



## Lighthouse - KS2 Challenge Sheet

Why are lighthouses needed? Design and build a lighthouse which uses a simple electrical circuit. Lighthouses appear to flash. Can you make your light flash?

### **Educational objective**

A practical project to make a lighthouse, with a simple electrical circuit to light it.

### **Approach**

Whole class discussion about lighthouses. Group activity with children working in pairs to construct a simple circuit with a push to make switch to make the light flash. The children then have the task of building a lighthouse using K'NEX to house it. Devise a unique signal for the lighthouse.

### **Specific skills to be developed**

Manipulative, designing and making skills, social and problem solving skills.



### **Cross-curricular links**

History, geography

### **Ideas for extension activities**

Class visit to a Lighthouse or Swansea Maritime Museum. Using flashing bulbs in other contexts- emergency vehicles, indicators.

### **Equipment we will provide:**

boxes of K'NEX

battery packs

bulbs

switches

crocodile clip wires

### **Subject skills / Desirable outcomes**

Structures  
Electricity (D&T)  
Designing skills  
Making skills  
Control (D&T)

### **Life skills**

Innovation skills  
Problem-solving skills  
Team working skills  
Communication skills  
A 'can-do' approach