

Lesson One of LIGHTLAB on PowerPoint

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Author of Lightlab

This is a useful tool when teaching Lightlab to a large group of kids. After the kids work through the book on their own or in small groups, they can gather to review and discuss the answers with the main teacher.

This PowerPoint is a Free sample for your review. It was prepared for a Mac and it may have glitches on a PC. We hope to provide a PC version soon ! The remaining PowerPoint lessons will be available for purchase after a few edits.

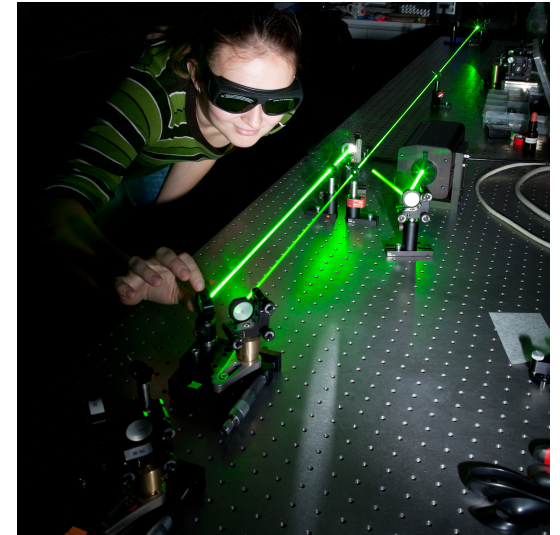
Please contact us through the website lightlabetc.com for comments and questions. We would love to hear from you !

Let There Be Light !



John 8:12 When Jesus spoke again to the people, he said, “I am the **light of the world**. Whoever follows me will never walk in darkness, but will have the light of life.”

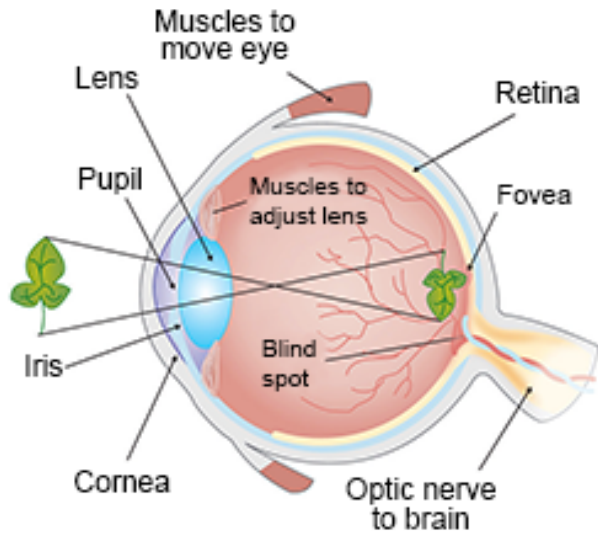
LIGHT SOURCES



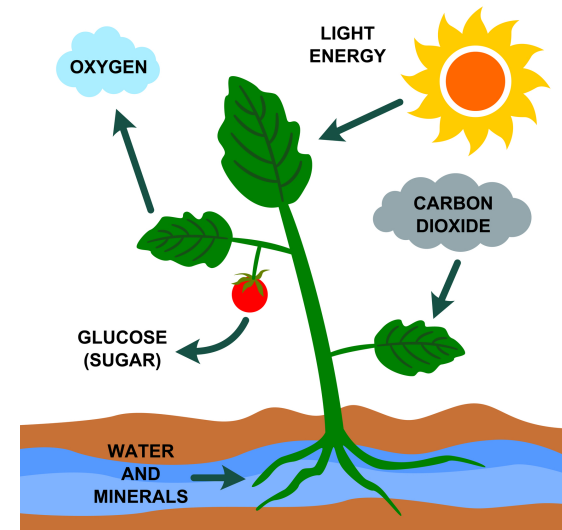
Which is the most important light source ?

How important is Sunlight ?

It helps us see shapes and colors



It helps plants to grow



It keeps us warm and helps our body make Vitamin D

Who created the Sun?

GOD created the sun

The **Sun** is so **Big** that a **million Earths** can fit in it

GOD created the sun at a **perfect distance**
from the earth!

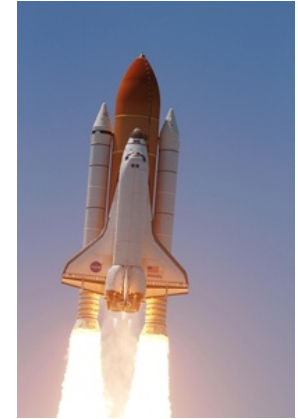
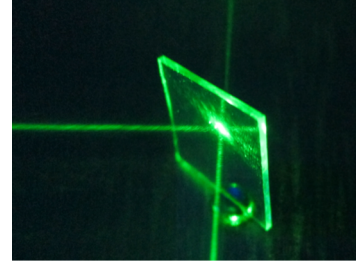
If the sun were too close, what would happen to earth ?

Everything on it would dry up and burn !

If the sun were too far, what would happen to earth ?

Everything on it would freeze!

Which is fastest ?



Nothing can travel as fast as Light !

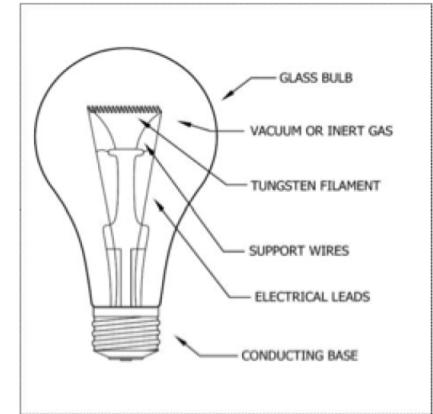
The speed of light in vacuum is about 186,000 miles/sec (300,000 km/sec)

It takes Light 8 minutes to get from the sun to Earth.
 1.3 seconds to get from the Moon to Earth

If you could travel at the speed of light,
How many times would you be able to go around the Earth in 1 second ?
7.5 times !!

The Light Bulb

The bulb glows as electric current flows through the filament inside and heats up, so the atoms of the gas release energy in the form of light. These bulbs, called incandescent, were used for over a century.



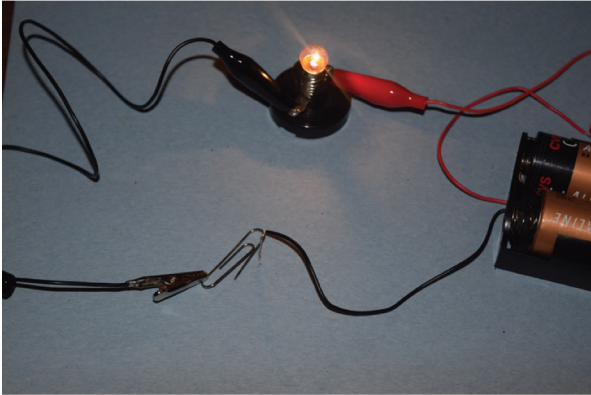
In recent years, they are being replaced by more efficient light sources such as fluorescent and LED lights.



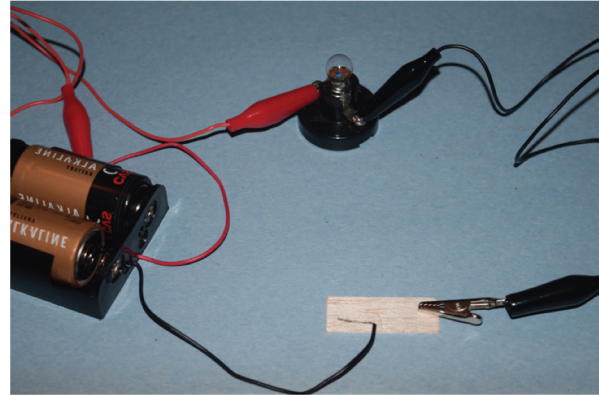
LAB TIME!

LIGHT ON/OFF

Go to your book pages 4,5 of book to perform your lab work.

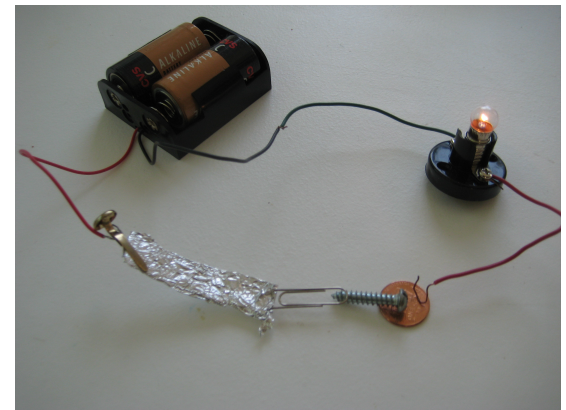


*Items that make light go ON are called **conductors***



*Items that keep light OFF are called **Insulators***

Hope you managed to light up the bulb by placing all your conductive materials in series. Make sure your batteries aren't old and that all the pieces touch.



LIGHT GLOW:

Go to your book pages 5,6 of book to perform your lab work.



If you have difficulties making this work, make sure :

1. Your batteries are fresh
2. The steel wool (is without soap)
3. The wool length gripped between the 2 alligators is no longer than 1cm
4. You are only using one strand of steel wool, not a bunch

Always think safe ! Use goggles and sand to work on !

God's Light

The word **Light** is used **hundreds** of times in the bible... It first appeared in:

Genesis 1:3-4

And God said, "Let there be **light**," and there was **light**. God saw that the **light** was good, and he separated the **light** from the **darkness**.

Why is God compared to Light ?

1 John 1:5, 6

*“This is the message we have heard from him and declare to you:
God is light; in him there is no darkness at all.*

Is there any darkness in light? **NO**

Which shows the truth: darkness or light ? **Light**

Since there can be no darkness in light, light is perfect. That is why God is said to be light and is therefore holy and pure. God is also reliable, and reveals to us the true way.

Psalm 18:28

**You, Lord, keep my lamp burning;
my God turns my darkness into light.**

Who can turn our darkness to light?

God

What does darkness in us represent?

Our sins and sorrows

John 8:12

When Jesus spoke again to the people, he said, “I am the light of the world. Whoever follows me will never walk in darkness, but will have the light of life.”

How does Jesus describe himself? the light of the world

What does Jesus promise?

To never walk in darkness, but have the light of life

The Story of the Magi

Matthew 2:1-11

Matthew 2:1-2 *“After Jesus was born in Bethlehem in Judea, during the time of King Herod, Magi from the east came to Jerusalem and asked, “Where is the one who has been born king of the Jews? We saw his star when it rose and have come to worship him.”*”

What guided the Magi?

The star

Who was the star leading to?

The king of the Jews

What did the Magi want to do?

Worship the King

Matthew 2:9-11 *After they had heard the king, they went on their way, and the star they had seen when it rose went ahead of them until it stopped over the place where the child was. When they saw the star, they were overjoyed. On coming to the house, they saw the child with his mother Mary, and they bowed down and worshiped him. Then they opened their treasures and presented him with gifts of gold, frankincense and myrrh.*

How did the Magi feel when they saw the guiding star?

They were overjoyed

What did they first do when they saw him?

They bowed down and worshiped him

What did they give him?

gifts of gold, frankincense and myrrh.

2 Peter 1:19

We also have the prophetic message as something completely reliable, and you will do well to pay attention to it, as to a light shining in a dark place, until the day dawns and the morning star rises in your hearts.

How did Peter describe the prophetic message?

Something completely reliable

How should we treat it? Pay attention to it

What is the prophetic message similar to?

A light shining in a dark place

Who does he refer to by “the morning star”? Jesus !

REFLECTIONS

- Do you prefer to walk in the light or the darkness?
- What are your thoughts about Jesus so far?

Memory Verse: John 8:12

*When Jesus spoke again to the people,
he said, "I am the light of the world.
Whoever follows me will never walk in
darkness,
but will have the light of life.*

Congratulations for completing lesson One of Lightlab “Let There Be Light!” !!

Discover more about the nature of Light, do more fun activities, and understand who God is in Chapter Two “What is This Light ?”

The website Lightlabetc.com contains more details about the book, photos of past lightlab clubbers and events, free crossword puzzles, videos and answers to questions in the book.

We would love to hear your comments about your experience with this Powerpoint and the book. You can contact us through the website or the Facebook page Lightlabetc which has our most recent postings !

“I think men of science as well as other men need to learn from Christ, and I think Christians whose minds are scientific are bound to study science that their view of the glory of God may be as extensive as their being is capable.” James Maxwell