



ENVIRONMENTAL STUDIES

BONUS

Environmental

GRADES 5-8

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Activity One

Get to Know Your Watershed

You learned how runoff can carry pollutants from the ground into streams. Water then flows from smaller streams into a larger river. Finally, the river empties into the ocean or another large body of water. The entire area drained by the river is called a watershed. A watershed includes all of the land, small creeks, and streams that drain into the river. Some watersheds are smaller, while others can take up large parts of a continent.

1. Research your watershed. Use the Internet, maps, or local government environmental agencies to learn more about your watershed. Some questions to ask as you are doing your research include:

- What are the names of the major rivers or streams in your area?
- What is the closest creek or stream to your home? To your school?
- What is the name of your watershed?
- Is your school in the same watershed as your home?
- How large is your watershed?
- What are some point and nonpoint sources of pollution in your watershed?
- What types of wildlife live in your watershed?
- Are there any community environmental groups that focus on keeping your watershed clean and healthy?

2. Draw a map of your watershed. Include the locations of the following locations:

- your home
- your school (if it is in the same watershed)
- parks
- rivers, creeks, streams, and other tributaries

3. Create a brochure to give to your school mates, friends, family, and community members in your watershed. Have your teacher help you make a small size photocopy of your map for the brochure cover. In the brochure, include general information about your watershed from the research questions in step 1. Write a few sentences telling people why it is important to keep your watershed clean.

NAME: _____



Activity Two



Pollution and the Ocean Research Your Favorite Ocean Animal

In this activity, you will learn more about how pollution affects wildlife in the ocean.

Step 1

Choose ONE animal that lives in the ocean. You may pick one from the list below, or choose one of your own favorites.

white sharks grey whales sea otters sea lions tuna fish

Step 2

COLLECT information about your animal. Use the Internet or books from the library to find answers to the following questions:

- In what part of the ocean does your animal live?
- Where does your animal lay eggs or give birth to young?
- What types of pollutants can be found in the areas where your animals live or give birth?
- Is your animal affected by toxic waste, such as mercury, lead, or oil?
- Is your animal affected by solid waste, such as plastics?
- How do these wastes affect your animal?
- What is the source of the pollutants that affect your animal?

Step 3

Use the information you learned to CREATE A POSTER. The poster should include:

- visuals, such as drawings, maps, photos, and/or diagrams
- labels for your animal, pollutants, and locations
- brief text to explain how your animal is affected by pollutants

Display your poster at school.

NAME: _____



Activity Three



Hazardous Waste and You Research Effects of Hazardous Waste on Your Health

In this activity, you will learn more about how household hazardous waste can harm your health.

Step 1

Choose ONE type of household hazardous waste from the list below. If you know of another type of household hazardous waste that you would like to know more about, run the suggestion by your teacher.

spray paint batteries insecticide bleach motor oil

Step 2

COLLECT information about the hazardous waste you choose. Use product labels, the Internet, or books from the library to find answers to the following questions:

- How does your hazardous waste harm people?
- In what doses is your hazardous waste harmful?
- What cautions should people take when handling your hazardous waste?
- How should people safely dispose of your hazardous waste?
- Does your hazardous waste build up in the environment?
- Does your hazardous waste cause pollution that harms people or animals?

Step 3

Use the information you learned to write a SAFETY FACT SHEET about your household hazardous waste. The safety fact sheet should include all of the answers to the question in step #2.

Ask your teacher for help making copies of your safety fact sheet. Post one copy at home, and one at school. Give additional copies to friends and family members that may also use the same product.

NAME: _____



Activity Four



Post-Consumer Waste in Your Classroom

Write a plan to reduce, or lessen, the total amount of waste thrown away in your classroom.

1. Find out what types of wastes are thrown away.

In order to make a good plan, you must first find out more about your classroom waste at present. Post a pen and paper near your classroom waste bin. Ask your teachers and classmates to write on the list everything they throw away in the classroom for one week. They can write a simple description, such as "piece of paper" or "empty pen."

At the end of each school day, collect the list. On the bottom of the list, make a note of about how full the waste bin was. For example, "three-quarters full."

At the end of the week, look over all of your lists. What types of waste were most common? Possibilities include paper, school supplies, and packaging. What was the usual amount of waste in the waste bin each day?

2. Write a plan to reduce classroom waste.

Your plan should be a set of action steps that you, your classmates, and your teachers can take. Begin by brainstorming ways to reduce the most common type of waste. Ask yourself the following questions:

- Are people throwing things away that are not completely used up?
- Can some things be reused instead of thrown away?
- Are there other choices besides disposable items?

Come up with **at least ten action steps** that people can take to reduce your classroom waste. Present these steps to your class mates and teachers, and post the steps around the classroom.

Continue to check the amount of waste in the waste bin at the end of each school day. Let your classmates and teachers know if they have been successful in reducing the amount of waste.



Activity Five



Start a Waste Management Company

Imagine that you are starting up a waste management company that will serve your region. You will receive money to pay for facilities and equipment, but you must first write a business plan.

PART A: Your BUSINESS PLAN should outline the following...

- All of the services you will provide
- All of the equipment you will use
- All of the facilities you will run

Begin by brainstorming a list of all of the waste management services a region needs. Ask yourself the following questions:

- What waste services do homes need? What equipment will the company need to take wastes from homes? What type of facilities will handle the household waste?
- What waste services do businesses need, including factories, hospitals, automobile mechanics, etc.? What type of facilities will handle waste from businesses and industry?
- What type of equipment will be needed to process waste in the waste management facilities?

PART B: Write your plan.

Write a one-page business plan for your new waste management company.

At the top, write a 1 to 2 sentence summary of the importance of waste management.

Include the headings shown in the plan at the right. Write bulleted lists under each heading, with short descriptions for each item in the list.





Activity Six



Making Choices about Packaging

Packaging can add cost to a product. It can also cause added damage to the environment. As a consumer, you often have choices between products with different types of packaging. For example, when you are buying juice, you might have the choice between glass bottles, plastic bottles, drink boxes (also called aseptic packages), or cans.

In this activity, you will learn to organize information to help you make choices about packaging.

1. Choose a product. Pick from the list below, or choose another product that comes in different packaging choices.

- juice
yogurt
pudding
apple sauce
ketchup

2. Make a list of all of the different ways that your product comes packaged in stores. You may want to visit a grocery store to complete this step.

3. Gather information. Use the Internet or library books to learn how each type of package is made. Questions to ask include:

- What raw materials are used in the package?
- How are those raw materials gathered?
- How is the package manufactured?
- How much extra cost does the package add to the product?
- What types of pre-consumer wastes result from the package?

4. Make a comparison chart. In your chart, list the pros and cons for each type of package. You may set up your chart like the one below.

glass bottle		metal can		drink box	
pros	cons	pros	cons	pros	cons



Activity One

Sustainability Slideshow

You learned that **NONRENEWABLE** resources are limited. Once they are used up, they will not be replaced for millions of years. **RENEWABLE** resources are replaced more quickly by Earth processes. However, they can become unavailable if they are used too fast or if they become polluted. In this activity, you will create a slideshow to teach people how to use resources sustainably.

1. Make a list of **eight to ten resources** that most people use in everyday life. For each resource, answer the question, "What can people do now to make sure this resource is available to our great-grandchildren?"
2. Come up with **three to five action steps** that people can do to conserve each resource on your list. Remember that conservation is about saving resources, and about protecting them from pollution.
3. Using a slide show computer program, **create a slide for each resource**. Each slide should contain the following:

- A title (usually the name of the resource)
- Three to five points with the action steps for conserving the resource
- A photograph or visual image representing either the resource or one of the action steps

The slideshow should also contain:

- An opening slide, with an introduction that draws people in and tells them why it is important to learn more about sustainability
- A closing slide, with a summary

4. Be sure that each slide is clear and easy to read. **Write a short script** for yourself, so that you will know what to say for each slide during the slideshow presentation.
5. Give the slideshow presentation for your class. At the end, ask if anyone has questions.

Ask your teacher for help and permission to post your slideshow on your class website!

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Activity Two



Modern Sculpture

Art can be a great way to reuse objects and materials that you would otherwise throw away. Sculpture is art that is made in three dimensions. In other words, you could walk all the way around it, like you would a piece of furniture.

Long ago, most sculptures were made to look like real people or things in the natural world. The sculptures were usually made of stone, like marble. Artists that lived more recently have made a greater variety of sculpture. These modern art sculptures sometimes look like objects from the natural world, but many times they are abstract. Although abstract art does not look like everyday objects, it has other types of meaning. **Abstract art can represent artistic ideas, such as FORM, SHAPE, LINE, COLOR, and TEXTURE. Abstract art can also represent SOCIAL or IMAGINATIVE ideas.** Modern artists often use objects and materials from everyday life to represent ideas in abstract sculpture.

In this activity, you will create a piece of modern art with reused objects from your everyday life.

First, **gather objects** from your everyday life that you would otherwise throw away. Clean and dry each object. Pay attention to choosing objects with interesting color, shape, texture, etc.

Then, spend some time thinking about what you would like your sculpture to **represent**. Choose a concept you have learned about, such as sustainability, conservation, pollution, or the ways in which people depend on resources. Think about how you might represent these ideas in sculpture. You may want to look at examples of modern sculpture in library books in order to get more ideas.

Finally, **create your sculpture**. Gather all of your objects, along with some of the following materials:

- glue or paste
- scissors
- tape
- wire
- paints

Display your art in the classroom. **Write a brief explanation** of what your sculpture represents. Also include a **list** of all of the objects you reused to make your sculpture.

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Activity Three

Design Your Own Green Home

For this activity you will design your own sustainable home!

First, research “Green Building” or “Green Architecture”. Find out about:

- **Alternative energy sources** for homes, such as solar and wind
- **New technologies** that use less energy
- **“Green” building supplies**, recycled and nontoxic building materials
- **“Green” design principles**—how can the design of the home help the home use less resources? What is the effect of the placement of windows, height of ceilings, use of insulation, different heating and cooling systems, choice of landscape plants?
- How does the **local climate** affect which designs and materials to choose?

Then, think about the type of home you would love to have. Do you want a lovely house in the country or a cool city apartment? Where do you want to live—in a place with a snowy winter, a dry desert, a moist tropical environment?

Next, design your home. Start by making a list that contains all of the **materials and features** of each system of the home:

- Foundation
- Framing
- Outside walls
- Roof
- Inside walls
- Flooring
- Heating and Cooling
- Plumbing
- Insulation
- Electrical and Energy Source
- Landscaping

You may want to look in the library for building plans to see how they are drawn, and what types of information they include. Have fun drawing and designing your home!

Display your drawings for the class, and make a presentation to tell your classmates about all of the Green features of your dream home!



Activity Four



Plan a Sustainable Business

The ultimate sustainable business uses only **RENEWABLE RESOURCES** and creates **NO WASTE**. That is a difficult goal! But every step towards being sustainable helps the business, the environment, and future generations of people. Let's see how sustainable you can be as a business owner!

1. Choose your business. What type of business would you like to run? Be imaginative, it could be anything! Any type of business can go "Green"—amusement parks, hair salons, mechanics, stores, anything!

2. Research the ways that your business can PRACTICE SUSTAINABILITY. Think about:

- **How much energy do you need?** Do you need to power a store, factory, or vehicles? What types of alternative fuels and renewable energy sources would be most practical for your business?
- **What types of land resources do you need?** Are you manufacturing products? Selling foods? What materials do you need? What are some ways to get the materials sustainably?
- **What types of waste will your business make?** Will you have scraps left over from making things in your factory? Will you have to handle food waste? Wastewater? How can you handle your wastes sustainably? How can you recycle, reduce, and reuse?
- **How can your business "close the loop?"** Are there any ways to make some of your wastes into materials that you can use again and again? Or, are there ways to reuse your wastes for a different purpose? For example, a pizza place could run delivery vehicles on biofuels made from their own used vegetable oils.

3. Write your business plan. Describe your business in **WORDS, PICTURES,** and **DIAGRAMS**. Be sure your business plan includes:

- The type of business—the services and products you will offer
- The name and location of your business
- A description of the facilities, machines, vehicles, etc., that you will own
- A description of your everyday operations
- A complete list, with explanations, of all of the sustainable practices you will use
- A discussion of how your business compares to a similar kind of business that does NOT practice sustainability. How much energy and resources will your business save? How much pollution does the other business make? How much less waste do you make?



Activity Five



Build an Alternative Energy Toy

People use alternative energy sources to power homes, business, and cars. But you can use alternative energy to build fun toys with moving parts!

1. Think about what **type of energy** you would like to use to power a toy. You can use any source of energy EXCEPT fossil fuels and batteries. Some sources of energy you might use include the **sun, wind, and running water**. You can be creative and find other ways to power toys, too!
2. Once you have chosen your power source, decide what **type of toy** you would like to build. Look through books, magazines, and the Internet to get ideas. Think about what type of toy would work best with your power source. You might find ideas by looking at old-fashioned toys. Children used to have many types of moving toys before batteries were invented! Toys like sailboats, pinwheels, and water wheels used alternative sources of energy to move. On the other hand, you might like to research toys that use new technologies to get energy from the sun, like solar panels.
3. **Draw a plan for your toy.** Be sure the plan includes measurements and materials.
4. Gather all of the materials you will need, and build your toy. Ask for help from an adult if you need to use power tools or sharp cutting tools. You will need to **test your toy**. Don't be discouraged if it doesn't work perfectly at first! That happens to most toymakers. Try to figure out what the problem is, and then make adjustments to the design, materials, or construction in order to fix the problem. Don't give up!
5. Bring your toy to class. Explain how you built it, and how it works using an alternative energy source. If possible, **give a demonstration** of how it works. If your toy must be used outside or in another location, such as in a stream, take pictures of your toy in use to share with your class.

Have fun with your new toy! Maybe you will be inspired to design and build many new toys!

NAME: _____



Activity Six



Research Alternative Fuels

Many scientists think that the world's supply of petroleum oil will run out in ***your*** lifetime. Societies will need to use alternative energy sources to power homes, businesses, and transportation.

In this activity, you will research an in-depth topic related to alternative energy. You may pick from the list below, or come up with a different topic that interests you. If you choose to create your own topic, discuss the idea with your teacher. Write the topic and a few questions that you will answer in your research.

RESEARCH TOPICS:

- **The development of solar energy technology in China.**
 - Why is it important to the Chinese to develop solar energy technology? What advances have they made? What are the advantages to the whole world of building solar panels in China? Which countries is China selling their solar panels to first? Why?
- **The advantages and disadvantages of hydroelectric power.**
 - What are the biggest hydroelectric dams in your country? Around the world? How much energy do these dams supply? What are the advantages of using running water to get power? How do the dams harm ecosystems? How do the dams harm people? Have any dams been taken down in your country? Why?
- **Fuel-cell technology to power cars and other automobiles.**
 - What is fuel-cell technology? How does it work? What are the advantages and disadvantages of using fuel cells in cars? Is fuel-cell technology sustainable? How can it be made sustainable?

Research your topic using the Internet and library resources. Since these topics are very current, you will need to use the **most up-to-date resources available**. Be sure to answer all of your questions during your research.

Prepare a report to share with your class. You may choose the format of your report. Some ideas include:

- a written report including photographs and diagrams
- a slide show or visual presentation using overhead projector films
- an oral report with a diorama or other physical props
- a taped television documentary-style report

NAME: _____



Activity One



Reduce Your Garden Waste

Do you have a garden at your home, school, or neighborhood? In this activity, you will make a plan to reduce the waste from your garden.

1. First, MAKE A LIST of all the types of waste your garden makes. Some types of waste that gardens often create include:

- unused plant parts
- fertilizers, pesticides, herbicides that get washed into the environment by rain
- empty containers of fertilizers, pesticides, and herbicides – don't forget, these are hazardous waste items!
- empty plastic plant containers and seed starters
- old plant markers
- broken stakes and other equipment
- old gloves and rags

Take a look around your garden to find any other types of waste.

2. For each type of waste on your list, WRITE AN ACTION PLAN to reduce that waste.

Be creative! There are different ways to reduce waste. Some types of waste can be reduced by using less of a product. Other types of waste can be reduced by turning them into useful products. Reusing, recycling, and composting can be other ways to reduce some types of waste.

You may need to do some research to learn more about ways to reduce some types of waste. For example, if you would like to use less fertilizer, you could research the methods organic farmers use to make sure their plants get enough nutrients. Or, if you would like to make paper out of unused plant parts, you could research the steps of papermaking.

3. Once you have a plan for each type of waste in your garden, write the steps of your plan in a SPECIAL NOTEBOOK that you use only for your garden. Keeping a garden notebook is useful for keeping track of your plan during the year. Write notes to describe what worked and what didn't work. Next year, you can evaluate your plan and make changes.

NAME: _____



Activity Two



Bio-economical Costs of Mining Aluminum vs. Recycling Aluminum

You learned about the problems of mining waste, and about the bio-economics of resource use. In this activity, you will EVALUATE the bio-economical costs of mining aluminum versus recycling aluminum.

Step 1

Use the Internet or library resources to find out more about the **costs** and **profits** of the **aluminum mining industry**. Ask the following questions:

- What are the costs to mining companies of mining aluminum?
- Do these costs include managing mining waste? Does it include future waste management, such as cleaning up the mine site after the mine shuts down?
- Do companies or governments have insurance or savings to cover any risks of waste, such as contamination of drinking water supplies?
- Does mining aluminum make profits greater than the costs to the companies?
- Do companies get money from governments or other organizations to help with mining costs?
- Do mining profits relate to where aluminum deposits are located, or how easy they are to reach?
- At what point in the life of a mine does the company's cost become greater than the profits? Do mining operations shut down at this time?

Step 2

Use the Internet or library resources to find out more about the **costs** and **profits** of the **aluminum recycling industry**. Ask the following questions:

- What are the costs of recycling aluminum?
- Does recycling aluminum make profits greater than the costs to the companies and governments that run recycling plants?
- Do companies and governments get money to help with recycling costs, other than from the sale of recycled aluminum?

Step 3

Use all of the information you gathered to WRITE A REPORT comparing the bio-economical costs of mining aluminum and recycling aluminum. In your report, evaluate the differences in costs now, and also in the future.

NAME: _____



Activity Three



Contain an Oil Spill

A lot was learned about oil spills after the Exxon Valdez crash. Now, companies and other groups develop and use many different technologies to stop oil slicks from spreading after an oil spill. This practice is called oil spill **containment**. They also develop methods for cleaning up oil spills. In this activity, you will MAKE A MODEL of one of the technologies for containing or cleaning an oil spill.

Step 1

Using the Internet or library resources, **research new technologies for oil spill containment and clean-up**. You may use literature from companies, governments, environmental or other citizen groups.

Step 2

Choose a technology to model for your class. Decide what type of model will best suit the technology you chose. You might use a diorama or other three-dimensional model made of materials such as clay, paper, and paint.

Other technologies can be demonstrated using a model oil spill. To make a model oil spill, fill a wide basin with water. Place a few ounces of cooking oil into a paper cup, and add a few drops of food coloring. Mix until the food coloring evenly colors the oil. When you add the oil to the water, it will spread out on top like an oil slick. Try to contain or clean the oil using materials or methods similar to the technology you have researched. Try this a few times at home before demonstrating for the class. You will need to do some trial-and-error experiments to find the best amount of oil to use, and the best way to model your technology.

Step 3

Present your model to your class. Be sure to explain each of the following:

- How your technology was developed
- What materials your technology uses
- Whether your technology has already been used to clean an oil spill at sea

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Activity Four



“Near-Miss with Space Junk!” Television News Report

Imagine that you are a news reporter for your local TV news channel. In groups of three or four, you will create a news report on a near-miss between a space mission and space junk.

BEFORE YOU BEGIN

Do you regularly watch the news? If not, spend some time in the evening watching different news programs. Think about how the news reporters are presenting their stories. What tone of voice do they use? What kinds of information do they present? How do they use visuals to help viewers understand the story?

DO YOUR RESEARCH

Astronauts on shuttles and space stations have had several near-misses with space junk in the past few years. Together as a team, research **one** of these incidents. Look on the Internet or through periodical files for old news reports about the near-miss.

WRITE YOUR NEWS REPORT

Based on your research, put together a 5- to 10-minute news report. Be sure to include the following in your report:

- An introduction, which gives an overview of the information you will present
- WHEN the near-miss happened
- WHERE the near-miss happened
- WHO were the astronauts involved
- WHAT the astronauts were doing in space
- HOW the astronauts avoided a collision with the space junk
- A summary, which explains why space junk is a continuing problem, and what might be done to address the problem

PRESENT YOUR REPORT

If you have access to a video camera, film your news report. Then, show the film in class. If you do not have a video camera, set up a table in your classroom and give your presentation live. Be sure to practice a few times first!

NAME: _____



Activity Five



Write a Natural Disaster Waste Management Plan

Imagine that you are on a government panel to plan how to manage waste during the next natural disaster in your region. Work with a small group to write a plan.

RESEARCH THE PROBLEM

First, **evaluate** the most likely problems caused by natural disasters in your area. Ask yourselves the following questions:

- What natural disasters are most likely to happen in your area?
- What waste management problems usually happen as a result of those types of natural disasters?

WRITE THE PLAN

Brainstorm a list of ideas about how each type of waste can be handled. Ask yourselves the following questions:

- What types of waste are most important to handle first? How will you move people into the disaster area to handle the waste? What precautions will people need to take?
- What types of waste are most dangerous? Where are hazardous wastes usually disposed of in your area? Can these facilities handle a large amount of hazardous waste after a disaster?
- How can solid wastes be sorted and disposed? Can anything be recycled, reused, or composted?
- What groups can help manage the different types of waste?

Write your ideas as a set of action steps. Action steps start with a verb, and would result in a specific action. For example, "Create a group of trained disaster waste managers to call immediately after a disaster."

Present your action plan to your class. Ask the class to play the role of concerned citizens, and invite them to comment on your plan after you present it.

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Activity Six



Agricultural Waste in the Mediterranean

The **Mediterranean Sea** is a body of water that is almost entirely surrounded by land. Many African and European countries have shores on the Mediterranean. The Mediterranean is an important resource for people in the area. It supplies fish and other seafood. It has beautiful beaches, and brings in many visitors.

Agricultural waste has been building up in the Mediterranean Sea. The waste comes from many different countries, and all of the countries must work together to reduce this waste and protect their shared resource. In this activity, you will work together as a class to learn about what different Mediterranean countries are doing to solve the problem.

RESEARCH THE PROBLEM

With a partner, choose **one** Mediterranean country to research. Each team in the class should choose a different country. Using the Internet or library resources, find out:

- What types of agriculture are important in your country
- What methods of growing crops are used in your country
- What are the main agricultural waste products of your country
- How the Mediterranean is used by people in your country
- How people in your country are affected by agricultural waste pollution in the Mediterranean
- Your country's plan to reduce agricultural waste

PRESENT YOUR FINDINGS

Display a **map** of the Mediterranean in your class. Mark your country's location on the map. For your presentation, **CREATE SLIDE SHOW** with images that go along with each of the questions above. Write a short narration for each of the questions, to read when showing each slide.

HOLD A SUMMIT

A summit is a meeting of representatives from different countries, usually held to discuss a common problem. After each group has made a presentation about their country, sit in a circle to **DISCUSS THE PROBLEMS AND SOLUTIONS** of agricultural waste in the Mediterranean from the point of view of your countries.

NAME: _____



Activity One



Writing a Short Report

Where Does Your Water Come From?

Find out where the fresh water for your home comes from. You may have water piped into your home by a city water company, or you may have your own well.

If you get water from a water company, you can begin by contacting them. Look on a water bill or in the phone book to see if they have a web site or give them a call. Try to find out if you can visit the sources of the water that is delivered to your house. They may be wells or a reservoir.

If you get water from a well, find out how deep it is, how the water is pumped out, and anything else that helps you understand how your home system works.

In your report, try to answer these questions:

- Where does your water come from?
- How much do you use each month?
- Are you using more or less than in the past?
- Is your water use sustainable?
- Could your water supply be threatened by a drought?

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Activity Two



Visit a Greenhouse

Find a greenhouse in your area. You might be able to find one by looking in the telephone directory for flower growers, nurseries, or greenhouses. Call and ask if you may visit the greenhouse and if you may go inside.

When you go, take a thermometer and compare the temperature outside the greenhouse to the temperature inside. Try to find someone at the greenhouse who would like to answer some questions.

Try to find out:

- The average temperature in the greenhouse and whether it is different in summer and winter.
- How the temperature is controlled.
- How the plants are watered and how the watering is controlled.
- What kind of plants grow in the greenhouse that would not grow outside.

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Activity Three



A Short Report

on Unsustainable Pumping from Aquifers

Prepare a report on aquifers that are being pumped out faster than they are being replenished by water from the surface. You may either report on unsustainable use as a world-wide problem or focus on a particular country or aquifer.

Some countries that are pumping unsustainable amounts of water from their aquifers are: the United States, Mexico, China, and India. If you study aquifers in the United States, pay special attention to the Ogallala aquifer (also called the High Plains aquifer).

In your report try to answer some or all of these questions:

How serious is the depletion?

How many years of water are left?

Is anything being done to solve the problem?

Has depletion caused a water shortage yet?

Have crop yields been affected?

Has the ground level started to sink?

NAME: _____



Activity Four



Harvest Rainwater

Learn about harvesting rainwater by harvesting some of your own. In this activity you will harvest rainwater from your own roof. You will have to live in a house that has rain gutters on the edges of down sloping roofs and down spouts that could be led into a collection container. You might also have a flat-topped roof with a drain leading to the ground. If your roof will not work for this project, you may be able to find another roof that will work.

This is what you will need:

1. A tape measure.
2. Something to measure gallons of water.
3. A large container to store water.
4. A plastic sleeve to carry water from a downspout to the large container. (You can get these at hardware stores. They are used to direct water from the downspout to a storm drain.)
5. A rain gauge.

This is what you will do:

1. Measure the dimensions of your roof and calculate its area. If the roof is sloping, measure the area of the flat ground under it.
2. Calculate how many gallons of rain would fall on your roof for each inch of rainfall.
3. Connect one end of the plastic sleeve to the downspout and put the other in the collection container. (Note: You may want to just harvest water from that section or roof that has the most convenient downspout.)
4. Wait for it to rain.
5. Measure the gallons of water you collected.
6. Record the inches of rainfall as shown by your rain gauge.
7. Calculate how many gallons of rain should have fallen on your roof.
8. Compare the calculated volume of rainwater to the volume you collected.

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Activity Five

A Short Report on Melting Ice Caps

The Arctic Ocean is the ocean that surrounds the North Pole. The Antarctic Ocean is the ocean that surrounds the continent of Antarctica where the South Pole is located. Both of these areas, called the polar ice caps, are mostly covered in snow and ice. This snow and ice holds most of Earth's fresh water.

As global temperatures increase, the polar ice caps are melting and shrinking. Write a short report on ice cap shrinkage that includes the causes of ice cap shrinkage, how fast the ice caps are shrinking, and the effects on sea levels and arctic animal habitat. You can find information by searching libraries and the Internet for "arctic shrinkage," "arctic change," "climate of the arctic," "arctic climate impact assessment," "Greenland ice sheet," and "world wildlife foundation's international arctic programme."

In your report, try to answer these questions:

- When will the Arctic Ocean be completely ice-free in the summer?
- When was the Arctic Ocean last ice free in the summer?
- How will melting arctic ice change ocean levels?
- How will melting arctic ice affect arctic animals like polar bears and penguins?
- How will melting arctic ice affect water supplies?

In your report, also include maps that show how the area covered by arctic ice has changed.

NAME: _____



Activity Six



Write a Report on a Plan to Give More People Safe Water

At Earth Summit 2002, governments approved a plan to reduce by half the number of people in the world who do not have access to safe water and also reduce by half the number of people who do not have basic sanitation. Find out if this plan is meeting its goals and write a short report on what you find.

You can get information by searching the library and Internet for “WHO” (World Health Organization), “GWSSAR” (Global Water Supply and Sanitation Assessment 2000 Report), and “water resources.”

Try to answer these questions in your report:

- Is the plan meeting its goals?
- How many people do not have reasonable access to safe drinking water today?
- What is “reasonable access?”
- How many people do not have basic sanitation today?
- What is “basic sanitation?”
- Where are the problems of unsafe water and poor sanitation worst?

NAME: _____



Activity One



Writing a Short Report Salt Lakes

Write a report on salt lakes. Your report should include two parts.

In the first part tell about the things all salt lakes have in common:

- What makes salt lakes salty?
- How does water come into salt lakes and how does it leave?
- Identify five of the largest salt lakes and tell where they are located.
- Which major salt lake is saltiest?
- Which is the largest salt lake?
- How will climate change affect salt lakes? Explain why.

For the second part of the report choose one salt lake and answer these questions about it.

- How large is it?
- How deep is it?
- How salty is it?
- What plants and animals live in it?
- Is it growing or shrinking?
- Does it have any unusual characteristics?

NAME: _____



Activity Two



Project

How Climate Change Will Change Maps

This a project in which you will show how climate change could change maps.

Find a map of the ocean coast nearest to where you live. The map should include at least 100 miles of coastline and several large coastal cities. Now find a topographical map of the area. You can look in the atlas section of a library or search the internet using the name of the area you chose and the word "topographical" or "topo."

Now find out how far sea level would rise if all the ice on Antarctica melted. This information is in the book "Ocean Water Resources."

Make a copy of the topographical map and draw a line to represent the new shoreline that would result from melted Antarctic ice. Match your new shoreline to the line on the topographical map that is the same as the sea level rise that would be caused by melted Antarctic ice.

Try to estimate how many square miles of land would be flooded.

Which cities would be flooded? Which inland cities would become seaports?

NAME: _____



Activity Three

Write a Report

Thermal Vent Ecosystems

Write a report on the unusual marine food webs that surround hydrothermal vents on the ocean floor. Hydrothermal vents are similar to geysers and hot springs on land. You can find information on these vents by searching the library and internet for: "hydrothermal vent" and "thermal vent." Next try adding the words "ecosystem" and "food web" to each of these terms. You can also try "chemosynthesis" and "giant tube worms."

Focus your report on the organisms of the food web rather than the cause of the vents. Your report should try to answer these questions:

- What causes hydrothermal vents, and where are they located?
- What is the basic difference between the food webs surrounding hydrothermal vents and all other food webs?
- What is chemosynthetic?
- What is the energy source for these food webs?
- Which organisms are the producers in these food webs?
- Which organisms are the consumers in these food webs?

NAME: _____



Activity Four

Project and Report Sustainable Fishing

Study sustainable fishing by visiting places where fish are sold, meeting the people who sell them, and (if possible) the people who catch them.

First read about sustainable fishing, overfishing, underfishing, and endangered species of commercial fish. Also look for information about the Marine Stewardship Council.

Visit any of these places that are near your home:

- A fish market or supermarket that sells fish
 - Look for labels that indicate that a kind of fish is harvested sustainably.
 - Ask the market manager if he/she knows which fish he/she sells are sustainably fished.
 - Ask the manager which fish are from fish farms and which are wild fish.
- A fishing boat harbor
 - Ask the people who catch the fish what they know about sustainable fishing.
 - Ask the people who buy the fish what they know about sustainable fishing.
- A fish farm
 - Ask what kind of fish they raise.
 - Ask what they feed the fish.
 - Ask if the fish they raise are endangered in the wild.

Write a short report on sustainable fishing and overfishing. Include a list of sustainably harvested fish and a list of fish that are overfished. Explain how individuals can help prevent overfishing by changing their diets.

NAME: _____



Activity Five

Project and Report Dead Zones

For this project, you will need a large world map you can draw on and some colored pencils or markers.

Begin by searching the library and internet for “dead zones.” Find the location and extent of marine dead zones. Use one color to mark the dead zones around the world. Use another color to show the parts of the ocean that were once dead zones and have now come back to life. You can find more information by searching for “United Nations Environment Program” and “NASA and dead zones.” The second source shows satellite images of dead zones.

Write a short report that answers these questions:

- What is a dead zone?
- What causes dead zones?
- What is missing from dead zones that makes it impossible for fish to live there?
- Which dead zones are getting worse?
- What can be done to restore dead zones to life?

NAME: _____



Activity Six

Project and Report Minerals in Sea Water

Sea water contains many different materials in a wide range of concentrations. These materials are mostly present in the form of ions.

Begin by searching for information on “sea salt,” “ocean minerals,” and “ions.” Make a list of the different materials dissolved in ocean water and the amount of each material. Display this information in two ways:

- Create a table that lists each material and its concentration.
- Create a graphic organizer that shows the amount of each material.

Write a short report that answers each of these questions:

- What is an ion?
- Which two ions are present in sea water in the greatest concentration?
- What is sodium chloride, how is it used, how is it removed from sea water?
- What is magnesium, how is it used, how is it removed from sea water?

NAME: _____



Activity One



Clean Up an Aquatic Ecosystem

Choose an aquatic ecosystem near where you live and help clean it up. You can do this on your own or try to find public projects that recruit many volunteers to attend a clean-up day. The main thing you can do is pick up trash from the shoreline. You can also take a rake or other tool and pull trash out of the water. Be sure to dispose of the trash in a way that will prevent it from returning to the environment. Recycle as much of the trash as possible.

Make tallies of how many pieces of trash fall into each of the following categories:

- Plastic
- Glass
- Rubber
- Aluminum
- Iron
- Other metals
- Fishing tackle
- Paper or cloth

In which ways could some of these objects endanger wildlife?

Note anything else related to the health of the ecosystem. Did you see any invasive species? Did you see any oil on the surface? Did there seem to be too much algae in the water?

NAME: _____



Activity Two



Visit a Pet Store

Find a large pet store that specializes in a wide variety of fish. You can begin by looking through the phone book yellow pages. Also look for web sites of pet stores near where you live. Pet stores with tanks of fish on display must be able to create a small, artificial ecosystem in each tank. If the fish and other organisms are healthy, then the ecosystem is providing everything a wild ecosystem provides.

What all this means, is that someone in the store must know something about aquatic ecosystems, even if he doesn't think of it in those terms. Your goal is to find that person and ask him some questions.

Here are some starters:

1. Are some tanks fresh water and some salt water?
2. Do any of the tanks try to copy ecosystems from particular parts of the world?
3. Do you have to provide food to all the consumers, or can some of them find it in the tank?
4. Do you ever put predators and prey in the same tank?
5. Do plants supply all the oxygen, or do you have to supply it?
6. Are there any other biotic or abiotic factors that are controlled by you?

If you find a person who is really enjoying his work, you will probably learn much more than just the answers to these questions.

NAME: _____



Activity Three



Write a Report About Ancient Aquatic Ecosystems

The first ecosystems to appear on Earth were marine aquatic ecosystems. In fact, for several billion years, ecosystems existed only in the ocean. The earliest ecosystems had no animal life in them, only plants. Learn about the organisms in these early aquatic ecosystems. Search the library and internet for “ancient oceans”, “origin of life”, evolution, or “marine evolution” for a start. Write a brief report that answers as many of these questions as possible:

1. What were the first organisms?
2. Why were there no animals for billions of years, when did the first animals appear, and how did plants make their survival possible?
3. What were some of the plants and animals in ancient aquatic ecosystems, which ones are now extinct, and which are not?
4. What caused some of the early mass extinctions?
5. When did plants and animals first appear on land?

NAME: _____



Activity Four



Write a Report on the Arctic Ecosystem

The Arctic ecosystem is changing because temperature is rising, and Arctic sea ice and glaciers are shrinking. Sea ice is an important abiotic factor in the ecosystem, especially for polar bears. These bears are one of the top predators in the Arctic. Begin gathering information by learning about the food chains that make up the food web of the Arctic marine ecosystem. Also try to find out what governments, politicians, and environmental groups are saying about the changing Arctic ecosystem. In your report, try to answer these questions:

1. How does changing sea ice threaten polar bears' survival?
2. How does survival of polar bears affect the arctic food web? Learn how the populations of other species will change if the polar bear population decreases.
3. What are the predictions for the future of polar bears?
4. What measures are being taken to protect polar bears?

NAME: _____



Activity Five



Write a Report About the Chemistry of Acid Rain

For this project you will need to have some basic understanding of chemistry and chemical reactions and you will need to be able to read and understand chemical equations and formulas. It would also help to have an understanding of the pH scale. The report will be about the effect of acid rain on lentic, freshwater ecosystems (i.e., on lakes and ponds).

Search for information on the following: acid rain, lentic system ecology, sulfur dioxide, nitrogen oxides, coal burning power plants, and vehicle exhaust. In the report try to answer these questions:

1. What is the source of the gases that cause acid rain?
2. What are the equations for formation of the acids in acid rain from these gases?
3. When acid rain increases the acidity (lowers the pH) of lentic systems, which species are affected and how?
4. How are species' diversity affected by acid rain?
5. Why are lakes with limestone bedrock on the bottom not affected by acid rain? What is the equation for the reaction that neutralizes the acid in acid rain?
6. What measures have been taken to reduce acid rain?

NAME: _____



Activity Six



Write a Report on Aquatic Animals That Have Recently Become Extinct

This report should be about aquatic animals that have become extinct in historical times. This is not about prehistoric animals we know about through the fossil record. The best way to begin is to find at least one web site for an organization that keeps track of extinctions. This will give you names and some pictures of recently extinct animals. Also search for information on the human activities that have caused extinction, like overfishing, pollution, deforestation, and introduction of foreign species.

When you find some good sources of information, you will have hundreds of species to choose from. The rate of extinction is very high these days. Pick a few of the animals you find most interesting and answer as many of these questions as you can about each:

1. What are its common and scientific names?
2. Where did it live?
3. Has its disappearance affected other species?
4. What most likely caused its extinction?
5. What close relatives have survived?

If there are pictures of the animals you chose, add those to your report. Some pictures may be drawings from the days before photography.



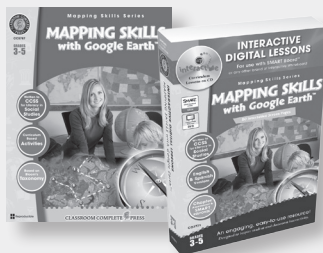
Publication Listing



SOCIAL STUDIES - Books	
ITEM #	TITLE
DAILY LIFE SKILLS SERIES	
CC5790	Daily Marketplace Skills Gr. 6-12
CC5791	Daily Social & Workplace Skills Gr. 6-12
CC5792	Daily Health & Hygiene Skills Gr. 6-12
CC5793	Daily Life Skills Big Book Gr. 6-12
21ST CENTURY SKILLS SERIES	
CC5794	Learning Problem Solving Gr. 3-8
CC5795	Learning Communication & Teamwork Gr. 3-8
CC5796	Learning Skills for Global Competency Gr. 3-8
CC5797	Learning to Learn Big Book Gr. 3-8
MAPPING SKILLS SERIES	
CC5786	Gr. PK-2 Mapping Skills with Google Earth
CC5787	Gr. 3-5 Mapping Skills with Google Earth
CC5788	Gr. 6-8 Mapping Skills with Google Earth
CC5789	Gr. PK-8 Mapping Skills with Google Earth Big Book
NORTH AMERICAN GOVERNMENTS SERIES	
CC5757	American Government Gr. 5-8
CC5758	Canadian Government Gr. 5-8
CC5759	Mexican Government Gr. 5-8
CC5760	Governments of North America Big Book Gr. 5-8
WORLD GOVERNMENTS SERIES	
CC5761	World Political Leaders Gr. 5-8
CC5762	World Electoral Processes Gr. 5-8
CC5763	Capitalism vs. Communism Gr. 5-8
CC5777	World Politics Big Book Gr. 5-8
WORLD CONFLICT SERIES	
CC5511	American Revolutionary War Gr. 5-8
CC5500	American Civil War Gr. 5-8
CC5512	American Wars Big Book Gr. 5-8
CC5501	World War I Gr. 5-8
CC5502	World War II Gr. 5-8
CC5503	World Wars I & II Big Book Gr. 5-8
CC5505	Korean War Gr. 5-8
CC5506	Vietnam War Gr. 5-8
CC5507	Korean & Vietnam Wars Big Book Gr. 5-8
CC5508	Persian Gulf War (1990-1991) Gr. 5-8
CC5509	Iraq War (2003-2010) Gr. 5-8
CC5510	Gulf Wars Big Book Gr. 5-8
WORLD CONTINENTS SERIES	
CC5750	North America Gr. 5-8
CC5751	South America Gr. 5-8
CC5768	The Americas Big Book Gr. 5-8
CC5752	Europe Gr. 5-8
CC5753	Africa Gr. 5-8
CC5754	Asia Gr. 5-8
CC5755	Australia Gr. 5-8
CC5756	Antarctica Gr. 5-8
WORLD CONNECTIONS SERIES	
CC5782	Culture, Society & Globalization Gr. 5-8
CC5783	Economy & Globalization Gr. 5-8
CC5784	Technology & Globalization Gr. 5-8
CC5785	Globalization Big Book Gr. 5-8

SOCIAL STUDIES - Software	
ITEM #	TITLE
MAPPING SKILLS SERIES	
CC7770	Gr. PK-2 Mapping Skills with Google Earth
CC7771	Gr. 3-5 Mapping Skills with Google Earth
CC7772	Gr. 6-8 Mapping Skills with Google Earth
CC7773	Gr. PK-8 Mapping Skills with Google Earth Big Box
SCIENCE - Software	
SPACE AND BEYOND SERIES	
CC7557	Solar System Gr. 5-8
CC7558	Galaxies & the Universe Gr. 5-8
CC7559	Travel & Technology Gr. 5-8
CC7560	Space Big Box Gr. 5-8
HUMAN BODY SERIES	
CC7549	Cells, Skeletal & Muscular Systems Gr. 5-8
CC7550	Senses, Nervous & Respiratory Systems Gr. 5-8
CC7551	Circulatory, Digestive & Reproductive Systems Gr. 5-8
CC7552	Human Body Big Box Gr. 5-8
FORCE, MOTION & SIMPLE MACHINES SERIES	
CC7553	Force Gr. 3-8
CC7554	Motion Gr. 3-8
CC7555	Simple Machines Gr. 3-8
CC7556	Force, Motion & Simple Machines Big Box Gr. 3-8
ENVIRONMENTAL STUDIES - Software	
CLIMATE CHANGE SERIES	
CC7747	Global Warming: Causes Gr. 3-8
CC7748	Global Warming: Effects Gr. 3-8
CC7749	Global Warming: Reduction Gr. 3-8
CC7750	Global Warming Big Box Gr. 3-8
LANGUAGE ARTS - Software	
CC7112	Word Families - Short Vowels Gr. PK-2
CC7113	Word Families - Long Vowels Gr. PK-2
CC7114	Word Families - Vowels Big Box Gr. PK-2
CC7100	High Frequency Sight Words Gr. PK-2
CC7101	High Frequency Picture Words Gr. PK-2
CC7102	Sight & Picture Words Big Box Gr. PK-2
CC7104	How to Write a Paragraph Gr. 3-8
CC7105	How to Write a Book Report Gr. 3-8
CC7106	How to Write an Essay Gr. 3-8
CC7107	Master Writing Big Box Gr. 3-8
CC7108	Reading Comprehension Gr. 5-8
CC7109	Literary Devices Gr. 5-8
CC7110	Critical Thinking Gr. 5-8
CC7111	Master Reading Big Box Gr. 5-8

SCIENCE - Books	
ITEM #	TITLE
HANDS-ON STEAM SCIENCE SERIES	
CC4100	Physical Science Gr. 1-5
CC4101	Life Science Gr. 1-5
CC4102	Earth & Space Science Gr. 1-5
CC4103	Hands-On Science Big Book Gr. 1-5
ECOLOGY & THE ENVIRONMENT SERIES	
CC4500	Ecosystems Gr. 5-8
CC4501	Classification & Adaptation Gr. 5-8
CC4502	Cells Gr. 5-8
CC4503	Ecology & The Environment Big Book Gr. 5-8
MATTER & ENERGY SERIES	
CC4504	Properties of Matter Gr. 5-8
CC4505	Atoms, Molecules & Elements Gr. 5-8
CC4506	Energy Gr. 5-8
CC4507	The Nature of Matter Big Book Gr. 5-8
FORCE & MOTION SERIES	
CC4508	Force Gr. 5-8
CC4509	Motion Gr. 5-8
CC4510	Simple Machines Gr. 5-8
CC4511	Force, Motion & Simple Machines Big Book Gr. 5-8
SPACE & BEYOND SERIES	
CC4512	Solar System Gr. 5-8
CC4513	Galaxies & The Universe Gr. 5-8
CC4514	Travel & Technology Gr. 5-8
CC4515	Space Big Book Gr. 5-8
HUMAN BODY SERIES	
CC4516	Cells, Skeletal & Muscular Systems Gr. 5-8
CC4517	Senses, Nervous & Respiratory Systems Gr. 5-8
CC4518	Circulatory, Digestive & Reproductive Systems Gr. 5-8
CC4519	Human Body Big Book Gr. 5-8
ENVIRONMENTAL STUDIES - Books	
MANAGING OUR WASTE SERIES	
CC5764	Waste: At the Source Gr. 5-8
CC5765	Prevention, Recycling & Conservation Gr. 5-8
CC5766	Waste: The Global View Gr. 5-8
CC5767	Waste Management Big Book Gr. 5-8
CLIMATE CHANGE SERIES	
CC5769	Global Warming: Causes Gr. 5-8
CC5770	Global Warming: Effects Gr. 5-8
CC5771	Global Warming: Reduction Gr. 5-8
CC5772	Global Warming Big Book Gr. 5-8
GLOBAL WATER SERIES	
CC5773	Conservation: Fresh Water Resources Gr. 5-8
CC5774	Conservation: Ocean Water Resources Gr. 5-8
CC5775	Conservation: Waterway Habitat Resources Gr. 5-8
CC5776	Water Conservation Big Book Gr. 5-8
CARBON FOOTPRINT SERIES	
CC5778	Reducing Your Own Carbon Footprint Gr. 5-8
CC5779	Reducing Your School's Carbon Footprint Gr. 5-8
CC5780	Reducing Your Community's Carbon Footprint Gr. 5-8
CC5781	Carbon Footprint Big Book Gr. 5-8



LITERATURE KITS™ - Books

ITEM #	TITLE
GRADES 1-2	
CC2100	Curious George (H. A. Rey)
CC2101	Paper Bag Princess (Robert N. Munsch)
CC2102	Stone Soup (Marcia Brown)
CC2103	The Very Hungry Caterpillar (Eric Carle)
CC2104	Where the Wild Things Are (Maurice Sendak)
GRADES 3-4	
CC2300	Babe: The Gallant Pig (Dick King-Smith)
CC2301	Because of Winn-Dixie (Kate DiCamillo)
CC2302	The Tale of Despereaux (Kate DiCamillo)
CC2303	James and the Giant Peach (Roald Dahl)
CC2304	Ramona Quimby, Age 8 (Beverly Cleary)
CC2305	The Mouse and the Motorcycle (Beverly Cleary)
CC2306	Charlotte's Web (E.B. White)
CC2307	Owls in the Family (Farley Mowat)
CC2308	Sarah, Plain and Tall (Patricia MacLachlan)
CC2309	Matilda (Roald Dahl)
CC2310	Charlie & The Chocolate Factory (Roald Dahl)
CC2311	Frindle (Andrew Clements)
CC2312	M.C. Higgins, the Great (Virginia Hamilton)
CC2313	The Family Under The Bridge (N.S. Carlson)
CC2314	The Hundred Penny Box (Sharon Mathis)
CC2315	Cricket in Times Square (George Selden)
CC2316	Fantastic Mr Fox (Roald Dahl)
CC2317	The Hundred Dresses (Eleanor Estes)
CC2318	The War with Grandpa (Robert Kimmel Smith)
CC2320	The Chocolate Touch (Patrick Skene Catling)
GRADES 5-6	
CC2500	Black Beauty (Anna Sewell)
CC2501	Bridge to Terabithia (Katherine Paterson)
CC2502	Bud, Not Buddy (Christopher Paul Curtis)
CC2503	The Egypt Game (Zilpha Keatley Snyder)
CC2504	The Great Gilly Hopkins (Katherine Paterson)
CC2505	Holes (Louis Sachar)
CC2506	Number the Stars (Lois Lowry)
CC2507	The Sign of the Beaver (E.G. Speare)
CC2508	The Whipping Boy (Sid Fleischman)
CC2509	Island of the Blue Dolphins (Scott O'Dell)
CC2510	Underground to Canada (Barbara Smucker)
CC2511	Losers (Jerry Spinelli)
CC2512	The Higher Power of Lucky (Susan Patron)
CC2513	Kira-Kira (Cynthia Kadohata)
CC2514	Dear Mr. Henshaw (Beverly Cleary)
CC2515	The Summer of the Swans (Betsy Byars)
CC2516	Shiloh (Phyllis Reynolds Naylor)
CC2517	A Single Shard (Linda Sue Park)
CC2518	Hoot (Carl Hiaasen)
CC2519	Hatchet (Gary Paulsen)
CC2520	The Giver (Lois Lowry)
CC2521	The Graveyard Book (Neil Gaiman)
CC2522	The View From Saturday (E.L. Konigsburg)
CC2523	Hattie Big Sky (Kirby Larson)
CC2524	When You Reach Me (Rebecca Stead)
CC2525	Criss Cross (Lynne Rae Perkins)
CC2526	A Year Down Yonder (Richard Peck)
CC2527	Maniac Magee (Jerry Spinelli)

LITERATURE KITS™ - Books

ITEM #	TITLE
CC2528	From the Mixed-Up Files of Mrs. Basil E. Frankweiler (E.L. Konigsburg)
CC2529	Sing Down the Moon (Scott O'Dell)
CC2530	The Phantom Tollbooth (Norton Juster)
CC2531	Gregor the Overlander (Suzanne Collins)
CC2532	Through the Looking-Glass (Lewis Carroll)
CC2533	Wonder (R.J. Palacio)
CC2534	Freak the Mighty (Rodman Philbrick)
CC2535	Tuck Everlasting (Natalie Babbitt)
GRADES 7-8	
CC2700	Cheaper by the Dozen (Frank B. Gilbreth)
CC2701	The Miracle Worker (William Gibson)
CC2702	The Red Pony (John Steinbeck)
CC2703	Treasure Island (Robert Louis Stevenson)
CC2704	Romeo & Juliet (William Shakespeare)
CC2705	Crispin: The Cross of Lead (Avi)
CC2706	Call It Courage (Armstrong Sperry)
CC2707	The Boy in the Striped Pajamas (John Boyne)
CC2708	The Westing Game (Ellen Raskin)
CC2709	The Cay (Theodore Taylor)
CC2710	The Hunger Games (Suzanne Collins)
CC2712	The Pearl (John Steinbeck)
GRADES 9-12	
CC2001	To Kill A Mockingbird (Harper Lee)
CC2002	Angela's Ashes (Frank McCourt)
CC2003	The Grapes of Wrath (John Steinbeck)
CC2004	The Good Earth (Pearl S. Buck)
CC2005	The Road (Cormac McCarthy)
CC2006	The Old Man and the Sea (Ernest Hemingway)
CC2007	Lord of the Flies (William Golding)
CC2008	The Color Purple (Alice Walker)
CC2009	The Outsiders (S.E. Hinton)
CC2010	Hamlet (William Shakespeare)
CC2011	The Great Gatsby (F. Scott Fitzgerald)
CC2012	The Adventures of Huckleberry Finn (Mark Twain)
CC2013	Macbeth (William Shakespeare)
CC2014	Fahrenheit 451 (Ray Bradbury)
CC2015	The Crucible (Arthur Miller)
CC2016	Of Mice and Men (John Steinbeck)
CC2017	Divergent (Veronica Roth)

LANGUAGE ARTS - Books

CC1110	Word Families - Short Vowels Gr. K-1
CC1111	Word Families - Long Vowels Gr. K-1
CC1112	Word Families - Vowels Big Book Gr. K-1
CC1113	High Frequency Sight Words Gr. K-1
CC1114	High Frequency Picture Words Gr. K-1
CC1115	Sight & Picture Words Big Book Gr. K-1
CC1100	How to Write a Paragraph Gr. 5-8
CC1101	How to Write a Book Report Gr. 5-8
CC1102	How to Write an Essay Gr. 5-8
CC1103	Master Writing Big Book Gr. 5-8
CC1116	Reading Comprehension Gr. 5-8
CC1117	Literary Devices Gr. 5-8
CC1118	Critical Thinking Gr. 5-8
CC1119	Master Reading Big Book Gr. 5-8
CC1106	Reading Response Forms: Gr. 1-2
CC1107	Reading Response Forms: Gr. 3-4
CC1108	Reading Response Forms: Gr. 5-6
CC1109	Reading Response Forms Big Book: Gr. 1-6

MATHEMATICS - Software

ITEM #	TITLE
PRINCIPLES & STANDARDS OF MATH SERIES	
CC7315	Gr. PK-2 Five Strands of Math Big Box
CC7316	Gr. 3-5 Five Strands of Math Big Box
CC7317	Gr. 6-8 Five Strands of Math Big Box

MATHEMATICS - Books

TASK SHEETS	
CC3100	Gr. PK-2 Number & Operations Task Sheets
CC3101	Gr. PK-2 Algebra Task Sheets
CC3102	Gr. PK-2 Geometry Task Sheets
CC3103	Gr. PK-2 Measurement Task Sheets
CC3104	Gr. PK-2 Data Analysis & Probability Task Sheets
CC3105	Gr. PK-2 Five Strands of Math Big Book Task Sheets
CC3106	Gr. 3-5 Number & Operations Task Sheets
CC3107	Gr. 3-5 Algebra Task Sheets
CC3108	Gr. 3-5 Geometry Task Sheets
CC3109	Gr. 3-5 Measurement Task Sheets
CC3110	Gr. 3-5 Data Analysis & Probability Task Sheets
CC3111	Gr. 3-5 Five Strands of Math Big Book Task Sheets
CC3112	Gr. 6-8 Number & Operations Task Sheets
CC3113	Gr. 6-8 Algebra Task Sheets
CC3114	Gr. 6-8 Geometry Task Sheets
CC3115	Gr. 6-8 Measurement Task Sheets
CC3116	Gr. 6-8 Data Analysis & Probability Task Sheets
CC3117	Gr. 6-8 Five Strands of Math Big Book Task Sheets

DRILL SHEETS	
CC3200	Gr. PK-2 Number & Operations Drill Sheets
CC3201	Gr. PK-2 Algebra Drill Sheets
CC3202	Gr. PK-2 Geometry Drill Sheets
CC3203	Gr. PK-2 Measurement Drill Sheets
CC3204	Gr. PK-2 Data Analysis & Probability Drill Sheets
CC3205	Gr. PK-2 Five Strands of Math Big Book Drill Sheets
CC3206	Gr. 3-5 Number & Operations Drill Sheets
CC3207	Gr. 3-5 Algebra Drill Sheets
CC3208	Gr. 3-5 Geometry Drill Sheets
CC3209	Gr. 3-5 Measurement Drill Sheets
CC3210	Gr. 3-5 Data Analysis & Probability Drill Sheets
CC3211	Gr. 3-5 Five Strands of Math Big Book Drill Sheets
CC3212	Gr. 6-8 Number & Operations Drill Sheets
CC3213	Gr. 6-8 Algebra Drill Sheets
CC3214	Gr. 6-8 Geometry Drill Sheets
CC3215	Gr. 6-8 Measurement Drill Sheets
CC3216	Gr. 6-8 Data Analysis & Probability Drill Sheets
CC3217	Gr. 6-8 Five Strands of Math Big Book Drill Sheets

TASK & DRILL SHEETS	
CC3300	Gr. PK-2 Number & Operations Task & Drill Sheets
CC3301	Gr. PK-2 Algebra Task & Drill Sheets
CC3302	Gr. PK-2 Geometry Task & Drill Sheets
CC3303	Gr. PK-2 Measurement Task & Drill Sheets
CC3304	Gr. PK-2 Data Analysis & Probability Task & Drills
CC3306	Gr. 3-5 Number & Operations Task & Drill Sheets
CC3307	Gr. 3-5 Algebra Task & Drill Sheets
CC3308	Gr. 3-5 Geometry Task & Drill Sheets
CC3309	Gr. 3-5 Measurement Task & Drill Sheets
CC3310	Gr. 3-5 Data Analysis & Probability Task & Drills
CC3312	Gr. 6-8 Number & Operations Task & Drill Sheets
CC3313	Gr. 6-8 Algebra Task & Drill Sheets
CC3314	Gr. 6-8 Geometry Task & Drill Sheets
CC3315	Gr. 6-8 Measurement Task & Drill Sheets
CC3316	Gr. 6-8 Data Analysis & Probability Task & Drills