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Water, Weather, and the World

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ABSTRACT

Water, weather, and the world play a significant role in our lives. For our survival, water is an integral part of our diet. We travel to beaches and lakes for rest and relaxation. We listen to weather broadcasts to prepare for rain and other severe storms. For children, water is a fun and exciting medium to explore. One can observe the powerful impact water has on the earth and its weather. I intend to expand my students' realm of experience with their environment. New Haven has an exciting supply of resources, museums, and field trip locations to explore. With such a rich supply of information, I feel that I have planned an exciting, child-centered thematic unit that will peak and satisfy my class's curiosity.

WATER, WEATHER, AND THE WORLD is a multisensory thematic unit which closely examines water and its properties; pollution and conservation; weather and safety; and water's impact on the earth through hands-on scientific exploration and experimentation. This unit is intended for low functioning students with special needs, however, teachers for kindergarten through second grade may find this information appropriate for their students. This integrated curriculum unit will span many subject areas such as math, language arts, daily living skills, and art. WATER, WEATHER, AND THE WORLD will provide the teacher with a variety of resources to assist in the planning of the unit. A vocabulary list with teaching suggestions; background knowledge with corresponding experiments; and a bibliography of children's literature and science resources will be included.

INTRODUCTION

WATER, WEATHER, AND THE WORLD is intended to meet the needs of my class of students with special needs. I teach eleven students with severe mental retardation and limited expressive and receptive language abilities. Their ages range between ten and twenty-one years of age. My class has limited expressive language. Therefore, they use simple, repetitive language consisting of one word responses and/or simple sentences or phrases. In addition, some of my students communicate through the use of simple sign language or picture communication boards. My class also has limited receptive language capabilities. They respond to simple one to two step commands with verbal and visual cues or simple sign language. Therefore, I must be very cognizant of my choice of vocabulary and be consistent with its usage throughout instructional periods.

Furthermore, my lessons must be concrete and hands-on as their limited receptive language makes abstract concepts difficult.

My experience as a special education teacher for the severely impaired has taught me to be very animated and creative in my presentation. I have found props and mystery to be a wonderful tool to engage the student in the subject matter at hand. In my classroom, I propose questions that intrigue and capture the attention of my students. I develop a sense of wonder that begins our journey of experimentation as we search for possible answers. Our search entails user-friendly labs that encourage hands-on learning using a multi-sensory approach. Children learn best when information is presented in a manner that utilizes a variety of senses. The multi-sensory approach addresses the needs of students with varied learning styles in the classroom.

Science is a wonderful curriculum area to create integrated thematic units. All of science is based on basic foundational information from which future knowledge is expanded. This foundation is often simple and able to be taught in a concrete manner that is both entertaining and educational. Through observation and experimentation, I will teach my students about the many facets of water and weather and their impact on our environment.

GOALS AND OBJECTIVES

Within the context of this unit, students will learn that water is an important part of their lives. Water is an important element for their survival, thus, an important part of their diet. Also, Students will learn that water is an important part of our environment as it covers nearly three-quarters of the earth's surface. In addition, water is a powerful force in our environment. The movement of water in the form of waves is responsible for the shape of out shores and rock facings. Also, students will learn that water has three forms: liquid (as we commonly use it), solid(as snow or ice), and gas(as water vapor). Students will also differentiate between salt water and fresh water. Students will use experiments to experience and illustrate more difficult principles such as condensation, evaporation, surface tension, and the water cycle.

After a thorough and exciting study of water, students will learn the implications of pollution within our water supply. They will observe the differences between clean and dirty or polluted water. The students will also learn about the implications of pollution on fresh water and ocean life and how this affects our food supply. Students will also be exposed to the importance of conservation.

In addition, students will learn about water as part of our weather. We will study the formation of clouds, rain, and snow. In addition, students will identify the four seasons and their corresponding weather patterns. Students will also identify events in nature that correspond to the seasons. For example, the leaves of trees change color and fall to the ground during the fall season. Also, the students will develop an association between common weather symbols and their corresponding weather.

As part of the daily class routine, our math class will be used to keep track of the weather using a weather graph. The students will count the number of sunny, cloudy, rainy, and snowy days. They will also decide which group (sunny, cloudy, rainy, snowy) has more days and which group has the least number of days. Used as a daily occurrence, this activity will reinforce number concepts and counting skills. In addition, to reinforce daily living skills, students will identify the appropriate types of clothing to wear for different weather days.

Students will also learn about more extreme types of weather that include wind, severe rain, and lightening, as well as the consequences of severe weather such as flooding. Finally, students will learn how to remain safe during severe weather events.

Next, the students will identify their world as the planet Earth. They will place the Earth within the context of the solar system as one of a series of planets traveling around the sun. The earth contains various land formations as well as bodies of water. Then students will observe the impact of water on the land masses of the Earth and be exposed to the idea that the Earth has changed over the many thousands of years in our past.

VOCABULARY

Language is an important tool in the instructional process. Students must be able to comprehend or form an understanding of the terminology used in a lesson. Science has very specific vocabulary used to explain and define concepts. Before I present a topic for instruction, I choose the vocabulary I intend to use in my lessons. Then, I choose how I intend to define the vocabulary for the purposes of my class. For the purposes of WATER, WEATHER, AND THE WORLD, I have chosen the following key vocabulary words to be taught and used throughout the lessons of this thematic unit. I have included definitions and possible methods for teaching the meanings or concepts represented by the vocabulary.

Water has three FORMS. The most common form is LIQUID which we use to bathe, swim, and drink. When water freezes, it becomes a SOLID or ice and snow. When water boils on the stove, it becomes a GAS or water vapor which becomes part of the air. (Ardley, 1991)

When water changes from a liquid to a gas or seemingly disappears or dries up, it is called EVAPORATION. This can be illustrated in our everyday life by discussing how clothes dry on the clothesline outside. The students will conduct the following experiment from THE SCIENCE BOOK OF WATER to illustrate evaporation. The students will place one-third cup of water in a glass and a saucer. The students will cover the glass with a bowl to trap the water. The saucer will be left on the table, exposed to the air. After many hours, the water in the saucer will disappear. The water changed to water vapor and was carried away by the air. The water in the glass was not exposed to air and did not have a chance to escape.

When water changes from a gas to a liquid, it is called CONDENSATION. In other words, water seems to appear from nowhere like magic. This occurs when water vapor cools and forms little droplets of water. This concept will be illustrated with an experiment from THE SCIENCE BOOK OF WATER. First, place some ice cubes in a dishtowel and crush them with a rolling pin. Then, pour the crushed ice into a glass. Cover the glass with a square piece of cardboard and wait for several minutes. The sides of the glass will become wet with tiny droplets of water because the air cannot hold as much water vapor when it cools than it does when it is warm.

POLLUTION occurs when water is dirtied with trash, human-made solvents or certain chemicals, and other waste products. Living things such as animals, humans, and plants need clean water to grow and stay healthy. Dirty or polluted water makes the living things sick and could ultimately cause death. For example, a polluted pond will no longer be able to support fish and plant life.

Using a simple taste test, the students will differentiate between SALT WATER and FRESH WATER. With this

concept, the class will learn the difference between bodies of water. An OCEAN is a salty body of water that separates very large CONTINENTS or bodies of land. A globe will be helpful in clarifying this abstract concept as my class has never visited another continent. PONDS and LAKES are very large pools of freshwater. A RIVER, STREAM, or BROOK are lines of moving fresh water. GROUND WATER is found in an AQUIFER.

CONSERVATION is the act of conserving our resources such as water. In other words, we will look at ways to stop the waste of our water supply. For example, faucets that drip water are a waste. I will link this concept to our mealtime routine of not wasting food. Conservation is especially important during periods of DROUGHT. A drought is a long period of time when there is little to no rain in our environment. A DESERT is a place where there is little to no rain fall all the time. Therefore, the desert has special animals and plants which are able to live with little water. Our ENVIRONMENT is everything that surrounds us. Our weather, land, plants, and water are part of our environment.

The EARTH is the name given to our world, which is one of nine planets to travel around the sun. All nine planets and the sun are called the SOLAR SYSTEM.

EROSION is the effect water has on the way the shore looks. As water crashes objects, rocks, and pebbles onto the shore, the shore slowly changes the way it appears. Rocks become smoother; sand disappears from the shore into the body of water; and caves may form. The size and shape of a river may change due to erosion. The force of the water and pieces of sand it contains brushes against objects like sand paper, creating smoother surfaces and changes in the appearance of the shore.

DESCRIPTION OF UNIT

I will begin my unit with a field trip to the Eli Whitney Museum and Water Works. We will look at water life and how water is an important part of our environment. The Water Works has a knowledgeable tour guide who is familiar with the instructional levels of students from preschool through high school. They have models and experiments that illustrate the role of water within our environment. There will be many items for the students to observe and touch as part of the presentation. In addition, the class may hike through trails where nature can be observed and enjoyed.

As the class begins to study water, we will conduct a variety of experiments to enhance further our understanding of water. We will begin by examining the forms of water. First, we will look at water as a liquid that is part of our everyday existence. For our cooking class, we will use the water to make Kool-aid which we will then freeze into juice pops. In this way we observe the liquid turn into a solid. When we remove the juice pops from the freezer and begin to eat them, we will observe the juice pops melt back to a liquid form. In cooking class, we will also look at liquid becoming a gas. We will measure two cups of water and begin to boil the water. After several minutes of boiling and observing the steam evaporate into the air, the teacher will again measure the water to discover there is less water than when the class started.

After looking at the forms of water, we will discuss the buoyancy of water that supports floating or sinking. We will conduct several experiments in this area from the book entitled THE SCIENCE BOOK OF WATER. First we will place stones into a plastic bag and attempt to lift the bag. Then we will remove the stones, place the bag in a basin and return the stones to the bag. Next, we will fill the basin with water(not the bag). When we attempt to lift the bag a second time, we find that the bag feels lighter. The water pushes the stones up

supporting their weight and making the bag feel lighter to us. This principle is especially helpful to injured people who use water-based therapy. The water supports the body and the injury and helps the person move more easily.

Then, we will continue our exploration of water by asking ourselves how big heavy ships float on top of the water while a penny sinks in a glass of water. Using THE SCIENCE BOOK OF WATER we gather modeling clay and marbles. We drop the marbles into a tank of water. We observe the marbles sink to the bottom of the tank. Then, we drop the clay ball into a tank of water. We observe the clay ball also sink to the bottom of the tank. Neither item was big enough to displace an amount of water that was able to support its weight. When we shape the clay into a boat and return it to the tank of water, we observe the clay boat float on top of the water. The boat was bigger and able to displace enough water to support its weight and float. When we add the marbles to the boat, it continues to float atop the water. Therefore, a large ship displaces a lot of water. It receives a strong push from the bottom which keeps it afloat.

After the class has experimented with the various properties of water, we will learn about the water cycle, or movement of water within our environment. The oceans contain most of the water in our world (97%). As the sun heats the oceans and other bodies of water on land, water evaporates into the air to form clouds (condensation). Water returns to the earth in the form of rain or snow. Ten percent of the water returns to the land and ninety percent returns to the ocean. The land water helps feed the plants, animals, and people. When too much rain falls on the land, flooding occurs (Gralla, 1994). To illustrate the concept of a water cycle, the class will create a self-watering terrarium. The students will observe the water condense and return to the ground.

Next, my class will participate in a whole language presentation of Lynne Cherry's children's book entitled A RIVER RAN WILD. This book presents the true environmental history of the Nashua River in Massachusetts. The book begins with the migration of a group of Native Americans to a river which was named Nash-a-way—-River with the Pebbled Bottom. With the arrival of the colonists and the development of the industrial age, the Nash-a-way River became polluted and began a slow death. Soon the fish and birds left the river valley for cleaner waters. In 1962, Marion Stoddart developed the Nashua River Cleanup Committee, however, the pollution continued. The Massachusetts Department of Public Health gave permission for Leominster, MA to dump 150 million gallons of raw sewage a day into the river. In 1965, The Clean Water Act began the slow process of cleaning up the Nashua River. By 1979, fish and birds returned to the the Nashua River valley (Cherry, 1992)

Using Lynne Cherry's book, the students will learn about the hazards of water pollution to our environment and our community. We will take a closer look at the implications of pollution to our water supply through the use of experimentation. We will look at the differences between clean and dirty or polluted water. We will also look at the pollution we can see versus the pollution we cannot see with our eyes. To illustrate this point, we will conduct experiments on plants. We will grow three sets of plants—set A will be cared for using pure water; set B will be cared for using polluted water that looks dirty; and set C will be cared for using polluted water that appears clean such as water mixed with rubbing alcohol. As part of our study, we will monitor the health and growth progress of each set of plants. As part of our math class, we will chart and graph the results. These graphs will provide opportunities for discussion on the importance of clean water and the dangers of dirty or polluted water. We will compare the sick and dying plants to the fish of the Nashua River. The fish were sick and dying from living in the polluted water of the river. After a long time, the fish could no longer live in the water. When the fish left, life along the river changed. The birds left because their food supply in and around the river had perished. The cultures of the Native Americans also changed dramatically because

they too had to change their way of life. The water could no longer support their village with fishing and fresh drinking water. (As a side note, a study of cultures based on ocean or freshwater life would be an interesting multi-cultural expansion of the unit. Those cultures that rely on the fishing trade for survival are especially affected by pollution and its affect on water life.)

Water also plays an important role in our weather. We will study the formation of clouds, rain, and snow using Walter Wick's A DROP OF WATER. Using graphs and charts, the students will keep track on the number of days in each category of weather. This will be a daily activity during our class meeting time when we discuss the calendar and weather.

To reinforce daily living skills, we will discuss the appropriate clothing for varied types of weather. Using photo-language cards, the students will sort, classify, and categorize the articles of clothing to the appropriate weather symbol. This activity not only teaches daily living skills, but uses and develops expressive and receptive language skills. In this way basic skills are reinforced within the thematic unit.

In addition we will discuss more extreme types of weather which include heavy winds, rains, lightning, and consequences such as flooding. We will learn that it is best to remain inside the house during a storm. We should not play outside or try to get a better look at the effects of the storm (ie. lightning, cloud formations, etc.). We will learn to stay away from water and appliances during an electrical storm or lightning because we may become electrocuted. In addition, we will learn not to operate any appliances while taking a bath or standing near a pool of water(sink, tub, pool) because the danger of electrocution remains. During a flood, move to an upper floor and stay with your parents. During severe weather such as a hurricane or tornado, we must stay inside the house in a safe place (ie. basement, bathtub, etc.) Sometimes we may be asked to leave our homes and go to a safe building like a school. These announcements will be heard on the television or radio during an emergency broadcast.

After we have discussed the role of water in our environment and weather, we will discuss the characteristics of our world. We will begin with a brief study of the Earth as a planet. I will use a model of the solar system to illustrate our position in relation to the sun. The students will then create their own models of the solar system in our art class. We will also make paper mache models of the earth and paint them brown, green and blue to illustrate the differences between land and water on our round planet.

In addition to having many bodies of water, the earth has varied types of land. An obvious and tangible form of land is a mountain such as Sleeping Giant Mountain State Park. A possible field trip is a walk/picnic at this favorite local park to observe and enjoy nature. Another type of land is a desert. A desert is a dry place with lots of sand and little water. We will add some cacti to our class plants as a visual illustration of life in a desert. Some exciting children's videos provide an entertaining means of exposing students to places, animals, people, and cultures that they have not visited. Volcanoes are another interesting land formation. Children enjoy the experience of making a classroom volcano and watching it erupt. The students will learn that the earth contains different kinds of rock beneath the dirt that is readily observed. In addition, very deep in the earth, the temperature is very hot. When the pressure builds up, it can burst forth like the lava from a volcano. This experience can be compared to shaking a soda bottle and watching the soda bubble and burst forth as it is opened.

Next, we will look at the effect water has on our land. Water is a powerful force on the Earth. Its waves crash against our shores, smashing debris and moving rocks and sand. These waves are caused by the wind. The size of the waves is influenced by the strength of the wind and the amount of time that it has blown across the body of water. Children can observe the effect wind has on water through the following experiment. Students

will blow across a lasagna pan filled with water. The students will observe the effect of the ”wind” on the water. They will observe ripples of waves across the water. If you had a small piece of cork as a boat, the students will observe the boat as it travels across the pan. The wind and corresponding waves push or move the boat. The addition of the cork boat provides the students with an obvious visual reference from which they may make an observation. The visual cue is especially helpful for those of my students with visual impairments (Watt, 1992).

Waves cause the erosion of our shores. As debris, rocks, etc. from the ocean floor crash against our shores, the shape of the shores change. Caverns may appear in walls of rock. Our beaches may shrink in size. Rivers may cut deeper into the earth. Erosion is one of the most powerful forces of change on the Earth causing our Earth today to appear very different from our Earth of the past (Watt, 1992). Students may participate in an experiment that illustrates the impact of erosion on the beach. Students will take a lasagna pan and fill one side of the pan with sand. The students will pour water into the other side of the pan. Using their fingers, students will make waves in the water and observe the impact the waves have on the “beach”. The sand is pulled into the water by the waves. The students can observe how a beach can be damaged by long term exposure to large waves or damaging storms(Perdue, 1990).

Changes in the earth is a very abstract concept for my class. After careful consideration, I chose to take a brief look at the lives of dinosaurs as the most obvious illustration of change that my class could relate to. The students will be exposed to changes of our planet over the years with the discussion of dinosaurs as all children seem to love learning about them. A trip to the Peabody museum will be an extremely popular adventure. The students will observe the dinosaur fossils and other dinosaur replicas. They will also be exposed to other animals that are now extinct or in danger of becoming extinct. In this manner, students will be exposed to the changes in our Earth. For example, dinosaurs used to live on our planet, however, now they are all dead.

LEVEL OF DIFFICULTY

WATER, WEATHER, AND THE WORLD is a science-based thematic unit that spans many curriculum areas and provides many opportunities for hands-on exploration and experimentation. While I have designed it specifically for students with severe special needs, early primary teachers may find the unit useful for their students. One can increase the level of difficulty of this unit by providing more detailed explanation and experiments to the students. Also, teachers would be able to modify and increase the amount of information their students would be able to retain and utilize during the course of instruction. My methodology is appropriate for all students in that they learn best through varied educational experiences and hands-on lessons. As a result, this unit is designed to provide all students, including those with special needs, many opportunities for exploration.

ASSESSMENT

Because of the nature of my class, traditional assessment procedures are not appropriate. I do not use written tests, reports, or letter-grade systems. Instead, I use cooperative learning activities that develop the individual strengths of the student. Through teacher observation and monitoring classroom participation, I determine the level of understanding for each individual. By using a method called reteaching, I constantly review material through varied learning experiences. Reteaching provides students with more opportunities to acquire the concepts being taught. In addition, a teaching method entitled the KWL provides the teacher with assessment information. The KWL is a process where the class actively determines what is known about a topic and what they would like to know in order to set purposes for learning. The procedure provides for review of information learned in order to assess knowledge gained through the lessons. First, the class begins with introductory lessons that review prior Knowledge and place this knowledge to the forefront of their minds. Then the teacher poses questions that create a sense of mystery as to What is about to be learned. Through a series of experiments and experiences, the students attempt to find an answer to their question. When the lessons are completed, the class reviews what has been Learned. This method links the information to be learned to what has already been learned to prevent learning concepts in isolation. The period of review at the end of a series of lessons provides the teacher with an opportunity to determine the student's level of understanding and comprehension. Because expressive and receptive language difficulties often inhibit understanding, as long as a child participates to the best of his/her ability, I am able to "pass" the student.

CONCLUSION

WATER, WEATHER, AND THE WORLD is a multisensory thematic unit that spans many subject areas. This unit will include many opportunities for scientific exploration and experimentation. In addition, this unit will reinforce basic readiness skills such as number concepts, counting, sequencing, sorting, classifying, etc. Language skills will also be used and expanded. A supply of sample classroom lessons as well as a reference list of children's literature, and science resources will also be included at the end of the unit.

Lesson Plan #1

CONTENT AREA: Math

Objective:	Students will determine the daily weather and appropriate weather symbol to be used in our weekly weather graph. On Friday, students will determine the number of days used by each type of weather. Students will determine types of weather with the most and least number of days.
Materials:	Weather Bulletin Board, Weather symbols(sunny, rainy, snowy, windy, foggy), Individual weather graphs, Weather stickers.
Procedure:	1. Teacher will lead a discussion on the type of weather experienced. 2. Teacher will use weather symbols as visual cues to stimulate language. 3. Students will determine the type of weather experienced. 4. Students will add the symbol to the Weather Bulletin Board and their individual weather chart. 5. On Friday, students will add the number of days used by each weather symbol.

6. Students will total the number of days used by all the weather symbols to a sum of five.

Lesson Plan #2

CONTENT AREA: Activities of Daily Living

Objective:	Students will determine the appropriate type of weather needed for various types of weather.
Materials:	Weather symbols, Photo Language Cards depicting various types of clothing(hat, gloves, mittens, scarf, coat, shorts, bathing suit, raincoat, etc.)
Procedure:	1. Teacher will lead a discussion of weather types using weather symbols as visual cues.
	2. Teacher will show a picture of an article of clothing and ask when a person would wear that article of clothing.
	3. Students will respond to questions.

Lesson Plan #3

CONTENT AREA: Science and Activities of Daily Living

Objective:	Students will define seasons .
Materials:	Photo language cards depicting four seasons, weather symbols, varied pictures representing four seasons, months of the year
Procedure:	1. Teacher will use photo language cards as visual cues to introduce four seasons.
	2. Students will discuss activities of nature, people, and weather that take place during each season.
	3. Given varied pictures and flash cards of the months of the year, students will sort them according their season.

Lesson Plan #4

CONTENT AREA: Whole Language and Science

Objective:	Students will use literature to study the effects of pollution on our environment using the Predict-Read-Prove Method.
Materials:	Lynne Cherry’s book entitled THE RIVER RAN WILD
Procedure:	1. Teacher will lead students in discussion of life near a river as imagined by the students.
	2. Teacher will draw pictures representing the students’ answers on chart paper divided into 3 sections.
	3. Teacher will ask the question, “How would pollution effect the river?”
	4. Teacher will draw pictures representing the students’ answers in the second section of the chart paper.

5. Teacher will read story, pausing to ask comprehension questions to monitor the students' attention and understanding.

6. At the end of the story, the teacher will have students decide if their predictions matched the outcome in story.

Lesson Plan #5

CONTENT AREA: Science Lab

Objective:	Students will differentiate between clean and polluted water. Students will observe the effects of pollution on healthy plants. Students will verbalize their thoughts and observations in the form of simple answers to questions two weeks into the lab experiment.
Materials:	Three sets of healthy plants, pure water, dirty water, water mixed with rubbing alcohol or bleach
Procedure:	Given three sets of healthy plants, students will monitor and chart the growth and appearance of each set of plants. Set A will be watered with pure water. Set B will be watered with dirty water. Set C will be watered with water mixed with water mixed with rubbing alcohol or bleach.
Questions:	1. Which plant is the healthiest? Why? 2. What effect did the dirty water have on Set B? 3. What effect did the water mixed with rubbing alcohol or bleach have on Set C.? 4. Why is pure or clean water important? 5. What effect would polluted water have on people? 6. Would you drink dirty water? 7. How can we keep our water supply clean?

Lesson Plan #6

CONTENT AREA: Science Lab and Cooking Class

Objective:	Students will take part in the making of a solution. Students will observe the difference between a liquid and a solid.
Materials:	Kool-aid mix, water, pitcher, spoon, juice pop maker, freezer
Procedure:	1. Students will mix Kool-aid mix with water and stir to make a solution. 2. Students will observe solution as a liquid. 3. Students will pour liquid into the juice pop maker. 4. Students will place juice pop maker in the freezer. 5. Students will remove juice pop maker from the freezer observe that the liquid has changed into a solid. 6. As the students consume the juice pops, they will observe the juice pops melt back into a liquid.
Questions:	1. What is the difference between a solid and a liquid? 2. How does a liquid change into a solid? 3. Why did the juice pops melt?

Lesson Plan #7

CONTENT AREA: Art

Objetive:	Students will create a “model” of the Earth. Students will be free to express themselves artistically during the creation of their model. Please note that the end product will be abstract in nature due to the disabilities of the students. The creation of an exact replica of the Earth is NOT the objective.
Materials:	Inflated balloons, paper mache, glue, blue paint, green paint, brown paint, paintbrushes, newspaper
Procedure:	1. Students will cover an inflated balloon with paper mache. 2. The balloon will dry to form the planet Earth. 3. Students will paint their planets blue, green and brown to represent the Earth.

Lesson Plan #8

CONTENT AREA: Art

Objective:	Students will create a model of the solar system.
Materials:	Coat hangers, solar system cut-outs, yarn, crayons, magic markers, paints, scissors, paper hole puncher.
Procedures:	1. Students will color or otherwise decorate the nine planets of our solar system and the sun. 2. Students will cut out the pictures of the planets and sun. 3. Students will hang the sun and planets from the coat hanger using a paper hole puncher and yarn.

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**Please note that videos and interactive computer programs are also available for the Magic School Bus Series.