

# Geology: Landforms

## God is a Powerful Creator

### 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 land slides 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.

### Supporting devotional resource

*Themes for Christian studies 4, (Powerful): God's power is the greatest*

### Biblical references

#### Bible stories:

Genesis 1 The creation

Genesis 6-8 The Great Flood

#### Memory 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?

How old is the Earth? How do we know? (We can add up the years given in the Bible from Adam to Jesus.)

Think of ways in which we can explore nature and enjoy the beauty of the Creation.

### Outcomes

Students will

*Knowledge*

- Name and identify major landforms: mountains, hills, valleys, floodplains, caves, volcanoes etc.
- 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.

*Skills*

- Predict results of experiments
- Make observations
- Record results
- Locate landmarks on a map

*Values*

- Appreciate the beauty of God's creation
- Appreciate that God is in control of His creation
- Work together co-operatively when making models and carrying out experiments

**Activities**

- Examine and discuss pictures of landforms 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. 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. This shows the erosion of sediments when the continents were uplifted out of the flood water.
- 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.
- Name and locate on a map 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 the different types of glaciers.
- Explain the processes at work in glaciers and the result of glacial action.
- 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.
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?

### **Link to Australian Curriculum**

**Science Year 4:** Earth and Space Sciences – The Earth’s surface changes over time as a result of natural process and human activity