



Christmas Cracker - KS2 Challenge Sheet

Design and build a model of a Christmas novelty. Use a simple electrical circuit to add a light. Does your model need more lights or a sound?

Educational objective

A practical project to build an electrical circuit to power a light / buzzer, followed by the incorporation of the circuit in to a model.

Approach

Whole class discussion about Christmas traditions. Group activity with the children working in pairs to construct a simple circuit. The children will then use K'NEX to make a 3D model of a Christmas tree or a Santa alarm to catch Santa as he enters the house.

Specific skills to be developed

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



Cross-curricular links

Science, D&T, RE

Ideas for extension activities

Make other Christmas novelties eg illuminated Nativity scene, Rudolph with flashing nose, angel etc

Equipment we will provide:

boxes of K'NEX

Santas

battery packs

bulbs

switches

buzzers

crocodile clip wires

Subject skills / Desirable outcomes

Designing skills

Structures

Electricity (D&T)

Life skills

Innovation skills

Problem-solving skills

Team working skills

Communication skills

A 'can-do' approach