# Exploring the Universe: Days 1, 2, 3, & 4 of the Creation Week

Old Testament 1
Part 1: Exploring God's World

# SUNDAY MORNING

Old Testament 1 <u>Class Attendance Sheet</u> provided in activity sheets (NOTE: The document is interactive, allowing the teacher to type in the Class, Teacher, and the children's names.)

#### **SCRIPTURE REFERENCES:**

Genesis 1 and 2; Psalm 19:1-4; Psalm 8; Psalm 33:6,9; Hebrews 11:3; Psalm 104:5-15; Acts 17:25; Exodus 20:11

#### **MEMORY WORK:**

"In the beginning, God created the heavens and the Earth" (Genesis 1:1).

Also help the children memorize what was made on each of the six days of Creation.

### SONGS AND FINGERPLAYS (SEE END OF LESSON FOR WORDS):

A <u>song book</u> and <u>audio recordings</u> of many of the curriculum songs are available on the curriculum Web site.

- "God Exists"
- "Genesis 1:1"
- "Creation"
- "Creation Song"
- "Twinkle, Twinkle, Little Star"
- "God Made Trees"

- "God Made the Land"
- "My God is So Big!"
- "The Hippo Song"
- "Days of Creation"
- "Somethin' or Nothin"

# LESSON VISUALS AND TEACHING AIDS (NOTE ANY DISCLAIMERS):

- See <u>AP's Pinterest page</u> for ideas on bulletin boards, visuals, crafts, etc. [DISCLAIMER: Pins may sometimes need to be adjusted to be Scriptural.]
- Bible Facts (provided under "O.T. 1 Bible Facts" on curriculum Web site)
- <u>Creation & Bible Firsts</u> (provided under "O.T. 1 Bible Facts" on curriculum Web site)
- "Summary of the Bible" from "Kids Prep" CD by Jeff Miller
- Apologetics Press' Bible Timeline
- Bible Class Workshop visuals: "Creation Arrow," "Design in God's Creation Poster," "Creation Circles," "Creation Circles Takehome," "Creation Wall Chart"
- Large numbers (10-12" tall) with pictures on them of things created on Days 1-6. Day 7 would just say, "God rested."



- Creation Cards—Exploring God's Creation from Apologetics Press
- <u>Digger Doug's Underground</u> episode, "Days of Creation," Episode 5 from Apologetics Press

#### PERSONAL APPLICATION:

YOUNGER CHILDREN: In the beginning, God made everything in the Universe from nothing. He did this in six days.

OLDER CHILDREN: In the beginning, God made everything in the Universe from nothing. He did this in six days. He is the Creator, the Designer behind every design, the ultimate Cause behind every effect During the first four days, God made the Earth, space, light, water, land, the plants, and the stars.

#### LESSON STARTS HERE

#### **TEACHING ALERTS:**

- Note that God created more than just "light" on Day 1. He created water, space, and Earth as well.
- Note that some believe Genesis 1:6-7 indicate that a water canopy for the Earth was initially created, but that is not demanded by the text concerning Day 2. Recent studies by Creation scientists suggest standard Canopy models do not fit the scientific evidence.
- Note that Genesis 2:5-6 may not be saying that there was no rain until the Flood. It may be saying that there had been no rain on the Earth up until God created humans (vs. 7).
- Note that Genesis 1:29-30 indicates God created humans and many animals initially to be herbivores, but it is not clear how long they remained that way (Genesis 6:12). Genesis 9:3 is the first recorded **authorization** by God for a carnivorous diet for humans.

#### INTRODUCTION: (YOUNGER CHILDREN)

Last week, we talked about how important it is to study our Bibles. Why is the Bible the best book in the whole world? (Because it is the Word of God). How do we take care of our Bibles? Let's sing the books of the Bible.... Today, we are going to talk about the very first book in the Bible. The book of Genesis! In the book of Genesis, we can learn about how God made the world and everything in it!

### **INTRODUCTION:** (OLDER CHILDREN)

Review last week's lesson, emphasizing the importance of studying and taking care of our Bibles. Continue learning the books of the Bible.

Discuss what students' school textbooks and most TV programs tell us about the beginning of the world and how life began. A lot of people believe that the world and everything in it just came about by accident. They say living things came from non-living things, changing from one creature into another. That idea is called The General Theory of Evolution. That is not what God tells us in the Bible. Today we are going to learn what the book of Genesis says about God creating the world and everything in it.



#### POINTS TO EMPHASIZE:

- 1. The first book of the Bible, Genesis, tells us how the Earth and the entire Universe first came into being. "Genesis" means "beginning." [For younger children, explain "beginning" in relation to when class began, when summer begins, when each child's life began, etc.]
- 2. God created the Universe and our world and everything in it in the beginning, and it only took Him six, **literal** days. God spoke and everything just appeared! What awesome power He has!



RECOMMENDED READING FOR TEACHERS: See the articles titled "Does the Hebrew Word Yom Endorse an Old Earth?" and "Were the Days Really Days?" on the Apologetics Press Web site for a more in depth study on whether the days of Genesis one were literal days or long periods of time, as some have suggested. See the article "21 Reasons to Believe the Earth is Young" on the Apologetics Press Web site for a study of scientific evidence verifying the young age of the Universe.



**NOTE:** We know from the original meaning of the Hebrew word translated "day," and from its usage in other O.T. passages, that "day" in Genesis 1 and 2 means a literal 24-hour day—the same days we have today. "An evening and morning were" one day, God said, giving an interpretation of His own words. We also know, from ample scientific evidence, that the world is only 6,000 to 10,000 years old, not billions of years old. See <a href="https://www.apologeticspress.org">www.apologeticspress.org</a>.

- 3. On the first day, God made light and darkness and gave them names: Day and Night. On the second day, God separated the waters above from the waters below; creating the sky and a mass of water that covered the Earth. On day 3, He separated the waters on the Earth to form seas and let dry land appear. He then created all the vegetation (grass, flowers, trees, etc.) on the land and in the seas.
- 4. God knew that everything He created would need **light** and light energy to survive. He **planned** for light, and on day 4, God made the Sun for daytime, and the Moon and the stars for nighttime.



**There Be Light Before the Sun?**" by Jeff Miller on the Apologetics Press Web site for a study on the nature of the light that was created on day one. See the article "What Did God Create on Day One?" by Eric Lyons for a discussion of God's creative activity on Day 1.



Light: a form of energy that exists in rays and moves in a straight line.

5. Many people believe that what we read about Creation in Genesis is a fairy tale—something that men made up—just a good story that could not possibly be true. These people choose to believe in the theory of evolution. [A theory is an idea that men come up with and then try to find evidence to prove their idea is right.] The theory of evolution teaches that the world and everything in it came about by accident; that plants and animals changed (evolved) from one kind of plant or animal to another by themselves for no apparent reason.

- 6. Evolution says that about 14 billion years ago there was a huge explosion in space (the "Big Bang") and because of this explosion, a huge rock formed in space, and this huge rock became Earth. Evolution teaches that matter appeared all by itself, for no reason at all.
- 7. But what does the Bible say? The Bible says that God created everything in six, 24-hour days with great care and precise detail. Nothing just "appeared," and life didn't come about by accident over billions of years. The Bible teaches that God created **matter**. There are 3 kinds of matter: gas, liquid, and solid. [Solid = the Earth itself: rocks, sand, our bodies, animals, the Moon, etc. Liquid = water. Gas = oxygen, carbon dioxide, steam, the Sun (which is a huge ball of gases), etc.]



**Matter:** is anything that has volume (i.e., takes up space) and has mass (i.e., can be weighed).



**RECOMMENDED READING FOR TEACHERS:** See the article titled "**Evolution and the Laws of Science: The Laws of Thermodynamics**" and "**God and the Laws of Science: The Law of Causality**" by Jeff Miller on the Apologetics Press Web site for a more in depth study on science and the supernatural origin of matter and energy.

- 8. Evolution teaches that with enough time, anything could happen by accident—that order could come from chaos (explosions, etc.). But if there were an explosion in a printing shop, words would not appear on pages—and certainly not in the right order to make sense. And pages would not fall into the proper order to make a book. If we took a watch apart and laid out all the pieces on the table, how long would we have to wait for all the pieces to come back together into a working watch on their own? If we had all the pieces of a very modern car [give an appropriate example that all kids recognize] laid out in your yard, would a big explosion or a tornado put all the pieces together and make all the complicated systems work properly? If we left the pieces of a watch or a car laid out for billions of years, would they ever come together in the right order? **No!** Evolution wants you to believe that more amazing things than this have happened. For every effect, or result, there must be an adequate cause (Psalm 8:3-4).
- 9. God knew that everything He would create would need order, so He caused our world and our entire solar system to follow a perfect order. The Earth and the other planets move in very specific, exact patterns around the Sun. The Earth's size and distance from the Sun are precise and just right. If the Earth were even a small fraction closer to the Sun, it would burn up. If it were even a small fraction farther from the Sun, everything living would freeze to death.
- 10. Earth is 93 million miles from the Sun, but it only takes 8 minutes for light to reach the Earth. The Earth is tilted at just the right angle for our seasons. While our Earth is spinning around the Sun, our Moon is spinning around Earth, at just the right distance, at just the right speed to regulate the ocean's tides. The stars are like suns; they are balls of hot gases. They are in exact, unchanging patterns in the sky all the time; sailors have used them as guides for thousands of years. There are so many stars that man cannot count them, yet God knows each one (Psalm 147:4).



**RECOMMENDED READING FOR TEACHERS:** See the article titled "When Were the Sun, Moon, and Stars Created?" by Eric Lyons on the Apologetics Press Web site for a more in depth study on a typical misconception about the creation of the heavenly bodies.

11. One night, go outside at night and hold a dime up to the sky at arm's length. Look at how small of a space that dime takes up. According to pictures from the Hubble telescope, millions of stars occupy that small amount of space in the heavens (look up hubble telescope images).



**RECOMMENDED READING FOR TEACHERS:** See the articles "All Clocks Have a Clockmaker," "Missing the Obvious Implication," and "Scientists Don't Have a Clue How Life Began'" by Kyle Butt, "How Come Earth Got All the Good Stuff?" by Eric Lyons, and "7 Reasons to Believe in God" by Eric Lyons and Kyle Butt on the Apologetics Press Web site for a study of some of the evidence for the existence of the God of the Bible.

PRE-CLASS ACTIVITIES/LEARNING CENTERS (TO BE USED AS CHILDREN ARE ARRIVING—BEFORE CLASS, AND UP TO THE FIRST FIVE MINUTES OF CLASS; OR AS HOMEWORK):

• Click here for complete <u>Activity Book</u> and <u>Answer Key</u>.

#### **Ages 2-5:**

- "<u>Days 1-4 of Creation Week Coloring Sheet</u>" (provided in activity sheets)
- "What did God make, and what did man make?" Activity (provided in activity sheets)
- Punch holes in black construction paper or black poster board. Hold against flashlight in a dark room. "Stars" will shine on ceiling.
- Help each child make a Pringles can peep box. Cut out paper discs (from white copy paper or tissue paper) to fit inside the plastic lids. Put star stickers on the discs. Punch holes in the metal bottom of the cans so the children can look through the can.
- Use 6 gift bags or small paper sacks. On each one, glue large cut-out numbers, or write the numbers 1-6. Have pictures, die cuts, or objects representing all that God made. Give these objects or pictures to each child and ask him/her to place pictures or objects in the bag to indicate on which day that object or creature was made.
- Cut strips of construction paper or posterboard approximately 4" x 14-16"; cut one strip for each child in the class. Draw lines on the strips so that there are 7 sections; label each section Day 1, Day 2, etc. Provide the children with stickers or small pictures that they can put in the correct sections, or encourage them to draw their own pictures. You may want to make a sample to give them some idea what the finished product should look like.

#### 1st-2nd Graders:

- Draw a large circle and a small circle, and place them 9 inches apart on the table or floor. Each inch represents 10 million miles. This is the approximate distance between Earth and the Sun. The circle for the next nearest star would have to be drawn 40 miles away from the large circle. (Remind the students about a landmark or town that is about 40 miles from where they live).
- Have children start making a "Creation Book" to be completed with Lesson 5.

- Get information about each planet from the Internet, books, etc. Let your students read/tell about the planets in class.
- "Days of Creation" Word Search (provided in activity sheets)
- Advanced Bible Reader: Have the kids read <u>God Made the World</u> by Kyle Butt (Apologetics Press). Print out copies of the corresponding quiz from AP's <u>Advanced Bible Reader</u> (ABR) site under "Other Books." Have each of the children take the quiz. If you have not already, outside of class, make ABR accounts for each of the children and put their answers into the ABR quiz for each child. Show them their scores in the next Bible class, and explain what ABR is.

#### 3rd-4th Graders:

- Advanced Bible Reader: Have the kids read <u>How do You Know God is Real?</u> by Kyle Butt (Apologetics Press). (If they do not have time to finish it in class, you could assign it as homework.) Print out copies of the corresponding quiz from AP's <u>Advanced Bible Reader</u> (ABR) site under "Other Books." Have each of the children take the quiz. If you have not already, outside of class, make ABR accounts for each of the children and put their answers into the ABR quiz for each child. Show them their scores in the next Bible class, and explain what ABR is.
  - The children could also read <u>Does God Like...to Paint?</u> by Branyon and Alana May (Apologetics Press). Print out the corresponding ABR quiz for the children to take.
  - They could also read *God Made the World* by Kyle Butt. Print out the corresponding ABR quiz for the children to take.
- Print off copies of the following issues/articles of *Discovery* Magazine from the Apologetics Press Web site, and have the students read the issues and do the activities in the activity section (NOTE: <u>Advanced Bible Reader</u> quizzes exist for many issues of *Discovery* magazine). *Discovery* issues: <u>January</u>, 2008; <u>August</u>, 2011; <u>March</u>, 2011; <u>March</u>, 2012; <u>January</u>, 2021; <u>March</u>, 2018; <u>November</u>, 2016; "The Miracle of Creation," <u>February</u>, 2000
- Draw a large circle and a small circle, and place them 9 inches apart on the table or floor. Each inch represents 10 million miles. This is the approximate distance between Earth and the Sun. The circle for the next nearest star would have to be drawn 40 miles away from the large circle. (Remind the students about a landmark or town that is about 40 miles from where they live).
- Have the children start making a "Creation Book" to be completed with Lesson 5.
- Divide students into groups and assign each group a planet. Give each group reference books to look up information about their planet. (You can also print out some information from the Internet before class to give to each group). On the floor, mark off estimated distances for the planets, and let the groups describe their planets and act out their orbital movement.
- Have the children read Genesis chapter one.
- "<u>Days of Creation</u>" Word Search (provided in activity sheets)
- Have the children read relevant kids tracts from the Apologetics Press "Truth About..." tracts, answering the questions therein.
- Imagine that you are giving a tour of the Universe to a mysterious visitor who has never seen it before and who has no idea how it all got here. The visitor has lots of questions like "Where did all this come from? How does everything work together? Why doesn't that thing you call a Sun just fall out of the sky?" Have the children write a short story or draw a picture to tell or show what they would tell this visitor and how they would answer the questions.

#### SONGS:

#### "GOD EXISTS"

Author: Jeff Miller

(Tune: See "Christian Evidences Memory Work" CD)

#### VERSE 1:

If there's an engine, there's an engineer.

If there's a painting, there's a painter somewhere.

If there's a law, there's a law maker.

If there is writing, there's a writer for sure.

If there's design in the world, and we know that there is, There must be a Designer, Who designed it.

#### CHORUS:

God exists, the evidence says. We can believe it. We don't have to guess.

#### VERSE 2:

The Universe exists. It had to come from somewhere.

It must have a Cause. That Cause put it there.

It can't create itself. It can't exist forever.

God is out there, and He put it together.

(CHORUS)

#### VERSE 3:

There is right and there is wrong. It can't be denied.

If Johnny took my stuff, it wouldn't be right.

If there is right and wrong that everyone is subject to,

That higher Law's from Someone Who's above me and you.

(CHORUS)

Study the Bible; learn what He wants you to do. Be sure to obey Him, and He'll be proud of you.

#### **"GENESIS 1:1"**

Author: Jeff Miller

(Tune: See "<u>Hidden in My Heart</u>" CD)

#### "CREATION"

Author: Jeff Miller (Tune: See "Kids Prep" CD)

#### VERSE 1:

God made water, space, and Earth on Day one.

He also made light for day, 'cause there was none.

He made the great blue skies above, all on Day two,

On Day three: the land, the grass, the trees, and the seas, too!

#### CHORUS #1:

God made all creation, and behold, it was very good.

#### VERSE 2:

On Day four, He made the Sun, the Moon, and stars on high. On Day five, He made the swimming things and creatures that fly. On Day six, He made the land creatures and all creeping things, And it was very good when He made Adam and Eve.

#### CHORUS #2:

Six days, God created, and He stopped on the seventh Day.

#### "CREATION SONG" (Click to Hear)

Author: Unknown\*

Day one, day one, God made light when there was none. (REPEAT)

Day two, day two, God made clouds and skies of blue. (REPEAT)

Day three, day three, God made grass, flowers, trees, and seas. (REPEAT)

Day four, day four, Sun and Moon and stars, galore. (REPEAT)

Day five, day five, God made birds and fish alive. (REPEAT)

Sixth day, sixth day, God made animals and man that day. (REPEAT)

Day seven, day seven, God rested in His heaven. (REPEAT)

#### "TWINKLE, TWINKLE, LITTLE STAR" (Click to Hear)

Author: Traditional

Twinkle, twinkle, little star,
God has put you where you are.
Shining in the sky so bright;
Twinkle, twinkle through the night.
Twinkle, twinkle, little star,
God has put you where you are.

Twinkle, twinkle, little star,
God has put you where you are.
I see the Moon and the Moon sees me,
God bless the Moon and God bless me.
Twinkle, twinkle, little star,
God has put you where you are.

#### "DAYS OF CREATION" (Click to Hear)

Author: Courtney Ruiz (adapted) (Tune: "Twelve Days of Christmas")

On day one of Creation God said, "Let there be light," And then there was day and there was night.

> On day two of Creation God made the big, blue sky, Making a place for clouds up high.

> On day three of Creation God made dry land and seas, And He made plants and also trees.

On day four of Creation God made two great, big lights: The Sun for day and Moon and stars for night.

> On day five of Creation God put fish in the seas, And little birds to fly-y in the breeze.

On day six of Creation God made animals you see, And people just like you and just like me.

On day seven of Creation God said, "It's very good!" And told man to live as he should!

#### "MY GOD IS SO BIG!"

Author: Ruth Harms Calkin [See Internet for words and tune]

#### "THE HIPPO SONG"

Author: Unknown\*
[See Internet for words and tune]

#### "GOD MADE TREES"

Author: Unknown\*
[See Internet for words and tune]

#### "GOD MADE THE LAND"

Author: Unknown\*
[See Internet for words and tune]

#### "SOMETHIN' OR NOTHIN"

Author: April Meacham (Tune: See "To Know God...in Song" CD)

#### VERSE 1:

Somethin'—it takes me somethin',
To make somethin' new I start with somethin' old.
Put a little bit of this with a little bit of that.
If it works, I have made a brand new somethin'.

#### VERSE 2:

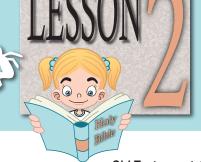
Nothin'—it took Him nothin',
For our God and Father to create the world.
Not a little bit of this or a little bit of that.
But it worked for this world is really somethin'.

\*Author Unknown: Please contact us through the feedback button for this lesson if you are aware of any copyright information for this song.

\*\*\* IF YOU HAVE SUGGESTIONS PERTAINING TO THIS LESSON, PLEASE CLICK THE "SUGGESTION" BUTTON BESIDE THE BUTTON FOR THIS LESSON ON THE CURRICULUM WEB SITE.



# The Creation of Land and Sea (Day 3) Genesis 1:9-10



Old Testament 1
Part 1: Exploring God's World

# WEDNESDAY EVENING

Old Testament 1 <u>Class Attendance Sheet</u> provided in activity sheets (NOTE: The document is interactive, allowing the teacher to type in the Class, Teacher, and the children's names.)

#### SCRIPTURE REFERENCES:

Genesis 1:9-10; Psalm 8:8; Psalm 95:5; Psalm 148:5; Psalm 104:10-13; Ecclesiastes 1:7

#### **MEMORY WORK:**

"In the beginning, God created the heavens and the Earth" (Genesis 1:1).

Also help the children memorize what was made on each of the six days of Creation.

## SONGS AND FINGERPLAYS (SEE END OF SUNDAY'S LESSON FOR WORDS):

A <u>song book</u> and <u>audio recordings</u> of many of the curriculum songs are available on the curriculum Web site.

- "God Exists"
- "Genesis 1:1"
- "Creation"
- "Creation Song"
- "Twinkle, Twinkle, Little Star"
- "God Made Trees"

- "God Made the Land"
- "My God is So Big!"
- "The Hippo Song"
- "Days of Creation"
- "Somethin' or Nothin"

# LESSON VISUALS AND TEACHING AIDS (NOTE ANY DISCLAIMERS):

- See <u>AP's Pinterest page</u> for ideas on bulletin boards, visuals, crafts, etc. [DISCLAIMER: Pins may sometimes need to be adjusted to be Scriptural.]
- <u>Bible Facts</u> (provided under "O.T. 1 Bible Facts" on curriculum Web site)
- <u>Creation & Bible Firsts</u> (provided under "O.T. 1 Bible Facts" on curriculum Web site)
- Apologetics Press' <u>Bible Timeline</u>
- "Summary of the Bible" from "Kids Prep" CD by Jeff Miller
- Creation Cards—Exploring God's Creation from Apologetics Press
- Pictures of the ocean, islands, beaches, marine life, etc.
- Betty Lukens felt pieces
- A globe or picture of the Earth as seen from space



- Pictures of how man and animals use water
- Jars of fresh and salty water

#### PERSONAL APPLICATION:

We can see God's design for the Earth in the land and sea He created. God had a design for everything.

#### INTRODUCTION:

- Review Sunday's lesson (see O.T. 1 Review Questions for example questions)
- <u>Bible Facts</u> (provided under "O.T. 1 Bible Facts" on curriculum Web site)
- <u>Creation & Bible Firsts</u> (provided under "O.T. 1 Bible Facts" on curriculum Web site)

#### POINTS TO EMPHASIZE:

Use as much of this information for younger children as is appropriate for your particular class.

- 1. There may have been a "canopy" of water around the Earth in the beginning. On Day 2 of the Creation week, God separated all the water that was around the Earth so that there was water in the atmosphere and water on the Earth.
- 2. On Day 3, God separated the water on the Earth so that dry land appeared (Psalm 148:4-5; 104:10-15). About 3/4's of the Earth is covered by water, constantly evaporating and condensing. [Remind older children about the hydraulic cycle they have studied in school.] This water provides a natural heating and cooling system for the Earth's surface. Again, we see God's perfect design for the Earth so that living things would have the right environment in which to live. If the Earth were completely covered by all the water, it would be about 2 miles deep. All of the major oceans are connected, and there are many, many rivers and streams all over the Earth (Ecclesiastes 1:7).
- 3. Water is important to everything and everyone on Earth. God knew that water would be important to everything He created. So, He provided a lot of water on the Earth.
- 4. What does water do for us? Why is water important? [Discuss the importance of water for plants and animals; it provides homes for animals, power for hydroelectric plants; it's important in transporting logs to lumber mills and food to markets; it's used as a means of transportation; etc.]
- 5. God planned for ocean currents and tides. All the water in the ocean is in constant circulation, moving about in orderly, well-defined patterns. (The Gulf Stream sweeps up the coast of North America and flows across the North Atlantic. A similar stream of warm water flowing up from the tropics warms the western coast of North America.) (Psalm 8:8)
- 6. What makes currents? (1) Winds. (2) Cold water moving on the bottom of the ocean from the North and South Poles. At the equator, the cold water rises to replace the warm water, which the surface currents are constantly carrying toward the Poles. Without the constant movement of the currents, bacteria, dead animals, and plants would settle, making the oceans very dirty.
- 7. What causes tides? Twice a day, almost like clockwork, the level of the sea rises and falls along the shoreline. This is called the "ebb and flow of the tides." The tides are caused by the gravity of the Moon; the water on the Earth "bulges" at different places on the Earth according to the position of the Moon and the rotation of the Earth on its axis.

# PRE-CLASS ACTIVITIES/LEARNING CENTERS (TO BE USED AS CHILDREN ARE ARRIVING—BEFORE CLASS, AND UP TO THE FIRST FIVE MINUTES OF CLASS; OR AS HOMEWORK):

- See Sunday morning's lesson
- For younger children, have bowl(s) of water in which they can use eyedroppers, funnels, and sponges to play in the water. While they are playing, enjoying the feel of the water, make sure you talk about God's gift of water and the many ways we use it.
- Have a large bowl, half-filled with water. Put marbles or rocks inside a small, covered, plastic bowl; place the small bowl inside the large bowl to demonstrate that heavier things sink. Have several items that sink, and several items that float. Allow children to experiment with these.
- Make a "wave" bottle: Fill a 2-liter soda bottle 1/3 full of white vinegar. Add several drops of blue food coloring. Fill remainder of bottle with vegetable oil. You can add some sand if you desire, as well as small shells or other sea-related objects. You can also help students make their own wave bottles, using smaller soda bottles or water bottles. (Be sure to put hot glue or some other strong adhesive on the inside of the cap and allow it to dry so that the children cannot unscrew the lids!)
- Grow your own coral: Put several pieces of broken brick or soft coal the size of large walnuts in a small aluminum pie pan or saucer. Then mix together 4 tablespoons of non-iodized salt, 4 tablespoons of liquid bluing, 4 tablespoons of water, and 1 tablespoon of household ammonia. Pour liquid slowly over the brick or coal. Then carefully drop small amounts of food coloring over the "rocks." In just a short time, little crystals should begin to form. Do not move the pan or saucer around too much or touch it; the "coral" will crumble easily.

\*\*\* IF YOU HAVE SUGGESTIONS PERTAINING TO THIS LESSON, PLEASE CLICK THE "SUGGESTION" BUTTON BESIDE THE BUTTON FOR THIS LESSON ON THE CURRICULUM WEB SITE.

