

1- Reading comprehension Choose the most suitable word:

Hydropower is a method of generating electricity that uses moving **sun/ wind/ water** (kinetic energy) to produce electricity.

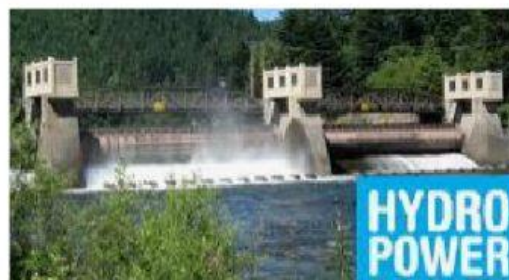
In large-scale hydropower plants the moving water drives large water **turbines/ blades/ pylons**, and dams are needed to store water in lakes, reservoirs and rivers for later release.

Stored water can be used for power generation as well as irrigation, industrial, or domestic use.

While wind **power/solar power/hydropower** is considered a clean and reliable energy source in many countries, it has

significant environmental and social impacts. The creation of a reservoir often leads to large amounts of **hydrogen/methane/oxygen** production, a potent greenhouse gas.

Dams also have a large impact on local wildlife, ecosystems and lead to displacement of local residents. Nowadays, the hydropower industry is investing in research and mitigation projects to reduce the adverse environmental effects dams can have on **water /air/atmosphere** quality, river flows and fish habitats.



2-Place the following sentences under the correct heading

Advantages	Disadvantages
<p>1- Large-scale hydropower is a renewable energy source.</p> <p>2- As reservoirs require large areas, finding a suitable place for large-scale hydropower plants can be difficult.</p> <p>3- Although hydropower systems cost a lot to build, they have very low maintenance costs and can last for over 100 years.</p> <p>4- Reservoirs have multiple social and environmental effects (ecosystem damage, loss of land, siltation, methane production, displacement of people, failure risks, and water loss via evaporation).</p> <p>5- Water can be stored above dams so power can be produced when it is needed.</p> <p>6- Hydropower sites are often located in remote areas, so electricity distribution costs can be high, and there can be significant losses in the distribution grid.</p>	

Exercise 3:

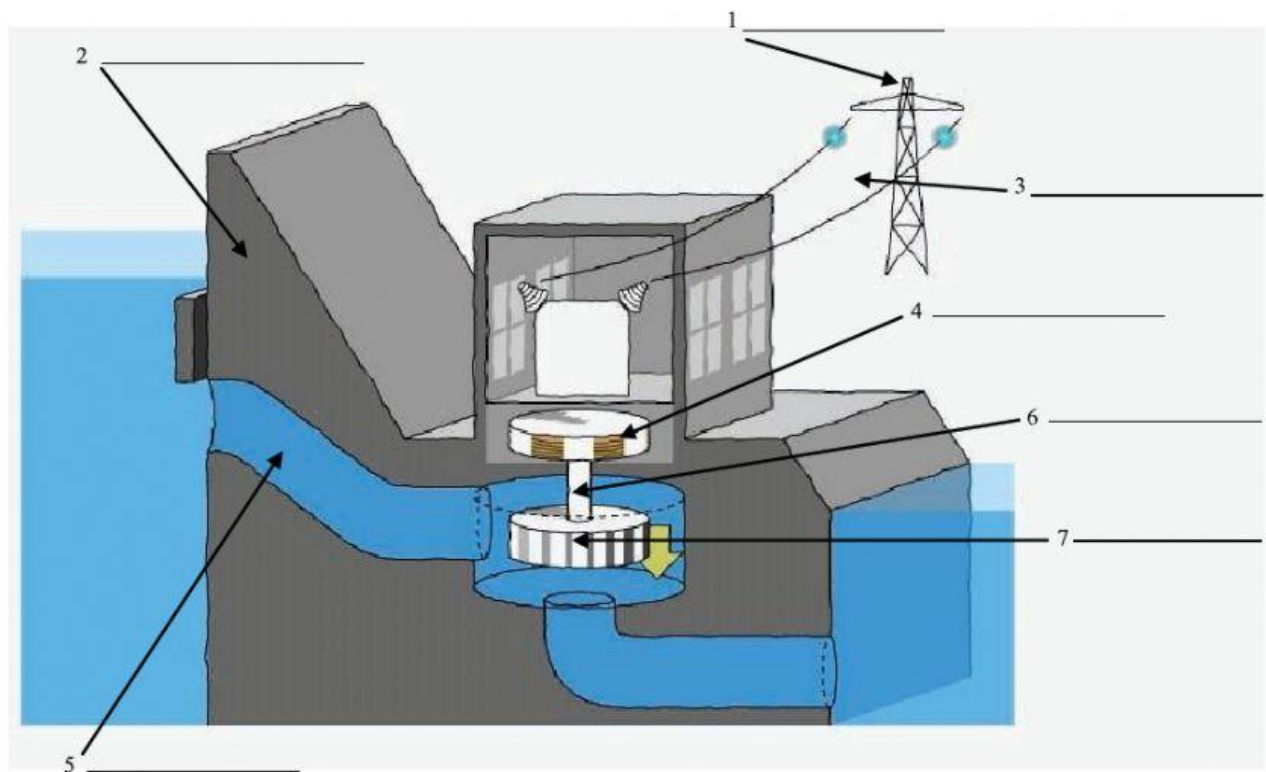
Watch this animation about hydro power production and complete the following activities.

<https://youtu.be/-Bqt-nO2Fac>



Exercise 4:

Write the labels in the correct place on the diagram.



Pylon	Shaft	Generator	Dam	Cable
Channel	Turbine			

Exercise 5:

Order the following steps in the hydro power production process

- ✚ The water is released through a channel in the dam and falls onto a turbine, causing it to turn.
- ✚ Rainwater builds up in a reservoir behind a dam
- ✚ The generator produces electricity, which is sent via pylons and cables to homes around the country.
- ✚ The turbine is connected to a shaft, which, as it turns, drives a generator.

Hydropower production process	
1-	
2-	
3-	
4-	

Exercise 6:

Complete the gaps, using the present simple or present simple passive form of the verbs in the box.

Produce	release	flow	connect	drive	send
	turn		build up		

The energy in flowing water can be harnessed to produce electricity.

Rainwater _____ down hills and into a river. It then _____ in a reservoir behind a dam. The water _____ through a channel in the dam and falls on to a turbine, causing it to turn. The turbine _____ a shaft, which, as it _____, _____ a generator. The generator _____ electricity.

Electricity _____ via pylons and cables to homes around the country.