



St Leo's and Southmead  
Catholic Nursery and Primary  
School

Year  
Four

# DT Knowledge Organiser

Spring  
Term

*Amazing Activities*  
E-mail David and Ronda  
Armitage with our designs

## Key concepts

Chn to investigate products with alarms.  
Define what a lunch box is for and why they  
are making one with an alarm  
Chn to look at lunch boxes and consider what  
the Lighthouse keeper would like as the design

Draw and annotate their own design.  
Evaluate their design and write a list of mate-  
rials for the following lesson — do they need  
to make any improvements / what do they  
think works well on their design?

Investigate how to make a circuit with a  
buzzer and how they might incorporate this  
into their lunchbox

Children to make lunch box and decorate it for  
the Lighthouse Keeper.

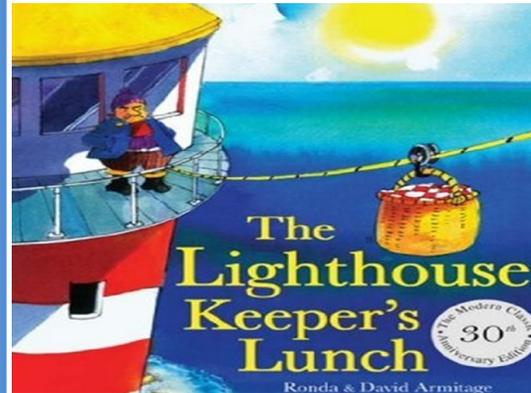
Attach circuit with buzzer and check that the  
buzzer works.

Evaluate their design and record how they  
might improve it/ what do they think works  
well on their design?



## How to catch a burglar

Children to design a lunch box  
for the lighthouse keeper to keep  
his lunch in, with an alarm that  
sounds should a burglar try to  
steal it.



## Curriculum Links

- **English Link:** Read other books about the Lighthouse Keeper.
- Children to record ideas as instructions
- **Maths link:** Measuring shapes and materials

## Skills – design, make, evaluate

- To look at toys with **alarms / lunch box designs** to influence their own design
- To select **different materials** to make a lunchbox considering availability
- To select **equipment** to make a lunchbox and an alarm
- To **build a circuit** to enable the **alarm** to work
- To **plan** their design, **evaluate** and suggest ways to **improve** it
- To **measure and cut** the materials to produce a lunch box

## Key Vocabulary

design	Plan draw and annotate to show the look and function of an object
evaluate	Decide how well the object looks and functions and how to improve
Battery	Consists of 1 or more cells where chemical energy is converted into electrical power
Buzzer	An electrical device that makes a sound
Circuit	A complete / closed path around which a circulating electrical current can flow.
Conductor	A material or device which allows heat or electricity to flow through
Current	A flow of electricity from electrically charged particles

Nurture, Inspire, Succeed