Warm Up

Write in your notebook...

- What do you think magnets have to do with electricity?
- How do you think we could figure this out?

Sit in your assigned seat!

➔ Be ready to share with the class.

To Do

- Take out your energy source matrix
- Choose your #1 overall
  - Write the name big!
  - 3 reasons why
- Choose your #8 overall
  - Write the name big!!
  - 3 reasons why

Warm Up 9/26

- Take out your observations from magnet interactions from yesterday.
- What properties did you observe about magnets? Name two.

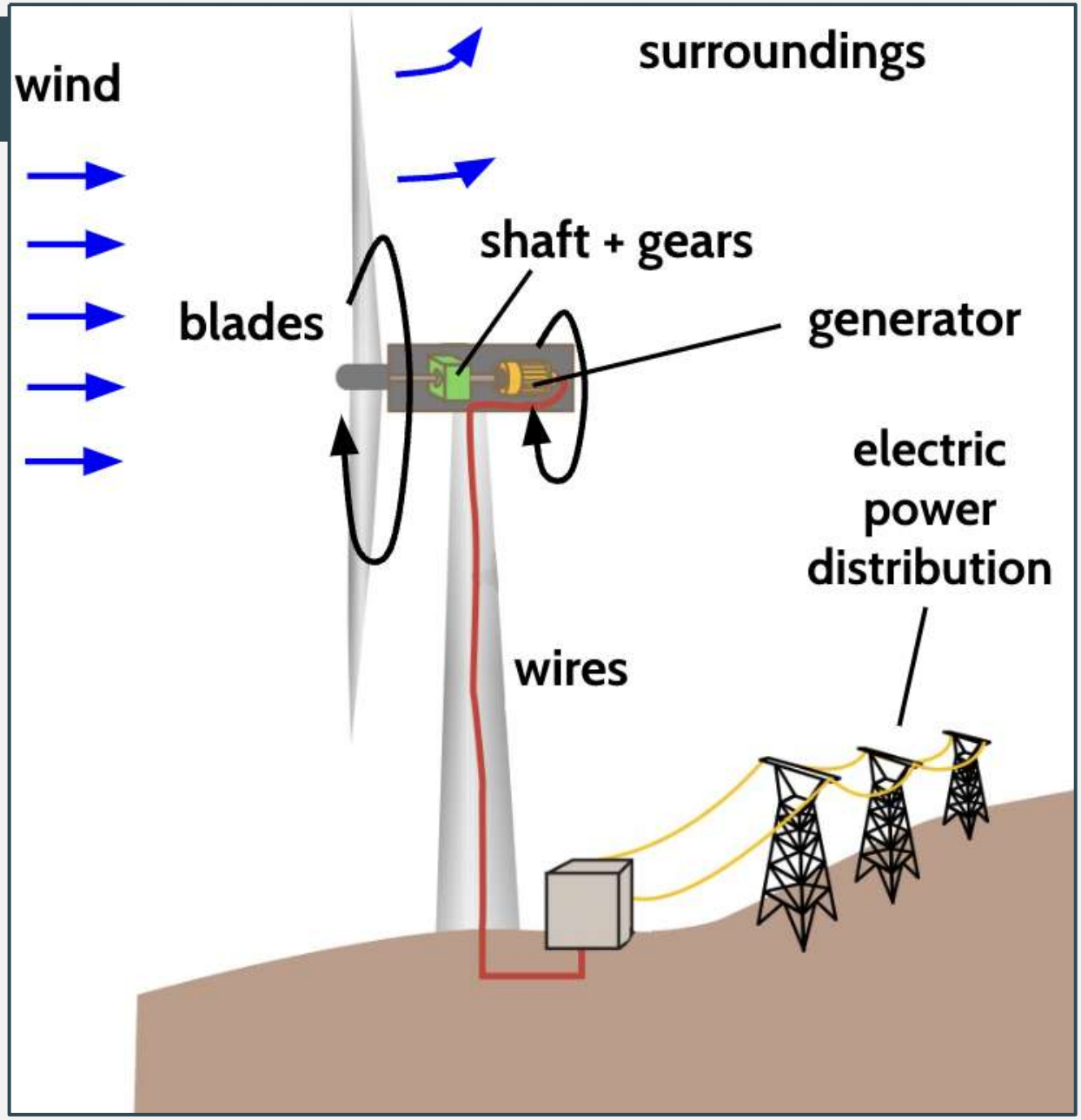
9/25 Goals

- Complete magnet interactions
- Hand crank generator models
- Start Lab?

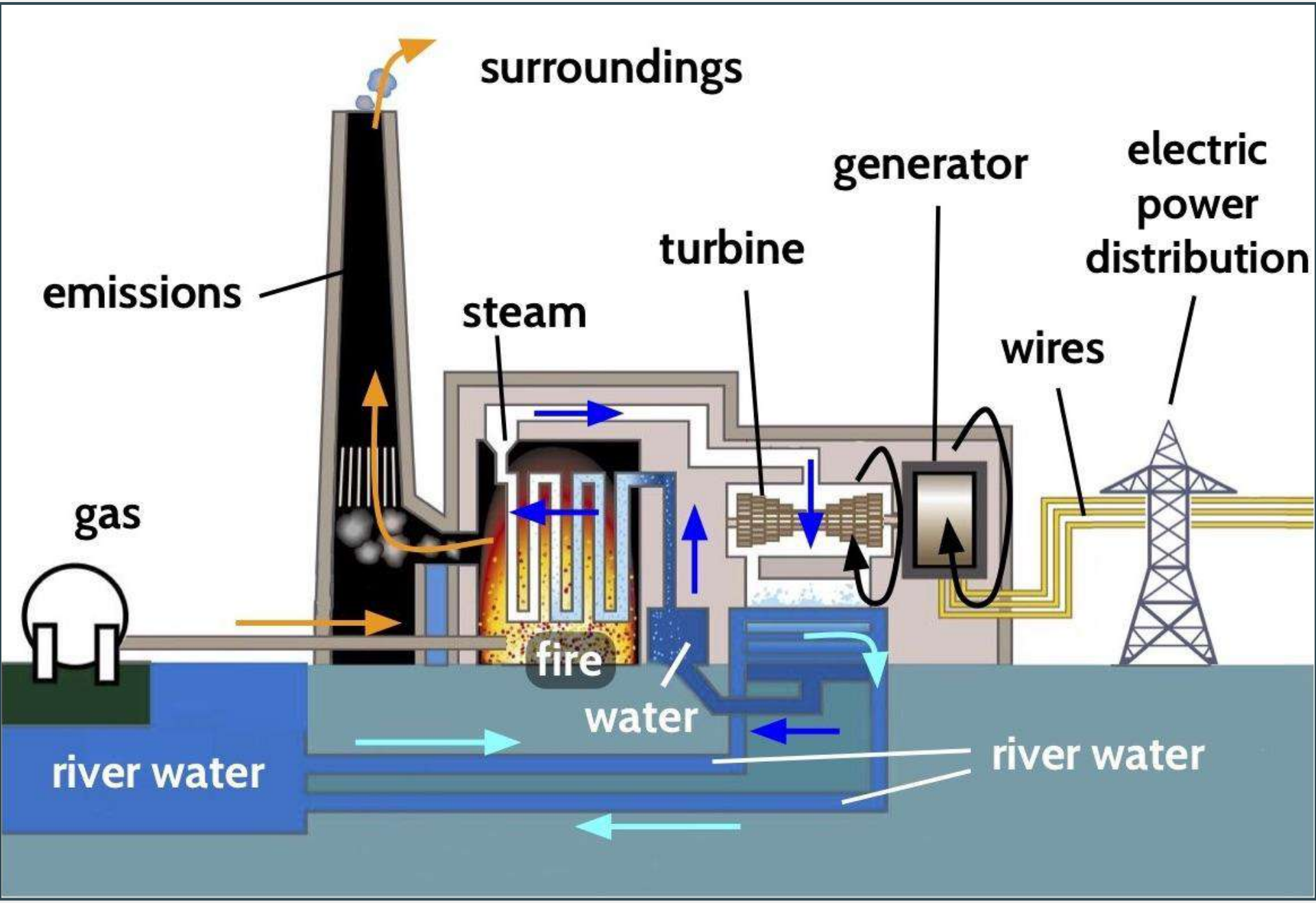
Warm Up

What do you notice about the image on the right?

How does the hand crack generator look similar to the wind turbine?




MAGNETS
how do they work?

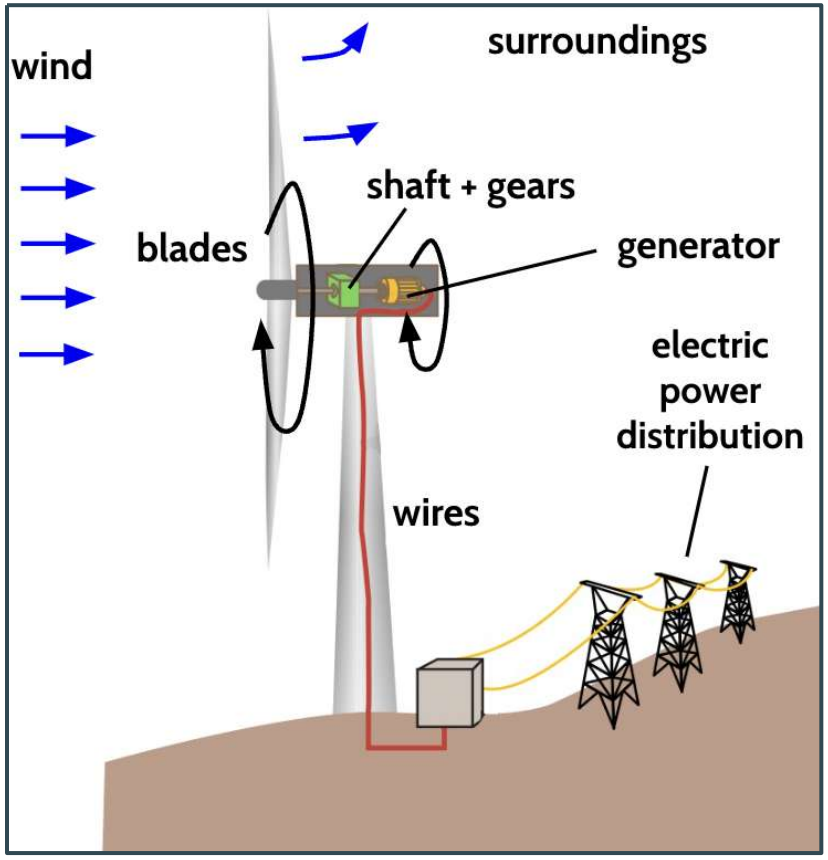

surroundings
emissions
steam
turbine
generator
electric power distribution
wires
gas
fire
water
river water
river water

Procedures

- Specific, detailed steps
- Reference your diagram (label the diagram as well)
- Units (if relevant)
- Do not include “Gather Materials” or “Do Calculations”
- Read it back to yourself… could someone else repeat it?

Slide B

The Wind Turbine Power Plant



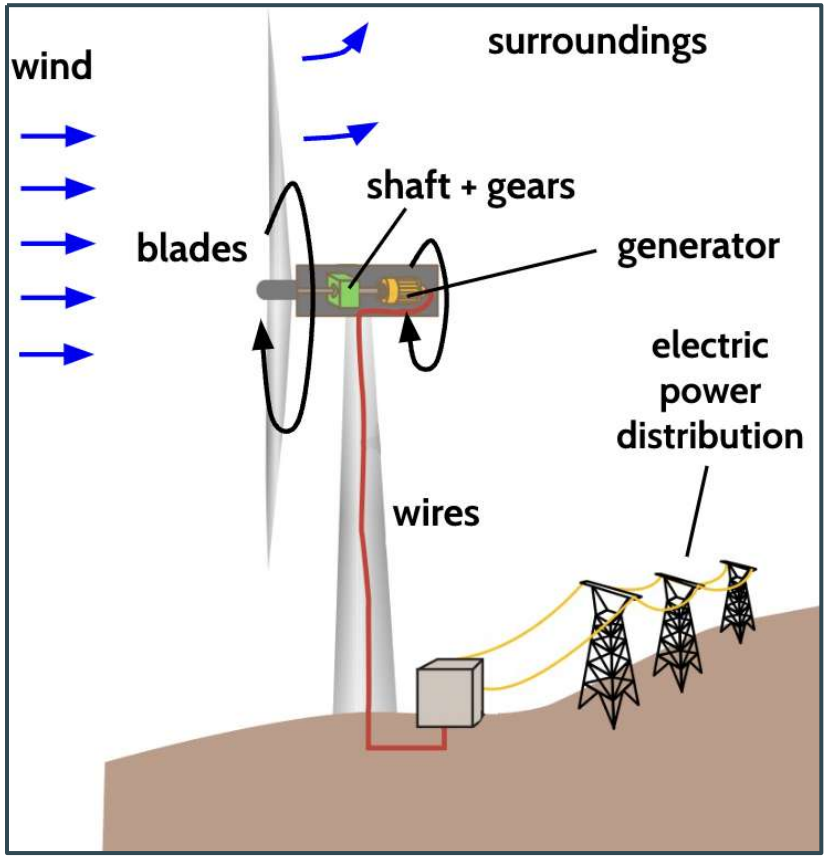
United States Tennessee Valley Authority

With your class

- What do you notice?
- What do you wonder?
- How could tracing matter changes in this system help us understand energy transfer?

Slide C

Tracking Matter Changes

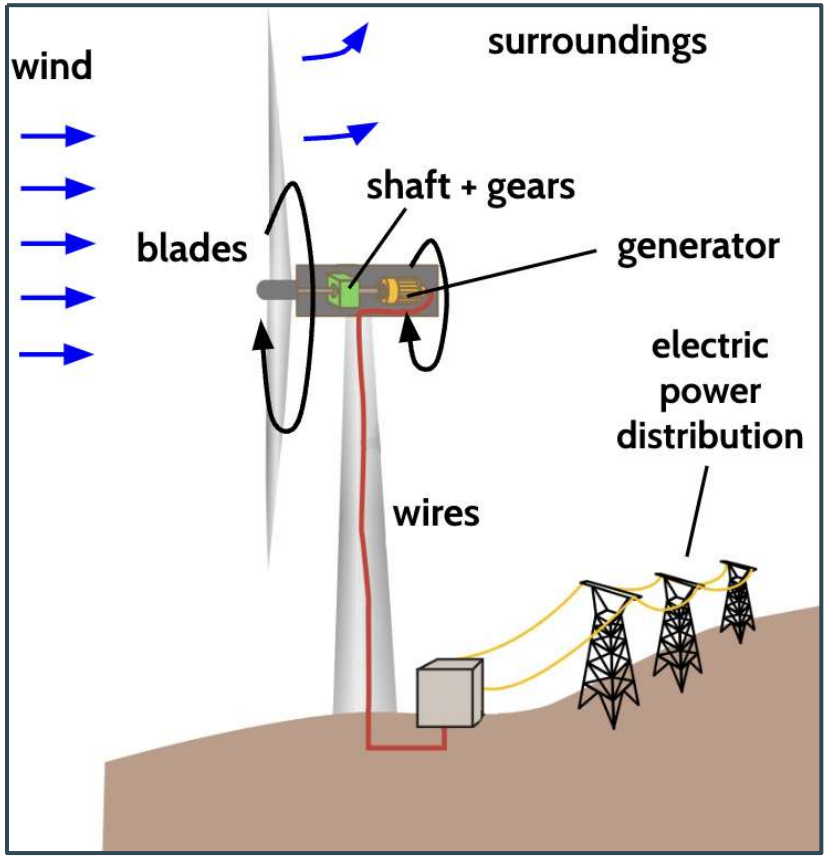


United States Tennessee Valley Authority

With your class

- How does matter move and change in the wind turbine system?
- What components and interactions represented in the diagram show this?

Modeling Energy Transfer



United States Tennessee Valley Authority

With your class

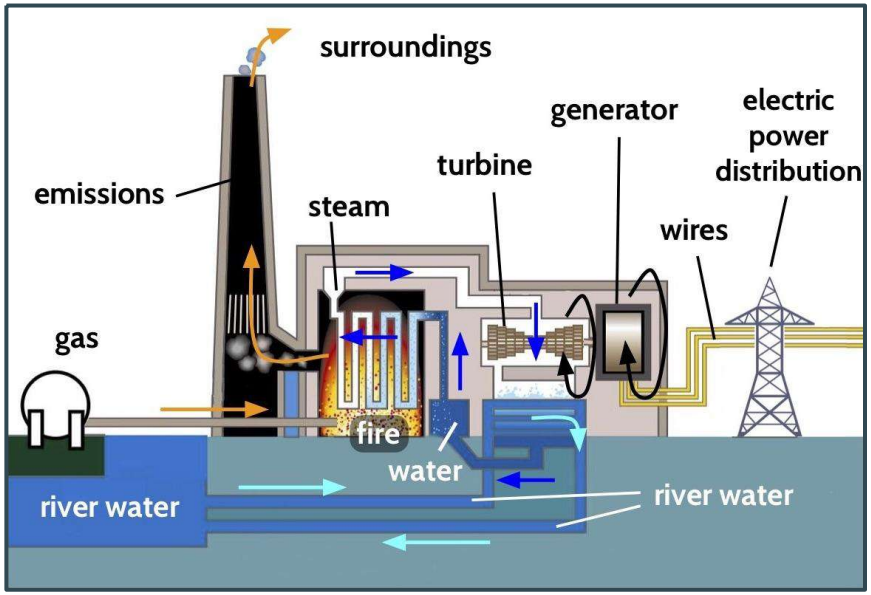
- How does energy transfer between components in the wind turbine system?
- How do we know this from the diagram?

→ Model this as a class.

The Natural Gas Power Plant

With a partner

Use the diagram to track how **matter moves** (or changes) and infer how **energy transfers** in the natural gas power plant.



United States Tennessee Valley Authority

- Make an energy transfer diagram to illustrate your thinking.
- How are the matter moves/changes you identified related to energy transfer?

Energy Transfer in Power Plants

Turn and talk

1. What do these power plants have in common?
2. What questions do we still have about how these power plants produce electrical energy?

→ Be ready to share with the class.

Wire Coil Lab

- Take out your wire coil lab from yesterday.
- Read over your procedure- does it make sense?