

Task: Design a turbine that will turn the fastest with a constant water flow.

1. Before researching, record your own design here. Include labels.



2. Create four safety rules for designing a safe model of a water turbine.

3. What energy transfers will take place in rotating your model of the water turbine?

4. Use the following links to research designs for water turbines.

[Scoilnet-Building Ireland: Research Links for Designing a Turbine](https://www.scoilnet.ie/learning-path/ref/4692/)
<https://www.scoilnet.ie/learning-path/ref/4692/>

Record each research idea into the table on the next page.

Video	Describe the design	How could you incorporate this design into your design?
1		
2		
3		
4		
5		
6		
7		

5. Draw a diagram of your new design including features from your research.



6. What changes did you make to your design?

Why did you make these changes?

How would engineers use this understanding to design hydroelectric power plants?

Why do engineers construct hydroelectric power plants?

7. Materials needed to build your design:

8. Refer back to your safety rules, is this design safe to build?

YES

☐

NO

☐

9. Use the following links to research how a water turbine is similar to a wind turbine. *(Ensure Flash is enabled on your device)*

[Scoilnet - Building Ireland: Research Links for Wind Turbines.](#)

[Link: https://www.scoilnet.ie/learning-path/ref/4691/](https://www.scoilnet.ie/learning-path/ref/4691/)
