



## Chapter 3

# GOD MADE THE EARTH



In the beginning God created the heavens and the earth. The earth was without form, and void; and darkness was on the face of the deep. And the Spirit of God was hovering over the face of the waters. (Genesis 1:1-2)

**Y**ou live in the most important place in the whole universe — the earth! Why would we want to live anywhere else? God made the earth as the place where people would live. The earth is only a tiny speck in the whole universe, but it is God's special place. Out of His wisdom and goodness, at the beginning, He laid out the perfect place for us.

Lately, men have decided to explore space. Powerful governments spend lots of money on it. But, they do not want to glorify God. Unbelievers really want to prove that there is no God. Scientists

want to find life on other planets. They think this will prove that the world came about by chance, without a Creator. Life is nowhere to be found everywhere else we look. It is only found on earth. Only God could have created this rare miracle of life!

Yet, these scientists still hope to find new places to live, such as on the planet Mars. These men and women want to prove that the universe developed by itself so they can further ignore the Creator.<sup>1</sup>

This scientific work denies the Lord our God's creative work and His purposes for the universe. He created the earth as

one livable place for man. Then, He put the sun, the moon, and the stars in place for lights, for beauty, and for times and seasons. He did not intend for men to live any other place. We cannot live on the moon or on the other planets. We have everything we need to live here on the earth. There are no water sources on other planets. There is no air to breathe, no food, no trees for building things, and no safe place to live.

The United States has spent \$1.17 trillion dollars exploring space. The best result of this effort has been to produce close up pictures of more of God's creation. We have verified that God has made very large planets to circle our sun. We have seen what they are made out of, and we have seen the glory of God's created work.

Before He created the sun, the moon, and the stars, God created our earth home. Then He created light, water, plants, trees, the heavenly bodies, and animals. Finally, on the 6th day He created man in His own image. And, He put Adam and Eve, the first man and woman, on the earth that was perfectly set up for them.

## The Flood

---

For God is my King from of old,  
Working salvation in the midst of the earth. . .  
You broke open the fountain and the flood;  
You dried up mighty rivers.  
The day is Yours, the night also is Yours;  
You have prepared the light and the sun.  
You have set all the borders of the earth;  
You have made summer and winter.  
(Psalm 74:12, 14-17)

---

The earth we see today, with all of its mountains, lakes, rivers, deserts, and jungles is not the same place it was at creation. Two big events happened which changed the physical world where we live.

1. Man fell into sin.
2. God sent a worldwide flood to judge the wickedness of mankind on the earth.

Man's sin in the garden of Eden brought death into the world. Both men and animals died as a result of the fall. Then, the worldwide flood changed the whole shape of the earth's surface. The big continents formed. Huge mountains pushed up out of the waters. The oceans

formed around the world, and Antarctica and the Arctic iced over.

Before the flood, there were forests and dinosaurs in Antarctica.<sup>2</sup> Recently, hyena fossils have been found in the northern Arctic regions. But today, hyenas wander around near the equator — in the African savannah. Today, the average temperature in Antarctica is  $-127^{\circ}\text{F}$  ( $-83^{\circ}\text{C}$ ), and hardly any rain or snow falls there. How did a tropical jungle turn into a freezing desert?

The only answer is that God brought a

tremendous change on the earth with the worldwide flood. When man fell into sin, God cursed the ground. He changed the natural laws of the world. It could have been much warmer in the Arctic and Antarctica before the flood. The Genesis record tells us that man lived much longer, and so did the animals. But after the flood, the world would run by different patterns. The Lord God also established seasons. The world before the flood, and before the fall of man was very different.



Antarctica



And Adam lived one hundred and thirty years, and begot a son in his own likeness, after his image, and named him Seth. After he begot Seth, the days of Adam were eight hundred years; and he had sons and daughters. So all the days that Adam lived were nine hundred and thirty years; and he died. (Genesis 5:3-5)



Noah's Ark

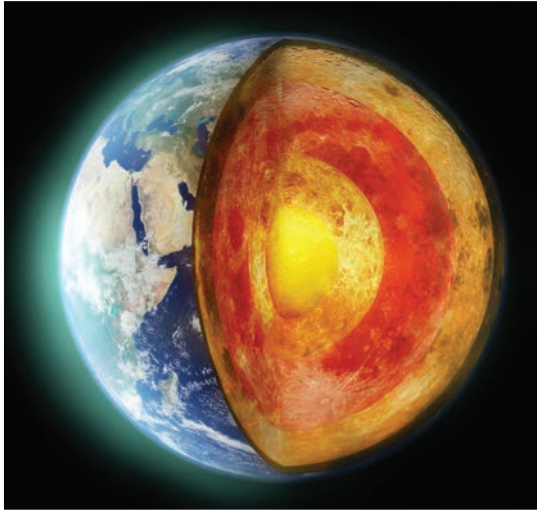
## Journey to the Center of the Earth

Some children like to dig holes in the back yard, hoping that they can reach to the other side of the world. If they could dig one foot of dirt every day for 116,000 years, they would make it all the way through to the other side of the world. Our globe is a little bit oblong, with a 7,926 miles distance all the way through at the equator, and 7,900 miles all the way through from the north to the south pole.

However, the deeper you would dig, the hotter it would get. At the core of the earth, scientists believe the temperature is about 10,000°F (or 5,540°C). Also, it would become increasingly hard to dig, because you would come against solid iron in the core. Because the iron core is under tremendous pressure, it remains solid. The iron does not melt at high pressures like this, even though it is extremely hot.

But the day of the Lord will come as a thief in the night, in which the heavens will pass away with a great noise, and the elements will melt with fervent heat; both the earth and the works that are in it will be burned up. Therefore, since all these things will be dissolved, what manner of persons ought you to be in holy conduct and godliness. . .

<<is this a  
scripture  
quote?



The Earth's Core

The earth will burn up at the end of time. This will happen at the day of judgment. Then God will create a new heaven and a new earth for us. But, for now God keeps the surface of the world cool.

To get through to the other side of the earth, you would have to dig through three layers of the earth.

1. The Crust (where we live). This involves 4 to 28 miles (7-45 km) of digging. This would take you about 405 years to dig through the crust.
2. The Mantle. This part of the earth is made up of very hot rock. It is under high pressure which can cause it

to shift around a bit. The mantle is about 1,800 miles thick (2,900 km), and it would take you about 26,000 years to dig through it if you could handle the heat.

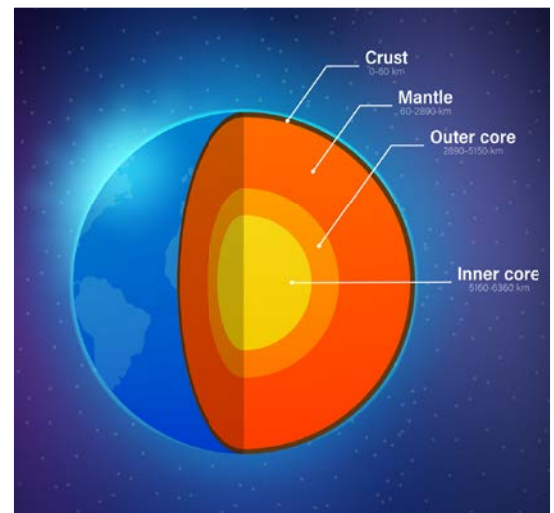
3. The Core is about 760 miles thick (1,220 km), and it would take you about 11,000 years to dig through.

The Lord Jesus Christ made a very big world for us. This is another insight into His great power!

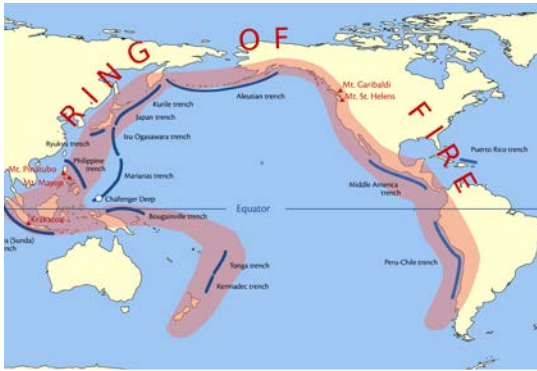
---

**All things were made by [Jesus] and without Him was nothing made that was made. (John 1:3)**

---



Structure of the Earth



Ring of Fire

### The Ring of Fire

At the time of the worldwide flood, God broke up the earth's crust, which included one very big crack. It is called the "Pacific Ring of Fire." This is the source of many natural catastrophes that visit the world almost every year. About 75% of the earth's volcanoes and 90% of the earth's earthquakes happen along this crack.

Some creation scientists believe that this crack developed when the "great deep opened up" as we read in Genesis 7. When this crack opened up, a subterranean ocean



Mount Bromo, East Java, Indonesia



of water, sand, and rock exploded onto the earth and up into the atmosphere. By God's order, this crack opened up exactly on the other side of the world from where Noah and his family would have been floating about in the ark.

This Ring of Fire begins near New Zealand, and runs in a horseshoe pattern north through the Philippines. It continues along the coast of China and runs near Japan. Then it comes back down through Alaska, and the western coast of the United States, all the way down to the tip of South America on the west side.

The following is a list of the worst earthquakes of the last twenty years. All occurred on the Pacific Ring of Fire.

The three deadliest earthquakes in all recorded history, occurred in China in 1556, 1976, and 1920, taking 240,000-830,000 lives each. The most powerful earthquake ever recorded reached 9.5 on the Richter Scale.

Scientists have developed a way to measure the severity of earthquakes on **seismographs**. The measurement is made on what is called the "**Richter scale**." This is a measurement of the strength of earth movement, using a logarithmic scale. This means that a 6.0 earthquake is ten

times more intense than a 5.0 earthquake. And, a 7.0 earthquake is 10 times more intense than a 6.0 earthquake. Usually, a 7.0-8.0 earthquake would kill between 10 and 1000 people in a city. An earthquake over 8.0, would kill between 1,000 and 100,000 people in a city.

These devastating earthquakes are reminders to the world that God is to be feared. Jesus warned the people facing mass disasters during His day, of God's judgment. He told them that everybody needs to take a lesson from these. You should repent of your sin before God, or you too will perish.

---

There were present at that season some who told Him about the Galileans whose blood Pilate had mingled with their sacrifices. And Jesus answered and said to them, "Do you suppose that these Galileans were worse sinners than all other Galileans, because they suffered such things? I tell you, no; but unless you repent you will all likewise perish. Or those eighteen on whom the tower in Siloam fell and killed them, do you think that they were worse sinners than all other men who dwelt in Jerusalem? I tell you, no; but unless you repent you will all likewise perish." (Luke 13:1-5)

---

Year	Magnitude	Death Toll	Location	Date and Title
2004	9.2	227,898	Indonesia	2004 Indian Ocean earthquake and tsunami
2008	7.9	87,587	China	2008 Sichuan earthquake
2011	9.1	20,896	Japan	2011 Tōhoku earthquake and tsunami
1999	7.7	2,415	Taiwan	1999 Jiji earthquake
2005	8.6	1,300	Indonesia	2005 Nias–Simeulue earthquake
2016	7.8	676	Ecuador	2016 Ecuador earthquake
2010	8.8	525	Chile	2010 Chile earthquake
2009	8.1	192	Samoa	2009 Samoa earthquake and tsunami
2000	7.9	103	Sumatra	2000 Enggano earthquake
2001	8.4	100	Peru	2001 southern Peru earthquake
2017	8.2	98	Mexico	2017 Chiapas earthquake
2007	8.4	23	Indonesia	2007 Sumatra earthquakes
2015	8.3	14	Chile	2015 Illapel earthquake





Seismograph

China, a nation controlled by communists, Japan controlled by Shintoism, and Indonesia (the largest Muslim-populated country in the world), need to heed the voice of warning from Jesus. They should repent of their sin and

bow the knee to the Lord Jesus Christ, or they will perish. This goes for every nation in the world, including those who have turned away from Christ.

### The Cause of Earthquakes

The Lord is slow to anger and great in power,  
And will not at all acquit the wicked.

The Lord has His way

In the whirlwind and in the storm. . .

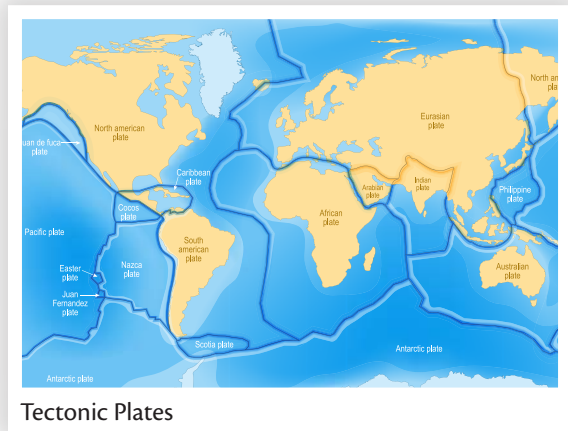
The mountains quake before Him,  
The hills melt,

And the earth heaves at His presence,  
Yes, the world and all who dwell in it.

Who can stand before His indignation?



2015 Illapel earthquake aftermath



And who can endure the fierceness of His anger?  
His fury is poured out like fire,  
And the rocks are thrown down by Him.  
The Lord is good,  
A stronghold in the day of trouble;  
And He knows those who trust in Him.  
(Nahum 1:3-7)

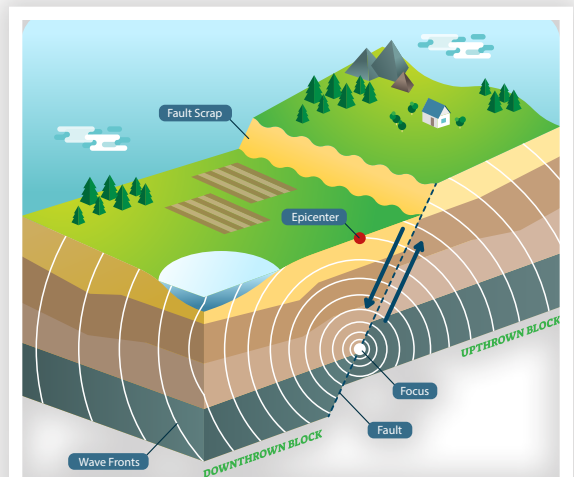
The earth's crust is made up of large chunks of cracked plates, called tectonic plates. As God has ordered things to happen, these plates are always moving a little bit. Most earthquakes are caused when the plates rub up against each other. This will jerk the whole surface of the earth's crust in the area — an earthquake.

The Ring of Fire contains a great deal of hot magma, which adds to the instability for the plates sitting on the

magma. This causes a lot of earthquakes, and volcanoes that break out in this area of the world.

The **epicenter** of an earthquake is the geographical location above where the biggest crash of tectonic plates takes place.

It's really hard to know when an earthquake will strike. Sometimes, seismologists can pick up little shocks on their seismographs. But they don't know whether these little shocks will turn into a big earthquake. Scientists try to guess when they will strike, but so far only toads have figured it out. The Journal of Zoology published a study in 2010 that discovered 96% of male toads in the region of the L'Aquila earthquake in



Earthquake epicenter





Aftermath of the 2004 Tsunami in Indonesia

Italy abandoned the area five days before the earthquake hit.<sup>3</sup>

Actually, there is no place on earth that is safe from natural disasters. An earthquake can happen at anytime. Only God knows when the next disaster will happen, because He has purposed it.

---

**If a trumpet is blown in a city, will not the people be afraid?**

**If there is calamity in a city, will not the Lord have done it? (Amos 3:6)**

---

## The Tsunami or Tidal Wave

---

**O Lord God of hosts,  
Who is mighty like You, O Lord?  
Your faithfulness also surrounds You.  
You rule the raging of the sea;  
When its waves rise, You still them.  
(Psalm 89:9)**

---

Earthquakes and volcanoes can produce huge waves called “tsunami’s,” a Japanese word meaning “harbor wave.”

When an earthquake creates a disturbance on the ocean floor, this can result in a 10 ft to 100 ft wave traveling across the ocean into land.

Tsunami's can rush on to the shoreline at 600 miles per hour. What was probably the most powerful and largest tsunami in history hit Lituya Bay, in Alaska July 9, 1958. The wave reached as high as 1720 feet (524 m), stripping a mountain of trees of vegetation.

The most tragic tsunami in history, occurred on December 26, 2004. A gigantic, 110-foot (50 m) high wave

crashed into Sumatra island in Indonesia. Over 200,000 people died. This wave was created by a huge, 9.1 level earthquake.

## Volcanoes

---

**May the glory of the Lord endure forever;  
May the Lord rejoice in His works.  
He looks on the earth, and it trembles;  
He touches the hills, and they smoke.  
I will sing to the Lord as long as I live;  
I will sing praise to my God while I have my  
being. (Psalm 104:31-33)**

---

Tungurahua volcano erupts in Ecuador





Mount Rainier, Washington, USA



The strongest energy man has ever been able to produce at one time was the nuclear bomb. The Russian Tsar Bomba was detonated on an island in the north Arctic area in 1961. It produced the energy of 58 mega tons of TNT. You could see the flash from the explosion 620 miles away (1000 km).

Nothing on earth compares to the power of God's volcanoes, however. The Tambora eruption of 1815 dwarfed all other eruptions since then. This single volcano produced more energy than the

10,000 volcanoes that followed. It would have been almost 15 times the energy of the Tsar Bomba. The explosion could be heard 1,600 miles away (2,400 km), and an estimated 80,000 people died from this very, very powerful natural disaster.

We have already seen how God's stars, His nuclear reactors in the sky are trillions of times more powerful than what man produces. Yet we are just as impressed by God's volcanic explosions observed here on earth.

These are just little glimpses into the

Mount Vesuvius and the Ruins of Pompeii



power of God. Let us be amazed at His infinite might, and let us be reverent and worshipful as we think of His judgments in the earth.

---

**O Lord God of our fathers, are You not God in heaven, and do You not rule over all the kingdoms of the nations, and in Your hand is there not power and might, so that no one is able to withstand You? (2 Chronicles 10:6)**

---

Most volcanoes are caused by the same

thing that makes earthquakes. In the case of volcanoes, fluctuating tectonic plates run into each other, and then one of the plates slides under the other. As the lower plate melts into magma, temperature and pressure increases. Gasses that form inside the newly created magma push hard, trying to escape through the crust of the earth. But, where will the explosion of hot magma occur? Since the worldwide flood, some mountains are known to be volcanic. Mountains often sit on top of where the tectonic plates are stacked.

They provide the vents for the eruption of gasses and magma.

It's hard to know which volcano is going to blow next. But seismologists (people who study earthquakes) and volcanologists (people who study volcanoes) closely monitor areas where volcanic activity has been recorded in the past. Once again, most of the most active volcanic areas are located on the Pacific Ring of Fire.

- Mount Rainier — Washington State
- Mount Shasta — California State
- Mount Hood — Oregon State
- Mount Merapi — Central Java, Indonesia
- Mount Baker — British Columbia, Canada
- Mount Mauna Loa — Hawaii
- Mount Teide — Spain
- Mount Galeras — Columbia
- Mount Nyiragongo — Congo
- Mount Unzen — Kyushu, Japan
- Mount Colima — Mexico
- Mount Hekla — Iceland

Two of the most disastrous volcanoes of all time occurred in ancient Greece and Rome. Somewhere around 1700 BC, Mount Santorini exploded with

the force of hundreds of atomic bombs, destroying the Minoan civilization. Then, Mount Vesuvius in Rome erupted AD 79, destroying the most wicked city in the Roman Empire at the time — Pompeii.

## Preparing for Earthquakes and Volcanoes

---

**Behold, the eye of the Lord is on  
Those who fear Him,  
On those who hope in His mercy,  
To deliver their soul from death,  
And to keep them alive in famine.  
(Psalm 33-18-19)**

---

The most necessary lesson, and the first lesson if we will be prepared for all disasters and the judgments of almighty





God is to fear Him. Every child, every man and woman must study the fear of God. He is to be feared, because He is God. He is over all. He is all powerful. He is the one who brings His judgments on the earth. Let us fear God, first of all. That means we are to look up to Him. We must ask forgiveness of God, in Jesus Name, when we sin against Him. We must think of God first, and humble ourselves before Him always.

Earthquakes and volcanoes are regular events in this fallen, sinful world. There are 20,000 earthquakes a year, but only about twenty that result in loss of life. Anywhere between 600 and 300,000 people die every year because of earthquake. Only about 50-70 volcanoes erupt in a given year.

The earthquake itself doesn't really

hurt anybody. If you were standing out in a field, you probably wouldn't be hurt by the earthquake, no matter how severe it was. However, earthquakes shake buildings hard, and things fall. Gas lines break. Fires are ignited. Automobiles sometimes crash into things. Most people are killed when parts of buildings fall on them, or they are caught in burning houses.

When you feel an earthquake start, remember that it will probably continue for 30-40 seconds. The largest earthquakes can go on for five minutes. Aftershocks might continue for hours afterwards. The ground under you will feel like it is swaying back and forth. Here's what you should do. Always stay calm. Pray. Trust in God. Remember He is in control of everything.

1. If you are indoors, drop to the ground, and try to take cover under a very sturdy table. Or you might crouch on the inside corner of an inner room. Stay away from windows and doors. Cover your head in your arms. Be sure to stay away from brick fireplaces, bookcases, and large cabinets that might fall on you.
2. If you are outside, stay far away from



buildings, electric poles and lines, and trees.

3. If you are driving in the car, pull over. Stay away from overpasses, and keep off all bridges. They might collapse. Stay in the vehicle, unless you might be hit by another car.
4. If you happen to find yourself in a large multi-storied building, remain on the same floor. Stay away from outside walls and all windows. And, do not use the elevator.

### How do we best prepare for earthquakes before they happen?

---

Therefore whoever hears these sayings of Mine, and does them, I will liken him to a wise man who built his house on the rock: and the rain descended, the floods came, and the winds blew and beat on that house; and it did not fall, for it was founded on the rock. But everyone who hears these sayings of Mine, and does not do them, will be like a foolish man who built his house on the sand: and the rain descended, the floods came, and the winds blew and beat on that house; and it fell. And great was its fall. (Matthew 7:24-27)

---

The biggest lesson to learn about disaster preparedness according to Jesus, is to pay attention to His Words. Respect His truth above everything else you read. And do the things that He commands.

These verses also contain a good hint for preparing for earthquakes. Build your house on the rock. The biggest mistake that people make is to build homes



1980 Eruption of Mt. St. Helens

such that they would collapse when an earthquake begins to shake the building. So the most critical thing a family can do when it comes to earthquake readiness is to be sure their home is well built, according to the following basic rules.

1. Houses should be built on rock or hard soil — not on sand and muddy soil.
2. Foundations and concrete walls should be reinforced with high ductility (E-class, 60-100 ksi) steel rebar. If you don't have steel running through your concrete, it can crumble easily during an earthquake.
3. Sometimes connecting buildings can prevent toppling.

## How to Be Safe When You Are Near a Volcano

When Mount St. Helens in Washington State erupted at 8:42 am, Sunday morning, May 18th, 1980, it was like an explosion of 50 nuclear bombs. A 1300 foot landslide crashed into Spirit Lake. The initial blast torched everything on the mountain's north side, flattening an area about 15 miles by 10 miles. The ash continued to pour out of the volcano for the next 9 hours. Fifty-seven people died, and a few escaped.

There are several things to beware of during a volcano.

1. Lava flow. You want to stay away



Volcanic Lava

from lava flow, because it is very hot. The flow can move at 10-40 miles per hour (15-60 km/hr). If the roads are clear going in the opposite direction of the volcano, an automobile should be able to outrun the lava flow. Do not attempt to cross over a lava flow. It would melt your tires or tennis shoes, and you would probably get stuck.

2. Lava will tend to flow in the valleys. If you are on foot, climb up on ridges where the lava is less likely to flow.
3. Ash. If clouds of ash are falling around you, seek cover in a vehicle or building. Use a mask or a towel over your mouth to avoid breathing in the ash. If you are driving, try to avoid areas where there is a lot of ash accumulation.
4. Flying Debris. If you are fairly close to the volcano eruption, you may encounter flying rock and debris. Shield yourself behind or under large rocks, caves, vehicles, trees, or anything that might protect you.

Whatever natural disaster you might be encountering, tune into the radio to get updates on what is happening. Check the weather stations apps on your mobile phone. And obey the evacuation orders,

and all other orders provided by the local governments.

If you are still at home here are a few other tips, to follow:

1. Collect as much fresh water in the bathtub or other containers as you can.
2. Bring your pets indoors.
3. Wear goggles, safety glasses, and a mask or towel over your mouth if you go outside.
4. Watch for fire that might start up somewhere near the house, and put it out if you can.
5. Turn off your electricity and your gas, at least temporarily. You might have a professional check out your gas, before you turn it back on.

## **Mountains**

---

**Lord, You have been our dwelling place in all generations.**

**Before the mountains were brought forth,  
Or ever You had formed the earth and the world,  
Even from everlasting to everlasting, You are God. (Psalm 90:1-2)**

---



God made the mountains. These verses point out that the mountains we see around us were formed after the world was made. The shape of the earth we see today, was pretty much formed during and directly after the worldwide flood. Nobody has seen new mountains forming since then.

Mountains are huge. They appear immovable. There is a permanence to them. For thousands of years, man has looked up and seen the same mountains that their great, great, great, great grandparents looked at. Yet, God is far more permanent than the mountains.

Well before the mountains were made, before the earth was made, before angels were created, God was there. He has always been, and He will always be. So, therefore we can find salvation from death in Him. He can always provide us with protection from evil. His strength, His wisdom, and His goodness does not go away or diminish. We can always trust in Him.

Man might cut down a forest. He can dam up a river, and create lakes, but he cannot remove a mountain. A nuclear bomb cannot remove Mount Everest. Mauna Loa in Hawaii is the largest



Himalayan Mountains, Nepal



mountain (volume wise) in the world, with 18,000 cubic miles of mass. It would take 10,000 of the largest bulldozers in the world 1,000 years to remove this mountain.

But Jesus said, “Assuredly, I say to you, if you have faith as a mustard seed, you will say to this mountain, ‘Move from here to there,’ and it will move; and nothing will be impossible for you.” (Matthew 17:20) There are harder things in life than moving mountains. We are sometimes challenged by very serious spiritual problems. We must respond to these problems by faith in God. It is by faith we can overcome our big problems.

## How Mountains Were Made

**In the six hundredth year of Noah’s life, in the second month, the seventeenth day of the month, on that day all the fountains of the great deep were broken up, and the windows of heaven were opened. And the rain was on the earth forty days and forty nights. (Genesis 7:11-12)**

Some mountains were formed when tectonic plates collided and pushed the earth’s crust upwards. Others formed by



Paria River Valley, Utah, USA

volcanic activity. This happened mostly at the time of the worldwide flood. Remember that the deep parts of the earth broke up during the flood. This broke loose the gigantic tectonic plates, allowing for the magma under the earth to pour out on to the earth’s surface. Scientists who do not believe in God think that



Mount Everest, Nepal

the mountains formed accidentally over millions of years.

There are three types of rock in the earth. **Igneous rock** is made of magma flow. This magma flow, you may remember, is really the melted mantle of the earth. It is made mostly of **silica**. **Sedimentary rocks** are particles of sandstone and limestone compacted together by the flood waters. Some of these sedimentary rocks are thirty miles thick! These sedimentary rocks were carried long distances by the flood waters. They were deposited layer after layer, making hills and mountains. Sedimentary deposits in Utah were carried all the way from Canada and the Eastern United States to make these hills. It is clear that these sedimentary layers were still wet when they were laid down by the flood waters in Utah. **Metamorphic rocks** are made of igneous or sedimentary rocks, by heat and high pressure.

There are two other kinds of rock that make up mountains: metamorphic rock and sedimentary rock. The metamorphic rock is formed by more extreme heating — which changes the shape of the rock. Sedimentary rock is formed on mountains and cliffs mostly from the flood waters. As the flood waters plowed

mud and sand over the mountains, layers of sediment formed. The tides created by the moon, probably helped the process along. These rocks are made of sandstone and limestone. You can see these layers, if you travel through Utah or Arizona in the United States. The Elbe Mountain range in southeastern Germany are also made of sandstone.

The worldwide flood left the world with huge mountains and deep valleys. Study the table below listing the tallest mountains in the world.

### The Tallest Mountains in the World

**See chart>>>**

Actually, the tallest mountain in the world is Mauna Kea on the Big Island of Hawaii. Its base lies deep in the ocean. If you were to measure it from its base, the mountain stands 33,474 feet high. Measured from sea level, however, the world's 30 tallest mountains in the world are in the Himalaya Range.

The most dangerous mountain in the world to climb is Mt. Annapurna in Nepal. About 40% of the people who have attempted the climb have died trying. Only about 90 people have succeeded, since the mountain was first conquered by man in 1950. K2 in Pakistan is the second



Grand Canyon, Arizona, USA

## The Tallest Mountains in the World

Mountain	Height	How Long to Climb
Mt. Everest, Nepal Tallest Mountain in the World	29,029 ft (8,848 m)	60 days
K2, Pakistan Second Highest Mountain	28,251 (8,611 m)	60 days
Mt. Aconcagua, Argentina Tallest Mountain in S. America	22,841 ft (6,962 m)	15 days
Mt. Denali, Alaska Tallest Mountain in N. America	19,685 ft (6,000 m)	12 hours
Mt. Kilimanjaro, Tanzania Tallest Mountain in Africa	19,341 ft (5,895 m)	12 hours

most dangerous, with a fatality rate of about 20%.

Canyons and Rivers

Once the mountains started pushing up during the great flood, the waters began running off into the lowest spots on the globe, (into the ocean beds). Usually when huge amounts of waters run off, all the water creates deep river beds or **canyons**. That’s what happened during the mighty flood which our Lord God brought upon the earth. Where did all the flood waters collected over Australia, Africa, North America, and Asia (Nepal and Tibet) go? The **following table shows** the largest canyons in the world.

Largest Canyons in the World

Canyon	Location	Measurements	Run off Into
Yarlung Tsangopo	Tibet, Asia	Depth 6,009 m, Length 505 km	Indian Ocean
Capartee Valley	Australia	Width 135 km	Pacific Ocean
Kali Gandaki Gorge	Nepal, Asia	Depth 6,800 m, Length 627 km	Indian Ocean
Grand Canyon	US, N. America	Depth 1,828 m, Length 445 km	Pacific Ocean
Fish River Canyon	Namibia, Africa	Depth 550 m, Length 160 km	Atlantic Ocean

Comets

From time to time, **comets** streak through the sky, close enough for you to see them with the naked eye. A comet is a large chunks of ice, dust, and rock particles — a sort of dirty snowball traveling through our solar system. Most of the time, these comets revolve around the sun, just like our globe. So far, scientists have counted 6,600 comets in our solar system. The largest are 10-20 miles across, about the size of a small island in the middle of the ocean.

As some comets come closer to the sun, a tail becomes visible to those watching from the earth. Some of the comet





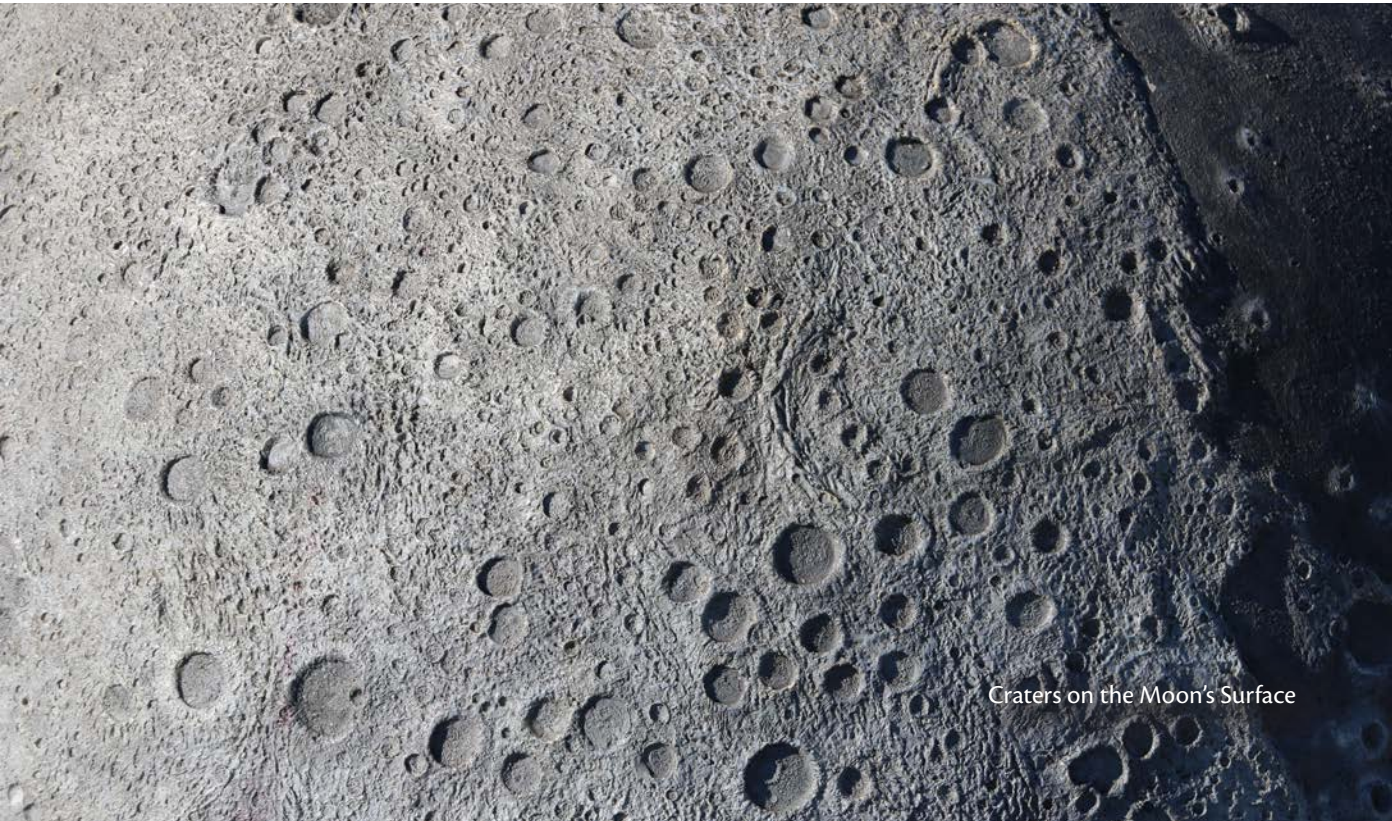
Comet

(including the icy parts) are vaporizing into dust and gases as it travels along.

Where did the mysterious water in

comets come from? Unbelieving scientists are hoping that there is life on other planets. Since life is dependent upon water, these men suggest the water came from some other planet. They imagine that life somehow just appears all by itself on other planets. Really, they do not believe in the Creator who made life and gave us water on this earth.

The best explanation for the mysterious ice in comets goes back to the worldwide flood. When the earth's crust broke apart, and the waters in the deep exploded into the air, some of all that dirt, magma, and water shot up into space. Immediately,



Craters on the Moon's Surface

the water turned into ice and comets formed. It is also possible that some of the chunks of the debris hit the moon and Mars. That would provide something of an appearance of water in spots on these celestial bodies.

Unbelieving scientists are also baffled over the moon's surface. The near side of the moon facing the earth has larger pock marks or bigger basins than the other side facing away from us. There are eight big basins, larger than 186 miles (300 km) on the side that faces us. There's only one big basin on the other side. Where would these large pieces of debris that hit the moon come from? Since this is the side the faces the earth, it makes sense that the debris came from the earth during the worldwide flood. Huge chunks of earth's

crust and mantle could very well have flung out into space and hit the moon causing these big basins. This is the best way to explain what happened to the moon. Our world was very much impacted by that big flood God send over 4,000 years ago. But unbelieving scientists do not accept this major catastrophe which we read about in Genesis 7.

## Asteroids and Meteorites

God is our refuge and strength,  
A very present help in trouble.  
Therefore we will not fear, Even though the  
earth be removed,  
And though the mountains be carried into  
the midst of the sea;  
Though its waters roar and be troubled,  
Though the mountains shake with  
its swelling. Selah.  
There is a river whose  
streams shall make glad  
the city of God,  
The holy place of the  
tabernacle of the  
Most High.  
God is in the midst  
of her, she shall not  
be moved;



Asteroid





God shall help her, just at the break of dawn.  
(Psalm 46:1-5)

An **asteroid** is a large body of rock and metal which travels around the sun, sized from 1/2 mile to 590 miles in length. There are over eight hundred of these asteroids that fly near the earth.

A **meteoroid** is a smaller chunk of rock that breaks off of an asteroid or a comet (up to 3 feet in diameter). If it enters the earth's atmosphere, and burns up it is called a meteor. Believe it or not, a total of 48 tons of meteoroid flies into the earth's atmosphere every day. That's a lot of cosmic rocky junk! Most of it burns up, and you may see their streaks through

Meteorite



the night sky. Sometimes these rocks will hit the ground, and that's what we call "**meteorites.**"

The largest meteorite ever found is called "The Hoba." It was a 66 ton piece of rock found in a farmer's field in Namibia, Africa in 1920. It was made up of the typical elements we find on the earth, elements God created at the beginning — 84% iron, 16% nickel, along with cobalt and a few other metals.

Some of the older and larger craters on earth may have been formed during the worldwide flood when large chunks of earth blasted out and then crashed back down. The largest crater in the world is in the Vredefort crater in South Africa. It is 185 miles across by some estimates.

Some people may wonder if God might accidentally allow an asteroid to careen into the earth, and destroy everything. Unbelieving scientists want to look to organizations like NASA in order to protect the world from this destruction. But, we are not worried about this. Of course, nothing happens accidentally when God is in control of all things. He would

never allow an asteroid to destroy the world. God loves His people. His Son, the Lord Jesus Christ died for His church, and He has promised to be with us to the end. We don't have to be afraid even if the mountains were thrown into the oceans. God is right there with the church, and this church will not be moved, no matter what happens.

Astronomers keep an eye on asteroids heading towards the earth. The next big one coming near us in AD 2028 won't even come close to the moon. This asteroid is about 1 mile wide, and it's traveling at 30,000 mph. If this big rock hit New York City, it would destroy everything from Washington DC to Boston — a population of about 50,000,000 people. An asteroid sixty miles in length would destroy the whole earth.

Another big asteroid is scheduled to come close to the earth on April 13th, 2029. Asteroid Apophis is 1,213 feet wide (370 m). That's about the size of four football (or soccer) fields. Astronomers estimate it will come within about 18,000 miles (31,000 km) from the earth. That's pretty close — only one tenth the way to the moon. If it were to hit the earth, it would produce an explosion about like ten of our most powerful nuclear bombs.

Before you get too worried though, remember that not one person has been killed by a meteorite as far as we know, in a thousand years. At this point, astronomers tell us they don't see any large objects coming close to the earth for several hundreds years.

It is not for us to fear these meteorites. We must not fear floods and other natural



Meteor Crater, Arizona, USA



disasters. However, we should fear God. We should be aware that He will destroy the world at the end, and bring every person to His judgment. The epistle of 2 Peter tells us of this coming destruction on the whole world:

---

Knowing this first, that there shall come in the last days scoffers, walking after their own lusts, and saying, Where is the promise of his coming? For since the fathers fell asleep, all things continue as they were from the beginning of the creation. For this they willingly are ignorant of, that by the word of God the heavens were of old, and the earth standing out of the water and in the water: whereby the world that then was, being overflowed with water, perished: But the heavens and the earth, which are now, by the same word are kept in store, reserved unto fire against the day of judgment and perdition of ungodly men. . . But the day of the Lord will come as a thief in the night; in the which the heavens shall pass away with a great noise, and the elements shall melt with fervent heat, the earth also and the works that are therein shall be burned up. Seeing then that all these things shall be dissolved, what manner of persons ought ye to be in all holy conversation and godliness. . . (2 Peter 3:1-11)

---



Dinosaur fossil in rock

## Fossils

---

Now the flood was on the earth forty days. . . All in whose nostrils was the breath of the spirit of life, all that was on the dry land, died. So He destroyed all living things which were on the face of the ground: both man and cattle, creeping thing and bird of the air. They were destroyed from the earth. Only Noah and those who were with him in the ark remained alive. (Genesis 7:17, 23-24)

---

True to the word of God, the flood killed billions of animals very quickly. When these animals were captured in the muddy waters, many of them were fossilized. This means that they were first encased in mud. Then, the heat and

pressure on the organisms changed them into a hardened, carbonized form. This leaves an impression on the sedimentary rock that is preserved for us to look at thousands of years later. These are called **fossils**. There are a few other ways that fossils are preserved, such as petrification and casting. You can find fossils all over the world, because the flood waters covered the whole earth. Researchers have even found shellfish at the top of Mount Everest, the tallest mountain on earth. Of course, these shell fish did not crawl all the way up there to die. They were carried by the flood waters in layers of rock which were deposited on the mountain about


4,000 years ago.

Unbelieving scientists tell us that there were many floods that carbonized these ocean creatures and other animals over millions of years. The better explanation is that one gigantic flood did the work of fossilizing so many billions of animals, all at one time.

### God Gave Fuel, Coal and Oil

---

**Here is what I have seen: It is good and fitting for one to eat and drink, and to enjoy the good of all his labor in which he toils under the sun all the days of his life which God gives him; for it is his heritage. As for every man to whom God has given riches and wealth, and given him power to eat of it, to receive his**



Oil pump jack in Alberta, Canada

### heritage and rejoice in his labor—this is the gift of God. (Ecclesiastes 5:18-19)

By our Creator God's amazing mercies and generous consideration for humans, He gave us sources of energy on the earth to last for a long time. He gave us trees, which we cut up into logs and burn in fireplaces. But, He also gave us coal and oil. Both of these can provide heat and energy for human use.

Oil is a little bit of a mystery. Nobody really knows for sure how it was made. The safest thing to say is that God put it under the ground for us to use. For a long time, scientists thought that the oil and gas was created by dead organic matter from the earth. However, fewer scientists hold to that theory now. God must have created it at the beginning, just like He created useful things like copper, iron, gold, and silver. During the flood, the oil and gas were probably brought closer to the crust of the earth, so that we could access these energy sources.

Actually, there are six kinds of oil and gas. These are called “**alkanes**” or “**hydrocarbons**.” That's because they are made up of two basic substances which God created — Hydrogen and Carbon.

Methane	Natural gas
Ethane	Natural gas
Propane	Gas, although it can become liquid if you put it under pressure
Butane	Gas, although it can become liquid if you put it under pressure
Pentane	Liquid
Hexane	Liquid

Usually, geologists find reserves of oil and gas about two to three miles under the surface of the earth. The gas and oil just sit there in cracks and crevices of porous rock. There may be some water there too, but the gas and oil float on water and so they will sit on the top, until oil companies start pumping it out.

Since 1920, oil and gas have been essential for heating, for air travel, for cars and trucks, and most of our energy needs. This resource has been a great blessing from God for modern life all over the world. The following chart, shows how much of the world is dependent on oil,





Trans-Alaska Pipeline

gas, and coal. As of 2010, about 87% of the world's energy comes from these fuels.<sup>4</sup>

### When will we run out of coal and oil?

The official numbers for oil reserves in the earth, as of 2019, is about 1.7 trillion barrels. That should last us until AD 2069. However, there may be more reserves of oil and gas to find in the years to come. We'll see. On the other hand, there are about 1.1 trillion tons of coal left in reserves — that's enough to last about 150 years, well after your lifetime.

The countries with the highest reserves of coal and oil, **are listed in the table below.** It is interesting that God blessed the United States with the highest reserves over all the nations in the world.

### Searching for More Fuels and Energy Sources

If the Lord Jesus Christ does not return before the earth runs out of oil, then the world will have to find other kinds of energy to fuel cars and heat homes. This will be a challenge for young people who are just now learning about science.

Since you cannot put coal in your car and it is hard to power a car with a windmill sitting on top of it, car companies have developed electric cars. These cars rely on electricity that comes from large coal-burning plants. Unless scientists can come up with another form of gas or combustible stuff that can burn in a car engine, most cars will have to run



## Countries with the Highest Coal and Oil Reserves

Coal	% of World Reserves <sup>5</sup>	Oil	Billions of Barrels in Reserve <sup>6</sup>
United States	24%	United States	260
Russia	15%	Russia	250
Australia	14%	Saudi Arabia	210
China	13%	Canada	160
India	9%	Iran	140
Indonesia	3.5%	Brazil	120
Germany	3.4%	Iraq	115
Ukraine	3.3%	Venezuela	90

on electricity in the future. Here are some of the ideas scientists are working with, as they try to find ways to use God's resources to provide the world with energy.

1. Scientists are looking into using Silicon found in Sand for a fuel. There is a lot of sand in the world, and this may be a good way to develop a fuel. Nobody has figured out a way to turn

sand into fuel without spending a ton of money doing it.

2. Ethanol made out of sugar cane or corn is mixed into gasoline. This fuel is already being used all over the world. It takes a lot of work to grow these crops, so this is not a very good way to create fuel.

Tihange Nuclear Power  
Station in Huy, Belgium



3. Geothermal energy takes heat from the ground (the earth's crust and mantle), and uses it to heat homes, and make electricity. This is probably the cheapest and most reliable of the alternative kinds of energy.
4. Nuclear energy is already used for 6% of the world's needs. Scientists have developed smaller nuclear plants that can power a little town. These may be a safer approach to nuclear energy. Also, scientists are seeing breakthroughs in developing nuclear fusion, a better form of energy than the fission plants currently used.
5. Solar, wind, hydro-electric (river dams), and tide-generated power are used here and there around the world. These forms are still expensive, but scientists are still experimenting with them, and finding better ways to produce them. The cost of these creative forms of harnessing these forms of energy God has provided has come down over the last few decades. You can see that the cheapest energy is still nuclear power and coal power.

Form	Production Cost as of 2018
Nuclear	.02 / kW-hr <sup>7</sup>
Coal	.03 / kW-hr
Natural Gas	.05 / kW-hr
Hydroelectric	.05 / kW-hr <sup>8</sup>
Bioenergy	.06 / kW-hr
Onshore Wind	.06 / kW-hr
Geothermal	.07 / kW-hr
Photovoltaic Solar	.09 / kW-hr

### How Much Would Your Family Pay for This Electricity?

The average home uses about 900 kW-hours of electricity each month. So that means your electric bill would be \$18 a month with nuclear energy. If energy companies relied on solar, your electric bill would be \$81 a month. So you can see that there is still a big difference in costs between the different types of energy.

### Praise God for His Resources

The craftsman stretches out his rule,  
He marks one out with chalk;  
He fashions it with a plane,  
He marks it out with the compass,  
And makes it like the figure of a man,  
According to the beauty of a man, that it may  
remain in the house.  
He cuts down cedars for himself,  
And takes the cypress and the oak;  
He secures it for himself among the trees of  
the forest.  
He plants a pine, and the rain nourishes it.  
Then it shall be for a man to burn,  
For he will take some of it and warm himself;  
Yes, he kindles it and bakes bread;  
Indeed he makes a god and worships it;  
He makes it a carved image,  
And falls down to it. . .  
“Remember these, O Jacob,  
And Israel, for you are My servant;  
I have formed you, you are My servant;  
O Israel, you will not be forgotten by Me!  
I have blotted out, like a thick cloud, your  
transgressions,  
And like a cloud, your sins.  
Return to Me, for I have redeemed you.”  
Sing, O heavens, for the Lord has done it!



Shout, you lower parts of the earth;  
Break forth into singing, you mountains,  
O forest, and every tree in it!  
For the Lord has redeemed Jacob,  
And glorified Himself in Israel.  
(Isaiah 44:13-23)

---

God has given us wood, coal, oil, and metals for our use. Yet, man often turns these good gifts into gods. Men will use one of God's trees to build a chair, and a warming fire. Then, he makes idol out of the rest of the tree. What foolishness! Today, men value their cars and houses more than they worship the Creator.



Electric Meter

This passage tells us that every tree of the forest sings praises to God the Creator. Let us sing praises to God too. Let us thank Him for His good gifts! ■



## Pray

Let us thank the Lord for the blessings of energy, electricity, and heat! Thank Him for burying all that coal and gas under the ground for your family, and for the rest of the world.

Praise God for His power and goodness to protect our earth from flying asteroids!

Praise Him for the mighty mountains, and thank Him for His strong protection over us!

Acknowledge His great judgments in the earth, that come with the worldwide flood and with earthquakes and volcanoes. Then, thank Him for saving Noah and his family from the flood. Thank Him for saving us from destruction by sending His Son to die on the cross.

## Watch

To watch the recommended videos for this chapter, go to [generations.org/GodMadeTheWorld](http://generations.org/GodMadeTheWorld) and scroll down until you find the video links for Chapter 3. Our editors have been careful to avoid films with references to evolution, however we would still encourage parents or teachers to provide oversight for all internet usage. These videos may not give God the glory for His amazing creative work, so the student and parent/teacher should respond to these insights with prayer and praise.

## Do

### Hurricane and Volcano Preparedness

First, you should be aware of the earthquake fault lines and the active volcanoes in your area. Be aware of flood plains. Where is flooding most likely to occur?

1. Research the earthquake fault lines in your area. Where are the nearest fault lines to where you live? What are the more active volcanoes in your state or nation?
2. Identify the places in your home where you would go if there was an earthquake in your area. What would you stay away from, in such a case?
3. Ask your parents to show you the location of the gas and electric shut-offs for your home.

### Alternative Energy

1. Build your own windmill using a simple kit available online.
2. Create your own solar power using a simple kit available online.

### Climb a Mountain

Go hike and mountain with a parent, and give God the glory for His power and His glory!