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# The boy who harnessed the wind

This resource was created to accompany the Green-Schools Ireland Global Goals Book Club.

[www.greenschoolsireland.org](http://www.greenschoolsireland.org)

**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE





# Global Goal 9: Industry, Innovation and Infrastructure



This resource is designed to inspire your classroom with engaging activities that support critical thinking and meaningful discussions centred around the Global Goal of 'Industry Innovation and Infrastructure'.

**Age Group:** Junior Infants - 2nd class

[Watch Arran Towers introduction to Global Goal 9](#)



## Resource List:

- The Boy who Harnessed the Wind Discussion Questions
- Where is William Kamkwamba now? (videos and info sheet)
- Make your own wind turbine Activity (video)
- Factsheet about wind turbines in Ireland

## Global Goals Book Club and Global Goal 9: Industry, Innovation and Infrastructure

This goal emphasises the importance of developing quality, reliable, and sustainable infrastructure, promoting inclusive and sustainable industrialisation, and encouraging innovation.

"The Boy Who Harnessed the Wind" by William Kamkwamba beautifully illustrates these themes. The story of a young boy from Malawi who constructs a windmill to bring electricity and water to his village highlights the power of ingenuity and determination. By learning about William's achievements, children can understand how innovation and infrastructure can significantly improve lives, even in the most challenging conditions. This book inspires students to think creatively and understand that their ideas can contribute to sustainable development and global progress.

**We would love to see pictures of your bookworms artwork and creations from the activities in our Global Goals Book Club. Please email any photos to [globalcitizenship@eeu.an.taisce.org](mailto:globalcitizenship@eeu.an.taisce.org)**

# The Boy Who Harnessed the Wind

## The Boy Who Harnessed the Wind

Read or listen to the book 'The Boy Who Harnessed the Wind' by Bryan Mealer and William Kamkwamba with your class. The questions below offer a guide for discussion with your class, along with some actions and activities to complete.



**[Listen to the story here.](#)**

### Discussion Questions:

1. How did William demonstrate innovation in his community? Can you think of other ways people can innovate to solve problems in their own communities?
2. What were some of the biggest challenges William faced when trying to build the windmill? How did he overcome them?
3. How did the lack of infrastructure affect William's village? In what ways did the windmill improve life for William's family and neighbours?
4. Besides wind power, what other sources of renewable energy could be harnessed to provide electricity to rural areas like William's village?
5. How did the community come together to support William's project? Why is community support important for big ideas like his?
6. How might the windmill William built inspire other communities around the world facing similar challenges with electricity and infrastructure?
7. What role did education play in William's journey to build the windmill? How important is education in driving innovation and progress in communities?
8. What are some ways William and his community could ensure the sustainability of the windmill project over time?
9. If you could invent something to help your community, what would it be and why? How might it improve the lives of the people around you?
10. What lesson about perseverance and innovation did you learn from William's story? How can you apply this lesson in your own life?



## Meet William Kamkwamba

Meet William himself describing his project and the impact it had for his family and community:



[Watch Video here](#)



## What is William doing now?

If you would like to know how William is doing now have a look at the following short video:



[Watch Video here](#)

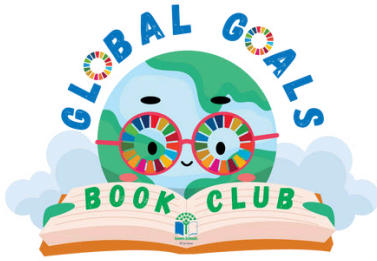


## Make your own windmill

Learn how to make your own windmill. This is a fun activity for your classroom.



[Watch Video here](#)



# Wind Turbines in Ireland

Windmills have been used as far back as the middle ages. They were used to pump water or grind flours. They are still used in many places in the world to pump water like in the story. It is in the 1800's and 1900's that they were used to generate electricity. Wind power is energy and there is always wind on planet earth. Large windmills are called wind turbines; they are used to generate electricity which then allows us to switch on the kettle or light switch at home. Lots of wind turbines are called wind farms and they are either on land or out in the ocean. Ireland's location at the edge of the Atlantic makes it a prime location to harness wind. We are one of the leading countries in the world for harnessing wind to generate electricity. On a windy day Ireland can generate 50% of the electricity needed to power the country.

## Fun Facts about Wind turbines

- The tower of the wind turbine is 200-300 feet tall. When you add the height of the blades they become 400 feet tall. The same size if the Spire in Dublin City.
- The blades are huge also and are usually 115 -148 feet long in width
- The wind turns the blades of the turbine which turn a shaft inside the turbine. The shaft is big and it turns slowly. This shaft is connected to a number of gears which causes a smaller shaft to turn much faster. The smaller shaft drives the electrical generator which generates the electricity we use in our homes

## What are the advantages of using wind?

- It is a renewable source of energy, which means that it will not run out!
- As one of the windiest countries in Europe, it is perfect for our climate!
- Wind energy is pollution free.
- The land between the turbines can be used for farming meaning it does not take up too much space.
- Wind turbines can be used to supply energy in remote places.
- There is no need to dig underground or drill for the resource; therefore, there is less land pollution!

## What are the disadvantages of using wind?

- There are potential local wildlife impacts such as birds being killed by the blades of the turbine.
- The wind is not always predictable. Some days may have a lot of wind and others may have no wind at all.