



# Wind Energy and You

Primary School Senior level

# Wind Energy in Ireland

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- There are over 350 wind farms on the island of Ireland
- The first wind farm was built in Mayo in 1992
- Wind provided 37 per cent of our electricity in the first three months of 2019 (EirGrid, SEAI and IWEA data)
- Have you ever seen a wind turbine?



An aerial photograph of a lush green landscape. In the foreground, there are rolling green hills and a dense forest of evergreen trees. A winding road or path is visible through the fields. In the middle ground, several white wind turbines are scattered across the hills. The sky is a clear, bright blue. The overall scene is peaceful and scenic, representing a clean energy landscape.

## Climate Change

Why do we need wind energy?

- We need to move away from using fossil fuels – to an energy source that is kinder to the planet. Energy like wind and solar can help us do this.
- The Government has a plan to get 70% of our electricity from wind and solar by 2030.

# What is a fossil fuel?

- A long, long time ago (over 300 million years ago) lots of plants got turned into fuels
- Bushes and Ferns got turned into coal and gas
- Plants and sea creatures got turned into oil and gas

What do we call things that are very old and trapped in rocks underground?

F O \_ \_ \_ L S?

- Fossil fuels cannot be renewed or made again once they run out





# What **Fossil Fuels** do you know?

- What fuel does your house need for heating?
- What fuel does your car need for driving?
- Is there an endless supply of fossil fuels?
- Do you think these fuels come from Ireland?
- What can we make energy from in Ireland?

## Ireland's Energy resources

- This is a map showing wind speeds across Europe
- Lots of wind blows across Ireland – Why?
- We have hydro
- We have peat
- We have no coal in Ireland
- We have no nuclear in Ireland
- We have natural gas in Ireland



Wind speeds



>6m/s

5-6 m/s

4.5-5 m/s

3.5-4.5 m/s

What kinds  
of energy do  
we have lots  
of in Ireland?





# Why Wind Turbines?

- Does the wind blow all the time?
- What can we use when there is no wind?
  - Power stations?
  - Solar panels?
  - Energy Storage?
- Why do we use wind turbines then?
  - Do they need fuel?
  - Do they cut our emissions?
  - What do we have lots of in Ireland?



# What do wind turbines do?

- Wind turbines make electricity
- Do they make electricity all the time? Is it always windy?
- But they do make electricity somewhere in Ireland most of the time
- Wind turbines are put in places with the highest winds
- Where do you find the windiest places?
- M\_\_\_\_\_
- Beside the S\_\_
- In the S\_\_

**Wind turbines made 29% of all of Ireland's electricity in 2018**

**No fuel needed**

**Energy made in Ireland**





Some questions for you

Why do we need to move away from fossil fuels?

What Percentage (%) of electricity was made by wind in Ireland in 2018?

Where do we find the strongest winds?

Thank you for listening!

**IWEA**  
Irish Wind Energy Association