

Teacher's Pet

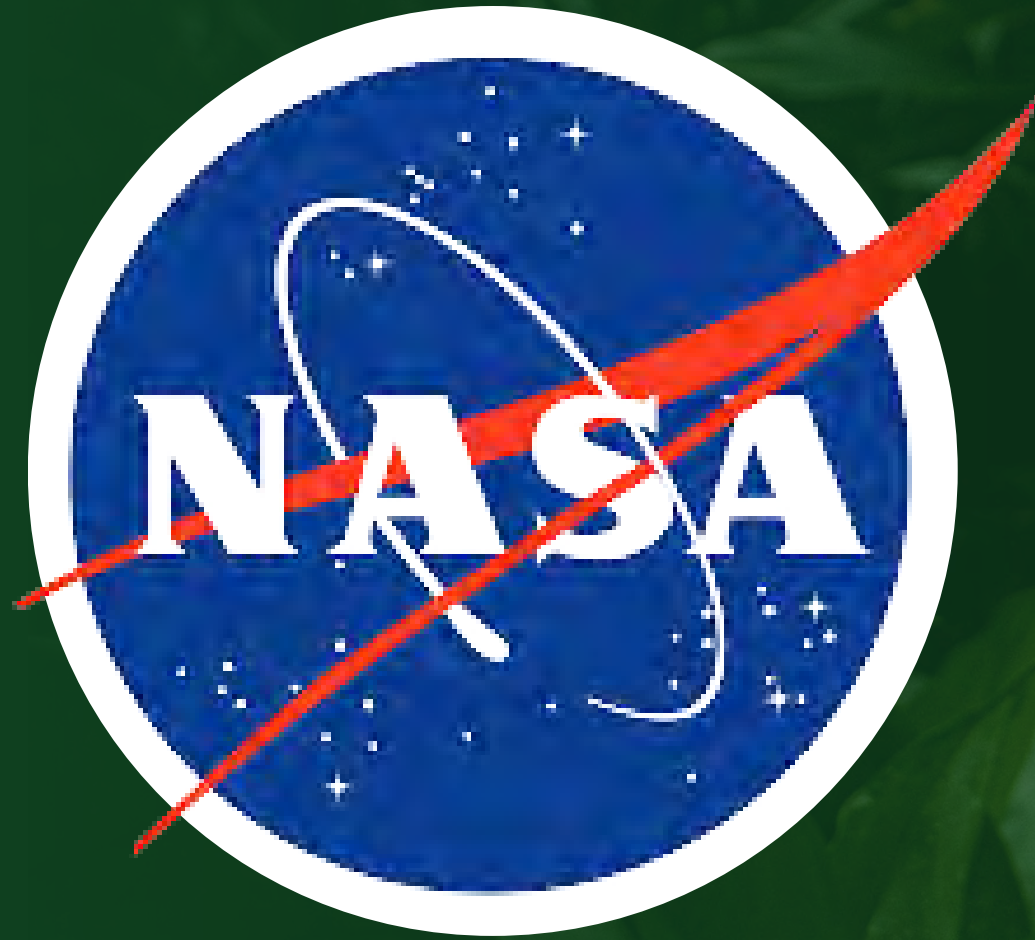
Earth's Changing Climate



What is Citizen Science?

You are a citizen scientist!





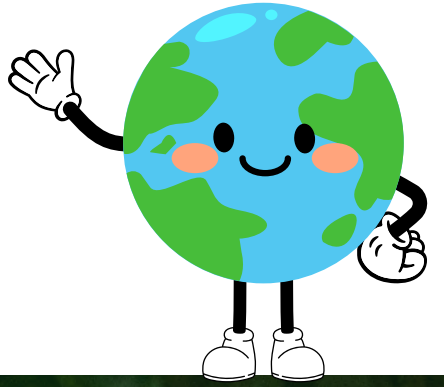
Scientific Agencies

Many agencies like NASA, GLOBE, and CoCoRaHS will recruit citizen scientists so they can collect more data than they ever could.



How Can You Get Involved?

Visit: <https://naturealberta.ca/citizen-science/>



Climate Change

Climate change can cause:

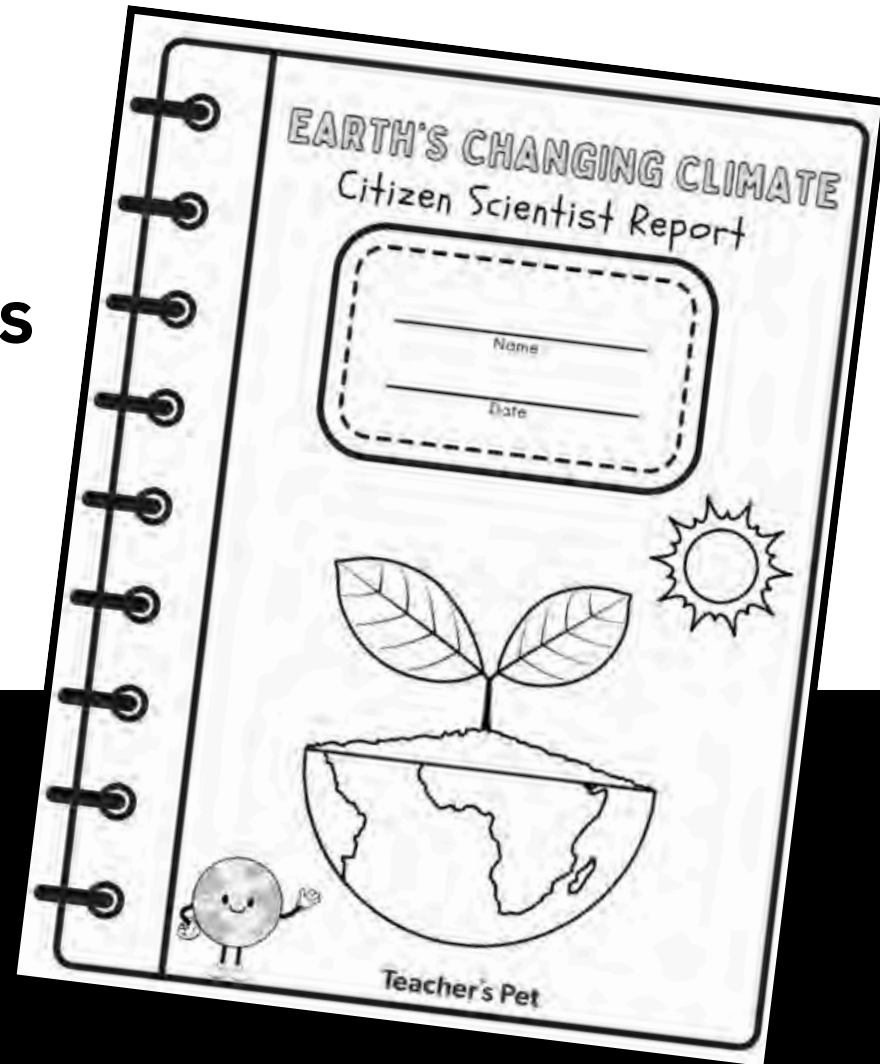
- harsher weather
- more natural disasters
- dangerous conditions
- extinctions

Did climate change cause dinosaurs to go extinct?

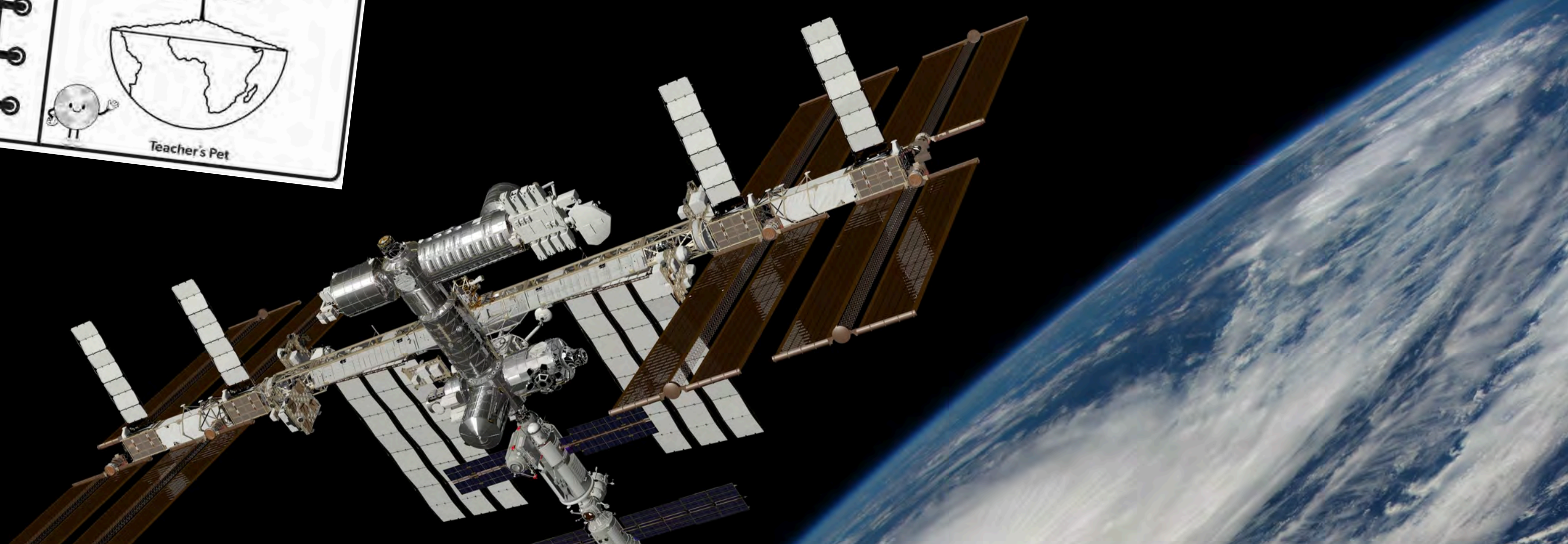


Before We Get Started!

1. Citizen Scientist's Report

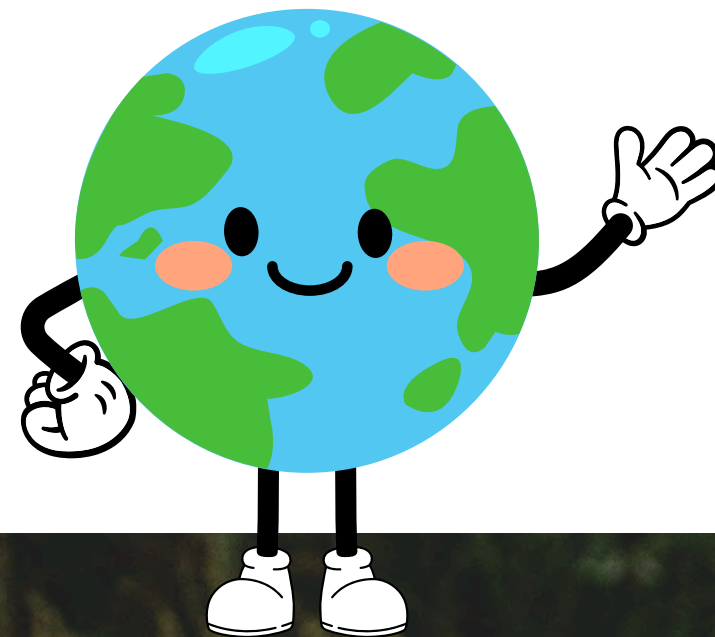


2. Live feed from the International Space Station:
<https://eol.jsc.nasa.gov/ESRS/HDEV/>



Station Rotations

- **Station 1 - Welcome to Tofield, Alberta**
- **Station 2 - The Climate Conundrum Game**
- **Station 3 - VR Earthen Extremes**
- **Station 4 - Let's Get Technical**



The image features a dark green background with a pattern of various leaf shapes and textures, including some with prominent veins and others with more intricate patterns. The leaves are layered, creating a sense of depth and natural texture. The overall color palette is a range of greens, from deep forest green to lighter, almost yellowish-green highlights on some leaves.

Earth's Climate Change Video

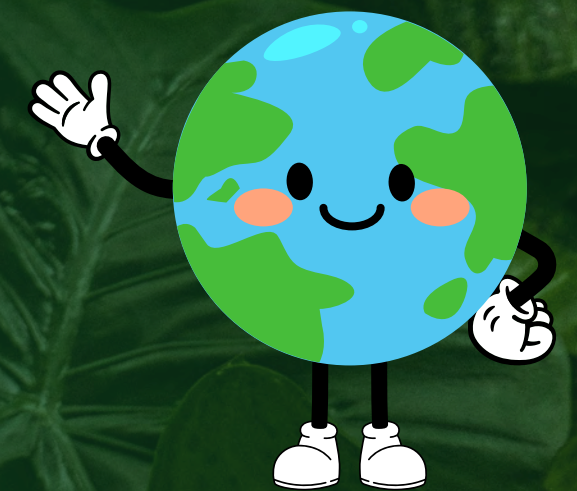
Let's talk energy!

What are Renewable resources?

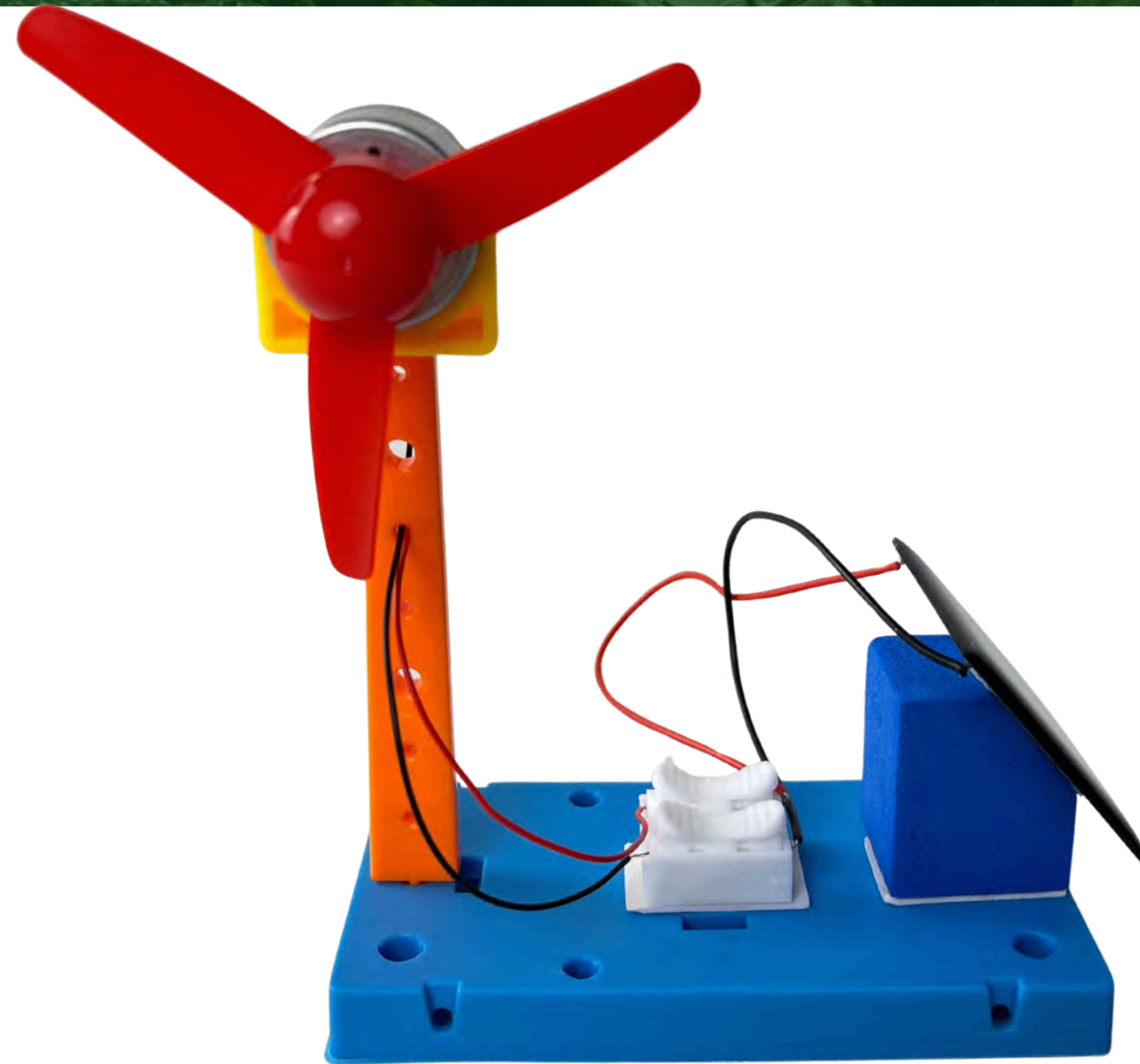
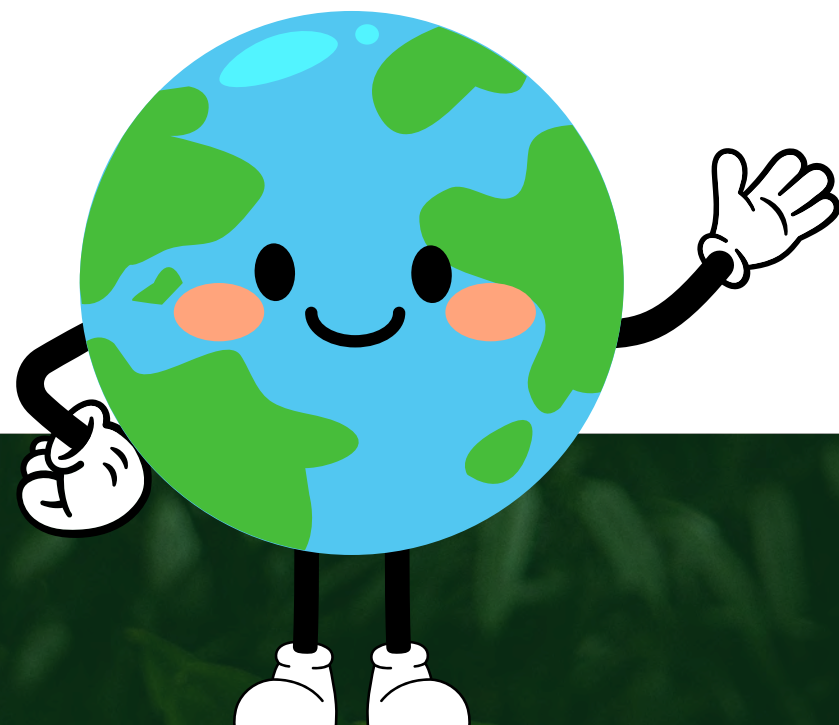
What are Non-renewable resources?

Do you have to process energy
before you can use it?

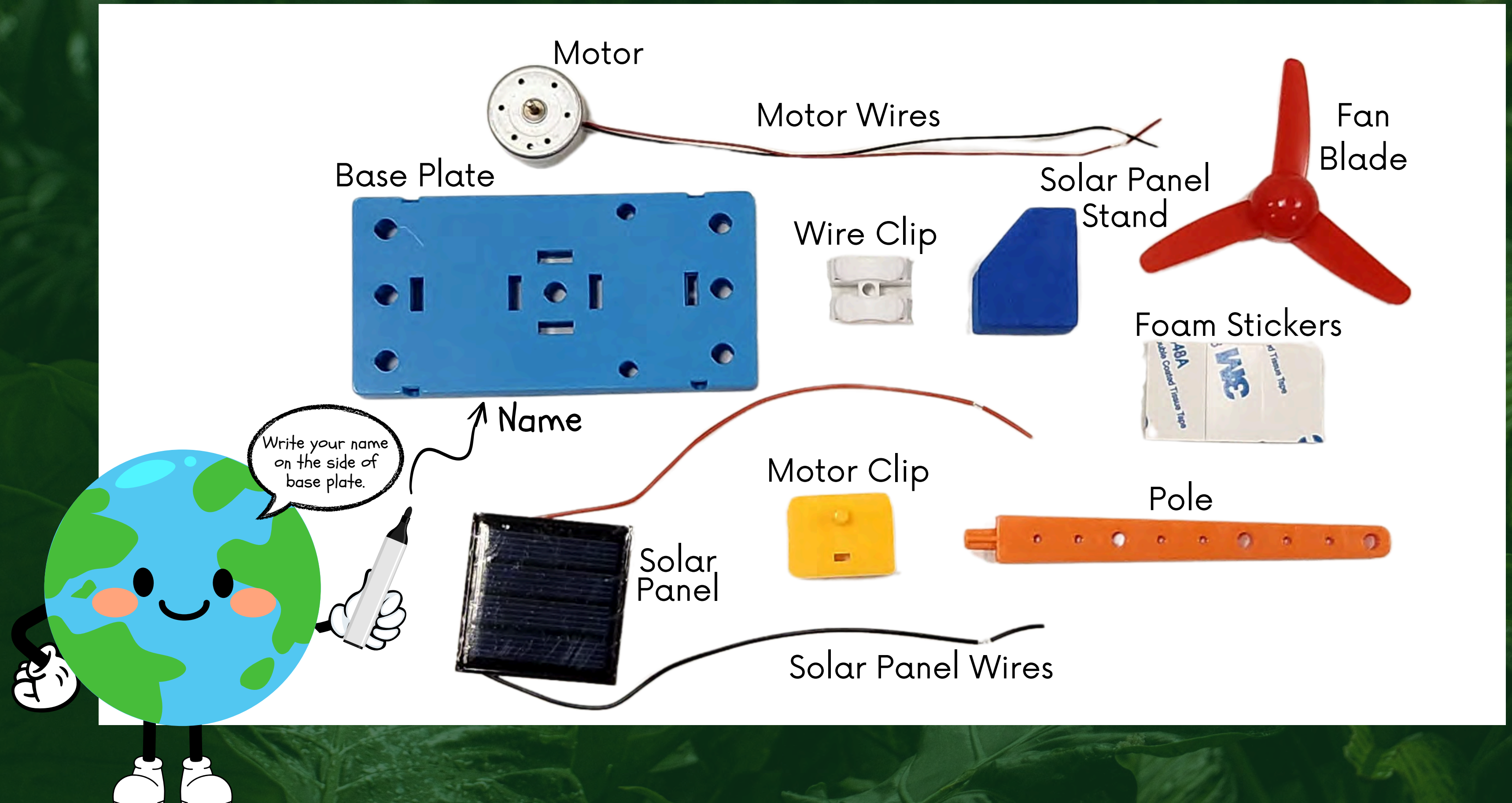
What kinds of energy have we
already talked about during the field
trip?



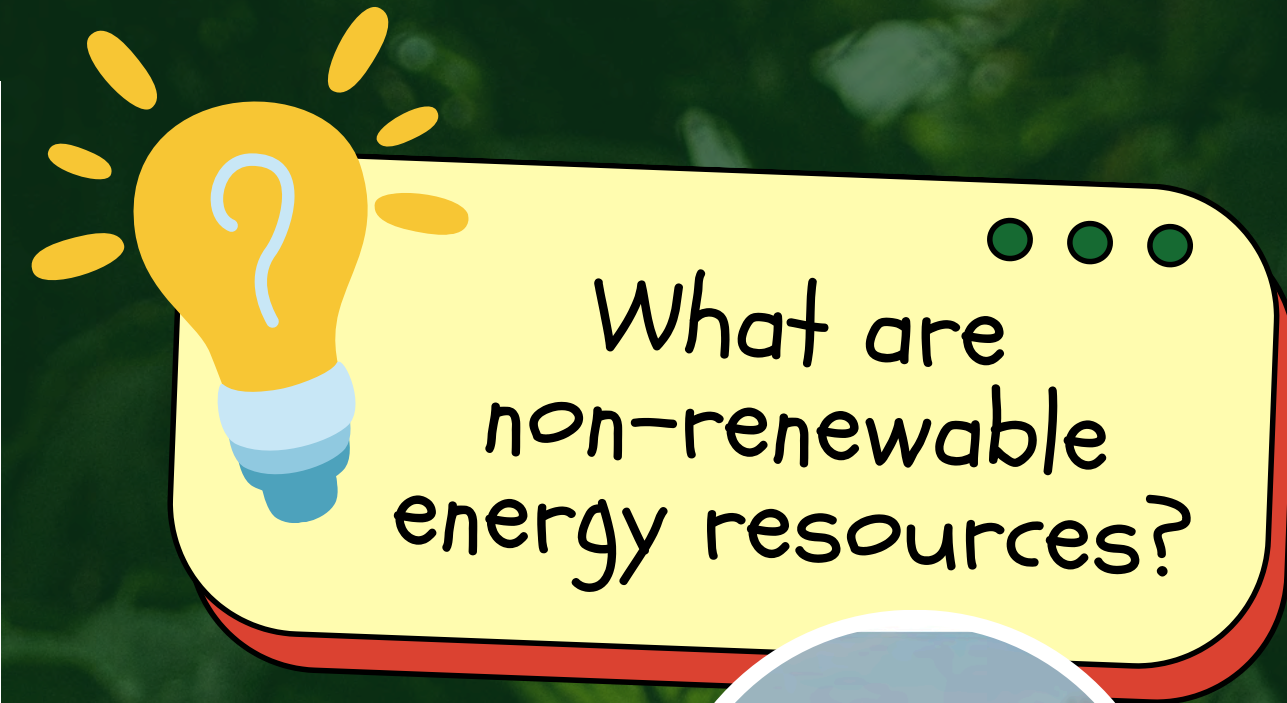
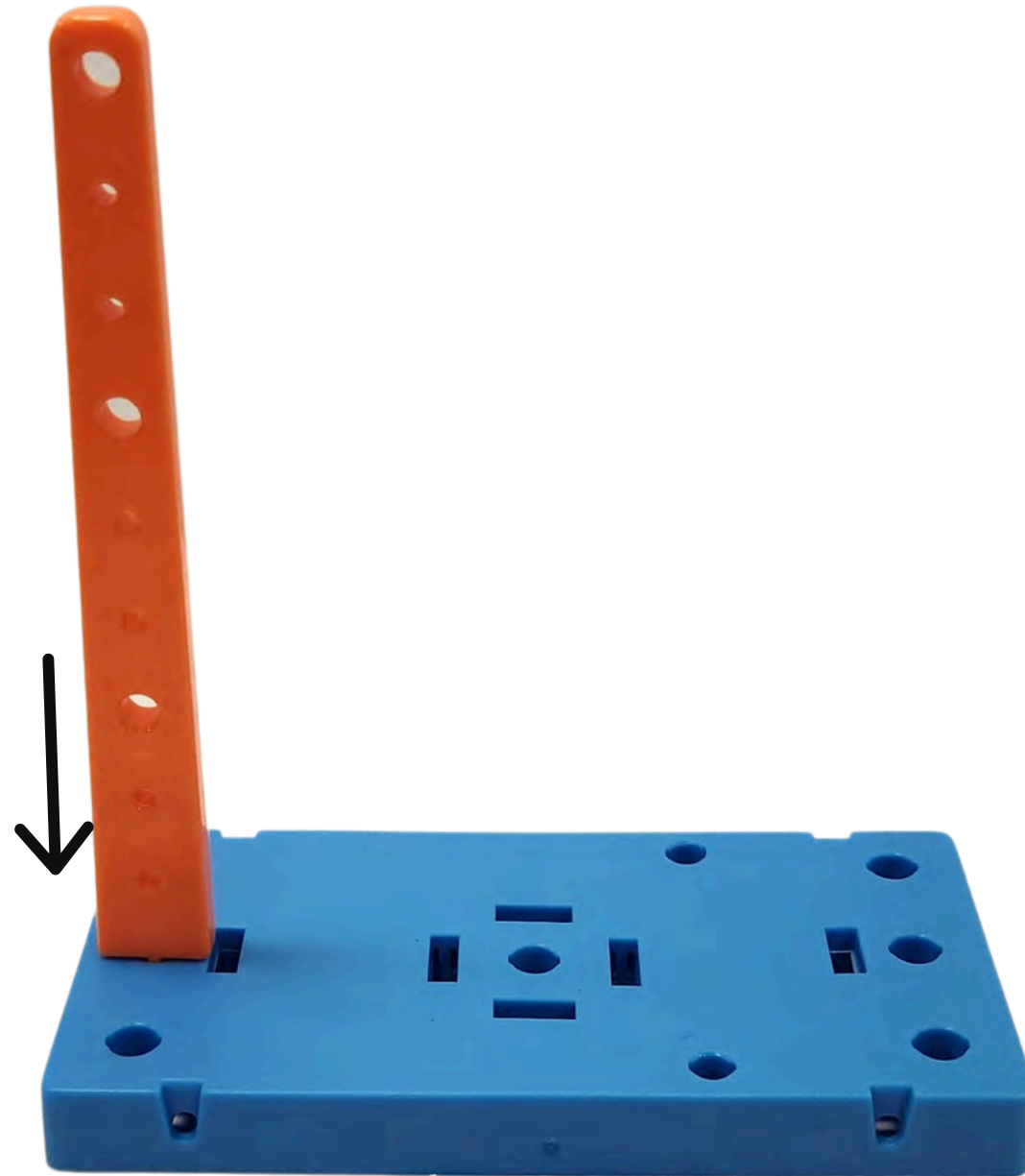
Solar Wind Turbine Instructions



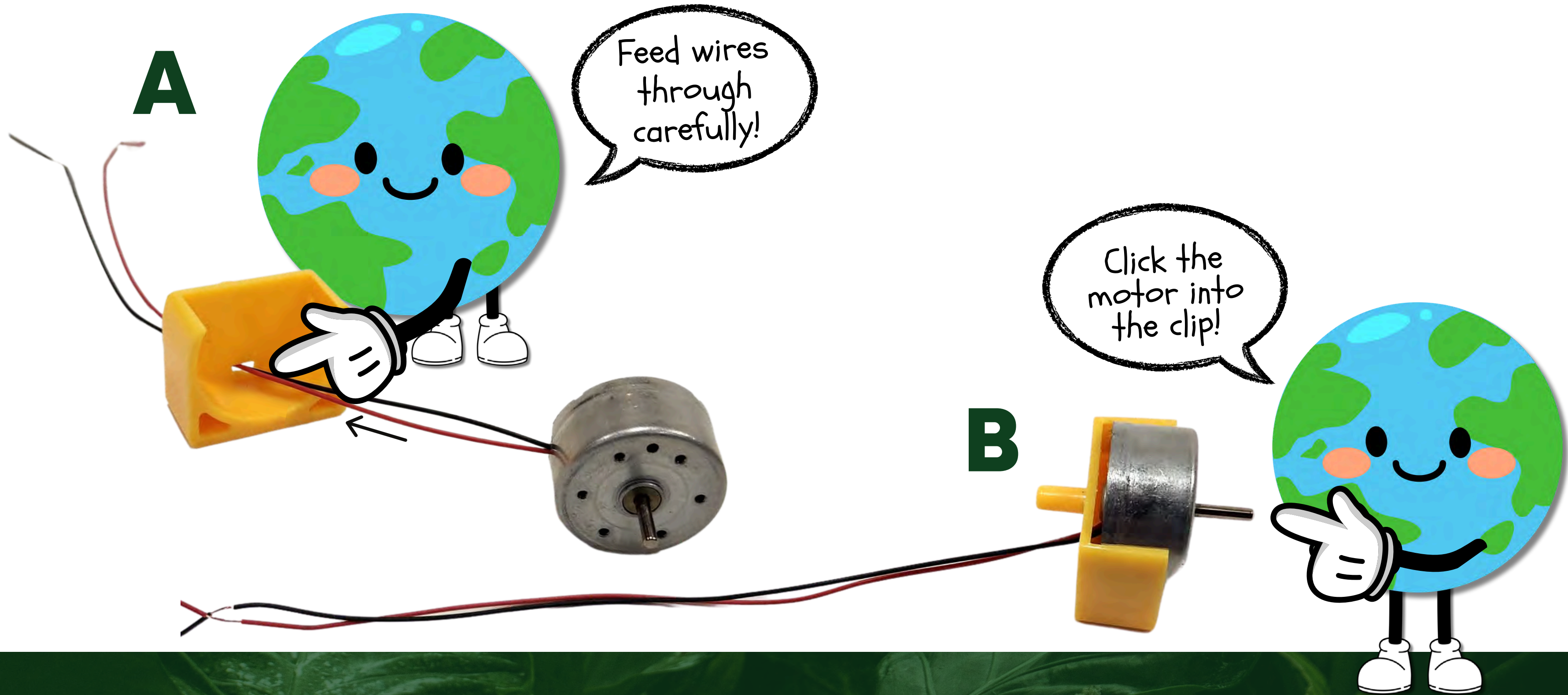
Step 1: Check materials & write your name on the base plate.



Step 2: Insert the pole into the centre hole on one side of the base plate.

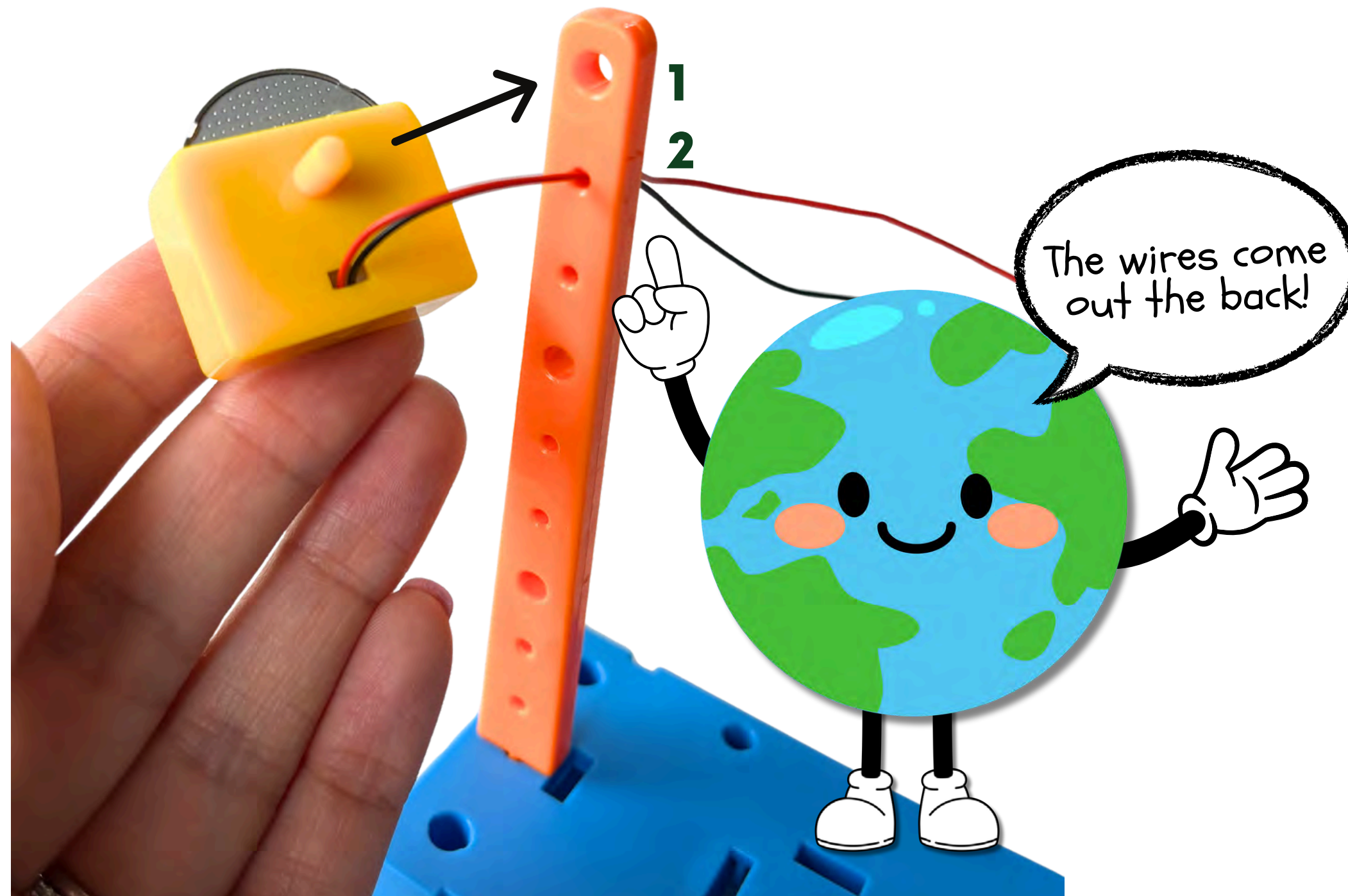


Step 3: Assemble the motor into the motor clip.



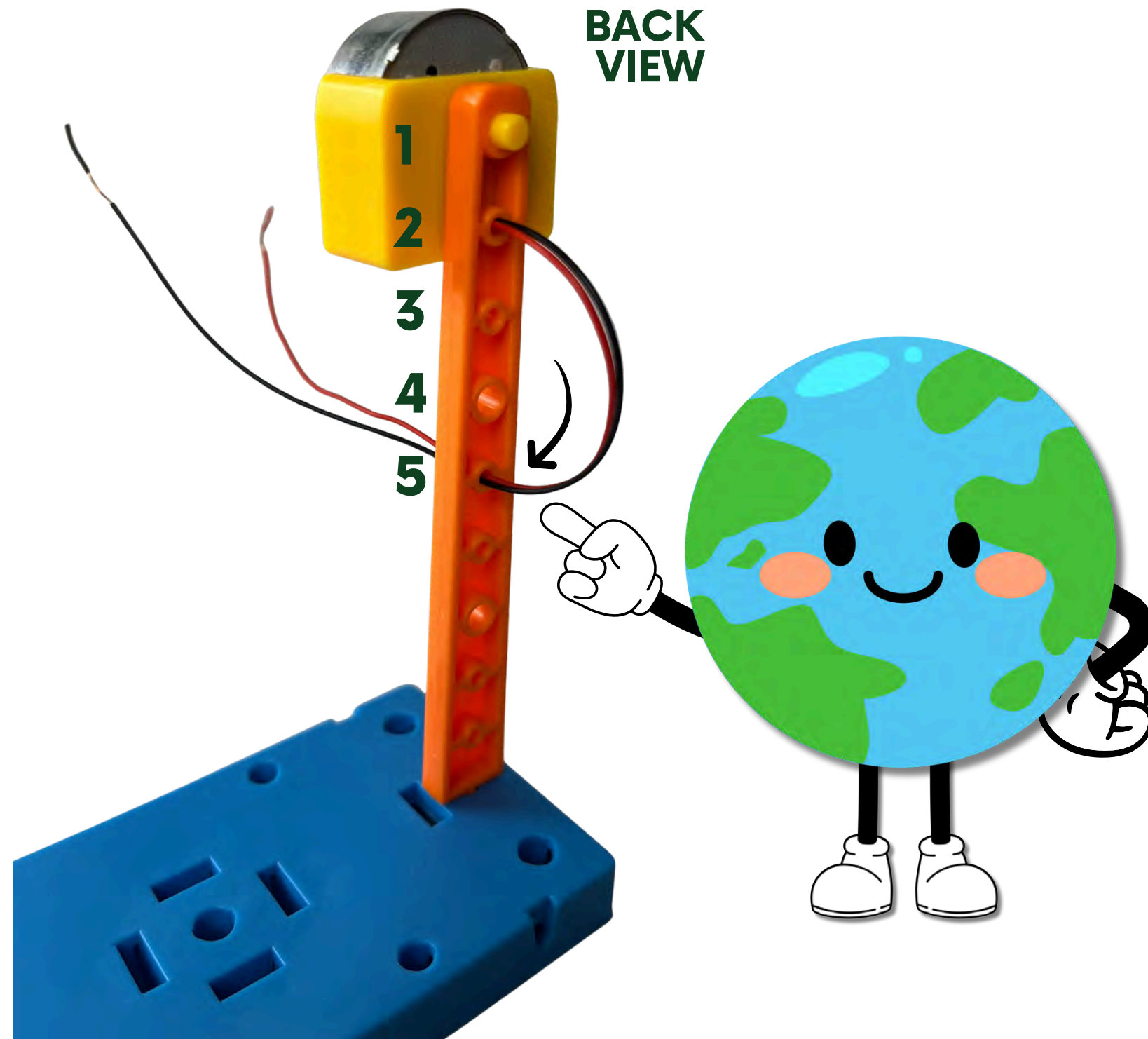
Step 4:

Feed the wires through the 2nd hole from to front of the pole to the back. Then, insert the motor clip into the 1st hole of the pole.



Step 5:

Feed the wires through the 5th hole on the pole from the back to the front.

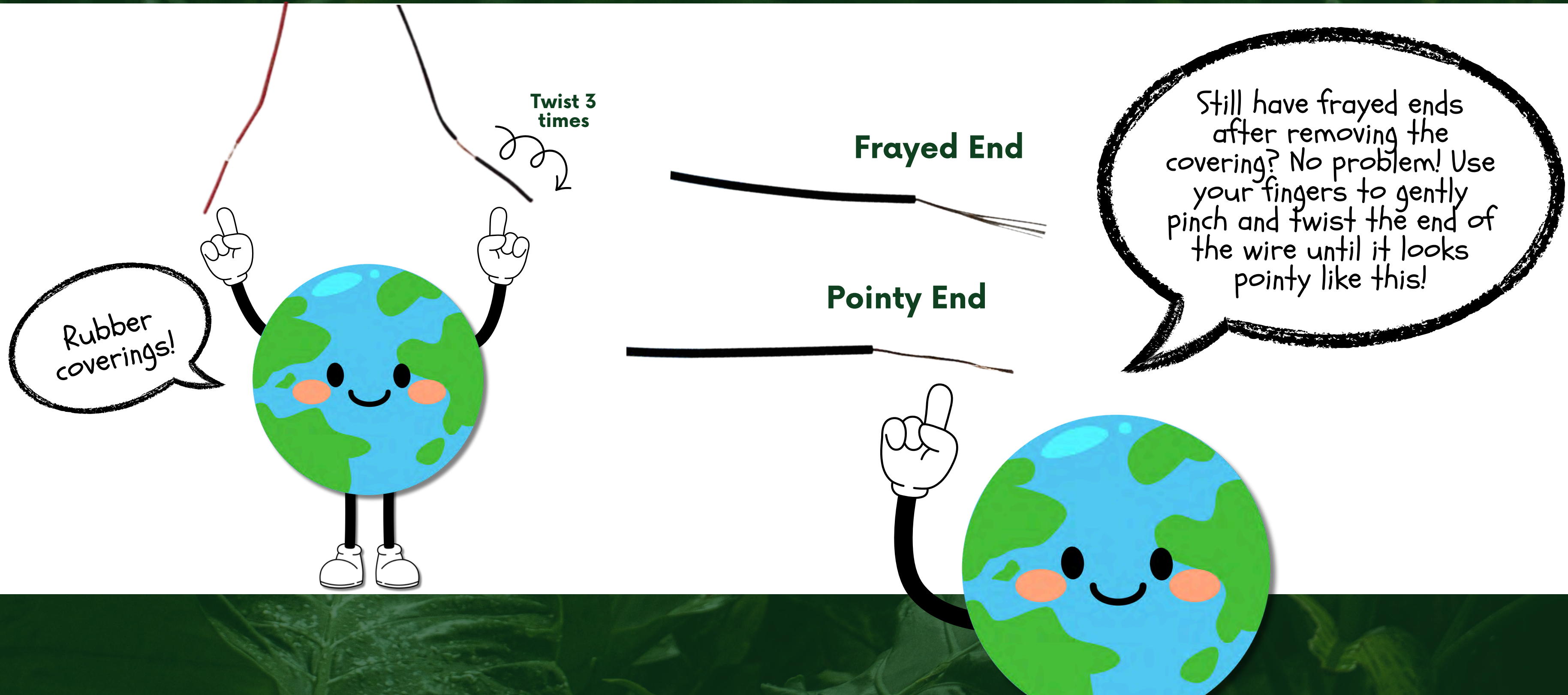


What are examples of renewable energy resources?



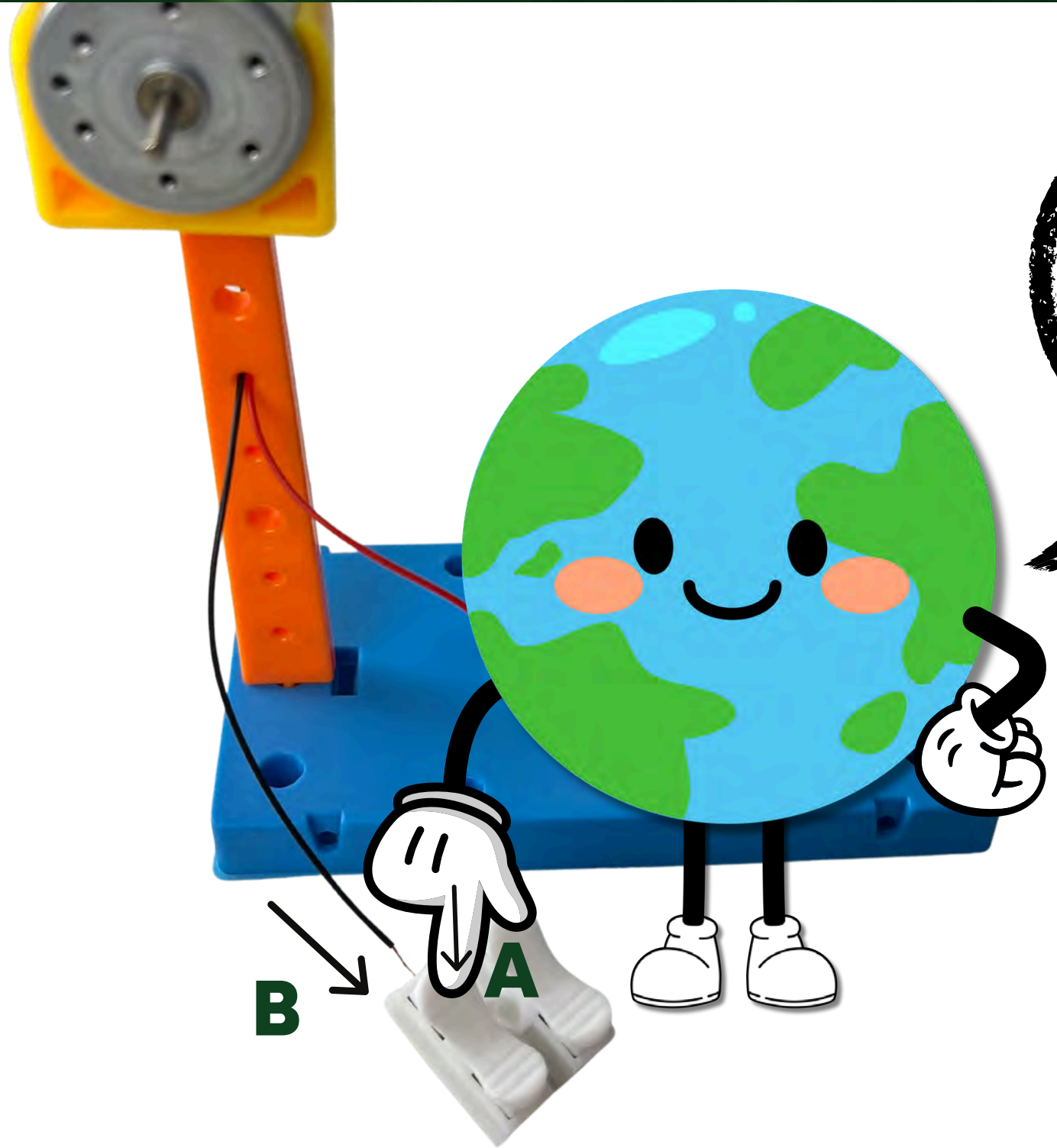
NOTE ABOUT RUBBER COVERINGS ON WIRES

To remove rubber coverings on the end of the wires, twist at least 3 times before gently pulling the covering off to prevent frayed ends.



Step 6:

Remove the BLACK rubber covering and insert the BLACK wire into the wire clip.

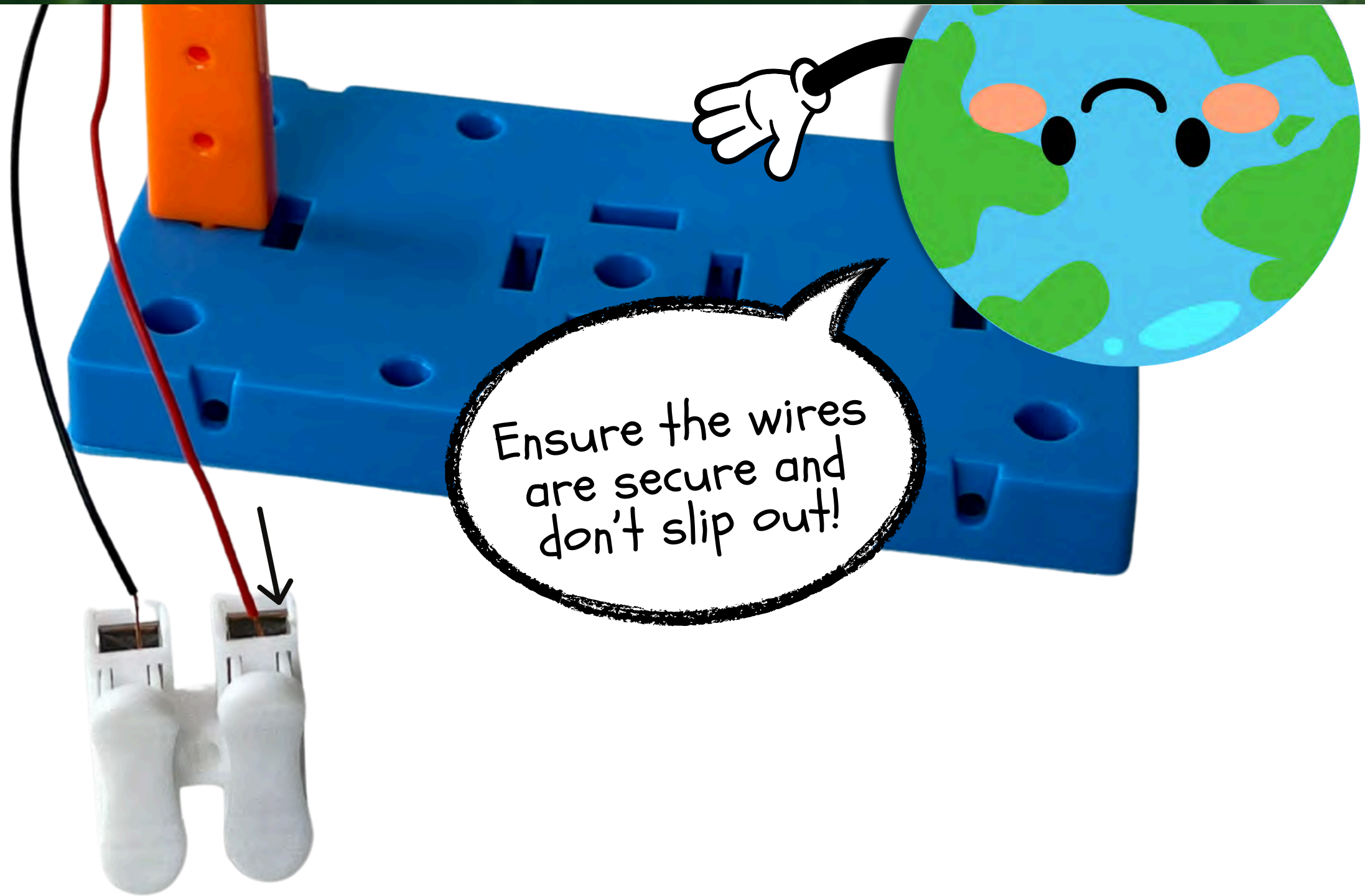


Press and hold the tab down on the clip, insert the wire, then release the tab.



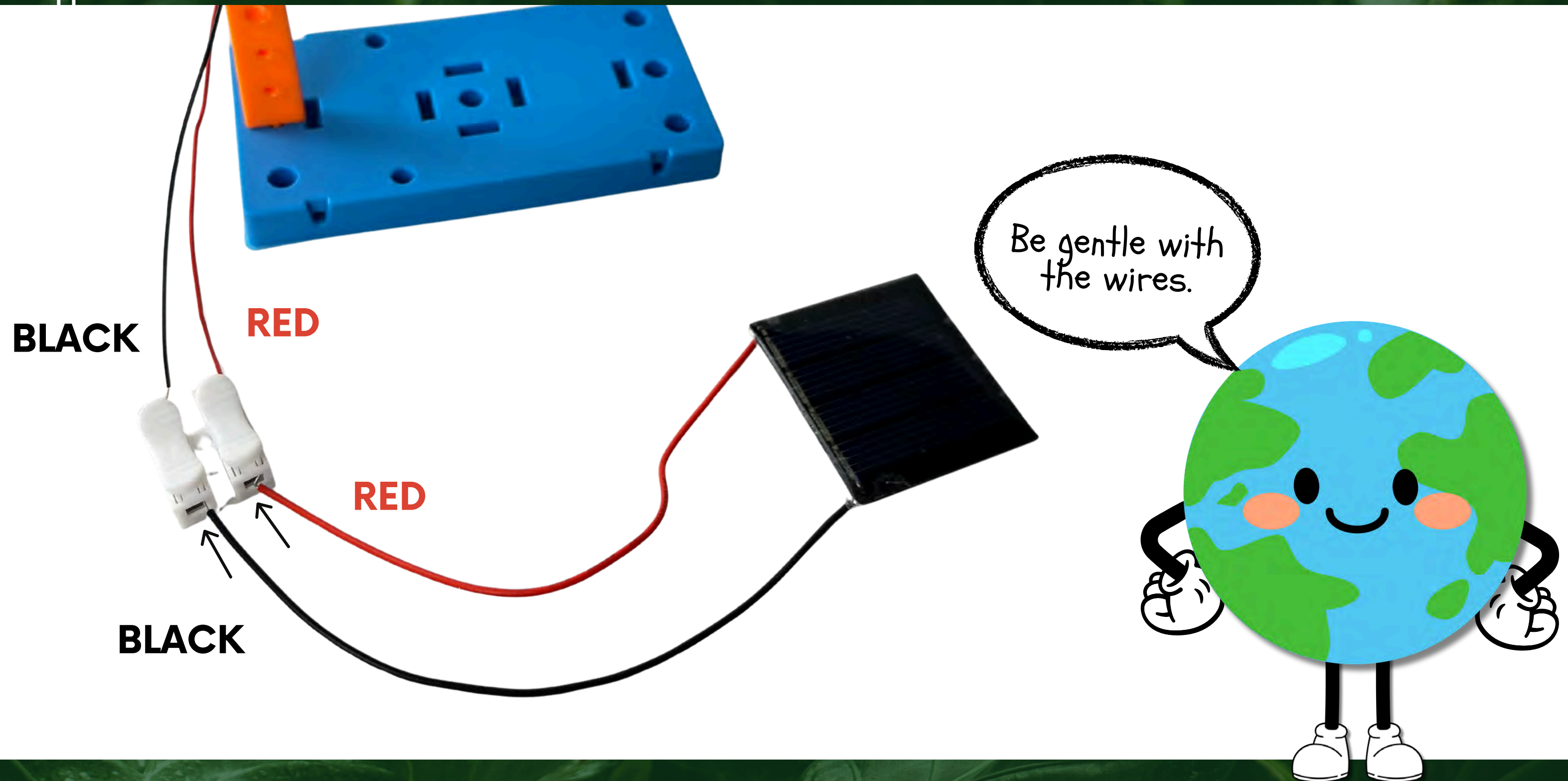
Step 7:

Repeat Step 6 with the RED wire. Insert the RED wire into the wire clip.



Step 8:

Insert the solar panel wires into the opposite side of the wire clip. **MATCH THE WIRES** across the clip: **RED TO RED & BLACK TO BLACK.**

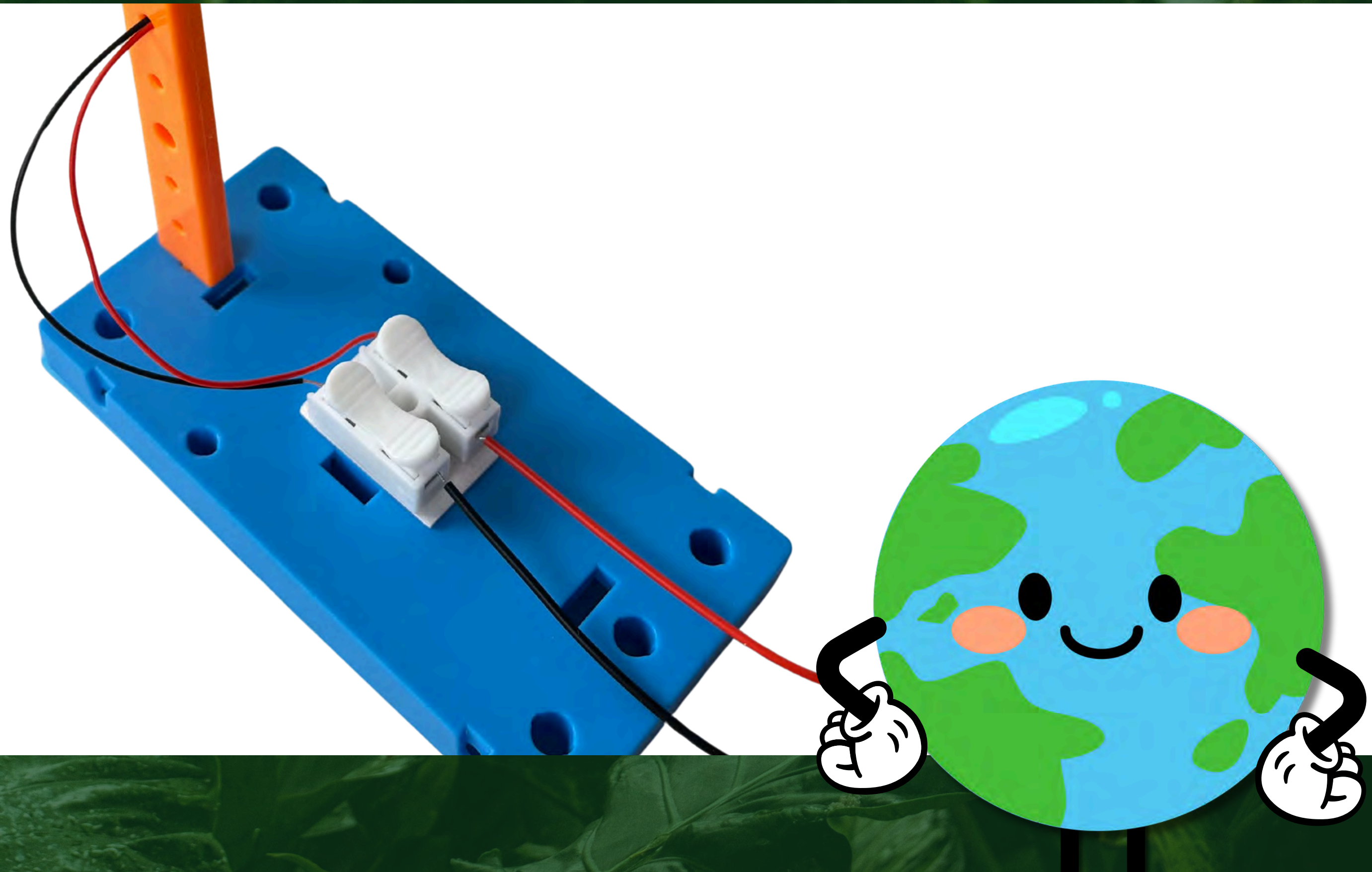


Step 9: Separate the 3 double-sided sticky foam stickers.



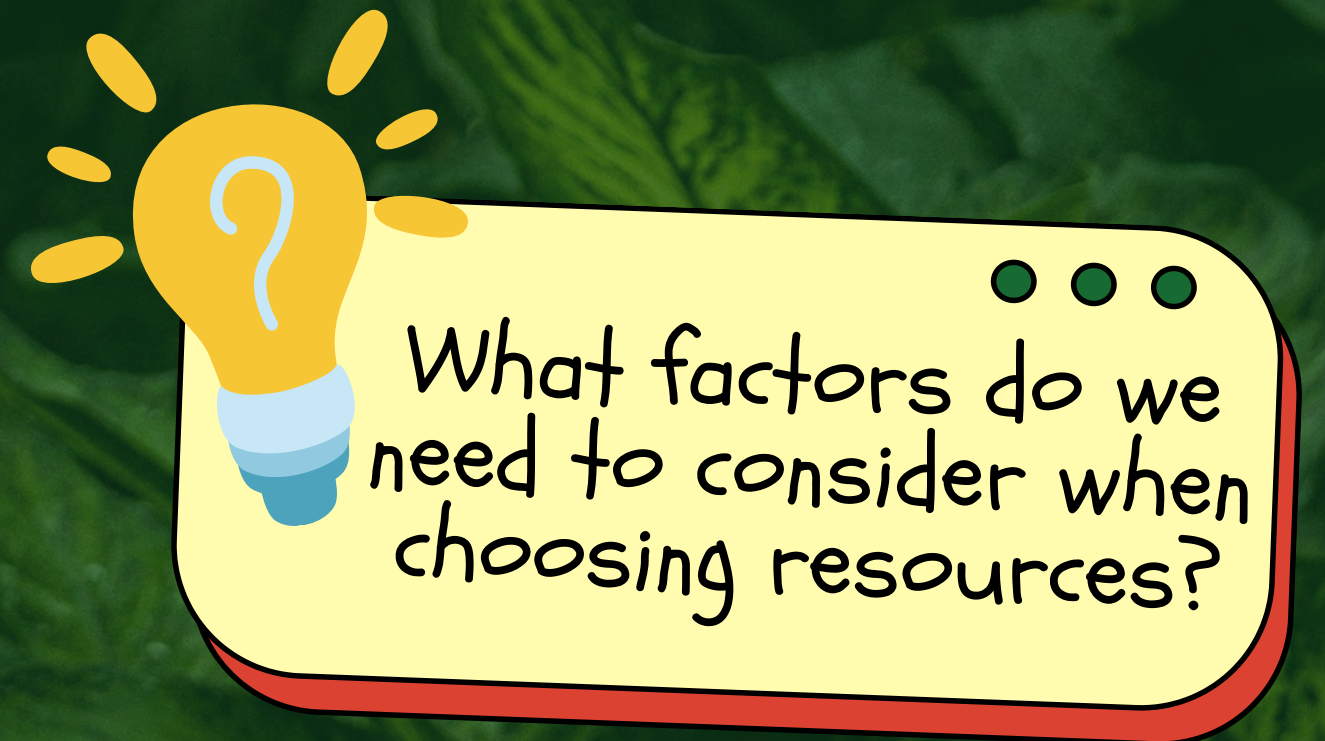
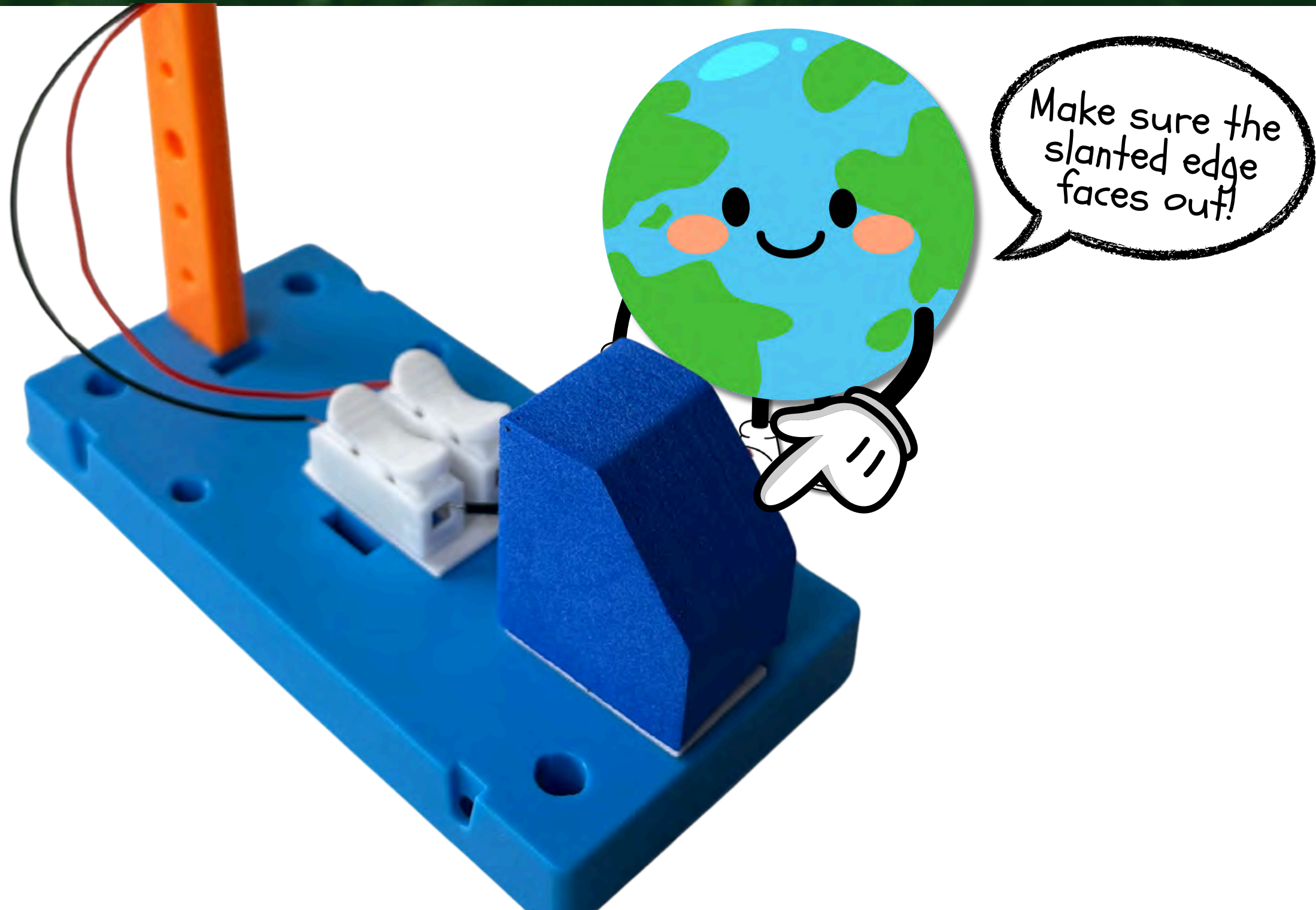
Step 10:

Remove the backings on one foam sticker and use it to secure the wire clip to the centre of the base.



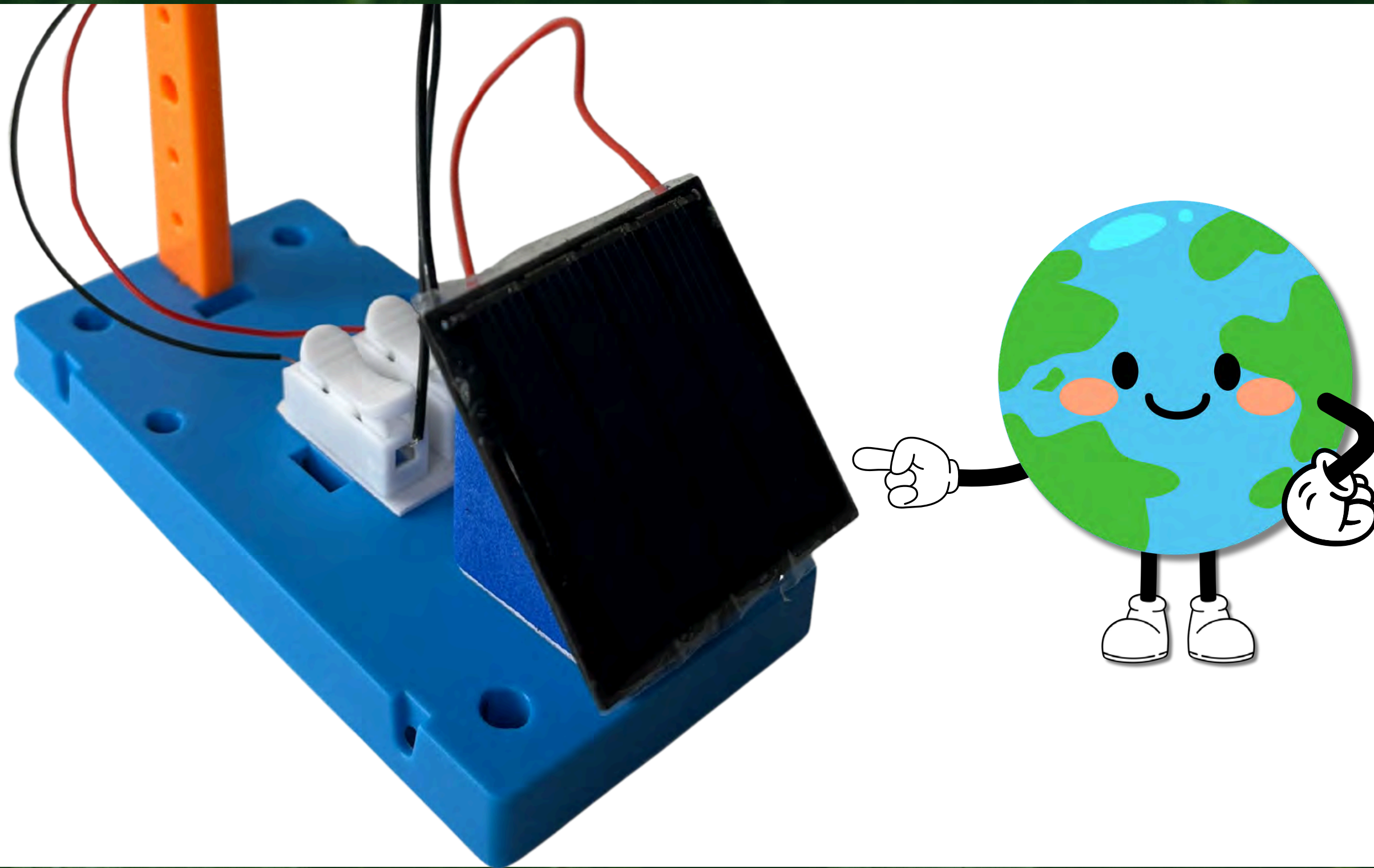
Step 11:

Attach the solar panel stand to the base plate using another double-sided foam sticker.



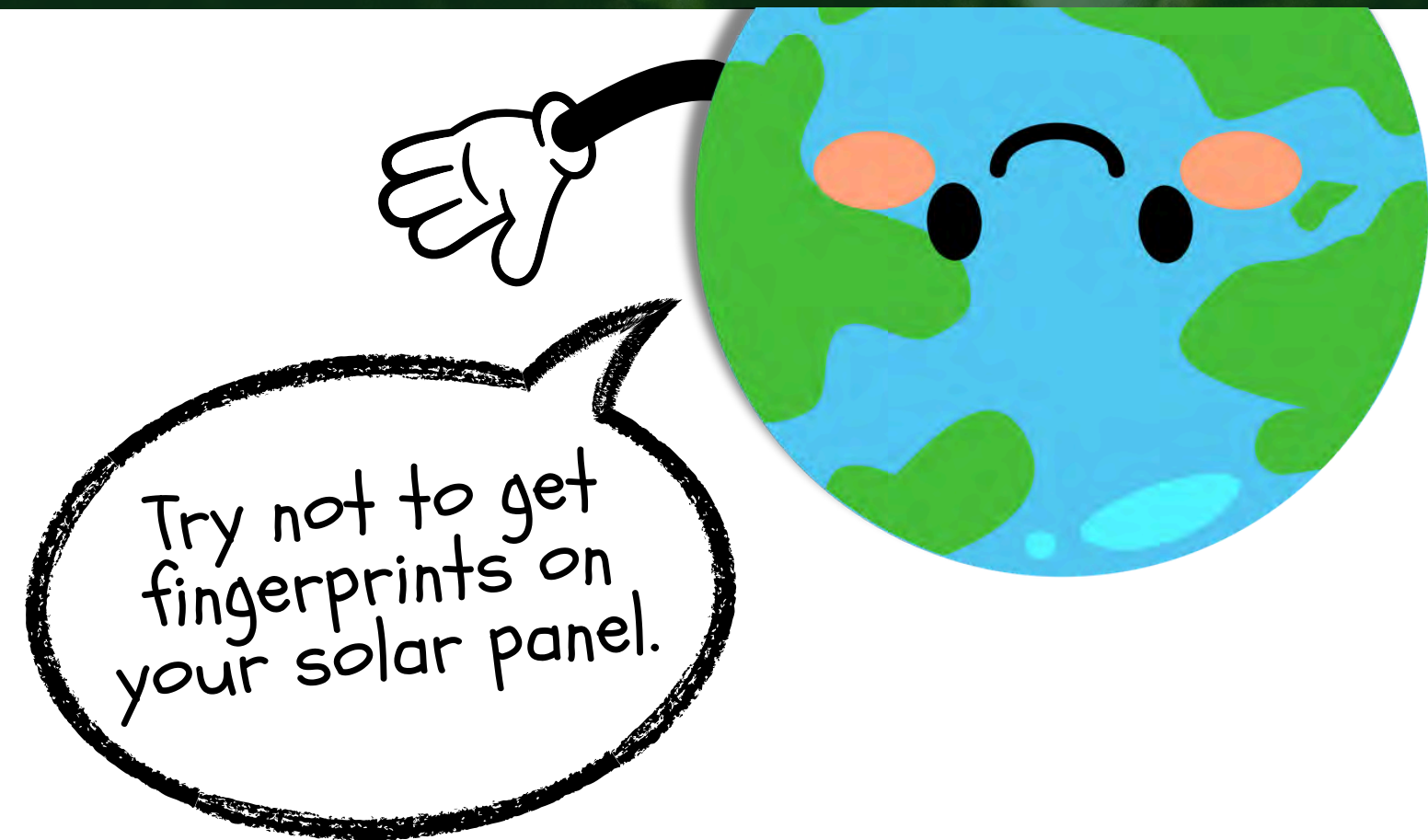
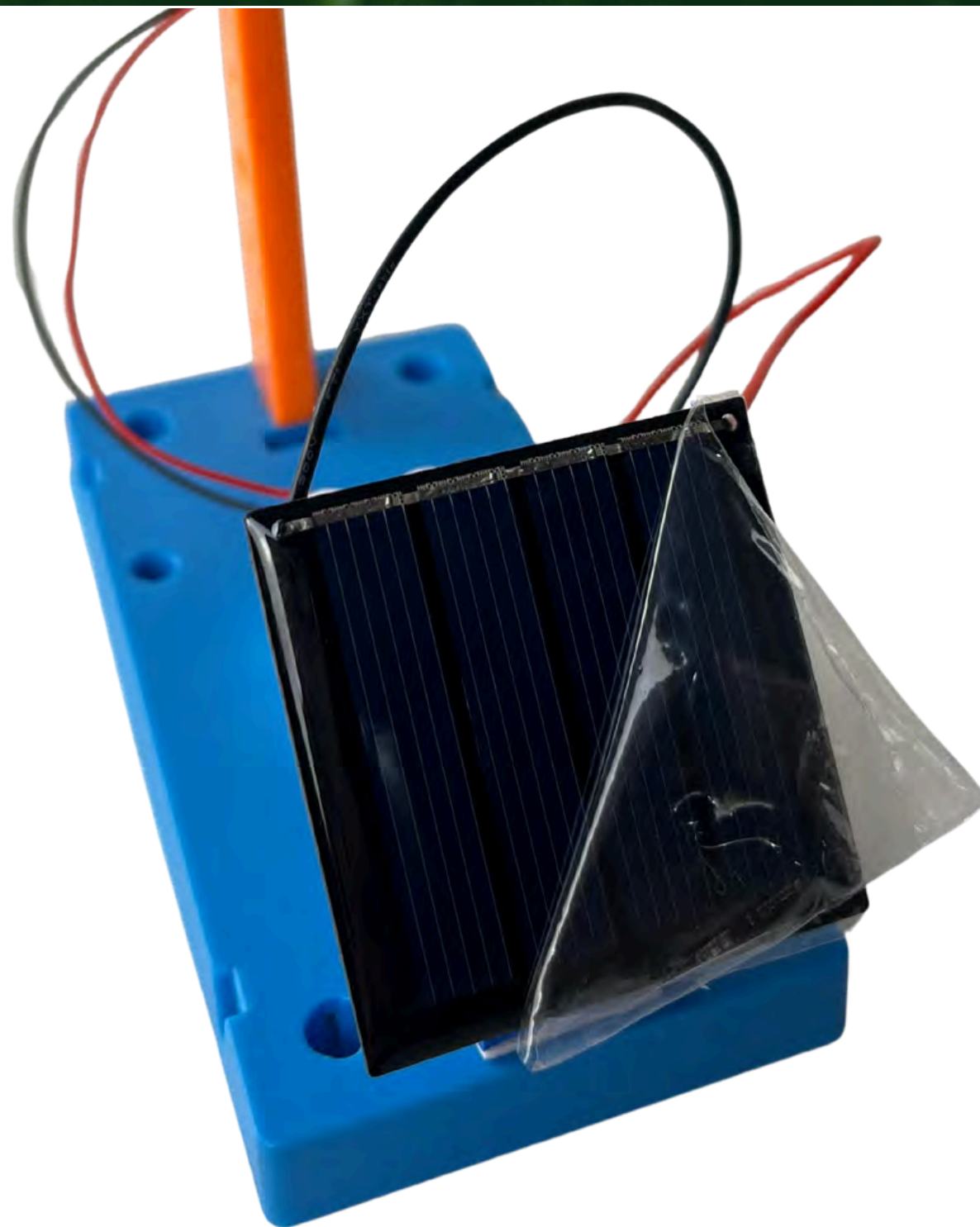
Step 12:

Using the last piece of foam sticker, attach the solar panel to the solar panel stand.



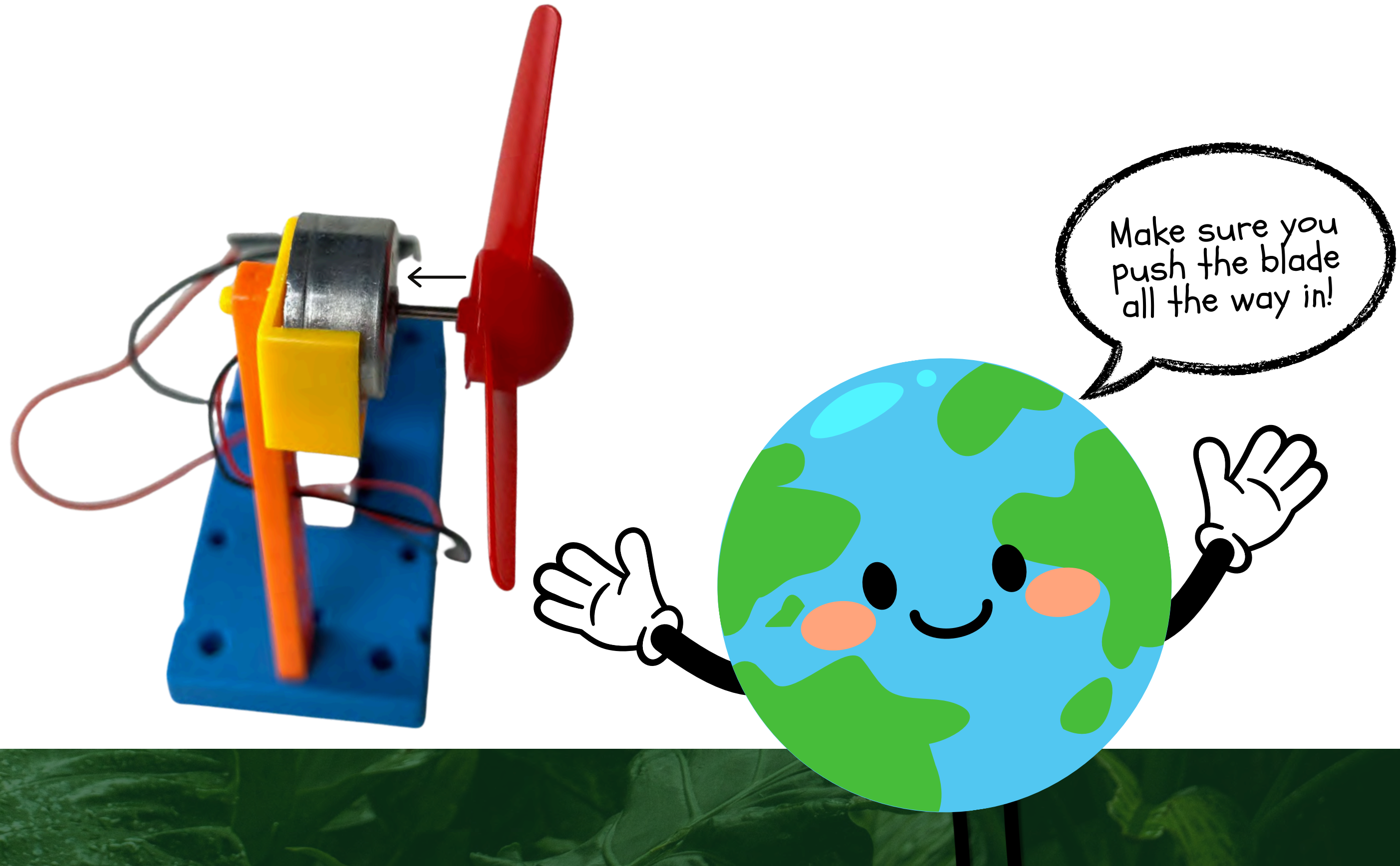
Step 13:

Carefully remove the protective film on the solar panel.

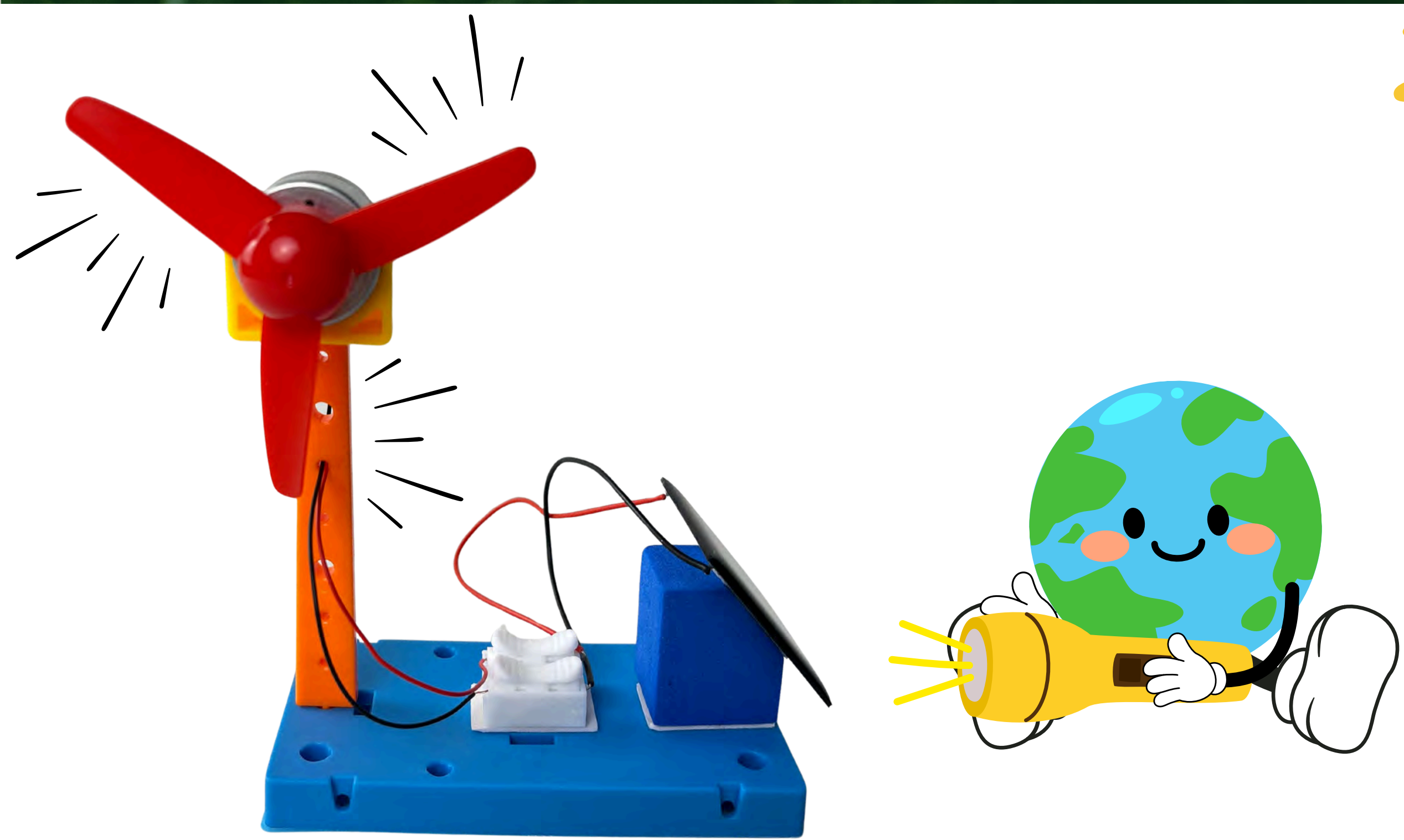


Step 14:

Insert the fan/propeller blade into the motor.



Step 15: Test your solar wind turbine with a bright light or sunlight!

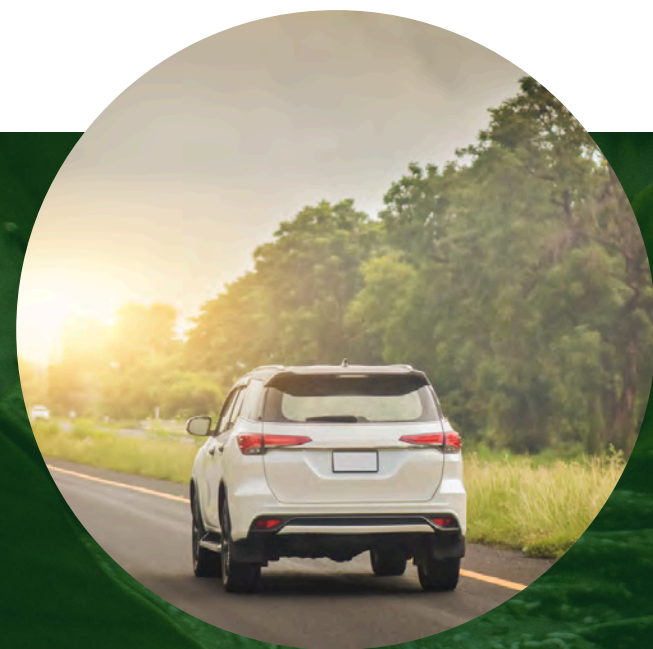




Processed Electricity

Electricity is a secondary energy resource that we get from processing other natural resources such as coal, oil, natural gas, nuclear power, etc.

What are some ways we can use processed electricity to improve our own lives?



Thank You!

