



God Made **EVERYTHING**



Hi! I'm Beamer.
I'm a light beam and
I like to shine!

It's going to be great to
learn about God's creation
with you in this book.

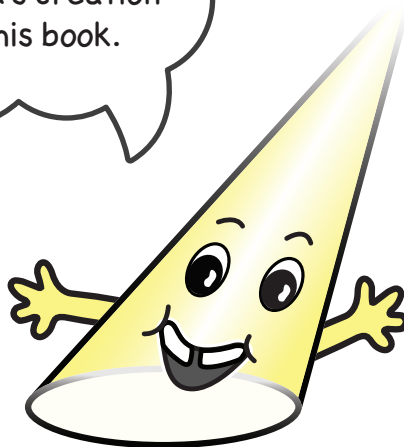


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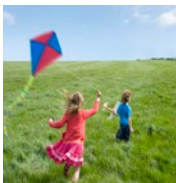
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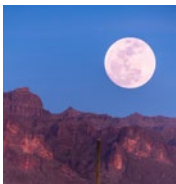
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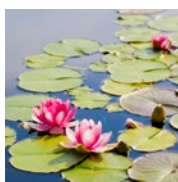
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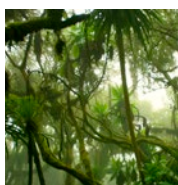
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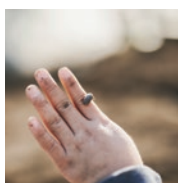
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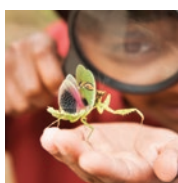
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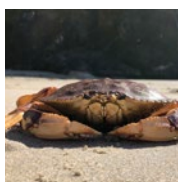
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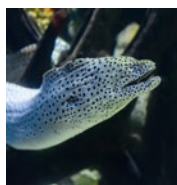
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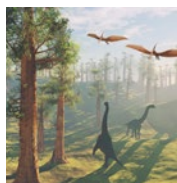
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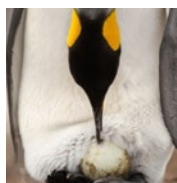
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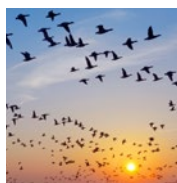
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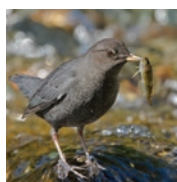
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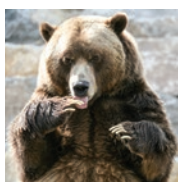
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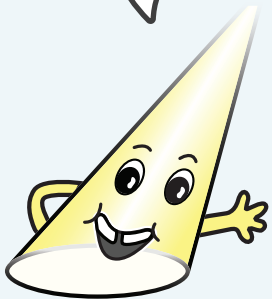
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UNIT 1

Light

I like being a light beam! I like to chase darkness away. I play with the raindrops to make beautiful rainbows. I can bounce off your toys and into your eyes so you can see to play. I like being light most of all because God talks about it a lot.



Here is a verse to memorize and a hymn to sing as we learn about light!



Memory Verse

Arise, shine;
For your light has come!
And the glory of the LORD
is risen upon you.
(Isaiah 60:1)



Hymn Singing

God, Who Made the Earth

God, who made the earth,
The air, the sky, the sea,
Who gave the light its birth,
Careth for me.

God, who made the grass,
The flower, the fruit, the tree,
The day and night to pass,
Careth for me.

God, who made the sun,
The moon, the stars, is He
Who, when life's clouds come on,
Careth for me.

God, who sent His Son
To die on Calvary,
He, if I lean on Him,
Will care for me.

You can listen to this hymn by searching for "God Who Made the Earth children's hymn" on the internet.



CHAPTER 1

What Is Light?

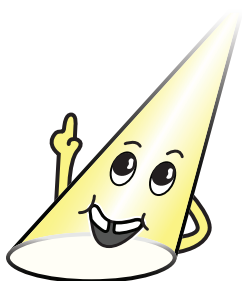
Light is an amazing, important invention of God! God made **light** on the first day of creation.

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. Then God said, “Let there be light”; and there was light. (Genesis 1:1-3)

As light, Beamer has important jobs to do. He likes doing them and he does them well.

Beamer's List of Light's Jobs

- To give sight to people and animals
- To keep plants alive and healthy
- To make color
- To describe some important ideas in God's Word. In this unit's memory verse, light helps us understand the glory of the Lord.



These are the first three verses of the Bible!

What Is Light?

This is a question that not even Beamer can answer perfectly. Only God understands everything about light because He is so wise. Let's see what we do know about light:



Definition

Light is energy we can see.



NASA's New Horizons Spacecraft

Light doesn't weigh anything. That means it isn't heavy when you try to pick it up. Light doesn't take up any space either, which means it doesn't push things out of its way when it shines into your room. Light is nothing but energy. Energy may be hard to understand. You can think of energy as being power. God has *all power* to do anything He wants. He also created many different kinds of power so that His creation would work and not fall apart. Some power He made is invisible, like the power that keeps us from floating off the earth. There are many kinds of power that we cannot see. But light is a power (or energy) that we *can* see.

When you see light, you are looking at energy. We know that light's energy travels very quickly. If you walk into a dark room and turn on the light switch, what happens? It seems like the light fills the entire room in a single second. Light travels from the light bulb to every corner of the room faster than you can even watch it move! Light moves faster than anything else we know. The speed of light is the fastest thing people have been able to measure. Your car drives very quickly on the highway. The fastest rocket ship



Light usually moves
in a straight line.

is about 1,000 times faster than your car. But light is more than 10,000 times faster than that rocket ship. It took the fastest rocket ship 8 1/2 hours to leave the earth and travel past the moon.¹ Beamer could travel to the moon in about 1 1/2 seconds!²

We also know that light usually moves in a straight line. It cannot travel around corners unless it has help. The only way it can go around a corner is by bouncing off things that point it in another direction.

When you go into a dark room and turn on a light, the light instantly bounces off all the things in the room, zig-zagging everywhere. Some of it even goes into your eyes so you can see the things that it bounced off of!



Time to do Activity 1 in the Activity Book!

How Does Light Act?

People have studied light for thousands of years. But we still don't understand everything about it. We don't understand exactly how light works. People have learned that it acts like the waves you see when you throw a rock in a pond. Light moves in little waves just like water moves in little waves when your rock hits it.

But people have also learned that light moves in little pieces called **photons**. These photons don't act like waves. Light seems to act differently when we study it with different machines. We haven't figured out



Definition

Photons are the smallest pieces of light.



Light acts like the waves you see when you throw a rock in a pond.



everything about how light works. But God knows it all. He is the only One who understands everything about light.

Beamer has been pretty quiet about himself, but this would be a good time to talk about light beams. Light beams are very useful. Lighthouses use light beams to warn boats on the sea that they are near land. Sometimes we see beautiful sunbeams stretching to the earth from between clouds. They draw our eyes up to show us a beautiful sight that reminds us of heaven and God's glory.

When light shines through mist or dust in the air, it's easier for us to see the light beams. This is because the light bounces off the mist or dust that it's shining through. Some of the light waves in a lighthouse's beam bounce off the ocean's foggy spray and into our eyes. Thankfully, most of the light waves keep on their straight path and do their job brightly for the boats.



Time to do Activity 2 in the Activity Book!



Things look gray at
nighttime without light's
energy hitting them.

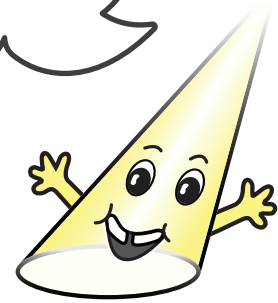


God Made Colors!

At nighttime, everything looks gray and black. Things really don't have any color by themselves until light's energy hits them. Then something beautiful happens!

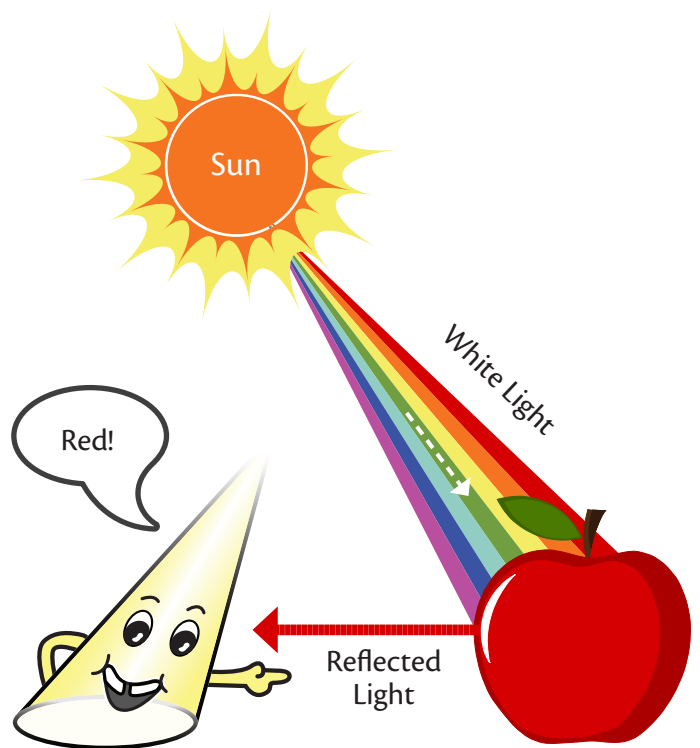
Even though light looks white to us, it is made up of every color on earth. God made each thing in the world in a special way so that when light hits it, some colors bounce off and others are absorbed or soaked in. The colors that bounce off are the ones that we can see. If you get hungry in the middle of the

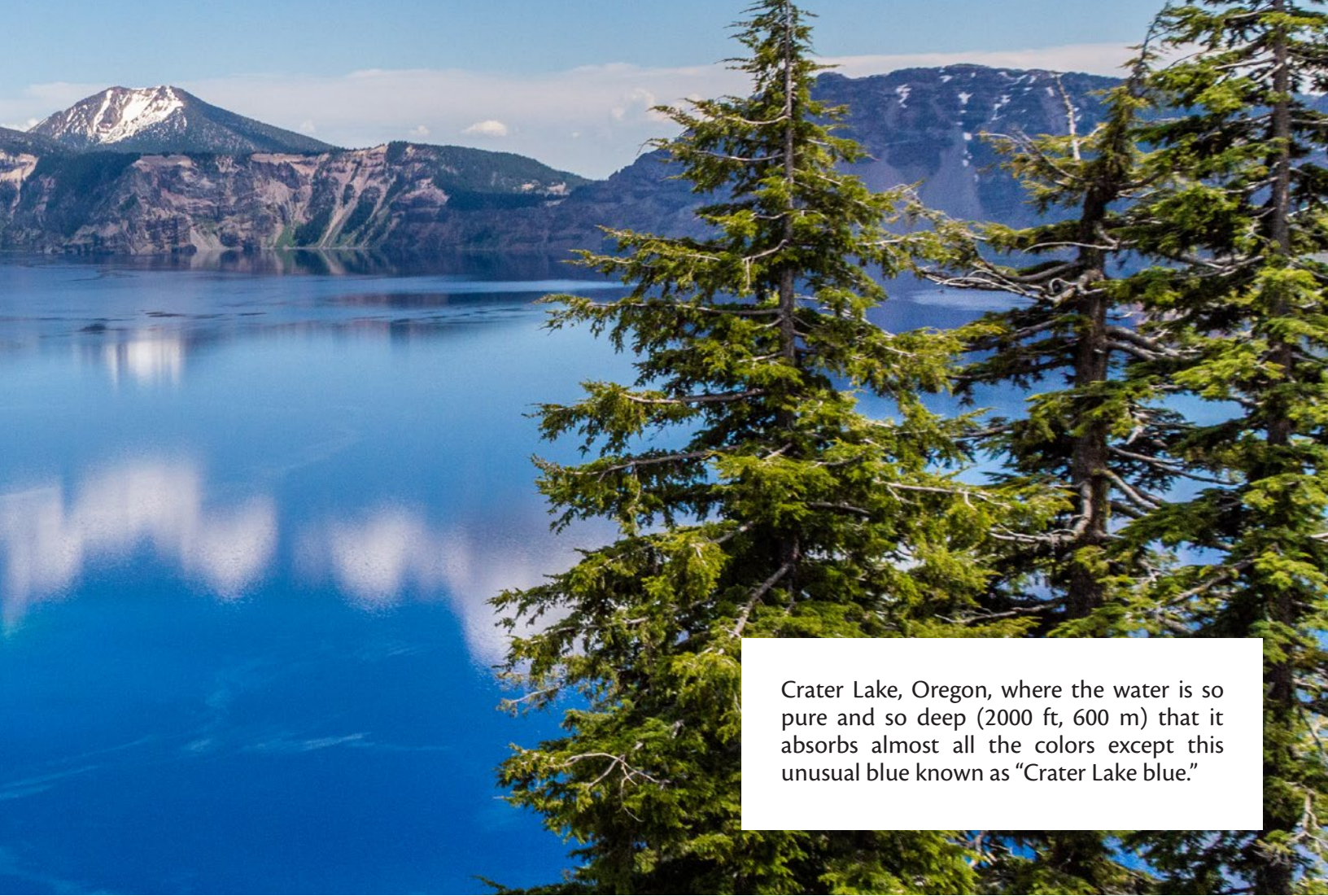
Yay! Now we get
to learn the most
beautiful thing
about light.
COLOR!





night, you might go into the kitchen and see a dim basket of fruit on the table. When you turn on the light, an apple grabs all the colors except red. Red bounces off, and some of this red color shines into your eyes. You think, “That apple is red.” Maybe you hoped for a banana. Yellow bounces off the banana, so it looks yellow to you. If the banana is old and black, then it will absorb all the colors, so none will bounce back at you. That’s why it looks so dark. If you use a paper napkin, it looks white because all of light’s colors are bouncing off it.





Crater Lake, Oregon, where the water is so pure and so deep (2000 ft, 600 m) that it absorbs almost all the colors except this unusual blue known as “Crater Lake blue.”

[God] called you out of darkness into His marvelous light. (1 Peter 2:9)



Prayer

Thank You, God, for making our world beautiful and safe with light. Thank You for all the different colors. Amen.



Time to do Activity 3 in the Activity Book!