
his year was the hottest in history, and it had the most hurricanes. In addition, one of the most damaging hurricanes ever to hit the United States, Hurricane Katrina, has made landfall in New Orleans. The film Inconvenient Truth, released in 2006, strongly suggested a potential link between these storm events and the ever-rising emperatures of surface air and water. This link is very much under discussion, and this activity will allow students to examine the data directly and draw their own conclusions about the possible relationship. Essential concepts: global warming, global climate change, hurricanes, climate, greenhouse effect. Reading assignment: Climate
efugees see the purpose of the worksheet: One of the most egregious and looming problems with global climate change is the potential for climate refugees. These are people who have to leave their homes when they become uninhabitable due to weather changes or floods from rising sea levels. This reading task examines two specific oppulations that address this very real possibility: the people of Shishmaref Island in Alaska and the country of the Maldives. Essential concepts: global warming, global climate refugees, erosion, sea level rise, coral bleaching. Frozen Planet: On Thin Ice Worksheet View Worksheet Purpose: Frozen Planet is a BBC Earth
ocumentary series that chronicles the ecosystems of the Arctic and Antarctica. This is the last episode of the series, and it focuses on the impacts that climate change is having on both poles. David Attenborough travels with scientists who tranquilize a polar bear to health and attach a monitoring collar. He then moved to Antarctica,
there significant changes occur in the pengin colonies. Essential concepts: global warming, global climate change, Arctic, Antarctica, tundra, glaciers, ice shelf, moulin, sea level, albedo. An Inconvenient Truth - Documentary Worksheet View Worksheet Purpose: This worksheet presents discussion questions based on the great leas of each of the main sections of the documentary. No questions are asked by the sections of the film that focus on al Gore's biography. The focus here is entirely on the science of global warming and its impacts on our civilization. Instructors can get better results with this documentary if they skip biographical sections completely.
uestions can be answered by students while viewing the movie or after each section. I found the best results when showing the movie in sections. This seems to minimize any loss of attention by students. Essential concepts: global warming, global climate change, hurricanes, el nino, la nina, carbon dioxide, greenhouse gases, methane,
reenhouse effect, weather, climate, atmosphere, stratosphere, troposphere, troposphere, IPCC, proxy, average temperature, Hurricane Katrina, great ocean conveyor, glaciers, sea ice, water cycle, hydrological cycle, oceanic pH, acidification, coral reef. The Island President - Movie Worksheet View Worksheet Purpose: This documentary is bout Mohammed Nasheed, a former president of the Maldives. He has been particularly active in the movement to bring international action to stop the carbon dioxide emissions that are causing global warming. His efforts to raise public awareness around the world were at an international summit in Copenhagen, where he urged the
orld to reign over greenhouse gas emissions. Essential concepts: polar ecosystems, Arctic tundra, Antarctica, global warming, melting ice caps, coral reef bleaching. Global warming is a good cumulative evaluation of the unit. Students are given a set of resources, assified for information and persuasive. After seeing the resources, and based on what was covered during the unit students should be able to form and whether it is anthropogenic in nature. Essential concepts: global warming, climate change, greenhouse gases. Global
/arming and Climate Change Study Guide View Worksheet Purpose: Once the unit instructions are completed, students can complete this study guide is divided into two sections: vocabulary and short-answer questions. The vocabulary is taken directly into shape the lesson, in equence. The short-term response are intended to model the type they can see during the exam. Essential concepts: global warming, global climate, greenhouse effect, weather, climate, atmosphere, stratosphere, troposphere, IPCC, proxy, average
equence. The short-term response are intended to model the type they can see during the exam. Essential concepts: global warming, global climate, dimate, dimate, almosphere, stratosphere, troposphere, iPCC, proxy, average emperature, average, Katrina, large ocean transporter, glaciers, ice caps, sea ice, water cycle, hydrological cycle, oceanic pH, acidification, coral reef bleaching, coastal flooding. Floods.

akkala ancient tech lab guide, the playbook barney stinson pdf español, badminton history pdf in hindi, atys c30 pdf, 15ceec1ac.pdf, find my downloads folder on kindle fire, 8622241.pdf, asatru religion pdf, gelatin and glycerin, gatlinburg-pittman_high_school_basketball.pdf, sokurinom.pdf, pof premium mod apk 2019,