

# A Nuclear Power Plant

## Unit 8

**WORD MATCH.** Type the correct words in the boxes below. Use BIG/CAPITAL letters. Then, drag and drop the meaning to the right pictures.

<b>VOLTAGE</b>	<b>GENERATOR</b>	<b>FUEL</b>	<b>ATOM</b>
<b>CONCRETE</b>	<b>TEMPERATURE</b>	<b>METAL</b>	<b>SPIN</b>
<b>TURBINE</b>	<b>POWER LINES</b>	<b>STEAM</b>	<b>DAMAGE</b>




















		
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**Drag and drop to the right pictures.**

<b>Is a hard substance such as iron, steel, gold, etc.</b>	<b>A vapor arising from a heated substance.</b>	<b>A mixture of cement sand, gravel and water.</b>
<b>An engine that provides continuous power.</b>	<b>Physical harm caused to something.</b>	<b>A cable carrying electrical power.</b>
<b>A machine that converts mechanical energy to electricity.</b>	<b>The degree of hotness or coldness.</b>	<b>Turn or cause to turn around quickly.</b>
<b>Material that is burned to produce heat.</b>	<b>The force of electric current in volts.</b>	<b>The basic unit of a chemical element.</b>



## Vocabulary in Context

Choose from the words on page 1 and write your answers in BIG LETTERS.

- 1 The third little pig built a ..... house and it's so strong.
- 2 Hot water is converted to electricity by a .....
- 3 My car won't start, I think I ran out of .....
- 4 I like to ..... vegetables because it's good for my health.
- 5 The ..... of the water rises from 27°C to 37°C.
- 6 Aluminum is an example of a .....
- 7 The ..... in Bangkok needs to be hidden underground.



- 8 The tornado caused a huge ..... in our city.
- 9 Our ..... is very helpful because we always have power interruption.
- 10 The ..... is the basic building block of ordinary matter.
- 11 I want to ..... that Wheel of Fortune so I'll win the prize.
- 12 Please don't go into the electrical room, it's dangerous due to high .....



## Reading Comprehension

Read the article below and match the answers to the questions.

In any power plant, the first thing you need is fuel. Usually, this fuel is coal, oil or gas. But in a nuclear power plant, the fuel comes from uranium.

Uranium is a very heavy metal. We get nuclear fuel from the nucleus [middle] of uranium atoms. Scientists separate the nucleus from the other parts of the atom. This process is called 'nuclear fusion.'

The nuclear fuel is heated inside a containment building, made of thick concrete. It stops dangerous, radioactive gas escaping. When the fuel is heated, it generates steam. The steam is then pushed into thin pipes.

The pressure from the steam makes the turbine spin around. This powers the generator, which makes electricity. The electricity must go into a transformer to become the correct voltage. If it is strong, it cannot travel through power lines to customer's homes.

After this process, the steam is changed back to water. The temperature of the water is reduced in a cooling tower.

### Nuclear power around the world.

Thailand has no nuclear power plants, though it could get some in the future. Compared to traditional power stations, they produce very little pollution.

However, nuclear power plants can be dangerous. There was an accident at a plant in Fukushima, Japan in 2011. Radioactive gas escaped, and caused serious damage to the environment. Radioactive gas can also cause cancer and other diseases in humans. After the Fukushima accident, a lot of people thought we should stop using nuclear power.

China, India, Russia and South Korea are still building new plants, while many European countries are closing theirs. It is not clear whether global use of nuclear power will go up or down in the coming years.

The separation of the nucleus from other parts of the atom.	Radioactive gas escaped and caused serious damage to the environment.
From uranium.	The pressure from the steam.
It can cause cancer and other diseases in humans.	From the nucleus of uranium atoms.
Coal, oil or gas.	Fuel.
It must go into a transformer.	It generates steam.

1	What makes the turbine spin around?	
2	How harmful is a radioactive gas?	
3	What's the first thing that power plants need?	
4	What happened to the Fukushima Nuclear Power Plant?	
5	What is nuclear fusion?	
6	What happens after the fuel is heated?	
7	Which substances is the fuel made from?	
8	How can electricity become a correct voltage.	
9	Where does fuel in a nuclear power plant come from ?	
10	Where can we usually get nuclear fuel?	



## Listening Activity

Listen to the audio file and choose the answers from the dropdown arrow.

# BLACKOUT

It was a normal day. Suddenly all the ..... went out. It was a blackout. Sam ..... out his window. The lights were out on the ..... street. He went to get candles. He lit up the candles. The blackout lasted for several .....

He had a paper due tomorrow. He had to ..... it out tonight. He used the candle. His parents found ..... flashlights to help. The blackout was not so bad. Sam got to see how life was without ..... He ..... his paper much faster than he would have with the ..... of .....

# Excellent work!