

# 247. KS1 Explanation Texts—Torches and Bulbs

## PowerPoint Three - Bulbs

**Bulbs** MD 2010

1

For a while, Blog pretended that he understood how his new torch worked. As far as he was concerned, all he ever really needed to know was how to use the switch to turn it on and off. Then, one day, he started thinking...

2

Blog was confused. Thinking was hard work. He knew he had a bulb inside the torch but he didn't know how it made light when he switched it on? Why did it glow?

3

When the strange being came back to see how he was getting on, Blog decided it was time to ask how the bulb in his torch worked.

4

The strange being began to explain...

**How a Bulb Lights Up**

5

Inside the bulb is a thin piece of wire called a **filament**. The wire in the filament is wound round and round so there's a lot of wire in a small space.

6

When you turn a torch on using the switch, electrical energy from the batteries goes along the wires in the torch and into the wires in the bulb.

7

You get more light because the filament wire is wound so tightly that there is a lot of wire to get hot and glow.

8

Light bulbs can get very hot when electricity is going through the filament. Never touch a light bulb that has just been on!

9

Every now and then the strange being came back from space to tell Blog more and more about what he called 'things in the future'.

Blog learned that people lived in houses, not caves and he learned about some thing called electric. Back from the strange being came back, Blog learned a lot more. He didn't really understand but he did a lot of thinking!

10

The strange being told Blog there were lots of different types of bulbs and the time Blog was interested to hear how they worked.

11

**How a Bulb Works**

Bulbs come in different shapes and sizes.

12

There are bulbs hanging from the ceiling, bulbs in torches and bulbs inside car headlights. Some use mains electricity and some use batteries. Wherever people need light you'll find bulbs.

Bulbs are very useful!

13

Bulbs are used to light up buildings at night but how do these bulbs work?

14

All bulbs need **electricity** to make them light up. **Energy saving light bulbs** need less electrical energy than ordinary bulbs to make them light up.

Energy saving light bulbs are the ones most people use in their homes.

15

Bulbs get their electrical energy from **mains electricity**. This type of electricity comes from a **Power Station**. It flows through cables.

16

The cables go into buildings, houses and farms and are hidden under floor boards and inside walls.

17

The bulbs fit into special **sockets** that hang from the ceiling. The sockets are attached to cables that have wires inside. Electricity flows through the wires to the bulb.

The cables are covered in plastic to protect us from the electricity inside.

18

When the bulb is switched on, it lights up. When it's switched off it stops giving light.

19

Blog was beginning to understand but the strange being hadn't finished yet so Blog listened carefully...

20

Bulbs in torches don't use mains electricity, they use the electricity stored inside batteries. The electricity stored in a battery is much weaker than mains electricity.

21

And a bulb used inside a torch is smaller than bulbs used in houses so it gives less light.

22

Blog was sad. His torch was a wonderful thing but he really wished he could have some light bulbs to light up his cave!

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