



Wonder  
Project

## Power Challenge

### Activity 2.2: Ask

STEM superstars start their projects by asking lots of pātai. This helps them understand the problem they're trying to solve.

**The big problem you need to solve is:**

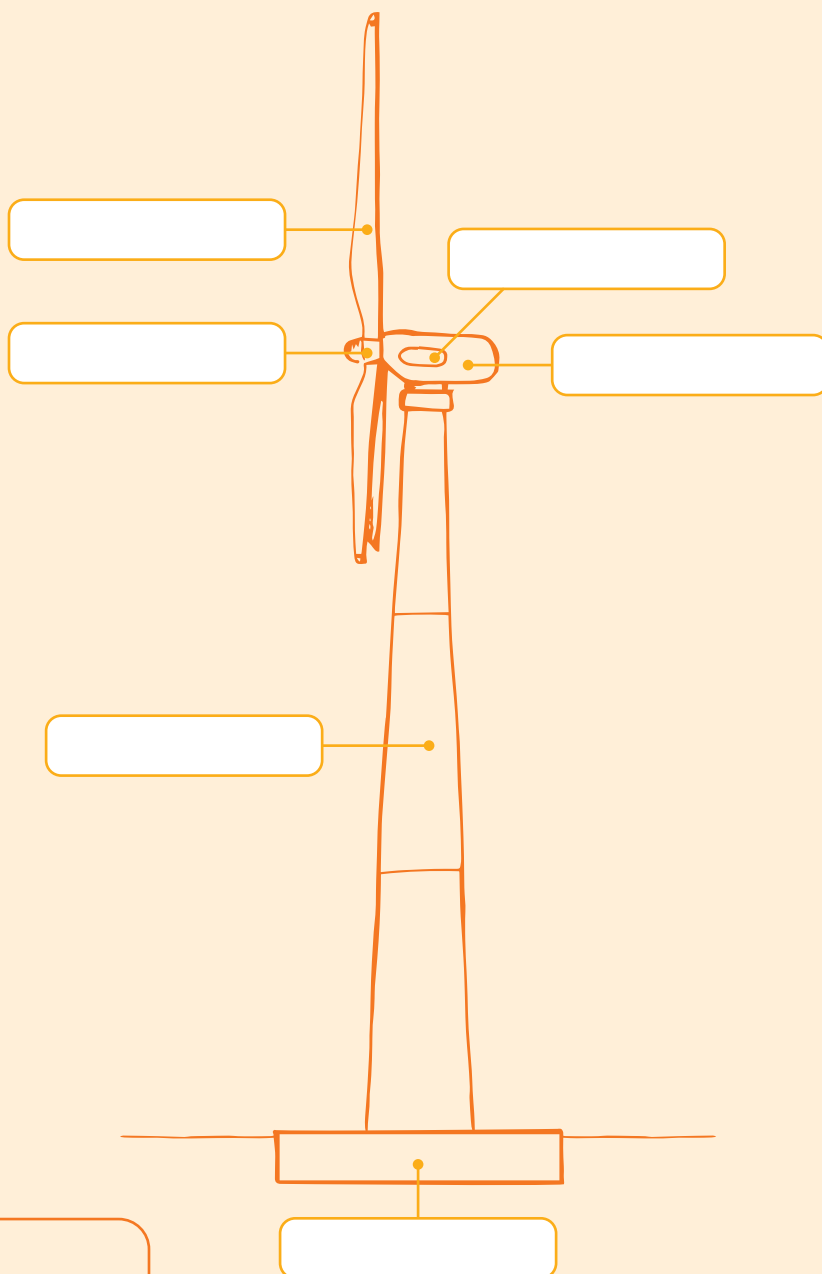
*I wonder how to power a brighter future?*

You can start to unpack this problem by answering these power-ful pātai.

**I wonder what parts a turbine has?**

Fill in the gaps with the correct turbine parts.

- Base
- Tower
- Generator
- Nacelle (generator housing)
- Hub
- Blades



### I wonder how a turbine generates electricity?

Fill in the gaps with one of these words. Some might be used twice!

Wind energy

Blades

Rotational  
energy

Generator

Electrical  
energy

When  moves over the turbine .

it transforms into . This makes the blades spin.

The blades are connected to the turbine's .

So, when the blades spin, the  spins.

This transforms the  into .

### I wonder how aerodynamics affects turbines?

Aerodynamics is:

It affects  
turbines by:

Some blade  
design variables  
that impact  
aerodynamics are:

