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| **F:\Learning bugs\Foundation Subjects\Dolly the Fly - Science.jpgLyng Primary School Knowledge Organiser**  |
| **Topic: Light and Shadow** | **Science** **How does light effect shadows?** | Year 3 | Summer 1 |



**Notable scientists**

**Thomas Edison**

He created the light bulb by 1879.



**What should I already know?**

* We need light to be able to see things.
* Darkness is when there is no light.
* Some materials reflect light.
* I can name some everyday light sources such as torches, lights and the sun.
* I understand that looking directly at bright lights can be harmful to my eyes and I must never look directly at a bright light including the sun.

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| **What Step On and Goldilocks words will I use?** |
| **Spelling** | **Definition** |
| Light source | Something that gives out light |
| luminous | A word used to describe a light source |
| reflection | When light bounces of a material’s surface |
| transparent | A material which lets light through so little or no shadow forms |
| translucent | A material which lets some light through so that a faint shadow forms |
| opaque | A material which lets no light through so a shadow forms |
| shadow | A dark area caused by something blocking the source of light.  |

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| Investigate! |
| * Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables – measuring and recording the lengths of shadows.
* Ask relevant questions – what makes a shadow longer or shorter? – let’s investigate!
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**What will I know by the end of the unit?**











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| Our Enquiry Questions |
| * What are light sources and why are they important?
* What is reflection?
* Where do Shadows come from?
* How do shadows change throughout the day?
* Investigating shadows. How can we change the size of a shadow by moving the light source?
* What makes a material suitable for a shadow puppet?
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| **F:\Learning bugs\Foundation Subjects\Dolly the Fly - Science.jpgLyng Primary School Knowledge Organiser**  |
| ***Topic: Science*** | ***Science******How does light effect shadows?*** | *Year 3* |  *Spring 2* |

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| A light source is something that gives out light. This is knows as | **S** | **E** |
| a) shiny |  |  |
| b) luminous  |  |  |
| c) reflective |  |  |

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| Which word completes the sentence correctly:The shadow gets\_\_\_\_\_\_\_\_\_\_\_ as the sun gets higher in the sky. | **S** | **C** |
| a) shorter |  |  |
| b) longer  |  |  |
| c) lighter  |  |  |
|  |  |  |

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| A material that lets most light through, so forms little shadow is known as: | **S** | **E** |
| 1. translucent
 |  |  |
| 1. opaque
 |  |  |
| 1. transparent
 |  |  |

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| If a light source is moved closer to an object what will happen to the shadow?  | **S** | **E** |
| 1. it will get smaller
 |  |  |
| 1. it will get larger
 |  |  |
| 1. it will not change
 |  |  |

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| A material which lets no light through, so forms a shadow is known as: | **S** | **E** |
| 1. translucent
 |  |  |
| 1. opaque
 |  |  |
| 1. transparent
 |  |  |

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| Why do some ‘shiny’ objects appear to be luminous when they are not. | **S** | **E** |
| 1. because they reflect light
 |  |  |
| 1. because they are sparkly
 |  |  |
| 1. Because they are a light colour
 |  |  |

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| A material which lets some light through so that a faint shadow forms is known as:  | **S** | **E** |
| 1. translucent
 |  |  |
| 1. opaque
 |  |  |
| 1. transparent
 |  |  |
| 1. all of the above
 |  |  |

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| Which of the following is not a source of light? | **S** | **E** |
| 1. the sun
 |  |  |
| 1. a diamond
 |  |  |
| 1. a glow stick
 |  |  |

Start of quiz \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End of quiz \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_