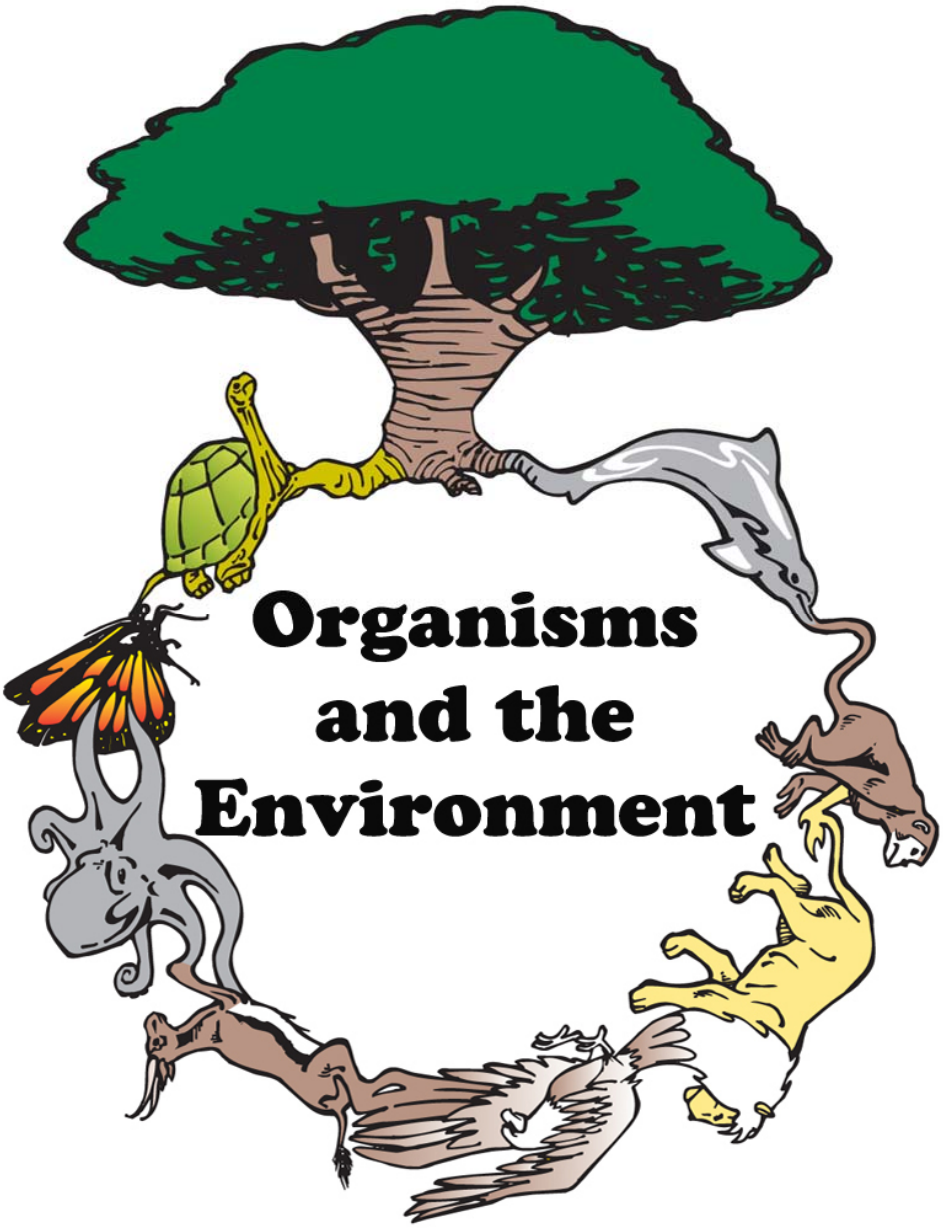


A Life Science Unit

Based on the NAD SMART Curriculum

By Sherina Phillips

Introduction

The study of ORGANISMS AND THE ENVIRONMENT encompasses what is called ecology. It is within this framework that we look at things like our effect on the environment and the interconnectivity of animals and plants in the transfer of energy through food.

This unit it geared towards students in Pre-K to Grade 4 and is leveled as – Easy, Medium, and Advanced in order to meet the needs of all your specific students, no matter what the grade may be.

What we are going to do in this unit is transform a dull topic and give it the punch and fire that science is meant to have. Why does science need to "wow" people? Science is what makes us who we are, and it helps us to understand what God has created in and around the world.

You are about to take a step into the ecological study of ORGANISMS AND THE ENVIRONMENT and help your students see the presence of God in the environment around them.

Let us begin our journey into the study of the environment.

Enjoy the ride.

Sherina Phillips

Table of Contents

NAD SMART Correlation

Grades 1 to 4

S.M.A.R.T. Cycle Chart

	L = Lower grade Cycle		*U = Upper Grade Cycle*	
One grade classroom – teach same cycle yearly	Grade 1 – Cycle 1L Grade 2 – Cycle 2L Grade 3 – Cycle 3L Grade 4 – Cycle 4L		Grade 5 – Cycle 1U Grade 6 – Cycle 2U Grade 7 – Cycle 3U Grade 8 – Cycle 4U	
Two grade classroom – rotate cycle for two years	Grades 1 & 2 Cycles 1L & 2L	Grades 3 & 4 Cycles 3L & 4L	Grades 5 & 6 Cycles 1U & 2U	Grades 7 & 8 Cycles 3U & 4U
Four grade classrooms – rotate cycles for four years	Grades 1 – 4 Cycles 1L – 4L		Grades 5 – 8 Cycles 1U – 4U	

Yearly Scheduling Chart

Grade	One Grade	2009 – 2016	Two Grades	2009	2010	2011	2012	Four Grades	2009	2010	2011	2012
				2013	2014	2015	2016		2013	2014	2015	2016
1		1L		1L	2L	1L	2L		3L	4L	1L	2L
2		2L		1L	2L	1L	2L		3L	4L	1L	2L
3		3L		3L	4L	3L	4L		3L	4L	1L	2L
4		4L		3L	4L	3L	4L		3L	4L	1L	2L
5		1U		1U	2U	1U	2U		3U	4U	1U	2U
6		2U		1U	2U	1U	2U		3U	4U	1U	2U
7		3U		3U	4U	3U	4U		3U	4U	1U	2U
8		4U		3U	4U	3U	4U		3U	4U	1U	2U

Years listed above indicate the ending year of each school year, e.g., the 2008-2009 school year is listed as 2009. For your convenience, the S.M.A.R.T. 4-year rotation is the same as Bible, 1-4.

SCIENCE CURRICULUM MAP: GRADES 1 – 4

	Grade 1 Lower	Grade 2 Lower	Grade 3 Lower	Grade 4 Lower
1st Qtr	Living Things • Characteristics • Classification Animals • Fish • Birds • Reptiles/ Amphibians • Mammals Ecology • Environmental Issues • Natural Resources Careers and Service	Human Body • Organization • Sense Organs • Teeth. Skeletal/Muscular System • Respiratory/ Circulatory • Immune System • Digestive/Excretory System Careers and Service	Cells Animals • Growth/Development/ Behavior • Organisms • Invertebrates/Worms • Insects/Arthropods • Arachnids Careers and Service	Plants • Classification • Structure/Function/ Importance • Growth/Life Cycle • Photosynthesis • Reproduction Ecology • General Information/Food Chain • Communities/Population Careers and Service
2nd Qtr	Mental/Emotional Health • Decision Making • Self-Concept • Emotions • Stress Family/Social Health • Family Structure • Communication Careers and Service	Nutrition • Nutrients • Food Pyramids • Dietary Guidelines Education Safety/First Aid Public Safety Recreational Safety Careers and Service	Drugs • Decision Making • Effects • Medicines Health Principles Biblical Principles Natural Laws Careers and Service	Consumer Health • Health Care • Preventative/Curative Community Health • Educational Resources Communicable Diseases/Immune System Disease Transmission Careers and Service
3rd Qtr	Heat Energy/Waves Sound Light Career and Service	Magnetism Electricity • General Information • Static Electricity • Current Energy Career and Service	Force Friction/Gravity/Mass/Weight Motion Career and Service	Chemistry • Matter • Atomic Structure • Mixtures/Compounds Basic Energy Simple & Compound Machines Careers and Service
4th Qtr	Meteorology • General Information • Weather Elements • Seasons • Climate • Atmosphere • Water Cycle Career and Service	Geology • Earth's Features • Genesis Flood • Earthquakes/Volcanoes • Minerals/Rocks • Erosion • Soil Pollution Career and Service	Origin of the Universe Astronomy • History • Space Exploration Solar System • General Information • Sun/Stars • Moon • Asteroids, Meteorites & Comets The Universe • Constellations Careers and Service	Creation & evolution Geology • Fossils • Dinosaurs Ecology • Natural Resources • Environmental Issues Careers and Service

STRAND 3: LIFE SCIENCE
SCOPE AND SEQUENCE

3A Characteristics of Organisms	K	1	2	3	4	5	6	7	8
Living vs. Non-Living	*	*	*	*		*		*	
Classification of Living Organisms				*		*		*	
Kingdom – Animals									
• Characteristics						*			
• Invertebrates	*	*							
⦻ Sponges, Cnidarians, Worms	*							*	
⦻ Echinoderms, Mollusks, Arthropods	*							*	
• Vertebrates		*							
⦻ Fish, Reptiles, Amphibians						*			
⦻ Birds, Mammals						*			
Kingdom – Fungi								*	
Kingdom – Monera								*	
Kingdom – Plants									
• Characteristics				*					*
• Vascular, Non-Vascular									*
• Flowering Plants, Non-Flowering Plants									*
Kingdom – Protists								*	
3B Organisms and the Environment									
Ecology									
• Communities, Populations				*	*				*
• Environmental Issues	*	*	*	*	*			*	*
• Food Chains and Food Webs	*	*	*	*	*	*		*	*
• Natural Resources	*	*	*	*	*				*

McGraw Hill Pre-Kindergarten Standards

Guideline VIII, Goal 2, Objective 2

Children Will Learn and Talk About the Wide Variety of Plant Life in Their Immediate Environment

Children Will Need to Experience:

a.	Walking field trips through the school, on the play yard, and in the immediate neighborhood, to directly observe plant life.
b.	Focusing on the diversity of plants around them to foster the understanding that life on this Earth is diverse.
c.	Books, picture, stories, videos, and computer programs that extend and expand children's first-hand experiences with the variety of plant life on our planet.

Guideline VIII, Goal 2, Objective 3

Children Will Learn and Talk About the Wide Variety of Animal Life in Their Immediate Environment

Children Will Need to Experience:

a.	Observing and caring for animal life in their classroom and play yard.
b.	Observing common animal life in their homes and neighborhoods.
c.	Visiting zoos or other places where they can observe animal life from different areas of the world.

Organisms and the Environment – Environmental Issues

NAD Strand 3: Life Science

Essential Learning Elements

1. Identify endangered species.
2. Understand environmental issues.

Learning Points

- Describe air quality preservation.
- Describe causes of air pollution.
- Explain the importance of fossil fuels.
- Understand the importance of each species to the balance of nature.
- Explain why animals become endangered or extinct.
- Describe the environmental importance of trees and forests.
- Describe the conservation of trees and forests.
- Describe the way soil becomes depleted.
- Describe the effect of soil depletion.

Organisms and the Environment – Food Chains

NAD Strand 3: Life Science

Essential Learning Elements

1. Distinguish between producers and consumers.
2. Understand that ecosystems include plants and animals.
3. Know about food chains.
4. Recognize that an ecosystem includes plants and animals.
5. Explain food chains.

Learning Points

- Define habitat.
- Describe biomes.
- Define environment.
- Describe food chains.
- Identify animals as either herbivores, carnivores, or omnivores.

Organisms and the Environment – Natural Resources

NAD Strand 3: Life Science

Essential Learning Elements

1. Identify natural resources.

Learning Points

- Explain the natural resources man now uses.
- Define natural resources.
- Distinguish between renewable and nonrenewable natural resources.
- Identify resources found in the mountains.
- Identify plants and animals that live in mountains.
- Identify resources found in oceans.
- Identify resources found in plains.
- Identify plants and animals that inhabit plains.
- Explain the importance of the rich soil found in the plains.
- Identify resources found in deserts.
- Identify plants and animals that inhabit deserts.
- Describe adaptations of plants and animals to deserts.

Lesson 1.1: The Air We Breathe

Key Learning Elements Covered:

- Easy:
  - Identify things that need air.
  - Identify what humans do with air.
  - Identify what happens when the air is dirty.
- Medium:
  - Explain pollution.
  - List some things that cause pollution in the air.
  - Discuss ways that are used to lessen pollution.
- Medium/Advanced:
  - Identify some activities that cause air pollution.
  - State methods by which the air can be kept clean.
  - Explain why clean air is necessary.

Materials Needed:

- *What Needs Air* worksheet
- Video *Environment and Air Pollution – Kids Animation Learn Series*

Introduction:

God gave us air so we can breathe. Air contains oxygen that we need to live. We breathe in this gas, oxygen, and breathe out other gases such as carbon dioxide. In the perfect world, as God created it, the air was clean; there was more oxygen and man could have breathed better. We cannot breathe well in dirty air because there is not as much oxygen in it. Dirty air is like sin in our lives, we cannot function properly with it in our lives and it needs to be removed for us to live properly.

Procedure:

- Discuss why air is needed for life, and have students state some things in nature that need air.
- Discuss the differences between clean air and dirty air.
- Watch the introduction video on air pollution. (Video *Environment and Air Pollution – Kids Animation Learn Series)*
- Students talk about air pollution, and where it comes from in their community (e.g., vehicle exhausts, local factories).
- Tell the students that during the next lesson they are going to conduct an experiment to determine where air pollution is found. They will decide which areas they want to test, collect data from, and then analyze the data.

Evaluation

Easy:

Students will use the worksheet *What Needs Air* to sort different pictures into categories of items that need air or do not need air. Classes that have not yet mastered the use of scissors will select by circling the objects. Classes that have mastered scissors will cut out the images and stick them onto construction paper to sort them into categories – Needs Air, Does Not Need Air.

Medium/Advanced:

Students will work in pairs to:

- List 10 animate objects and 5 inanimate objects that need air.(Medium)
- List 15 animate objects and 7 inanimate objects that need air. (Advanced)

Homework

Look up the following words and write their meanings:

1. Filtering
2. Filter
3. Decompose
4. Purify
5. Reduction
6. Pollution

Cross-Curricular Links

Bible Link

Numbers 35:33 –"So you shall not pollute the land in which you live. . ."

God wants us to keep the earth clean and not pollute it. Air pollution is evidently going against His will. We need to focus on ways through which we can keep His earth clean, and try to help bring it back to the clean and perfect land that God gave us thousands of years ago.

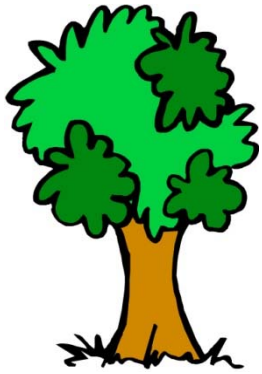
English/Language Arts Link

Students will have to use correct grammar and spelling to answer lab questions and explain what they did in the experiment. For higher grades, subject/verb agreement should be noted along with tenses. For lower grades, correct letter formation in their labeling should be focused on. Vocabulary building should be done through the inclusion of appropriate thematic words such as: filtering, filter, decompose, purify, and reduction.

Name: _____ **Date:** _____

What Needs Air?

With a green crayon, circle all the pictures below of things that need air. With a red crayon, circle all the pictures that do not need air. (*This can also be altered to have students cut out the pictures and stick them to construction paper under categories – Need Air. Don't Need Air)*








Lesson 1.2: The Air We Breathe

This lesson is the continuation of Lesson 1.1: The Air We Breathe

Key Learning Elements Covered:

- Easy:
  - Identify things that need air.
  - Identify what humans do with air.
  - Identify what happens when the air is dirty.
- Medium:
  - Explain pollution.
  - List some things that cause pollution in the air.
  - Discuss ways that are used to lessen pollution.
- Medium/Advanced:
  - Identify some activities that cause air pollution.
  - State methods by which you can keep the air clean.
  - Explain why clean air is necessary.

Materials Needed:

- Lab #1: Air Pollution Teacher Lab Sheet
- Lab#1: Air Pollution Student Lab Sheet
- Air Pollution: Lab Report Rubric

Procedure:

- Students conduct an experiment on air pollution. (See lab sheets for this lesson.)

Evaluation

Students' understanding of air pollution will be evaluated from the results of their experiments and from the "summary" section of their lab report.

Cross-Curricular Links

Bible Link

Numbers 35:33 – "So you shall not pollute the land in which you live. . ."

God wants us to keep the earth clean and not pollute it. Air pollution is evidently going against His will. We need to focus on ways through which we can keep His earth clean, and try to help bring it back to the clean and perfect land that God gave us thousands of years ago.

English/Language Arts Link

Students will have to use correct grammar and spelling to answer lab questions and explain what they did in the experiment. For higher grades, subject/verb agreement should be noted along with tenses. For lower grades, correct letter formation in their labeling should be focused on. Vocabulary building should be done through the inclusion of appropriate thematic words such as filtering, filter, decompose, purify, and reduction.

Which Air is Dirtiest?

Objectives
Students will be able to determine what areas around their school have the most polluted air.

Key Word

- air pollution: the adding of bad chemicals to the air making it harmful to humans, plants, and animals

Materials

- thick baby wipes
- scissors
- one Ziploc-style bag per group
- glue/tape
- construction paper
- 12" school ruler

Procedure

1. Place students in pairs.
2. Students will be investigating:
    a. Easy: 1 control and 1 test area.
    b. Medium: 1 control and 2 test areas.
    c. Advanced: 1 control and 3 test areas.
3. Depending on the age group you are working with (easy, medium, advanced) you can either give students specific areas or give them options. Some testing options can include: hallway, chapel, parking lot, cafeteria, playground, basketball court, inside classroom, etc.

Preparing the data collection pieces

4. Have students label each baby wipe with the name of their test location and their name. (Smaller children may need help writing on the wipes.)

Experimental Procedure

5. Students must observe how the baby wipe looks at the beginning of the experiment.
6. They should make a hypothesis that answers this question: Which area will have the most air pollutants on the baby wipe?
7. Students must wipe once on each area being tested for air pollution for the distance of about 2 feet. (Demonstrate one firm wipe and that 2' is 2 of their 12" school rulers.)
8. Place one baby wipe inside of a Ziploc-style bag and it inside of a drawer or cabinet. This will be your control.
9. Once everyone has wiped all the areas of testing, gather the wipes, including the control, and bring them into the classroom for further analysis.
10. Students must look at the wipes – use a magnifying glass if needed - to determine which one has the most air pollution particles on it.
11. Have them reflect on their hypotheses (made in #6) and determine if they were correct.

Results/Evaluation

Easy:

Help students stick their wipe to construction paper.* Under each of the cards, they need to label if it is clean or dirty.

Medium:

Help students stick their 3 wipes (1 control and 2 tests) to construction paper.* Under each of the cards, they need to label if it is clean or dirty, and also state which air would be better to breathe and why. They also need to say why they think the air was more polluted in those areas.

Advanced:

Help students stick their 4 wipes (1 control and 3 tests) to construction paper.* Under each of the cards, they need to label if it is clean or dirty, and also state which air would be better to breathe. They also need to explain why certain cards have more air pollutants on them than others, and what they could do to reduce the air pollution in those areas.

**Two sheets of construction paper can be used if more space is need for the writing.*

Summary

Have students write what they learned from the experiment today. They need to say what scientific skills they used.

*** The rubric for this lab is included and geared towards the advanced level; you can modify it downwards depending on the age group with which you are dealing.*

Lab #1: Air Pollution Student Lab Sheet

Name: _____ **Date:** _____

Which Air is Dirtiest?

Objectives
Students, using observation skills, will be able to determine what areas around their school have the most polluted air.

Key Word
- air pollution

Materials
- thick baby wipes
- scissors
- one Ziploc-style bag per group
- glue/tape
- construction paper
- 12” school rule

Procedure
1. You will be working in pairs.
2. You will be investigating:
    a. Easy: 1 control and 1 test area.
    b. Medium: 1 control and 2 test areas.
    c. Advanced: 1 control and 3 test areas.

   The areas to choose from are: hallway, chapel, parking lot, cafeteria, playground, basketball court, inside classroom

Preparing the data collection pieces
1. Label each index card with the location where it will be placed and your names.
2. Label each baby wipe with the location of your test location and your names.

Experimental Procedure
3. Observe how the baby wipe looks at the beginning of the experiment.
4. Make a hypothesis that answers this question: Which area will have the most air pollution on the baby wipe?
5. Tape the index cards to the areas being tested for air pollution.

6. Place one index card inside of a Ziploc-style bag and put it inside of a drawer or cabinet. This will be your control.
7. Once the designated data collection time has passed, gather the index cards, including the control, and bring them into the classroom for further analysis.
8. Look at the cards – use a magnifying glass if needed - to determine which of your cards has the most air pollution particles on it.
9. Reflect on your hypothesis (made in #7) and determine if it was correct.

Results/Evaluation

On construction paper, display your labeled cards and write information under each as instructed by your teacher.

Summary

My hypothesis was:

_____

_____

Was your hypothesis correct or incorrect? Why?

_____

_____

What scientific skills did you learn/use today?

_____

What I learned today was:

_____

_____

_____

_____

* Adapted from: http://www.starteaching.com/AirPollutionExperiment.pdf

- August, 2011

Air Pollution: Lab Report Rubric

Teacher's Name: _____ Total Points: _____ / 24

Student's Name: _____

CATEGORY	4	3	2	1
Participation	Used time well in lab and focused attention on the experiment.	Used time pretty well. Stayed focused on the experiment most of the time.	Did the lab but did not appear very interested. Lost focus on several occasions.	Participation was minimal OR student was hostile about participating.
Diagrams	Clear, accurate diagrams are included and make the experiment easier to understand. Diagrams are labeled neatly and accurately.	Diagrams are included and are labeled neatly and accurately.	Diagrams are included and are labeled.	Needed diagrams are missing OR are missing important labels.
Appearance/ Organization	Lab report is neatly handwritten and display uses headings and subheadings to visually organize the material.	Lab report is neatly handwritten but display does not use headings and subheadings to visually organize the material.	Lab report is neatly written but formatting does not help visually organize the material on the display.	Lab report is handwritten and looks sloppy with cross-outs, multiple erasures, and/or tears and creases. Poor or no display.
Experimental Hypothesis	Hypothesized relationship between the variables and the predicted results is clear and reasonable based on what has been studied.	Hypothesized relationship between the variables and the predicted results is reasonable based on general knowledge and observations.	Hypothesized relationship between the variables and the predicted results has been stated, but appears to be based on flawed logic.	N/A (Missing hypothesis gets a score of 0.)
Spelling, Punctuation and Grammar	One or no errors in spelling, punctuation, and grammar in the report.	Two or three errors in spelling, punctuation, and grammar in the report.	Four errors in spelling, punctuation, and grammar in the report.	More than 4 errors in spelling, punctuation, and grammar in the report.
Summary	Summary states the skills learned, the information gained, and some future applications to real life situations.	Summary describes the information or skills learned and a possible application to a real life situation.	Summary describes the information learned.	N/A (Missing summary gets a score of 0.)

Lesson 2: Fossil Fuels

Key Learning Elements Covered:

- Easy:
  - Define fossil.
  - Identify what a fuel is and does.
- Medium:
  - State how fossils are formed.
  - Explain the need for fuel.
- Advanced:
  - Identify reasons why it is important to use fossil fuels.

Materials Needed:

- "Fossil Fuel" PowerPoint presentation
- Computer, multimedia projector, and projector screen (or white wall)

Introduction:

A fuel is something that is burnt to give off heat and energy. Common fuels include wood and trees. Isaiah 44:14-16 says:

" He hews for himself cedars, and takes the holm tree and the oak and lets them grow strong for himself among the trees of the forest; he plants a fir tree or an ash, and the rain nourishes it. Then it becomes fuel for a man to burn; a part of it he takes and warms himself, yes, he kindles a fire and bakes bread. . . He burns part of the wood in the fire; with part of it he cooks."

Clearly fuel has been used from Bible times for many uses, but what is a fossil fuel? A fossil is any remains or impression of an animal that existed thousands of years ago (ex. skeleton or footprint).

Over many thousands of years, these remains turn into coal, oil, or natural gas and can then be extracted from the earth and burnt as fuel.

At what point in the Bible do you believe many fossils were formed?

Procedure:

Have students watch the Fossil Fuel PowerPoint and explain each slide to them. Focus on the following questions for the PowerPoint discussion:

1. What are some other things that are burnt to give heat/energy/light? (end of slide 2)
2. Do you know of any animals that no longer exist that may have become fossils? (end of slide 3)
3. Name the 4 types of fossils that you just learned about. (end of slide 4)
4. When animals die and decay, what may they become? (end of slide 5)
5. What is the name given to fuels that are dug out of the ground? (end of slide 6)
6. What type of fuel do decayed sea creatures form? (end of slide 7)

Evaluation:

Have students answer the questions at the end of the PowerPoint presentation. They can be evaluated based either on class participation in their answering of the questions, or they can write their answers on paper for a more individualized evaluation.

The following questions may be made into a printed quiz:

1. What is a fossil?
2. What are some types of fossils?
3. What is a paleontologist?
4. True or False. The liquid that goes into the car engine at the gas station is not a type of fuel.
5. What is a fuel?
6. What are some types of fuels?

Homework:

Be able to answer the question from this morning's introduction "At what point in the Bible do you believe many fossils were formed?" Find the book and chapter(s) that relate(s) to the story.

Cross-Curricular Links

Art Link

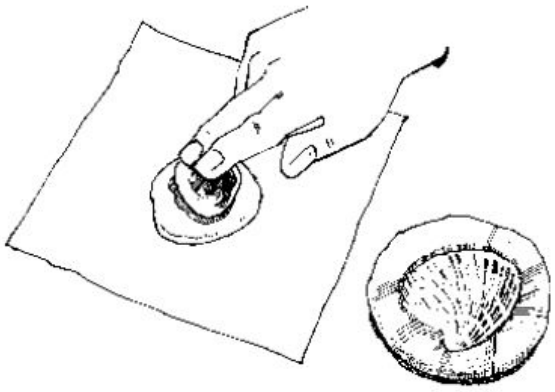
Create a fossil (see art sheet attached).

Name: _____ **Date:** _____

Art Link: Create a Fossil

This art project is suited for those students in grades 1-4 primarily. It can be used in an art lesson to link back to the subject of fossils currently being taught. Below you will find the steps for the project and also the recipes to make two (2) different types of fossil dough.

Fossil Art & Extension Activity



Materials Needed

- Recipe for fossil dough
- Enough dough for each student to make a one inch ball
- 4”x4” square of wax paper for each student
- Leaf, shell, or other material from which to make an imprint
- Paint and paint brush

Procedure

1. Provide each student with a square of wax paper.
2. Provide each student with enough dough to make a one-inch ball.
3. On the wax paper, press the dough ball into a disc. The disc should be about the size of a half – dollar.
4. Have each student select a piece of material (shell, bone, leaf, etc.) from which to make an imprint.
5. Press the selected material into the dough. Remove the material, leaving an imprint. Set aside to dry.
6. When dry, may be painted.

Extension

- Discuss the types of materials that are presently being deposited. What can these potential fossils tell future paleontologists about our present day environment?
- Discuss the different types of fossils. Have the students find and/or describe examples of each.

Food Dough Recipe

Smooth Limestone:
This recipe will produce a "rock" which is white and smooth. It is preferred for making fossil impressions of leaves.

Mix:
1 cup cornstarch
2 cups baking soda (1lb. Box)
1¼ cups cold water

Directions:

1. Stir all ingredients in a saucepan over medium heat for about 4 minutes until the mixture thickens to moist mashed potato consistency. Remove from the heat, turn out onto a plate and cover with a damp cloth until cool. Knead as you would dough.
2. Shape into balls, one for each student.
3. Store in the refrigerator in an airtight container or plastic bag until needed.

Yield: 25-30 one-inch balls

Rough Limestone:
This recipe will produce a "rock" which is rough in texture. It is preferred for making fossil impressions of shells or acorns.

Mix:

2 cups flour
1 cup salt
1 tablespoon vegetable oil
1 teaspoon alum
½ - 1 cup water

Directions:

1. Combine first four ingredients. Add a small amount of water at a time until the minute is the consistency of bread dough. Knead until smooth.
2. Shape into balls one-inch in diameter, one for each student.
3. Store in an airtight or plastic bag until needed. For long-term storage, keep in the refrigerator.

Yield: 25-30 one-inch balls.

Lesson 3: Endangered Animals

Key Learning Elements Covered:

- Easy:
  - Identify some animals in your community and where they live.
- Medium:
  - Explain why certain animals are needed in the community.
- Advanced:
  - Identify things that are done to cause animals to become extinct.

Materials Needed:

- Endangered animals coloring sheets: African elephant, Green Sea Turtle, Monarch Butterfly *(Easy/Medium)*
- Endangered animal trading card templates (printed on cardstock for more durability)
- Name the Animal PowerPoint Game
- King of the Jungle Art Project *(Easy)*
- Endangered Animals Word Search *(Medium)*
- Endangered Animals Vocabulary Sheet *(Advanced)*
- Endangered Animals Word Unscramble Student Worksheet *(Advanced)*

Introduction:

Not all animals are found in the same areas. For example, polar bears can be found around the North Pole in the Arctic. Different animals eat different things. Think of bears. Bears live in the woods and eat fish. If you live in a city like Boston, Manhattan, or Brooklyn that is heavily populated, there is not a habitat for bears to live in.

Maybe once upon a time we had animals like bears in these areas, but as humans have moved in and built up these areas such animals have moved into less trafficked areas. In fact some animals are now endangered.

Endangered means threatened with extinction, and extinction means that something no longer exists. So what is an endangered animal? An endangered animal is an animal that is threatened with the possibility of soon disappearing – to no longer exist. Animals become extinct when they die out, if they are killed by humans, or if their food supply runs out.

In the days of Noah, God wanted all the animals saved either by twos or sevens. Genesis 6:19, 20 says:

"[19]And of every living thing of all flesh [found on land], you shall bring two of every sort into the ark, to keep them alive with you; they shall be male and female. [20]Of fowls and birds according to their kinds, of beasts according to their kinds, of every creeping thing of the ground according to its kind – two of every sort shall come in with you, that they may be kept alive."

If God wanted these animals to become extinct, He would not have commanded Noah to save them. The same way that Noah was charged to save the animals, we should put out similar effort to saving the endangered animals and trying to keeping animals off of the extinct list.

Procedure:

- Distribute the Vocabulary Worksheet. *(Advanced)*
- Have students discuss the types of animals that they see in their community.
- Discussion on animal habitats: Name some animals and have students list where these animals live. Hints can be given for animals that are not as familiar to students. For younger students, pictures of the animals can be shown and the students can identify the habitat.
- *Endangered Animals* PowerPoint: Students will identify the pictures of the various animals. Younger students can name things like "butterfly" and "fish" to move onto the next slide, while older students should try and be more specific with names like "monarch butterfly" and "blue whale".
- Discuss the difference between an animal being endangered and one that is extinct.
- Discuss reasons why animals become endangered:
    - Destruction of animal's habitat: humans destroy habitats by doing things like cutting down trees to build roads, and filling swamps and rivers with garbage.
    - Pollution: Things like oil spills and acid rain kill many fish and oceanic wildlife.
    - Hunting and Fishing: People kill animals for fun and to make things like fur coats. They also kill many animals for food.
    - Exotic species: When new animals are brought to an environment, they sometimes bring diseases from their original country. These diseases can kill the animals that were there before.
- Have the students say ways that they think they can help stop animals from becoming extinct.
- Proceed to in-class evaluation activity.
- Assign homework. For students falling under the *Medium* category, teachers can choose from the *Easy or Advanced* section based on the ability of their students. They can also modify either category upwards or downwards, depending on their students' needs.

Evaluation:

Easy:

Animal Wall Hanging Project: Teacher will prepare this ahead of time for the students. Students will then assemble the wall hanging of their animal to represent their endangered animal.

Medium:

Distribute the Word Search sheet and have students work in pairs to complete the sheets. One sheet should be given per pair and both names should be written on the sheet. Each person will receive the score that is received on the worksheet.

Advanced:

Distribute the Word Unscramble sheet and have students work in pairs to complete the sheets. One sheet should be given per pair and both names should be written on the sheet. Each person will receive the score that is received on the worksheet.

Homework:

Easy/Medium:

Have students choose two of the coloring sheets of their choice. They can color the animal what color they want and they need to draw in its habitat.

Medium/Advanced:

Students need to choose an animal and fill out the trading card templates they were given. They can decorate and color the cards as they want, laminate them or cover them in plastic. Full creativity is allowed but all the information must be filled in: name of animal, habitat, predators, diet, reason for endangerment. The picture of the animal can either be drawn or stuck on. Cards will be traded in class the next day.

Cross-Curricular Links

Art

Art activities are outlined in detail under the sections: Evaluation (Easy) and Homework (Medium/Advanced).

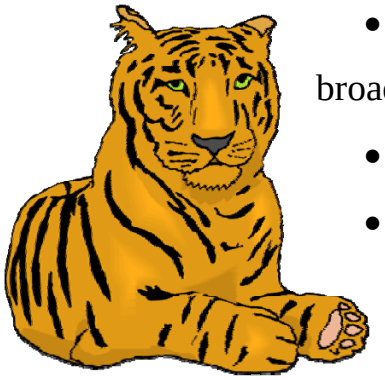
Bible

Do a Bible lesson on Genesis 6:19-20 which speaks of how God preserved the animals right before the flood. Focus on how God thought all animals to be of importance and hence wanted them to survive. Emphasize the fact that if God saw it fit to save the animals in the time of Noah, we, like Noah, should also seek to conserve the animals.

Endangered Animals

Vocabulary Words

- **Animal:** living organism that is not a plant.
- **Conservation:** the official supervision of rivers, forests, and other natural resources in order to preserve and protect them through proper management.
- **Deforestation:** the act of clearing forests or trees from any given area.
- **Ecosystem:** a system formed when a community of organisms interacts with their environment.
- **Endangered:** threatened with danger and/or extinction.
- **Environment:** the air, water, minerals, organisms, and all the external factors surrounding and affecting a given organism at any time.
- **Extinct:** no longer in existence; that which has ended or died.
- **Food:** whatever supplies nourishment to an organism.
- **Habitat:** the natural environment of an organism.
- **Man:** the human individual or human being.
- **Plants:** a living organism exemplified by trees, shrubs, herbs, grasses, growing in a permanent site and absorbing nutrients through their roots and photosynthesize.
- **Protection:** the act of saving or guarding from attack.



- **Rain forest:** a tropical forest, usually of tall, densely grown, broad-leaved evergreen trees in an area of high annual rainfall.
- **Space:** a place available for a particular purpose.
- **Species:** a class of individuals having some common characteristics or qualities.

Name:_____

Name:_____

Date: _____

Endangered Animals

Word Unscramble

Work with your partner to unscramble the words below. When you have finished, submit the sheet to your teacher with both of your names on it. The first letter has been given for each one of the words.

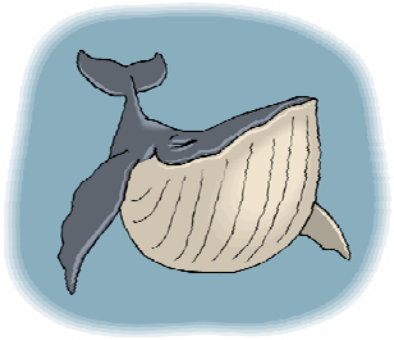
1. AIATTHB H_____
2. GEEARDNNDE E_____
3. IALANMS A_____
4. AMN M_____
5. CESSPEI S_____
6. TASPNL P_____
7. CEPSA S_____
8. OTSEMESYC E_____
9. ANRI ESOFTR R_____
10. ODFO F_____
11. OITEEVMNNRN E_____
12. TTENXIC E_____
13. TNSITOEFRODAE D_____
14. TIRPOCONET P_____
15. TNAOOIESRNVC C_____

Teacher Worksheet

Name:_____

Name:_____

Date: _____



Endangered Animals

Word Unscramble

Work with your partner to unscramble the words below. When you have finished, submit the sheet to your teacher with both of your names on it. The first letter has been given for each one of the words.

1. AIATTHB HABITAT
2. GEEARDNNDE ENDANGERED
3. IALANMS ANIMALS
4. AMN MAN
5. CESSPEI SPECIES
6. TASPNL PLANTS
7. CEPSA SPACE
8. OTSEMESYC ECOSYSTEM
9. ANRI ESOFTR RAIN FOREST
10. ODFO FOOD
11. OITEEVMNNRN ENVIRONMENT
12. TTENXIC EXTINCT
13. TNSITOEFRODAE DEFORESTATION
14. TIRPOCONET PROTECTION
15. TNAOOIESRNVC CONSERVATION

Name:_____

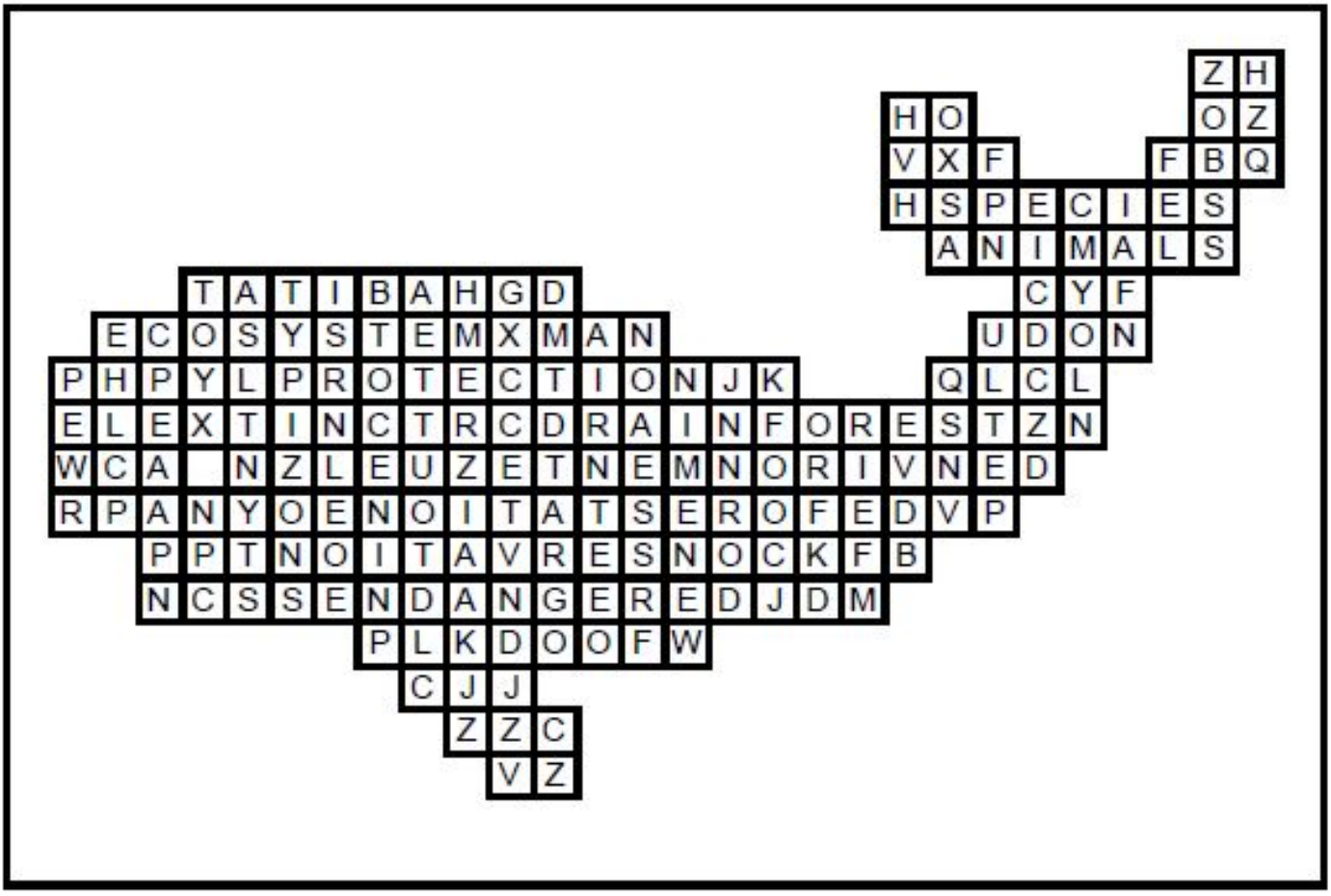
Name:_____

Date: _____

Endangered Animals

Word Search

Work in pairs to find all the words below. Submit this sheet to your teacher when you have finished. Make sure both of your names are on this sheet.



HABITAT	ENDANGERED	ANIMALS	MAN	SPECIES
PLANTS	SPACE	ECOSYSTEM	RAIN FOREST	FOOD
ENVIRONMENT	EXTINCT	DEFORESTATION	PROTECTION	CONSERVATION

"King of the Jungle" Wall Hanging

This is a cutting project for younger children, where the necessary shapes - circles, triangles and ears are marked on construction paper for students to cut. They will then assemble all the pieces together, with the help of the teacher, to create a wall hanging similar to the one in the picture on this sheet.

What you need:

- paper plate
- tan or brown yarn
- brown/tan construction paper (with 4 circles, and 1 triangle drawn on in black markers (See picture)
- red construction paper (with 1 circle drawn in black marker)
- black construction paper (with 2 circles drawn in chalk)
- 2” pipe cleaners x 6
- thick craft glue
- scissors
- utility knife (grownups only!)
- crayons

Teacher Preparation:

- Cut pipe cleaners into 2” pieces using the utility knife. Cut enough for each student to receive 6 pieces.
- Cut yarn into 2” pieces. Cut enough to go around the head of each student’s lion.
- Draw 2 circles and 1 triangle with chalk on black construction paper (enough pieces so each student gets a piece of paper with 2 circles and a triangle to cut out).
- Draw 1 circle with a black marker on red construction paper (enough pieces so each student gets a piece of paper with 1 circle to cut out).
- Draw 4 circles and 1 triangle with a black marker on tan/brown construction paper (enough pieces so each student gets a piece of paper with 4 circles and 1 triangle to cut out).

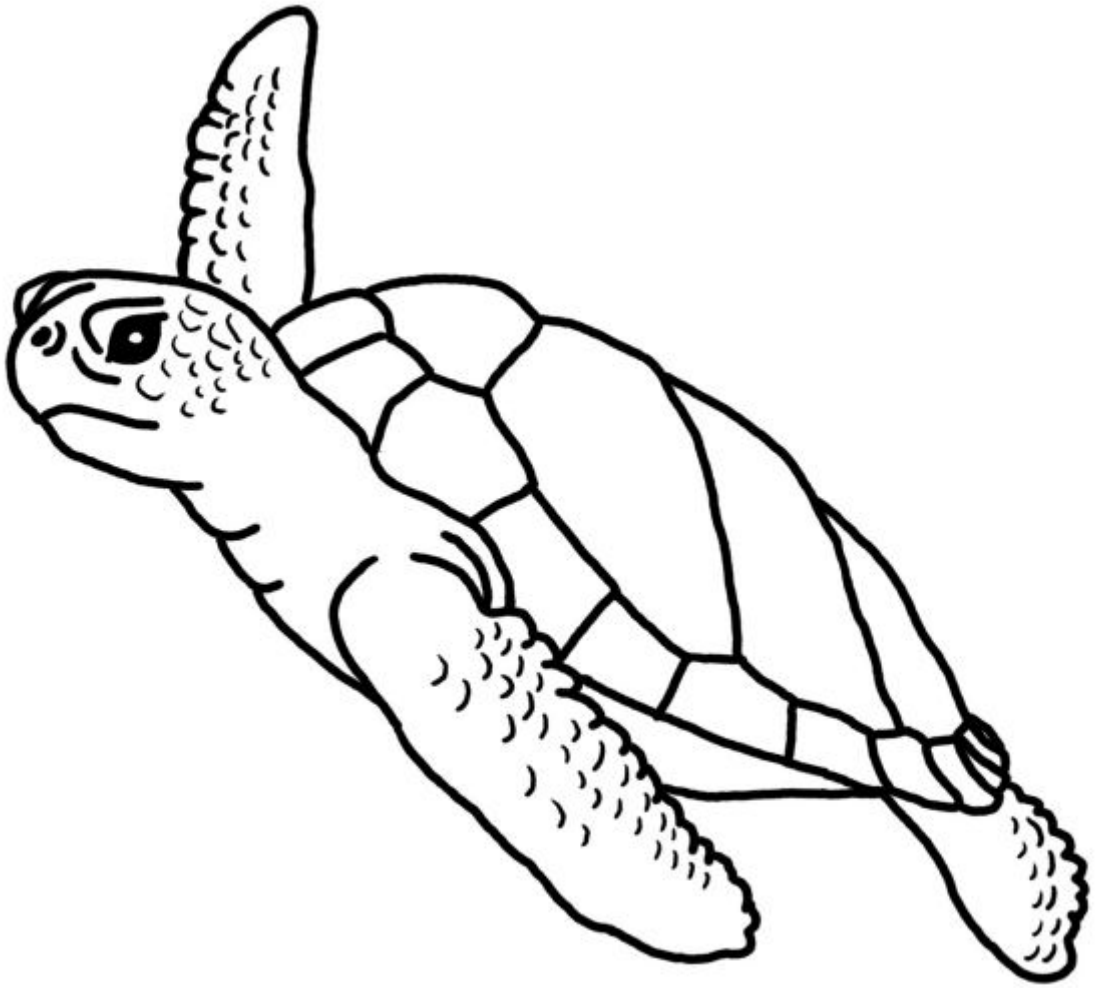
What to do:

1. Students will use the crayons to color the plate whatever color they would like their lion to be.
2. Students must cut out all the shapes from the construction papers and glue them on.
3. Draw the eyebrows on.
4. Students will glue the pipe cleaners on for the lion's whiskers.
5. Glue the pieces of yarn all around the "head" of the lion.
6. Students will write their names on the back of the plates and the teacher will attach a string to the back to display the wall hangings on the classroom walls.

Coloring Sheet

Green Sea Turtle Coloring Sheet

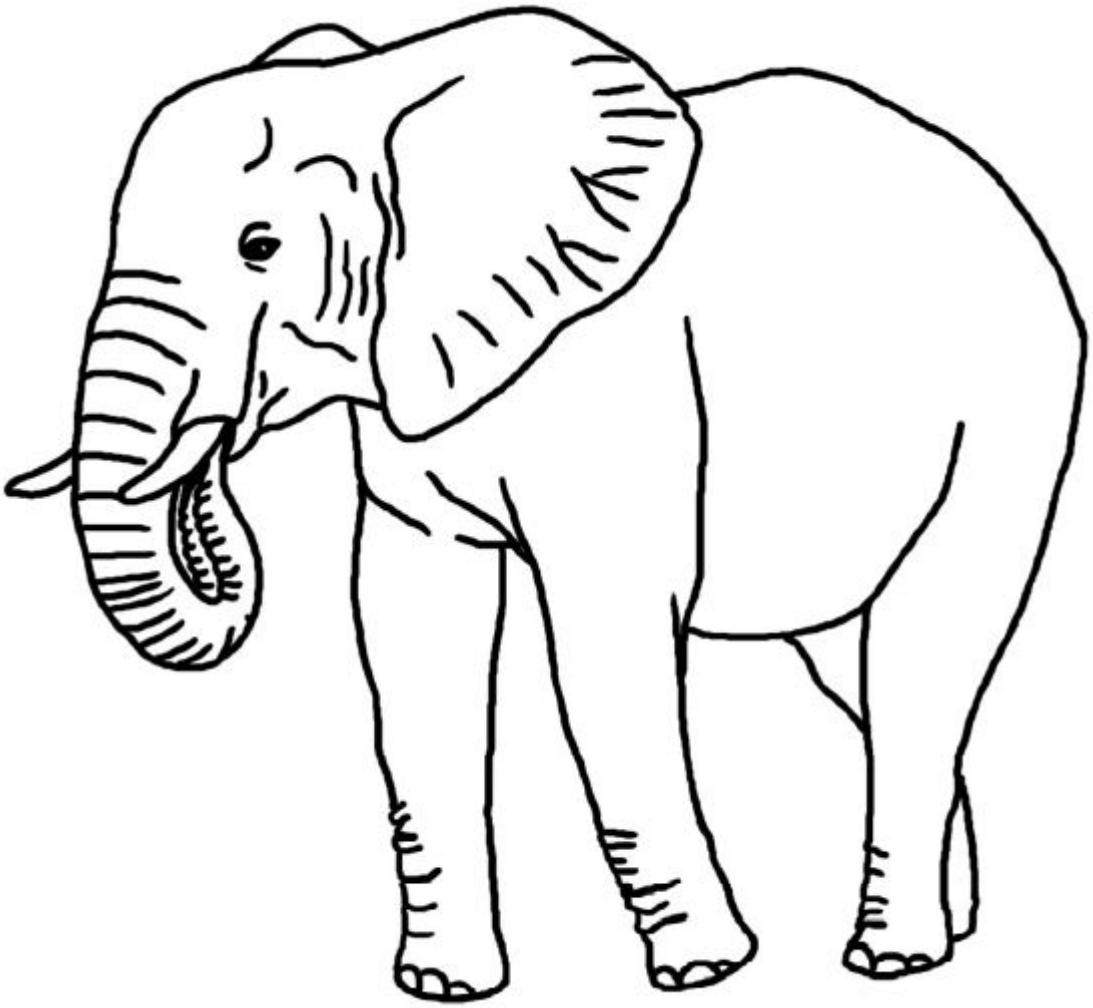
Color the Green Sea Turtle below and then draw its habitat (where it lives) around it. Color the habitat as well.



Coloring Sheet

African Elephant Coloring Sheet

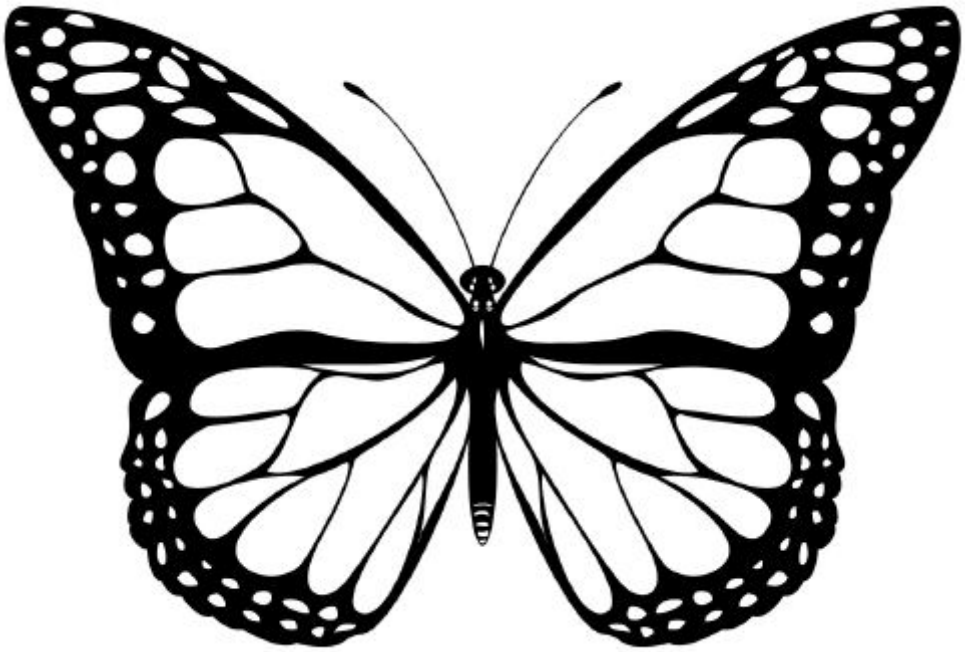
Color the African Elephant below and then draw its habitat around it. Color the habitat as well.



Coloring Sheet

Monarch Butterfly Coloring Sheet

Color the Monarch Butterfly below and then draw its habitat around it. Color the habitat as well.



Trading Card Template

Make your own set of endangered animal trading cards. Make several cards for the same animal then trade with your classmates.

Name of Animal: _____
Habitat:
_____
_____
Predators:
_____
_____
Diet:
_____
_____
Why is the animal endangered?
_____
_____
_____

Name of Animal: _____
Habitat:
_____
_____
Predators:
_____
_____
Diet:
_____
_____
Why is the animal endangered?
_____
_____
_____

Lesson 4: Importance of Trees and Forests

Key Learning Elements Covered:

- Easy:
  - Discuss why trees are needed.
- Medium:
  - Describe why trees are important to the environment.
- Advanced:
  - Discuss some ways by which we can conserve forests.

Materials Needed:

- *The Tree* by Dana Lyons (book)
- *The Tree* by Dana Lyons (music)
- Poster Board Rubric (4 are on a page, students only need one copy each.)
- Poster board
- Markers
- "T" Letter Tracing Worksheet
- "F" Letter Tracing Worksheet
- Leaf Matching Worksheet
- White construction paper (*Easy)*
- Water colors or other classroom paints (*Easy)*

Introduction:

The Bible states both in Genesis 1:29 and Revelation 22:2 that trees are used for food as well as for healing.

Genesis 1:29

"And God said, See, I have given you every plant yielding seed that is on the face of all the land and every tree with seed in its fruit; you shall have them for food."

Revelation 22: 2

"Through the middle of the broadway of the city; also, on either side of the river was the tree of life with its twelve varieties of fruit, yielding each month its fresh crop; and the leaves of the tree were for the healing and restoration of the nation."

Furthermore, trees are homes to many animals. If trees are cut down, many animals will become homeless. How would you feel if someone came in with a truck and a bulldozer and tore your house down? Think about that as we go through this lesson.

Procedure:

- Listen to the song *The Tree* by Dana Lyons and ask the children what they think about the song. Ask them what they think might be their song if they were a tree. They need to use their imaginations and think about having tree feelings. Ask them what they think a tree would say if it could talk. Play the song again and have the children listen to it a second time.
- Ask them how they felt listening to the song. Have them compare and contrast the feelings of the children with those of the tree.
- Ask the following discussion-leading questions:
    - Is it important to save our trees?
    - Why is it important to save our trees?
    - What can you as children do to save our trees?
    - What are some things made from trees?
    - How could we cut down on wood usage?
    - Define the word philanthropist and ask: " If we choose to take action for the trees, are we acting as philanthropists?"
        - philanthropist: a person who has a concern for human welfare and usually donates money, property, or work to needy persons.

- Inform students that Native Americans say that trees have songs and the tree in this book is singing its song.
- Put students in small groups of three or four depending on class size. They will be making "Save our Trees" posters. Play the Tree Song softly in the background while they make their posters. Tell them the posters should:
    - Communicate the importance of trees and forests.
    - Have a title or slogan that grabs attention.
    - Include a drawing.
- Students will then display their posters in front of the class, after which they will hang them around the school to encourage other students to save trees. (Younger students can dictate the contents of their poster to the teacher or class assistant and have them help add to the poster.)

Evaluation:

Easy:

Hand students construction paper and paint. Have them paint a picture of a tree. Also, hand then "*F" Letter Tracing Worksheet* and "*T" Letter Tracing Worksheet.* Have students trace both letters in class.

Medium/Advanced:

Students' posters will be graded in class based on the included rubric on the sheet *Poster Board Rubric*. Posters need to depict the feeling of the tree reaching out to the world.

Homework:

Easy:

Distribute *Leaf Matching Worksheet* to students. They will match the leaves on the sheet by coloring the matching leaves the same colors.

Medium:

On the Internet, students research ways that children can help save trees in their community. They must bring back five ways in which they can help the community and choose one which their class/school can implement.

Advanced:

Using Genesis 1:29 and Revelation 22:2 as the backbone, make a list of 10 trees that are used for either food or medicine. Be sure to state the food or medicine that comes from the particular tree.

Cross-Curricular Links

Art

Students will exhibit their art skills in their poster drawings, poster assembly, and their paintings. They will need to use their fine motor skills to draw and color.

Bible

The Bible link is listed in the Lesson Introduction and expanded on further below. Further expansion can be done by the teacher.

There has always been a reference to trees and plants in the Bible. Looking back to the time of the Garden of Eden, we discover that in the midst of the Garden was the tree of life.

Revelation 22: 2 states:

“Through the middle of the broad way of the city; also, on either side of the river was the tree of life with its twelve varieties of fruit, yielding each month its fresh crop; and the leaves of the tree were for the healing and restoration of the nation.”

Genesis 1:29 states:

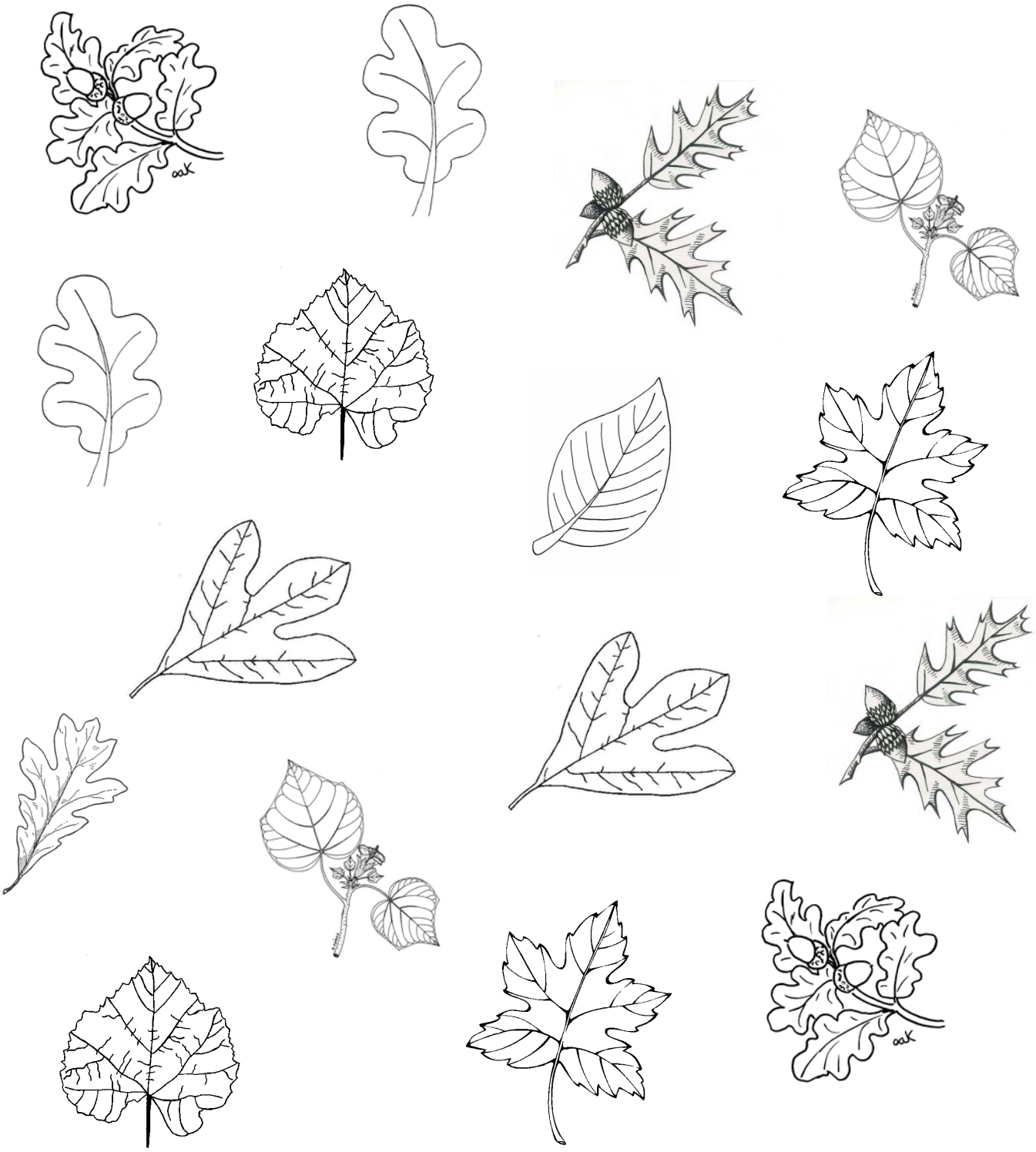
“And God said, See, I have given you every plant yielding seed that is on the face of all the land and every tree with seed in its fruit; you shall have them for food.”

It is very clear that trees have a valuable role in life and that God put them here not only to be used as medicine to heal us, but also as food for us to eat. If God had those plans in store for the trees, it is our responsibility to save the trees and forests, and furthermore to use them for the purpose God intended.

Leaf Matching Worksheet

Name: _____ **Date:** _____

Color the matching pairs of leaves the same color.

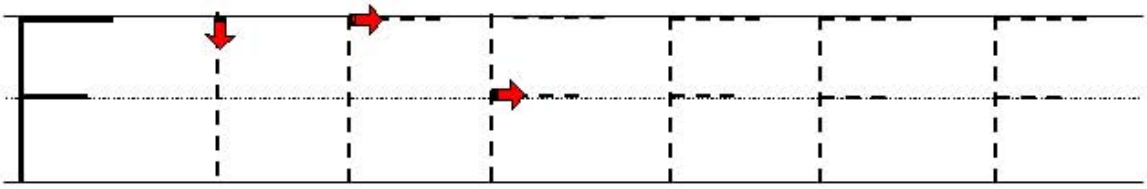


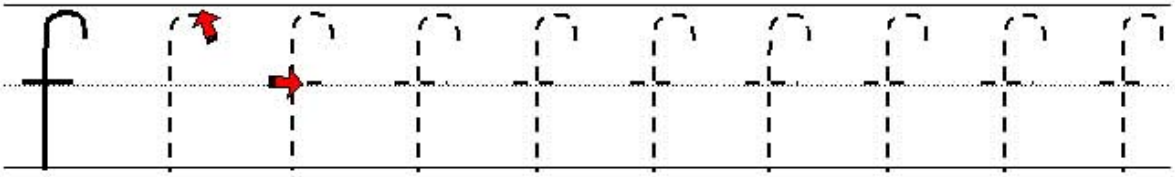
"F" Letter Tracing Worksheet

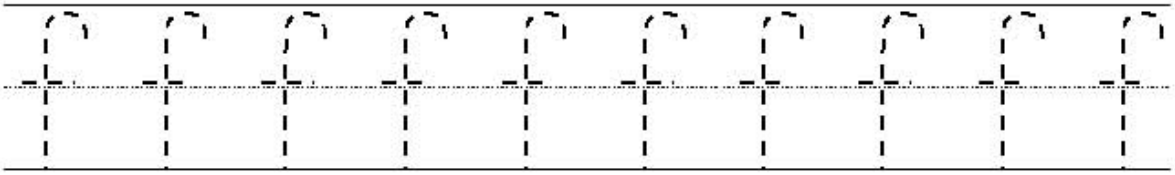
Name: _____ Date: _____

Trace the letter F.

F is for FOREST



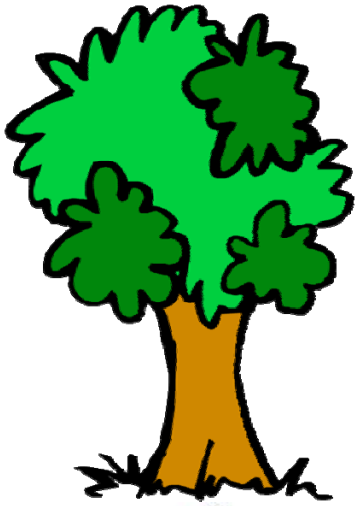




"T" Letter Tracing Worksheet

Name: _____ Date: _____

Trace the letter T.



T is for TREE

Name: _____

Poster Board Rubric

Poster Includes the Following:	Possible Points	Given Points
Communicates the importance of trees	**10**	
Includes a title or slogan	**10**	
Includes a drawing	**10**	
Poster design is neat and attractive	**10**	
Poster design uses space well	**10**	
Total Points	**50**	

Name: _____

Poster Board Rubric

Poster Includes the Following:	Possible Points	Given Points
Communicates the importance of trees	**10**	
Includes a title or slogan	**10**	
Includes a drawing	**10**	
Poster design is neat and attractive	**10**	
Poster design uses space well	**10**	
Total Points	**50**	

Name: _____

Poster Board Rubric

Poster Includes the Following:	Possible Points	Given Points
Communicates the importance of trees	**10**	
Includes a title or slogan	**10**	
Includes a drawing	**10**	
Poster design is neat and attractive	**10**	
Poster design uses space well	**10**	
Total Points	**50**	

Name: _____

Poster Board Rubric

Poster Includes the Following:	Possible Points	Given Points
Communicates the importance of trees	**10**	
Includes a title or slogan	**10**	
Includes a drawing	**10**	
Poster design is neat and attractive	**10**	
Poster design uses space well	**10**	
Total Points	**50**	

Lesson 5: Soil

Key Learning Elements Covered:

- Easy/Medium:
  - Describe what soil is used for and explain what would happen if there were no soil.
- Medium/Advanced:
  - List some things that humans do to deplete the soil and explain environmental problems that result from soil depletion.

Materials Needed:

- Seeds
- Sand
- Soil
- Stones
- Plant pots
- Bible

Introduction:

Isaiah 61 states, “For as the soil make the sprout come up and a garden causes seeds to grow, so the Sovereign Lord will make righteousness and praise spring up before all nations.” Soil is used to keep plants in the ground by holding the roots in place. Just as humans need the nutrients in food to live and grow, plants also need the nutrients in soil to live in and grow. The roots of plants bring the nutrients from in the soil up into the plant.

The nutrients in the soil that plants use to grow are decreasing. When this happens, plants cannot grow properly because the items needed for their food production are fewer is less. Just as how you get hungry when you do not have enough nutrients in your food, the plants suffer from lack of nutrients. In Matthew 13:3-8, Jesus told a parable of seeds and soils. It gives a look into what happens when seeds are planted on different surfaces.

The decrease in nutrients in the soil happens through a process of what is called soil depletion.

Procedure:

- Discuss the purpose of soil.
- Discuss factors that cause soil to be depleted.
- Do a class activity to show the effects of soil depletion on soil. Explain that the different mediums – soil, sand, and stone – represent the different levels.

Evaluation:

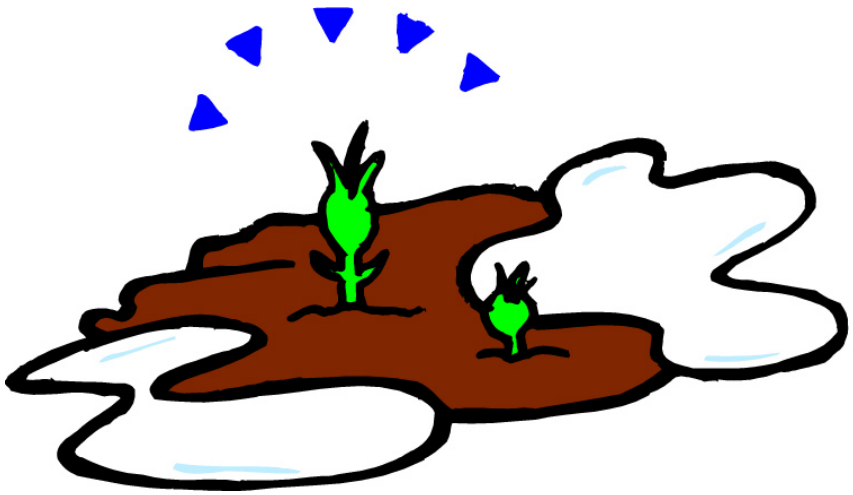
Evaluation of this lesson will be done via the *Student Lab Sheet*. During the class students can also be evaluated based on:

- Class discussion of the topic leading up to the activity.
- Group participation in planting the seeds.
- The level of neatness at which the student worked.

Homework:

Medium/Advanced:

Complete the lab sheet to show what was learned in class. Draw a picture of the three different pots and attach it to your sheet. In a couple days when the plants begin to grow, you will make another drawing of the three pots with plants and give it to your teacher as well.



How Well Does it Grow?

Objectives:
Students will be able to determine the importance of soil as they watch plants grow in different mediums.

Vocabulary Words:

- Medium: the element that is the natural habitat of an organism.
- Depletion: the process of decreasing the supply of something.

Materials:

- Plant pots
- Soil (represents undepleted soil)
- Sand (represents partially depleted soil)
- Stones (represent fully depleted soil)
- Water

Procedure:

1. Place students in groups.
2. *Easy:* Have 3 pots set up and have the students work with you to plant seeds in each of the three pots.
   Medium: Divide the class into 3 groups - one group for each medium. Each group will be in charge of a different pot.
   Advanced: Divide class into groups and each group will be in charge of planting three pots.

Preparing the data collection pieces

3. Have students label each pot with the name of the medium in which they are planting their seeds – Soil, Sand, Stone. (Smaller children may need help writing the words.)

Experimental Procedure

4. Students describe how each medium looks and feels.
5. They make a hypothesis that answers this question: In which medium will the seeds grow best?
6. Students must fill the pots to the same level and place the seeds at the same depth in the center of each medium.
7. Students must cover the seeds over, and water them each day with the same amount of water.
8. Students need to place the pots in the same location so that they get the same amount of sunlight.
9. All pots must be observed daily over the next two weeks to see which seeds are growing the best.
10. Have students reflect on their hypotheses (made in #5) and determine if they were correct.

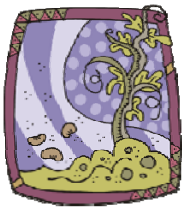
Results/Evaluation:

Easy:
Ask students to talk about how their plants looked, and have them tell you which plants grew the best.

Medium:
Have students draw pictures of how their plants look. They should also write a sentence saying which plants grew best, and why they think that happened.

Advanced:
Have students draw pictures of how their plants look and write a sentence saying which plants grew best. Students also need to say why the plants in each pot grew differently, even though they all had water and sunshine.

Summary:
Have students write what they learned from the experiment today. They need to say what scientific skills they used.



Lab #1: Soil - Student Lab Sheet

Name: _____ **Date:** _____

How Well Does it Grow?

Objectives:
Students will be able to determine the importance of soil as they watch plants grow in different mediums.

Vocabulary Words:

- Medium
- Depletion

Materials:

- Plant pots
- Soil (represents undepleted soil)
- Sand (represents partially depleted soil)
- Stones (represent fully depleted soil)
- Water

Procedure:

1. You will be working in groups assigned by your teacher.
2. You will be testing the growth of seeds in soil, sand, and stone.

Preparing the data collection pieces

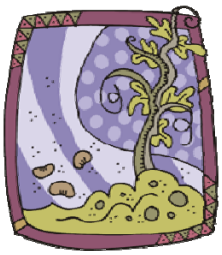
3. Label each pot with the name of medium in which you will be planting your seeds – Soil, Sand, Stones.

Experimental Procedure

4. Describe how each medium looks and feels.
5. Make a hypothesis that answers this question: In which medium will the seeds grow best?
6. Fill each pot to the same level with a different one of the three (3) mediums.
7. Place the seeds at the same depth in the center of each medium.
8. Cover the seeds over.
9. Water each pot with the same amount of water.
10. Place the pots in the same place so that they get the same amount of sunlight.

11. Observe the pots daily over the next two weeks to see which seeds are growing the best.
12. Reflect on your hypotheses (made in #5) and determine if it was correct.

Results/Evaluation:



Easy:
Talk about how your plants looked and say which plants grew the best.

Medium:
Draw pictures of how your plants look and write a sentence saying which plants grew best and why you think that happened.

Advanced:
Draw pictures of how your plants look and write a sentence saying which plants grew best. Say why the plants in each pot grew differently, even though they all had water and sunshine.

Summary:
My hypothesis was:

_____

_____

Was your hypothesis correct of incorrect? Why?

_____

_____

What scientific skills did you learn/use today?

_____

What I learned today was:

_____

_____

Plant Growth: Lab Report Rubric

Teacher's Name: _____ Total Points: _____ / 24

Student's Name: _____

CATEGORY	4	3	2	1
Participation	Used time well in lab and focused attention on the experiment.	Used time pretty well. Stayed focused on the experiment most of the time.	Did the lab but did not appear very interested. Lost focus on several occasions.	Participation was minimal OR student was hostile about participating.
Diagrams	Clear, accurate diagrams are included and make the experiment easier to understand. Diagrams are labeled neatly and accurately.	Diagrams are included and are labeled neatly and accurately.	Diagrams are included and are labeled.	Needed diagrams are missing OR are missing important labels.
Appearance/ Organization	Lab report is neatly handwritten and uses headings and subheadings to visually organize the material.	Lab report is neatly handwritten but does not use headings and subheadings to visually organize the material.	Lab report is neatly written but formatting does not help visually organize the material.	Lab report is handwritten and looks sloppy with cross-outs, multiple erasures, creases and/or tears.
Experimental Hypothesis	Hypothesized relationship between the variables and the predicted results is clear and reasonable based on what has been studied.	Hypothesized relationship between the variables and the predicted results is reasonable based on general knowledge and observations.	Hypothesized relationship between the variables and the predicted results has been stated, but appears to be based on flawed logic.	N/A (Missing hypothesis gets a score of 0.)
Spelling, Punctuation and Grammar	One or no errors in spelling, punctuation, and grammar are in the report.	Two or three errors in spelling, punctuation and grammar are in the report.	Four errors in spelling, punctuation, and grammar are in the report.	More than 4 errors in spelling, punctuation, and grammar are in the report.
Summary	Summary describes the skills learned, the information learned, and some future applications to real life situations.	Summary describes the information or skills learned and a possible application to a real life situation.	Summary describes the information learned.	N/A (Missing summary gets a score of 0.)

Lesson 6: Habitats and Biomes

Key Learning Elements Covered:

- Easy/Medium
  - Understand what a habitat is and identify some habitats of animals.
  - Create a habitat for a class pet and be able to discuss it.
- Advanced:
  - Be able to describe what a biome is and explain the difference between a biome and an environment.

Materials Needed:

- Classroom pet
- Worksheet entitled: *Biomes*
- Worksheet entitled: *African Biomes and Animals*
- Worksheet entitled: *North American Biomes*
- Worksheet entitled: *Marine Biomes*
- Worksheet entitled: *Where Do Animals Live?*
- Worksheet entitled: *Animal Habitat Worksheet*
- Worksheet entitled: *Biomes Matching*
- Biome in a Box Activity Sheet
- Biome in a Box Rubric
- Scissors
- Glue

Introduction:

The place where an organism lives naturally is known as its habitat. When we have different organisms living in a similar climate we now have what is called a biome. All the air, water, organisms, and other factors that surround and affect an organism is known as the environment. The Bible itself mentions about animals living in different habitats. In Genesis, when the world was created, each creature was given a place to live "Let the water teem with living creatures, and let birds fly above the earth across the vault of the sky. So God created the great creatures of the sea and every living thing with which the water teems and that moves about in it. . ." (Genesis 1:20-21).

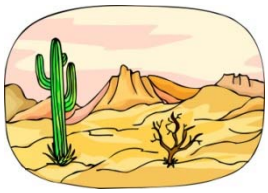
Procedure:

Easy

- Students will work with the teacher to put a new pet into the classroom. The teacher should point out the purpose of the different parts of the pet's cage and discuss why these items are necessary.
- Explain to them that the class pet is in a new "habitat" and have them describe the type of "habitat" that their pet is in.

Medium/Advanced

- Discuss the difference between habitats, biomes, and environments.
- Talk about the different types of biomes that exist. Distribute copies of Biome Information sheet (*Biomes)*.
- Have students use the words to create sentences about each type of biome.



Evaluation:

Easy

Bring about discussion that will make students think of answers for the following questions:

1. What does the pet need to live?
2. Where does it live in nature?
3. What would happen if the pet got too hot or too cold?

Choose a tracing sheet for students and have them complete it *(African Biomes and Animals, North American Biomes, Marine Biomes, Where Do Animals Live?).* They will also use the sheets to practice their writing by tracing the words.

Medium/Advanced

Check the students' sentences to ensure that they have an accurate description of the types of biomes. Pictures from the sheet should be cut out and stuck in their notebooks next to the descriptions.

Homework:

Easy

Students will complete the *Animal Habitat Worksheet* by matching the animal to the place it lives.

Medium

Complete the *Biome Matching* Sheet by correctly linking the given biome names to the pictures.

Advanced

Use the *Biome in a Box* Activity Sheet to create a biome. Students must also be given the *Biome in a Box Rubric* to have an outline as to what is needed to obtain full points on the project. They will also use one of the tracing sheets to identify animal biomes.

Cross-Curricular Links

Bible

Read Job 39 (NIV)* and state which verse uses the word habitat. Additionally, make a list of all the animals talked about in this chapter and state the habitats of each animal.

Linking Activities

Field Trip

Visit a zoo and observe the animals in their different habitats. Alternatively, you can visit a local pet store. Places like Petco and PetSmart have animals set up in terrariums to mimic the natural animal habitats.

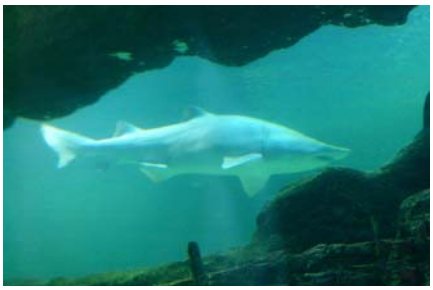
*NIV version must be used as this version uses the specific word “habitat”.

Biomes

Biomes are communities of animals and plants that live together in a particular type of natural environment such as a hot, dry desert or the dark, cold, deep sea. There are many types of biomes. Here are some:

Alpine

Coral Reef



Deep Sea

Desert

Kelp Forest

Open Ocean

Prairie

Rainforest

Savanna

Taiga

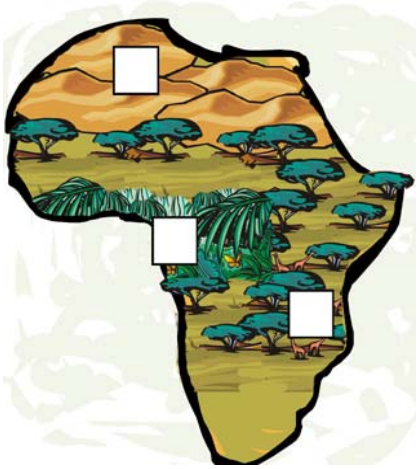
Tundra

Wetland

Name: _____ **Date:** _____

African Biomes and Animals

biome



Number the biomes on the map of Africa.

(1) Gorillas

rainforest

(2) Lions

savanna

(3) Camels

desert

Where do gorillas live?

Gorillas live in the rainforest.

Name: _____ **Date:** _____

North American Biomes

biome

Polar bears

tundra

Moose

taiga

Bison

prairie

Bighorn sheep

alpine

Where do polar bears live?

Polar bears live in the tundra.

Name: _____ **Date:** _____

Marine Biomes

marine life

Whales

open ocean

Sea Otter

kelp forest

Clown Fish

coral Reef

Angler Fish

deep ocean

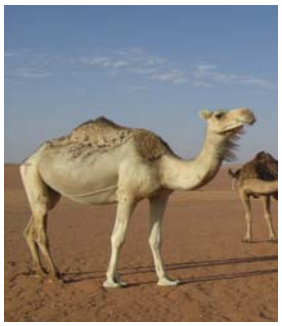
Where do whales live?

Whales live in the open ocean.

Name: _____ **Date:** _____

Where Do Animals Live?

Where

Bear	Duck	Camel	Whales
			
forest	wetland	desert	ocean

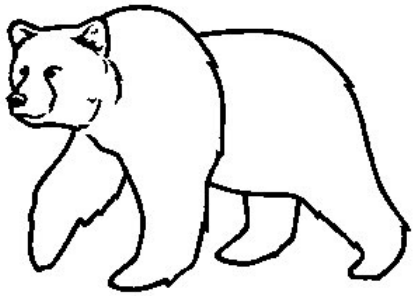
Where do bears live?

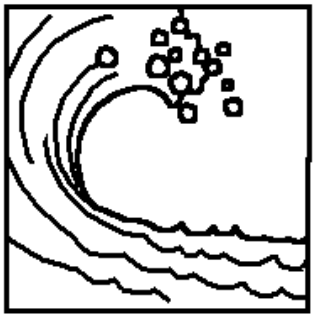
Bears live in the forest.

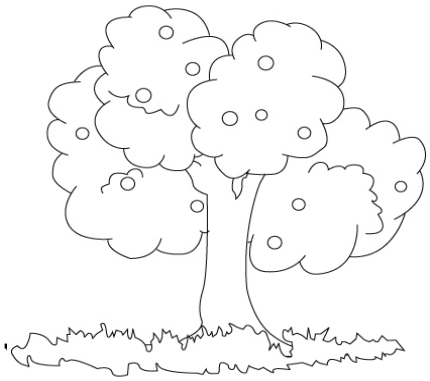
Animal Habitat Worksheet

Name: _____ Date: _____

Draw a line to help each animal find its habitat.







Name: _____ **Date:** _____

Biomes Matching

Label the biomes below using words from the box

Desert	Rain Forest	Savanna
Taiga	Tundra	Wetland

Read each description below and match it with a biome above:

1. Grassy land with some trees. _____
2. Very cold land in the north with no trees. _____
3. A cold forest in the north. _____
4. A very wet forest with a lot of rain. _____
5. Land with watery places like ponds. _____
6. A very dark place with very little rain. _____

Name: _____ **Date:** _____

Biome in a Box

You will be re-creating a biome of your choice. Make it as realistic as possible. Feel free to use the Internet for help when constructing your biome.

Materials Needed:

- Shoebox
- Cardstock or decorative paper
- Scissors
- Glue
- Markers/crayons/paint
- Toy animals or photos
- Other materials to make your biome look real

Instructions

Background information

Find a photo of your animal in its habitat to give you inspiration for your biome.

Research your chosen animal to discover:

- its prey
- predators that hunt it
- how it raises its young
- why it lives in this specific climate
- where it spends its days or hibernates

Research about your biome to discover:

- topographical characteristics and weather patterns

Biome Construction

1. Cover a large shoebox with pieces of cardstock or decorative paper to coordinate with what the biome looks like – blue for water, green for trees, etc.
2. Trim the paper large enough so it will wrap around the edges, and then secure the pieces with double sided tape.
3. Find a small version of your assigned/chosen animal to place inside of your biome. If your animal cannot be found then get a picture from the Internet, shrink it to a smaller size, stick it to cardstock, then neatly cut out the animal.
4. Design your biome landscape to surround your animal, using real and dimensional objects as much as possible. Find rocks, grass or leaves from outdoors. Paint cardstock with liquid glue then coat it with real dirt or sand. Toy and craft stores sell things like miniature trees than can be stuck down with hot glue (parents should do this), adhesive dots, or tape.
5. Make your biome as realistic looking as possible. If your biome has rocky mountains, cut rough shapes from cardboard and spray with stone paint or apply white glue with a sponge for a textured look.

* Adapted from: http://www.ehow.com/how_4486192_make-shoebox-biome-school.html
  - March, 2012

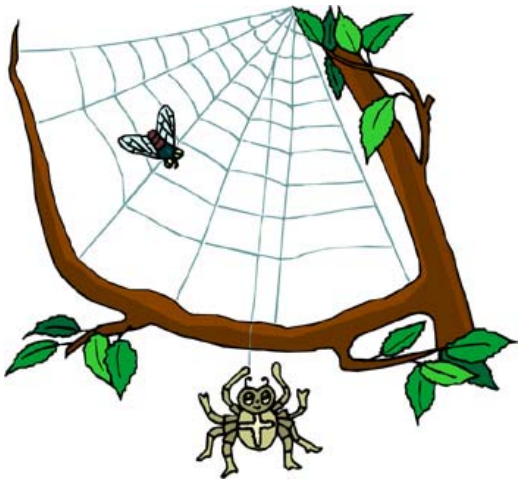
Biome in a Box: Rubric

Teacher's Name: _____ Total Points: _____/20

Student's Name: _____

CATEGORY	4	3	2	1
Construction - Care Taken	Great care taken in construction process so that the structure is neat, attractive and follows plans accurately.	Construction was careful and accurate for the most part, but 1-2 details could have been refined for a more attractive product.	Construction accurately followed the plans, but 3-4 details could have been refined for a more attractive product.	Construction appears careless or haphazard. Many details need refinement for a strong or attractive product.
Construction – Materials	Appropriate materials were selected and creatively modified in ways that made them even better.	Appropriate materials were selected and there was an attempt at creative modification to make them even better.	Appropriate materials were selected	Inappropriate materials were selected and contributed to a product that performed poorly.
Construction – Accuracy	Biome is accurately portrayed.	Biome is accurate for the most part but 1-2 details were inaccurate.	Biome is accurate for the most part but 3-4 details were inaccurate.	Many details (more than 4) in the biome were inaccurate.
Biome Research	All topics outlined were fully explained indicating a clear and accurate understanding of the biome researched.	All topics outlined were explained but could have been made more specific and clear.	Most topics outlined were explained indicating a partial understanding of the biome researched.	Very few topics outlined were answered accurately.
Spelling, Punctuation, and Grammar	One or no errors in spelling, punctuation, and grammar are in the report.	Two or three errors in spelling, punctuation, and grammar are in the report.	Four errors in spelling, punctuation, and grammar are in the report.	More than 4 errors in spelling, punctuation, and grammar are in the report.

Lesson 7: Food Chains



Key Learning Elements Covered:

- Easy:
  - Be able to identify what different animals eat.
  - Be able to say why animals eat.
  - Understand that not all animals eat the same things.
  - Be able to identify animals that eat plants and those that eat meat.
- Medium:
  - Understand that organisms are connected by what they eat.
  - Be able to link together organisms to make a simple food chain.
  - Understand the meaning of these words: herbivore, carnivore, and omnivore.
  - Be able to identify animals that fall into each of these categories.
- Advanced:
  - Be able to define a food chain.
  - Be able to identify different food chains based on pictures of different biomes.

Materials Needed:

- Computer (with Adobe Flash Player)
- Multi-media projector
- Projector screen (or a white wall)
- *Food Chains* Prezi Presentation
- *The Food Chain* Video
- *Build-A-Chain* Worksheet
- *Art#2* Worksheet

Introduction:

"God gave our first parents the food He designed that the race should eat. It was contrary to His plan to have the life of any creature taken. There was to be no death in Eden. The fruit of the trees in the garden, was the food man's wants required." In other words, we were initially supposed to be eating healthy vegetables and fruits and getting all the energy we needed from those items. "God gave man no permission to eat animal food until after the flood. Everything had been destroyed upon which man could subsist; therefore, the Lord, because of their necessity, gave Noah permission to eat of the clean animals which he had taken with him into the ark. Nevertheless, animal food was not the most healthful type of food for man." *Counsels for the Church, p. 228, chpt 1.*

We shall look at the reason why God wanted us to eat plants instead of meat. We are not going to look at the health aspect of it, but rather the passage of energy from plants to animals and how all organisms depend on each other to survive.

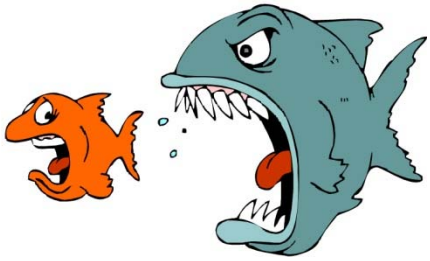
Procedure:

- Play the *Food Chains* Prezi Presentation. This will go through the various definitions of producer, herbivore, and carnivore and show the connectivity between the three.
- Discuss the roles played by the different organisms in the food chains – producers, herbivores, carnivores.
- Discuss the flow of energy from the sun to the producers.
- The class constructs a food chain of their own.

Evaluation:

Knowledge gained on this topic will be determined by how students answer the questions at the end of the Prezi Presentation and any other questions, and by their contributions during class discussions. Prezi questions are:

1. What are producers?
2. Name some producers.
3. What are herbivores?
4. Name some herbivores.
5. What are carnivores?
6. Name some carnivores.
7. What are some food chains you can think of?



Homework:

Easy/Medium:

Cut out the pictures on the worksheet given and put them together on construction paper to create two food chains. Label which organisms are producers, herbivores, or carnivores. Remember that you must use arrows to connect the different pictures.

Advanced:

Cut out the pictures on the worksheet given and put them together on construction paper to create two food chains. Label which organisms are producers, herbivores, or carnivores. Remember that you must use arrows to connect the different pictures.

Create another food chain with organisms not listed on the sheet. Also, get pictures for the food chain that you create.

Cross-Curricular Links

Art

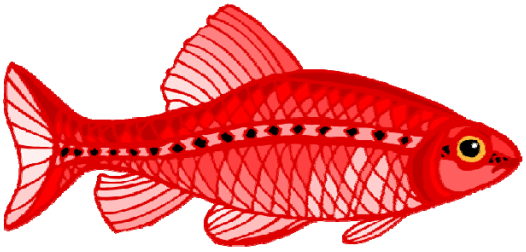
Students will create the food chain link as outlined on the sheet Art#2. They will use their fine motor skills to neatly cut out pictures and shapes, and they will use their artistic skills to color.

Name: _____ Date: _____

Build-A-Chain

Cut out the pictures below and stick them onto construction paper to make two (2) different food chains. The pictures are:

fish, owl, pond grass, snake, grass, grasshopper, and bear.



Name: _____ **Date:** _____

Art Link: Create a Food Chain

This project can be used in an art lesson to link back to the subject of food chains currently being taught. Below you will find the steps for the project. Chains will be hung around the classroom to display the food chains created by the students.

Materials Needed

- 2" strips of construction paper – green and yellow
- Scissors
- Staples
- Markers or crayons
- String

Procedure

- Cut out 2 inch strips lengthwise on the construction paper – 1 green and 3 yellow strips *(depending on the age group, pre-cut the strips for the students).*
- On the green strip, write the name of a producer. Draw a picture of the producer and color it brightly.
- On each yellow strip, write the name of a consumer. Draw a picture of the consumer and color it brightly.
- Arrange the strips in the correct order to create a food chain. You will be making a chain like the one in the picture above.
- The producer is the green link and will be the first loop to make. Fasten the loop by stapling it. Tie a string on to this circle.
- Continue by looping together the yellow consumers. *(Do it in the correct order so that each organism below eats the one above it.)*
- Suspend chains around the classroom from the string attached to the green link.

* Adapted from: http://www.proteacher.org/org/a/137211_food_chain.html
  - March, 2012

Lesson 8: Natural Resources

This lesson is completed entirely via WebQuest. Access the WebQuest file associated with this lesson entitled Natural Resources WebQuest and follow the instructions on screen.

This is a topic covered at the medium and advanced level. Students will work in groups and by the completion of the WebQuest, they will have covered the objectives listed below.

Key Learning Elements Covered:

- Medium/Advanced
  - Explain the natural resources that man uses now.
  - Define natural resources.
  - Distinguish between renewable and nonrenewable natural resources.
  - Identify resources found in the mountains, oceans, plains, and deserts.
  - Identify plants and animals that live in mountains, oceans, plains, and deserts.

Materials Needed:

- Computer with Internet access
- Microsoft PowerPoint
- *Natural Resources* WebQuest

Introduction:

Natural resources are items in nature that humans use to make their life better. Things like trees, wind, water, gold, etc. These natural resources can be found and are used in different parts of the world. For example, oil is not found all over the world, but it is found in places like Libya and Saudi Arabia. Continuing to use oil as an example, oil is formed after many years when animals die and decay.

From looking at the Bible, we can pin-point ways that oil deposit formation started. In the time of the Flood, only two of each type of animal were collected. This left hundreds of other animals to be killed by the flood. These animal bodies were then covered by silt as the waters went down. Over years, these animals turned into oil, and that is some of what is being drilled and extracted today.

Procedure:

Easy

- Discuss some animals found in mountains. Some examples can include: Andean condor, chinchilla, llama, mountain goat, and snow leopard.
- Discuss animals found in oceans. Some examples can include: blue whale, hammer head shark, sting ray, jelly fish, and great whale.

- Discuss animals found in plains. Some examples can include: Canada goose, great horned owl, beaver, bison, and fox squirrel.
- Discuss some animals found in deserts. Some examples can include: ostriches, meerkat, Texas horned lizard, black widow spider, and desert toad.

Medium/Advanced

- Place students in groups of 4 and then take them to the computer lab.
- Have students load the WebQuest onto the computers, and guide them through the different sections of the site.
- Ensure that each student understands the roles of each part played in the WebQuest. Ensure that each student takes a role.

Evaluation:

Students will present their findings from the WebQuest either via PowerPoint or a book that they create. All the instructions are outlined online and the rubric for scoring is also available online.

Homework:

Homework for this lesson is ongoing during the time the WebQuest is being done as the project will take more than one day and students will have to be doing research for their parts of the project.

Cross-Curricular Links

Language Arts

Read, analyze and synthesize data online.

Resources

Books

The Bible, The Amplified Version

The Bible, The New International Version

Discover Magazine RSS feed, *Huge set of fossil tracks preserves march of the ancient elephants*, 2/21/12

National Geographic RSS feed, *'Vampire' Parasite Found Entombed in Amber*, 2/12/12

Lab #1 adapted from:
http://www.starteaching.com/AirPollutionExperiment.pdf

Fossil fuel PowerPoint adapted from:
http://www.worldofteaching.com/powerpoints/physics/fossil_fuels.ppt

Endangered Animals

http://abcteach.com/directory/basics/science/animals/endangered_species/

Biome in a Box adapted from

http://www.ehow.com/how_4486192_make-shoebox-biome-school.html

Animal Habitat Matching

http://www.kidzone.ws/animals/animalhabitats.gif

Food Chain Art adapted from

http://www.proteacher.org/org/a/137211_food_chain.html

Fact Monster

http://www.factmonster.com/ipka/A0906938.html

Dictionary

www.dictionary.com

Kaboose Crafts

http://holidays.kaboose.com/craft-animalmask.html

The Tree: music is available on this page and also there is a link for the iTunes version of this (99cents)

http://www.cowswithguns.com/cgi-bin/listen_tree.cgi

Biomes and Animal Habitats

http://bogglesworldesl.com/kids_worksheets/biomes.htm

Desert Animals

http://www.desertanimals.net/

Create a Fossil

http://www.michigan.gov/documents/deq/p06create_304664_7.pdf

Annotated Internet Links: Teacher

1. **ABC Teach – The Teacher's Online Resource**
   Pre-made worksheets and activities across varying subject matter and topics. You can also use it to make customized sheets. Covers a wide expanse of grade levels.
   www.abcteach.com
2. **Circle**
   This is the Adventist website that links educators with the resources needed to teach a lesson a faith-based effective lesson. Curriculum Guides are also available here.
   www.circle.adventist.org
3. **Clipart.com – School Edition**
   Clipart and pictures that are non-copy written and hence available for re-use without having to contact the owner for rights of usage. *Subscription Needed*
   Schools.clipart.com
4. **Desert Animals**
   If you are teaching a lesson on desert animals and need more information check this site. They have birds, mammals, reptiles, arthropods, and amphibians. It also describes the climate in the desert.
   www.desertanimals.net/
5. **Dictionary**
   An online dictionary that you can access on numerous devices – internet, iPad, iPhone, iPod, Android. It not only gives the definition of words but also correct pronunciation of the word as well.
   www.dictionary.com
6. **Discover Magazine**
   Archived articles and newly breaking articles are available here with related pictures.
   www.discovermagizine.com
7. **Educational Travel Adventures**
   Though you may not be booking a field trip through this site, it is a good resource as it lists places in different states that can be used for an educational field trip in and around where your school may be located.
   etadventures.com/destinations
8. **eHow**
   This is a good place to find art projects that can be tied back into classroom topics.
   www.ehow.com
9. **Fact Monster**
   Created with the child in mind, this site is good for gathering information on different topics and subjects.
   www.factmonster.com/

10. **Hand Writing Worksheets**
    On this site, you can create your own hand writing sheets in both script and cursive. You can make the letters traceable in varying sizes. Additionally, you have the option to make single words, sentences, and even complete paragraphs for your students.
    www.handwritingworksheets.com
11. **Highlight Kids**
    This is linked to the *Science Magazine*, *Highlight Kids*. There are many scientific facts covered in the pages of this site. Furthermore, there are also experiments and games all based around scientific facts that make learning science fun.
    www.highlightkids.com
12. **Kaboose**
    This is a good place to find art projects that can be tied back into classroom topics.
    www.kaboose.com
13. **Kidzone Fun Facts for Kids**
    Send your students on a hunt to find out about an animal or use the site to product lessons. It has pictures and facts and activities.
    www.kidzone.ws
14. **LanternFish – Jobs, Worksheets, and Flashcard for the ESL and TEFL Teacher**
    Not only can the material here be used for ESL, it is also good for the lower grades as it keeps things simple.
    www.bogglesworldesl.com
15. **Michigan State**
    There are resources on this website that teachers can use in lessons and lesson planning.
    www.michigan.gov/
16. **National Geographic**
    Archived articles and newly breaking articles are available here with related pictures.
    www.nationalgeographic.com
17. **Prezi**
    Tired of making PowerPoints? You can now make a Prezi which allows you to show a presentation in a more relaxed manner. It also can easily link directly YouTube videos. It is more captivating in a classroom as the slide transition in new ways that PowerPoint cannot. Download the presentations to your computer.
    www.prezi.com
18. **Pro Teacher**
    A resource pool for worksheets and activities. It is categorized to have items not only for teaching a lesson but also things like things to sue for classroom management and special needs students.
    www.proteacher.org

19. **Rain Forest Animals**
    If you are teaching a lesson on rain forest animals and need more information check this site. It includes birds, mammals, reptiles, arthropods, and amphibians. It also describes the climate in the rain forest.
    www.rainforestanimals.net/
20. **Rubistar**
    This is a site that helps you create professional rubrics for all subjects and projects in under 15 minutes.
    http://rubistar.4teachers.org/
21. **Save You Tube**
    Ever wanted to save a particular YouTube Video for future use or to use it where you will not have Internet? Simply copy and paste the link and you are able to download for future reference.
    www.saveyoutube.com
22. **Star Teaching**
    Many teacher articles and links. There are activities here that can be adapted to use in the classroom.
    www.starteaching.com
23. **Tundra Animals**
    If you are teaching a lesson on tundra animals and need more information check this site.
    www.tundraanimals.net/
24. **Weebly For Education**
    Designed with the educator in mind, you can use this site to build WebQuests or a personal website. One account allows you to add multiple sites that you can use for different purposes in your classroom.
    education.weebly.com
25. **World of Teaching**
    This is a site of collected PowerPoint presentations on various topics. You can use them directly or you can edit them for your own needs or get inspiration for your own needs.
    www.worldofteaching.com
26. **YouTube**
    There are many educational videos available here that can be used. Furthermore, you can also upload your own videos to have them for future use or to share with students when they are not in the classroom.
    www.youtube.com

27. **Zunal**
    Want to make a nice looking WebQuest and you do not have an Apple computer? Zunal is build to easily put together WebQuests for teachers. All the needed information is already laid out for you. Just point, click, and enter what you want it to say.
    www.zunal.com

Annotated iDevice* Apps

Bible

The ability to read and listen to the Bible across 200+ different versions. Built in search to pull up texts based on a particular word. You can also email passages to yourself (requires Internet connection).

EGW Classics

Released by the Ellen G. White Estate, this puts all of her writing at your fingertips no matter where you are. You can even copy, paste, and email portions of text and do topic searches across all her books if you are looking for a particular word or phrase.

Garage Band

Turns your iDevice into a collection of instruments with a recording studio allowing you to create your own pieces of music for your classroom.

Handy Sign

Use this to sign .pdf documents in the classroom or on the go and mail them off. Additionally, create a .pdf version of your work and view it here to be able to make writing and note what edits need to be made without taking the printed version with you to proofread.

iBooks

Not only to be used to read novels and textbooks, use it to preview how an article will look when printed (for example flip through an entire teacher bulletin unit in book form and book mark pages you want).

iMovie

Make HD movies by combing images and videos you already have. Additionally you can add narration to a movie or music. Pre-set themes allow you to make them look like news reports and so on.

Pages

View, edit, and create documents on the go. Email them out or print them as .pdf files. Type work while sitting on the train or bus without having to have a computer.

Prezi

View your online Prezi presentations from on your device. You are even able to edit them. With the correct additional add-ons you can also display the presentation as well. Once a change is made online, it shows on your device that there is a new version of that file to update.

Reuters News Pro for iPad

Categorized news at your fingertips.

Taskify

Keep track of your tasks in and out of the classroom by putting items into categories and also allowing you the feature of showing them crossed out when completed.

xFeed RSS Reader

Shows the latest up-to-date news from your favorite websites in one place. It includes National Geographic and Discovery Magazine. You can also add feed to it as you see fit.

YouTube

Not only can you use this to search for videos but you can also upload a movie made in iMovie directly to your YouTube account.

**iDevices include iPad, iPhone, and iPod. However, the above Apps were used on an iPad.*

Annotated Internet Links: Student

1. **Clean Air Kids**
   This site gives information on Air Pollution. In addition to useful information, there are also fun games and puzzles that can be completed on the topic of Air Pollution.
   www.clean-air-kids.org.uk/airquality.html
2. **Desert Animals**
   If you are teaching a lesson on desert animals and need more information check this site. It has birds, mammals, reptiles, arthropods, and amphibians. It also describes the climate in the desert.
   www.desertanimals.net/
3. **Dictionary**
   An online dictionary that you can access on numerous devices. It not only gives the definition of words but it also pronounces the word and breaks it into correct syllables.
   www.dictionary.com
4. **Diorama Man – Having Fun With Dioramas**
   This is a great site for students who have to make dioramas for class. It goes through different techniques to use in order to make realistic looking scenery. Such an example is a video entitled "How to Make Miniature Trees for Dioramas."
   www.stormthecastle.com/mainpages/dioramas
5. **Discover Magazine/ Discover Kids**
   Archived articles and newly breaking articles are available here with related pictures. There is also a kids' version of the website.
   www.discovermagazine.com / www.kidsdiscover.com
6. **eHow Family**
   Not only does this site give you great projects to do at home, but it also gives help in completing science projects.
   www.ehow.com
7. **Fact Monster**
   Created with the child in mind, this site is good for gathering information on different topics.
   www.factmonster.com
8. **Great Plains Nature Center**
   A site dedicated to teaching the public about natural resources , plants and animals of the great Plains.
   www.gpnc.org
9. **Highlight Kids:**
   This is linked to the *Science Magazine*, *Highlight Kids*. There are many scientific facts covered in the pages of this site. Furthermore, there are experiments and games all based around scientific facts that make learning science fun.
   www.highlightkids.com

10. **Kaboose Crafts**
    Ever been at home with nothing to do? Go to caboose and find a kid friendly project to complete. Some projects may require the help of an adult so review them before beginning any project.
    crafts.kaboose.com
11. **Kidzone Fun Facts for Kids**
    Send your students on a hunt to find out about an animal or use the site to produce lessons. It has pictures and facts and activities.
    www.kidzone.ws
12. **KidzWorld**
    This site makes education fun by combining bright colors, games, entertainment, and chat rooms in one location. It also has articles on various topics to be covered in the school curriculum.
    www.kidzworld.com
13. **LanternFish – Jobs, Worksheets, and Flashcard for the ESL and TEFL Teacher**
    Not only can the material here be used for ESL, it is also good for the lower grades as it keeps things simple.
14. **Mountain Animals**
    Studying mountain animals? You can start here.
    Umdrive.memphis.edu/g-sig/www/animals-livemountains.htm
15. **National Geographic/National Geographic Kids**
    Archived articles and newly breaking articles are available here with related pictures. There is also a kid' version to the website.
    www.nationalgeographic.com / kids.nationalgeographic.com/kids
16. **Prezi**
    This is a useful site if your teacher uses Prezis for presenting subject matter as you can look at the presentation after class is over. Additionally, you can also search for other presentations on similar topics to those you have covered in class in order to get more background information.
    www.prezi.com
17. **Rain Forest Animals**
    If you are teaching a lesson on rain forest animals and need more information check this site. It has birds, mammals, reptiles, arthropods, and amphibians. It also describes the climate in the rain forest.
    www.rainforestanimals.net
18. **Science Kids – Fun Science and Technology for Kids**
    Learn more about the amazing world of science by enjoying our fun science experiments, cool facts, online games, free activities, ideas, lesson plans, photos, quizzes, videos and science fair projects.
    www.sciencekids.co.nz
19. **Sheppard Software – We Make Learning Fun**
    You are able to quiz yourself on various topics and also play games across varying subjects at different levels. There is even a game on Food Chains.
    www.sheppardsoftware.com

20. **The List – The Mother of all Lists**
    Ever had a project to research an animal or person but you did not want to choose the same ones you always hear about? The List is here to do as it says – it lists all the items in a category from the common to the rare.
    www.thelist.org
21. **Tundra Animals**
    If you are teaching a lesson on tundra animals and need more information check this site.
    www.tundraanimals.net/
22. **Weebly For Education**
    With the help of your teacher, this another way you can display information from a project – via a free website.
    education.weebly.com
23. **You Tube**
    This is a good website for students to see very good educational videos that can be used to supplement material taught in class and can also be used to find videos that will help students better understand topics for their own knowledge.
    www.youtube.com
24. **Worksheets for Young Leaders**
    Find worksheets that you can use to reinforce content you were taught in class.
    bogglesworldesl.com/kids_worksheets/