

Name: \_\_\_\_\_ Class: \_\_\_\_\_ (\_\_\_\_) Date: \_\_\_\_\_

**4.4 Generating electricity**

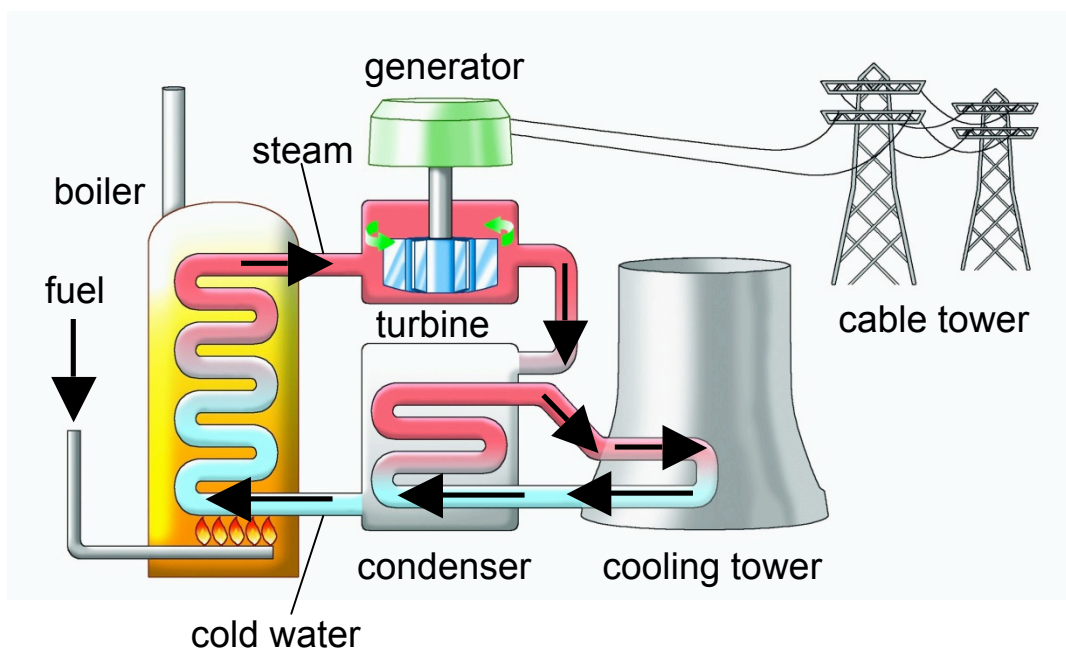
1. Traditional power stations

(a) Fuel used:

1. \_\_\_\_\_

2. \_\_\_\_\_

(b) Generating electricity



Step	Description
1	The _____ is burnt to release _____.
2	The _____ released boils the water to _____.
3	The _____ turns the _____.
4	The _____ drives the _____.
5	The _____ produces _____.
6	_____ is transmitted through _____ to our homes.

**Cause & effect in the steps**

Step	Cause	Effect
1	The fuel is burnt.	Heat is released.
2		
3		
4		
5		

What is the pattern in the descriptions?

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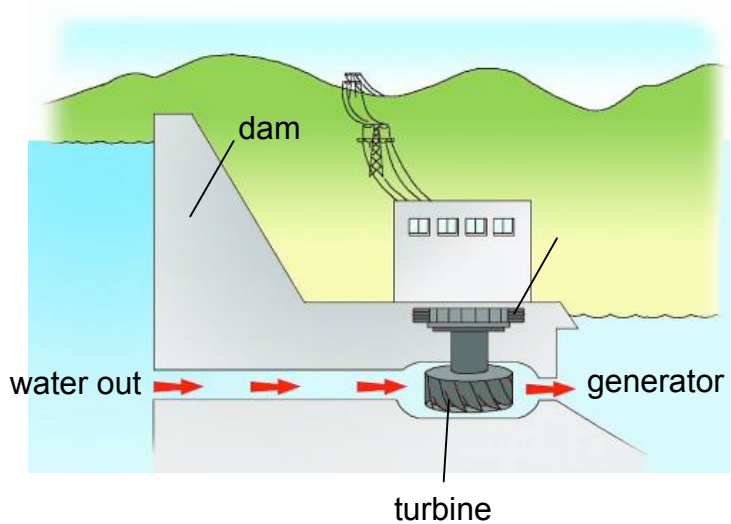
(c) Energy conversion

Step	Energy conversion
1	_____ of fuel → _____
2	_____ → _____
3	_____ → _____
4	_____ → _____
5	_____ → _____
6	/

2. Hydro-electric power station

(a) A dam is built to store water at a high position.

(b) Generating electricity



1. What does the dam release?	Water at a high position
2. What turns the turbine?	Water at a high position
3. What does the turbine do?	The turbine drives the generator.
4. What does the generator produce?	The generator produces electricity.
5. How does the electricity transmit to our home?	Electricity is transmitted through power cables to our homes.

**Explain how electricity is generated in a hydro-electric power station.**

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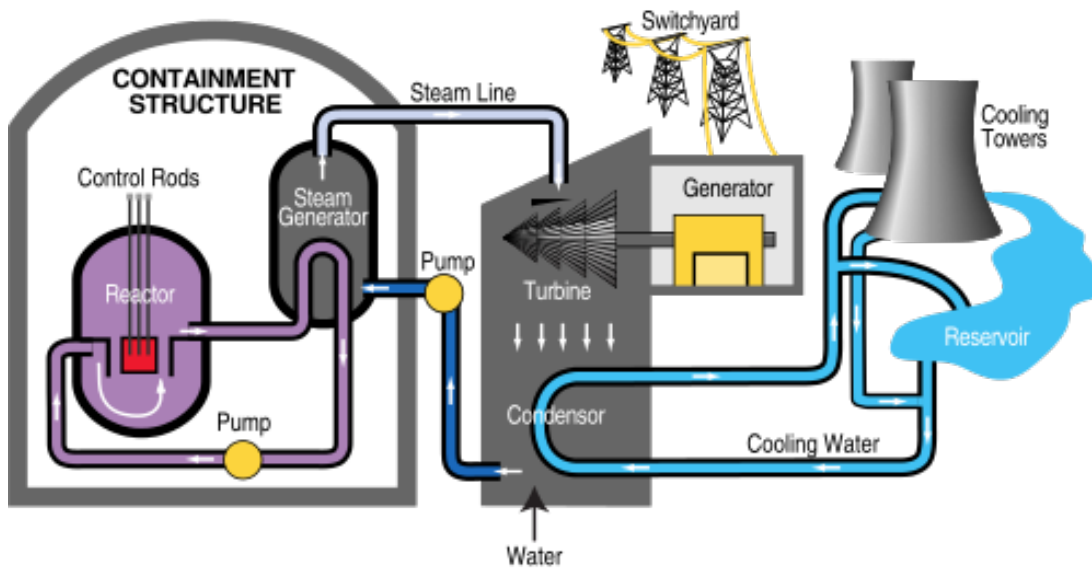
(c) Energy conversion

Step	Energy conversion
1	_____ of water → _____
2	_____ → kinetic energy of turbine
3	kinetic energy of turbine → _____
4	_____ → _____
5	/

3. Nuclear power station

(a) Fuel used: \_\_\_\_\_

(b) Generating electricity



**Explain how electricity is generated in a nuclear power station.**

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(c) Energy conversion

Step	Energy conversion
1	
2	
3	
4	
5	
6	/