



POWER DISCOVERY ZONE

KS2

FACTSHEET 15

Power Flow

PE



? How to use this worksheet

- Before a PE lesson, let the children use this worksheet to help them plan a dance to represent the movement of an electric current around a circuit. In groups, they could try out their ideas before agreeing on how to move in a way that represents a flowing current, from when it starts to move, then performs work in a circuit (lighting a bulb) and then stops. You could first display a large copy of the page and demonstrate how to use 'stick people' to represent actions, and arrows to show direction and speed of movement.
- Ask the children to think about whether the movement is fast, slow, smooth or jerky, whether it starts and stops suddenly or gently – and how to represent these using dance. As an extension activity, they could choose or create music to accompany their dance. For suggested music, visit the weblink below.

⚡ Key Electricity Facts

- An electric current is produced when a power source makes electrons (charged particles) in the atoms of a material begin to move. Electrons can move from one conductive material to another; this is only possible in a complete, unbroken circuit. When the circuit is broken, by interrupting the flow with a switch, for example, this movement stops.
- The children can use what they know about the quality of movements to represent a current that moves around a circuit, lights a bulb ('works') and then stops with the flick of a switch or a power cut.



Exercise Extension: To save your lecture time and spend more time on physical activity the 4 elements of the electric circuit could be displayed on the board in the classroom in a flow chart and you could discuss ideas as a class before going in to the gym hall to start practising

National Curriculum supporting information

PE

Dance activities:

- 6a) create and perform dances using a range of movement patterns
- b) respond to a range of stimuli and accompaniment

SCIENCE

Sc4 Physical processes, Electricity:

- 1a) to construct circuits

ENGLISH

En1 Speaking & listening,

Group discussion & interaction:

- 3a) make contributions relevant to the topic and take turns in discussion

Drama:

- 4a) create, adapt and sustain different roles, individually and in groups

Related Material

www.sheknows.com/entertainment/articles/972061/10-pop-songs-little-kids-can-dance-to-oh-and-parents-can-hang-too





Work in a group. Use the boxes below to help you plan a short dance based on an electric circuit. Imagine you are all part of the electric current. Practise performing it.

Draw diagrams to show where your group will move. Use arrows for directions. Draw stick people to show the actions.

The switch is OFF.

The switch is ON

The current flows from one battery terminal and comes to a bulb. It burns brightly but it's hard work for the current.

The switch is switched OFF.

**Now try
this!**

- Perform your dance for another group to evaluate.
- See if you can improve it, or add more to it.

