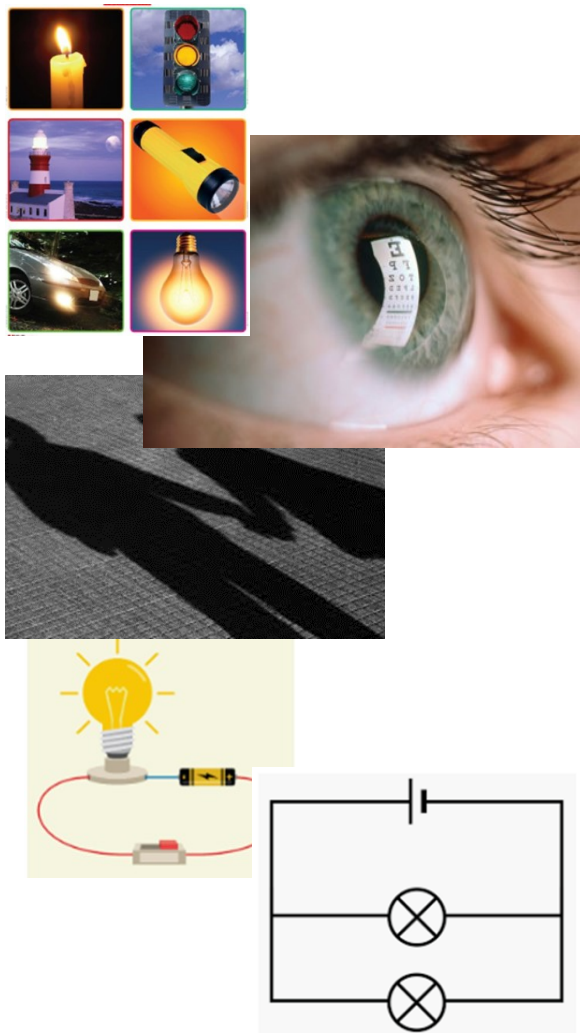
Science: Lime Class – Light and Electricity

Is the dark really anything to be afraid of?

Key Vocabulary—Light	
Opaque	Can't see through it, light can not pass through it
Transparent	Can see through it, light can easily pass through it.
Translucent	Light can pass through it but can not fully see through it clearly.
Shadow	A dark area or shape produced by aan object coming between rays of light and a surface.
Reflect	Throw back light without absorbing it. To show an image.
Reflector	A piece of glass or metal for reflecting light in a required direction
Reflection	An image seen in a mirror or shiny surface.
Sources	A place or thing from which something comes from or can be found.
Light	The thing that makes sight and makes things visible.
Dark	With little or no light.
Natural	Existing in or derived from nature; not made or caused by humankind.
Artificial	Made or produced by human beings rather than occurring naturally, especially as a copy of something natural.
Travels	Go or be moved from place to place.



Key Vocabulary—Electricity	
Insulator	Something which does not allow electricity to pass through it.
Conductor	Something which does allow electricity to pass through it.
Battery/Cell	A container consisting of one or more cells, in which chemical energy is converted into electricity and used as a source of power.
Circuit	A complete and closed path around which an electric current can flow.
Mains	The source of public electricity supply through pipes or cables.
Power Source	The place providing electricity.
Buzzer	An electrical device that makes a buzzing noise.
Electrical	Operated by or producing electricity.
Switch	A device for making and breaking the connection in an electric circuit.
Electricity	A form of energy .
Motor	Makes things move when electricity is present.
Bulb	A source of light.
Parallel	Side by side and having the same distance continuously between them.
Danger	The possibility of suffering harm or injury.

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Is the dark really anything to be afraid of?

Key Knowledge: Light
Black and dark objects absorb light and heat whilst white or light objects reflects it.
Some objects like glass are transparent which means that light can pass through them.
Our main source of light on Earth comes from the Sun. A ray of light travels very fast.
Darkness is made by blocking light from the sun or some other source of light, which makes shadows.
The Sun and other stars, fires, torches and lamps all make their own light and so are examples of sources of light.
A mirror is not a source of light it merely reflects light. Similarly, the Moon is not a source of light it reflects the light from the Sun.
Some animals are nocturnal. They are awake at night and can see very well in the dark. Our eyes aren't designed to see in the night.
We need to protect our eyes from the sun as it can damage our sight.
Light is measured in 'waves' and the light that we can see is only a small portion of the types of light. Light is an energy beam that moves in wavelengths.
Light will travel in a completely straight line until it hits an object that will bend it. The light that is in a straight line are called 'light waves'.
Light is used by plants to convert the light into energy as their 'food'.

Key Knowledge: Electricity
Electricity comes from the power station, the wind, the sun and water.
Electricity is a type of energy that build up in one place (static), or flow from one place to another (current electricity).
Coal is the biggest source of energy for producing electricity. Coal is burned in furnaces that boils water and creates steam.
A popular way of generating electricity is through hydropower. This is a process where electricity is made by water which spins turbines attached to generators.
Electricity comes from the power plant through underground or overhead lines to your home. It enters your home through a service box that keeps track of how much electricity you use. When you plug an appliance into an outlet in the wall, electricity flows into the appliance to make it work.
Electricity needs a complete circuit to provide power. IF a circuit is broken, then this stops the electricity reaching its destination
The more appliances, the greater the amount of electricity needed.
There are electrical symbols used in electricity.