

Nikola Tesla

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From this task, children will:

- listen and respond to stories to promote recall and pronunciation of keywords (oracy)
- read, understand and use key vocabulary (Tier 2 and 3)
- be inspired by a creative story to explore ideas for how to work scientifically

LISTEN – to the story



This activity is designed to support children to explore and understand interesting vocabulary.

Three keywords are focused upon: authentic, power plant and coursing

As you listen to the story, you will hear 3 places to pause and to talk together about those words.

LEARN – the keywords

2 activities are provided specifically to develop vocabulary and language understanding, which they can then use and practise in their talk and writing.

Vocab Roll! Encourages children to look closely at the keywords, exploring their definition, antonyms and synonyms. Grab a dice or use this link <https://dice.virtuworld.net/> to get started.

Synonym Selector! Strengthens and builds on children's word understanding by recognising words that have very similar meaning..

DO – get involved in a science investigation!

Children may be inspired to find out more about Nikola Tesla and to try investigations that relate to using electricity in battery circuits. They could also use secondary sources (books, the internet, people) to gather evidence related to Tesla's inventions.

Spot and Sort with Tesla! Take a look around you home or school to identify appliances that use electricity. Use this sorting activity to explore this topic.

Then think about how in today's society the shift towards renewable energy sources is important. Use the PSTT's Power Up activity to create a wind turbine. Access the information below or find out more at:

<https://pstt.org.uk/resources/curriculum-materials/Science-Fun-at-Home>

Educators have been granted permission from the publishers to film a reading of this book which can be used until 21st June 2021.

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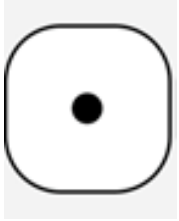
Vocabulary Roll

Use a 6 sided dice. Roll the dice and carry out the activity associated with that number. Choose a different keyword to explore on different tries.

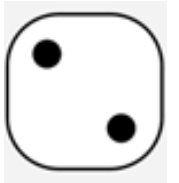
authentic

coursing

power plant



Draw the word



Act out the word



Say what the word means - it's definition



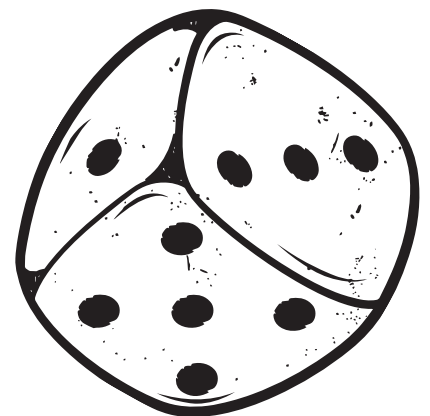
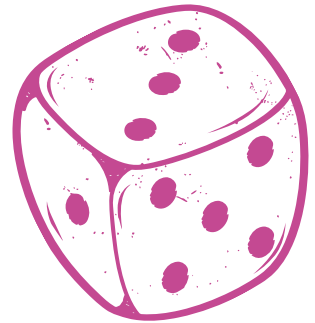
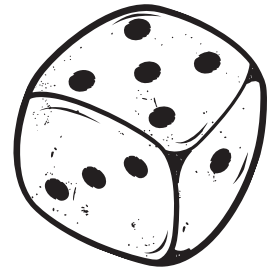
Say 2 similar words
- synonyms



Say 2 opposite
words - antonyms



Use the word in a
sentence

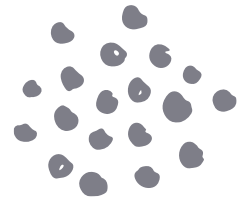


Synonym Selector

Synonyms are words that have very similar meaning.

Complete the word wall by matching the *synonyms* to the key words on the wall. Add one more you can think of.

Tip! Not all words belong on the wall!



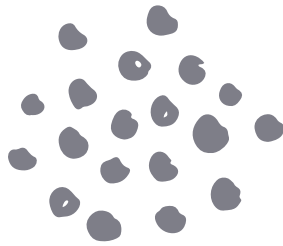
	authentic	

false
power station
battery

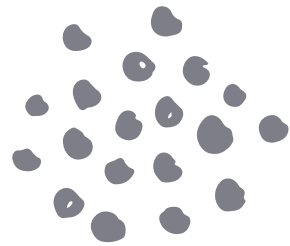


accurate
dawdle
genuine

	coursing	



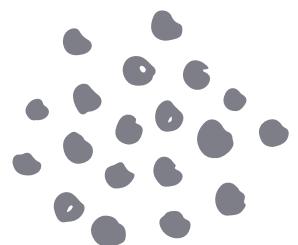
true



	power plant	

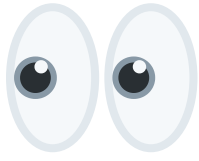
chasing

flowing



Spot and Sort with Tesla!

Identifying common appliances that run on electricity



1. Find



2. Name



3. Draw

How many appliances can you find around your home or school? Name and draw them on a small piece of paper.

4. Sort and classify them into groups

Move the paper around to find how many different groups you can sort them into?

portable or stationery

toys or not toys

permanently on or on
standby or off

Things I use or things I
don't

in all rooms or specific rooms

makes light, sound or both

Mains or battery

THINK ABOUT

What reasons effect where electrical appliances are kept in the home?



Power up

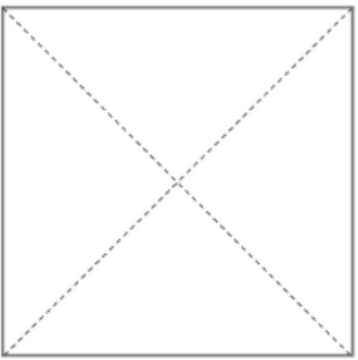
LINKED CHALLENGE

To make a simple wind turbine

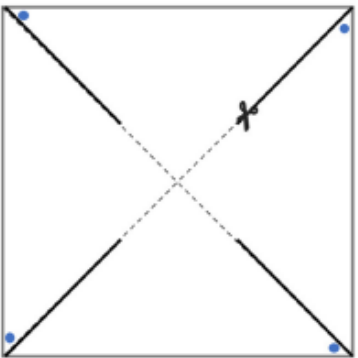
ACTIVITY OVERVIEW

Encourage children to recognise objects around the classroom that use electricity and discuss the different ways it is produced, including the use of fossil fuels and renewable energy. (The linked video could be used to support this.) Focus on why renewables are important. In this session, children will make a simple wind turbine.

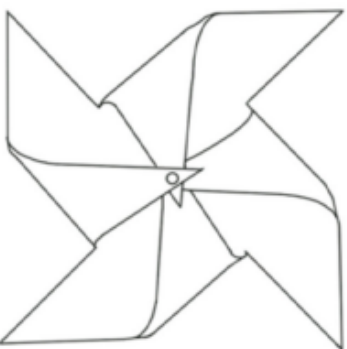
Fold along diagonals, then open out.



Cut along diagonals to ~2cm from centre. Mark dots as shown and carefully pierce each with pin.



Bring 'dotted' corners to centre and secure by pushing a dressmaker's pin through each dot and the centre point.



Attach this wind turbine to the top of a pencil by pushing the pin through the rubber. Test the turbine by taking it outside (on a windy day), using the class fan, or blowing. Explore different sizes of paper and/or card.

KEY FACTS/SCIENCE

Wind and water power are 'clean' sources of energy. They do not produce harmful greenhouse gases such as carbon dioxide that contribute to global warming.

Each blade of a turbine is similar in shape to the wing of an aeroplane, in this case catching the wind's energy as the air passes over the blades to create spin. In wind turbines, these moving blades turn a rotor, which is connected to a generator. A generator converts rotational movement into electricity. Children may have seen a dynamo on a bicycle work in a similar way (spinning wheels turn the rotor in the dynamo).



RESOURCES

- Squares of paper (Various types and sizes)
- Rulers
- Pencils
- Scissors
- Dressmaker pins
- Modelling clay or mounting putty
- Pencils with rubber tops
- Class fan

Health & Safety:

Use modelling clay, mounting putty (or similar) to cap any pin point that protrudes the pencil rubber.

QUESTIONS/FURTHER LEARNING

- Does the size of the wind turbine or the type of paper/card from which it is constructed affect its movement?
- What do you think happens to the energy produced when the blades spin faster or slower?
- Why might it be better for our world to use renewable energy sources? Are there any disadvantages?

Online supporting video :

<https://tinyurl.com/kpdmw5w>

