God is Creator Teacher's Topic Guide Year 7

Topic: Landforms & bodies of water **Duration: 5 weeks**

Spiritual Awareness
God said, "Let the water under the sky be gathered together so the dry land will appear."

Dry land would provide a place for plants to grow. Then, God created the plants, which would become food, shelter and clothing.

God's greatness and majesty are seen in the landforms: mountains, valleys, glaciers, canyons, oceans and rivers. In the study of landforms, we also see natural disasters, such as landslides and volcanic eruptions. These disasters were not part of God's original creation, but are a result of the Fall. The Great Flood, an event displaying God's judgment upon sin, is the most amazing example of massive upheaval of the Earth's crust. Great landslides and swirling mud caused the deposition of layers, with plant and animals being quickly buried within them. These fossils, evolutionists falsely believe, were deposited over millions of years, when in fact, they were the result of one great disaster - the Great Flood, which occurred about 4000 years ago.

Values: Our response to 'God is Creator'
Because God is Creator I will:
- Trust God's word
- Believe in a miraculous God
- Know that only a miraculous God could create our beautiful world
- Know that God created me, and has a plan for me.
- Appreciate and care for God's creation, including people.

Outcomes: Students will
- Name and identify major landforms: mountains, hills, valleys, plains, plateaus, caves
- Name and identify different bodies of water: oceans, seas, lakes, rivers, streams, glaciers.
- Explain their formation.
- Explain the impact of the Great Flood upon world geography.
- Explain how erosion can change the shape of the Earth's surface.
- Explain how fossils were formed during the Great Flood.
- Explain what happened to the dinosaurs.

Bible stories:
Genesis 1 The creation
Genesis 6-8 The Great Flood

Bible Verses:
Psalm 93:4 The Lord rules…greater than the roar of the oceans, more powerful than the waves of the seas.
Psalm 95:4 He rules over the whole earth, from the deepest caves to the highest hills.
Psalm 98:8 Clap your hands you rivers, you hills; sing together with joy before the Lord, because He comes to rule the earth.

Key Questions

What do great mountains tell us about God as creator?
How did the Great Flood form the landforms we see today?
What do many people believe about the age of the Earth?
How old is the Earth? How do we know? (We can add up the years given in the Bible from Adam to Jesus.)
What are fossils and how were they formed?
What happened to the dinosaurs? (Dinosaurs were taken on to the ark as babies, so survived the Flood, but many probably died out during the Ice Age which followed the Flood. Dinosaurs are just an extinct species.)

Activities

- List all the different types of landforms students can think of.
- List all the different types of bodies of water students can think of.
- Examine and discuss pictures of landforms/bodies of water e.g. cape, gully, tableland, volcano, canyon, cliff, lake, river
- Identify landforms in the local area.
- Draw and label them.
- Make a model using a sand tray to depict different landforms.
- Use an atlas to find where landforms are situated.
- Locate the highest peak, largest bay, major rivers, in a particular country.
- Make a study of the Grand Canyon and see what creation scientists say about its formation.
- Identify other landforms created during the Great Flood.
- Discuss how erosion changes the shape of the Earth's crust and demonstrate by making an erosive model of the Great Flood. (See the Yr. 7 *Science Experiments*)
- Research the way in which layers were deposited during the Great Flood, burying plants and animals within them.
- Demonstrate how rocks can fold while soft, by placing a slice of white bread between two slices of brown bread. The three slices of bread represent three large sedimentary rock layers. Gently push the bread together from the sides until it forms a fold.
- Contrast evolutionists' view of geology, that the Earth is billions of years old, with the creationists' view, that the Earth is 6000 years old according to the Bible.
- Discuss the composition and processes at work in volcanoes.
- Explain the meaning of active, dormant and extinct volcanoes.
- On a map, name and locate volcanoes that are still active.
- Construct a model of a volcano.
- Examine volcanic rock.
- Research accounts of Mt. St. Helens, Pompeii and Krakatoa eruptions.
- Draw and explain the formation of glaciers.
- Identify some famous glaciers in an atlas.
- Research the expedition of Sir Edmund Hillary, the first person to climb Mt. Everest.

Assessment

1. Present research on one type of landform or body of water.
2. What have I learned from studying geology…
    - about the way in which the great Flood caused the Earth to change the shape of its surface?
    - about God as a powerful creator?

Values education Year 7
God is Creator
Gratitude

Gratitude is…

- Expressing appreciation for what someone has done
- Being grateful for all we have
- An attitude of thankfulness

Activities

1. Make a list of everyone who does things for you.
2. Start a "Gratitude Diary" and each day, write in it one thing you are grateful for.
3. Write a card or letter of gratitude to three people, and say why you are grateful to them.
4. Discuss whether we should have an attitude of gratitude if things don't seem to be going well for us.
5. Write a prayer of thanks to your Creator.

What does the Bible say about gratitude?

1 Thessalonians 5:18 Give thanks in all circumstances
Psalm 136:1; Psalm 107:1 Give thanks to the Lord for He is good
Psalm 103:2 Bless the Lord O my soul, and forget not all His benefits
James 1:17 Every good and perfect gift is from above.

Art Year 7

Landforms and bodies of water
God is Creator

Biblical wall art and text: In his hand are the depths of the earth; the heights of the mountains are his also. The sea is his, for He made it, and his hands formed the dry land. Psalm 95:4-5

Painting and drawing
Scenes of mountains, valleys, lakes and rivers
Pastel can be used with interesting effects

Sea and skyscapes

The Great Flood

Modelling

Use paper mâché to create a 3D model of a volcano.

Practical Science year 7

Landforms

Limestone caves: stalactites

http://www.kidspot.com.au/kids-activities-and-games/Science-experiments+10/Stalactite-experiment+10982.htm?

This experiment will keep the students intrigued over the 2-3 weeks as they watch the change taking place.

What you need:

- two glass jars
- baking soda
- spoon
- string
- paperclips
- water
- saucer

What to do:

Fill the two jars with hot water.
Add as much baking soda as will dissolve to each jar.
Mix well.
Cut a piece of string and tie a paper clip as a weight to each end.
Dip each end into each jar.
Place a saucer between the jar to catch the drops.
Leave the jars for 2-3 weeks and a stalactite will grow!

Why is this happening?

The baking soda mix is carried through the string and drips into the saucer.
Over time the dripping water evaporates forming a tiny stalactite and stalagmite.

Practical Science

Landforms

Make your own volcano

http://www.sciencebob.com/experiments/volcano.php

What you need

- A volcano made ahead of time. This can be made out of paper mache or plaster. You can also use clay or if you're in a hurry to make your volcano, use a mound of dirt outside.
- A small plastic container

- Red and yellow food coloring (optional)
- Vinegar
- Liquid dish washing soap

What to do

1. Go outside or prepare for some clean-up inside
2. Put the container into the volcano at the top
3. Add two spoonfuls of baking soda
4. Add about a spoonful of dish soap
5. Add about 5 drops each of the red and yellow food coloring

Now for the eruption!

6. Add about a tablespoon of the vinegar into the container and watch what your volcano come alive.

How does it work?

A volcano is produced as heat a pressure build up beneath the earth's crust. That aspect of a volcano is very difficult to recreate in a home experiment. However this volcano will give you an idea of what it might look like when a volcano erupts flowing lava. This is a classic experiment in which a CHEMICAL reaction can create the appearance of a PHYSICAL volcano eruption.
The reaction will bubble up and flow down the side like a real volcano (only much faster.

Make it an experiment

The project above is a DEMONSTRATION of how heat and pressure are at work in a real volcano. To make it a true experiment, you can try to answer these questions:

1. Does vinegar temperature affect how fast the volcano erupts?
2. Does the shape of the volcano affect the direction the eruption travels?
3. What can be added to the "lava" to slow it down and make it more like real lava?
4. What combination of vinegar and baking soda creates the biggest eruption?

Practical Science
Landforms
Make Your Own Fossils

http://www.madaboutscience.com.au/store/index.php?main_page=page&id=52

Fossils are the remains, impressions or traces of ancient animals or plants, which have been preserved in the earth's crust for thousands of years. You can make your own fossils from things you find at the beach or in your garden.

What you need:

- 1/2 cup of flour
- 1/4 cup of salt
- 1/4 cup of sand
- Water
- Mixing bowl and spoon
- Fossil Objects (sea shells, leaves, or other small objects)
- Optional: Plaster of Paris, store-purchased clay

What to do:

1. To make your authentic-looking dough, mix all the dry ingredients together in the bowl.
2. Add water a little at a time until you have a thick dough. It needs to be about the right texture – not crumbly, but not too wet and sticky either.
3. Knead the dough with your hands, and then flatten it on your work surface. It needs to be a couple of centimetres thick.
4. Carefully press your fossil objects into the clay until you get good impressions, then remove them.
5. Let your clay fossil dry thoroughly for a few days.

About fossils

Fossils give us a window into the past. They are remains of past life preserved in rock, soil or amber. Most fossils we find today are fossils of plants and animals that were buried quickly during the Great Flood, about 4000 years ago. Generally, the remains were once the hard parts of an organism, such as bones and shell, although very occasionally soft tissues also fossilize. There are different types of fossils – trace, mineralised fossils, impression fossils – because remains can be preserved in a variety of ways.

Practical Science
Landforms
Make a model of the Great Flood

What you will need:

- A bucket
- Water
- Sand
- A flat board smaller than the diameter of the bucket

What to do

Fill a bucket with two-thirds water.
Put sand on a flat board that is smaller than the diameter of the bucket.
Slowly submerge the board then gently lift it.

What is happening?

This demonstration shows the erosion of sediments when the continents were uplifted out of the flood water.

Thinking Skills Creator Yr 7

River, glaciers and water cycle 1 Name 5 things that **a river** and **a car tyre** have in common.	**Rivers, glaciers and water cycle 2** Work out 3 ways to move a small boat through the water without oars or a motor.
Rivers, glaciers and water cycle 3 Try to justify this statement: **"Children should be banned from swimming in rivers".**	**Rivers, glacier s and water cycle 4** List 10 things that should NEVER be placed in water.
Rivers, glaciers and water cycle 5 The answer is **"The water cycle".** Give 5 questions.	**Rivers, glaciers and water cycle 6** Draw a water tank. Now redesign it by using the following steps: B – igger I – nstead of N – onsense G – et rid of O – ther uses

Thinking Skills Creator Yr 7

River, glaciers and water cycle 7 How many ways could you collect rain water? Give 5 completely different ways.	**Rivers, glaciers and water cycle 8** Design a machine to catch fish in a river.
Rivers, glaciers and water cycle 9 Some glaciers around the world are melting. Give some 3 possible reasons for this.	**Rivers, glaciers and water cycle 10** Design a machine for collecting water using the same principles as the water cycle.
Rivers, glaciers and water cycle 11 **In one part of the country there is often drought, while in another part of the country there are often floods.** Work out ways to help both situations.	**Rivers, glaciers and water cycle 12** The water catchments are low due to drought. Brainstorm 10 ways that the population can help to conserve water.