

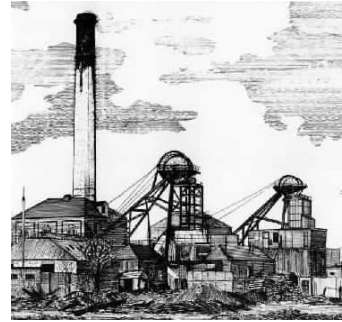


## A miner problem - KS2 Challenge Sheet

Wales has a rich heritage of coal mining. Can you design a working model of a coal mine? Will your model be able to lift the coal and the miners from underground to the surface?

### **Educational objective**

To provide an opportunity for problem solving, decision making and cooperative learning.



### **Cross-curricular links**

History, science, geography

### **Ideas for extension activities**

### **Approach**

Whole class discussion about how coal is moved from the coal face to the surface. Group activity with the children working in pairs to construct a model using K'NEX to move the coal from underground to the surface.

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

boxes of K'NEX

K'NEX battery motors

coal

string

figures

K'NEX wheels

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

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

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

Structures

Mechanisms

Designing skills

Making skills

Shape, space & measure

### **Life skills**

Innovation skills

Problem-solving skills

Team working skills

Communication skills

A 'can-do' approach