PRIMARY LEVEL

POWER FOR EVERYONE EVERYWHERE

PRINTOUTS

Power for Everyone Everywhere is a hands-on enquiry-based wo Power for Everyone Everywhere is a hands-on enquiry based workshop that enables pupils to explore the global issues associated with electricity access and the role that engineering plays in electricity distribution.

UK ENGINEERS WITHOUT BORDERS

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This document and the accompanying materials are available to download from: http://www.ewb-uk.org/power-for-everyone-everywhere.

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www.ewb-uk.org

OVERVIEW

Power for Everyone Everywhere is a workshop designed to encourage pupils to explore the challenges associated with access to clean and reliable electricity around the world. Pupils learn about the importance of electricity to people's everyday lives and the role that engineering infrastructure plays in the distribution of electricity. Pupils design, build and test their own model wind turbine as part of this workshop. This workshop builds on the Sustainable Development Goals and the concept of global citizenship.

This document contains the printouts for Engineers Without Borders Ambassadors delivering the workshop. Teachers and youth group leaders can also use it. It should be used in conjunction with the accompanying slides, slide notes and Facilitator's pack. Please note that this resource is periodically updated. The date of the last update is on the inside front cover.

If you are not a teacher/youth group leader, please sign up to become an Engineers Without Borders Ambassador to be able to deliver this resource. Find out more and register here on our website. For any queries, please contact Engineers Without Borders UK directly using the email address: outreach@ewb-uk.org.

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FOR BUILD ACTIVITY: MAKE A WIND TURBINE	
Power for Everyone Everywhere Build Activity Printouts 'BUILDING A WIND TURBINE'	Print out 1 worksheet per group/ person
FOR EXPLORING ACCESS ACTIVITY: ELECTRICITY	
Power for Everyone Everywhere Exploring Access Activity Printouts	Print out 1 set of sheets

WHAT HAPPENS IF I DON'T HAVE ACCESS TO ELECTRICITY?

BUILDING A WIND TURBINE

Create a labelled sketch of your turbine blades, around the cotton reel that will turn around. Make sure you follow the design checklist.
Remember to think about the size and weight of your blades and to keep the central hole of the cotton reel clear so we can test it.

Design Checklist:	✓
Think about what you think would make an effective design	
Decide on a design in your team	
Drawn blade design and labelled materials	
Described key features of design (e.g. shape, size, angle of blade)	

Evaluate

1. Describe what went well about your turbine performance test.

2. Explain how you could improve your turbine.

LARGE CITY

1 MILLION PEOPLE

COUNTRY CAPITAL CITY

5 MILLION PEOPLE

RURAL AREA

500 PEOPLE

SMALL VILLAGE

2 THOUSAND PEOPLE

SMALL CITY

100 THOUSAND PEOPLE

COUNTY CAPITAL CITY

750 THOUSAND PEOPLE

COAL-FIRED POWER STATION

WIND FARM