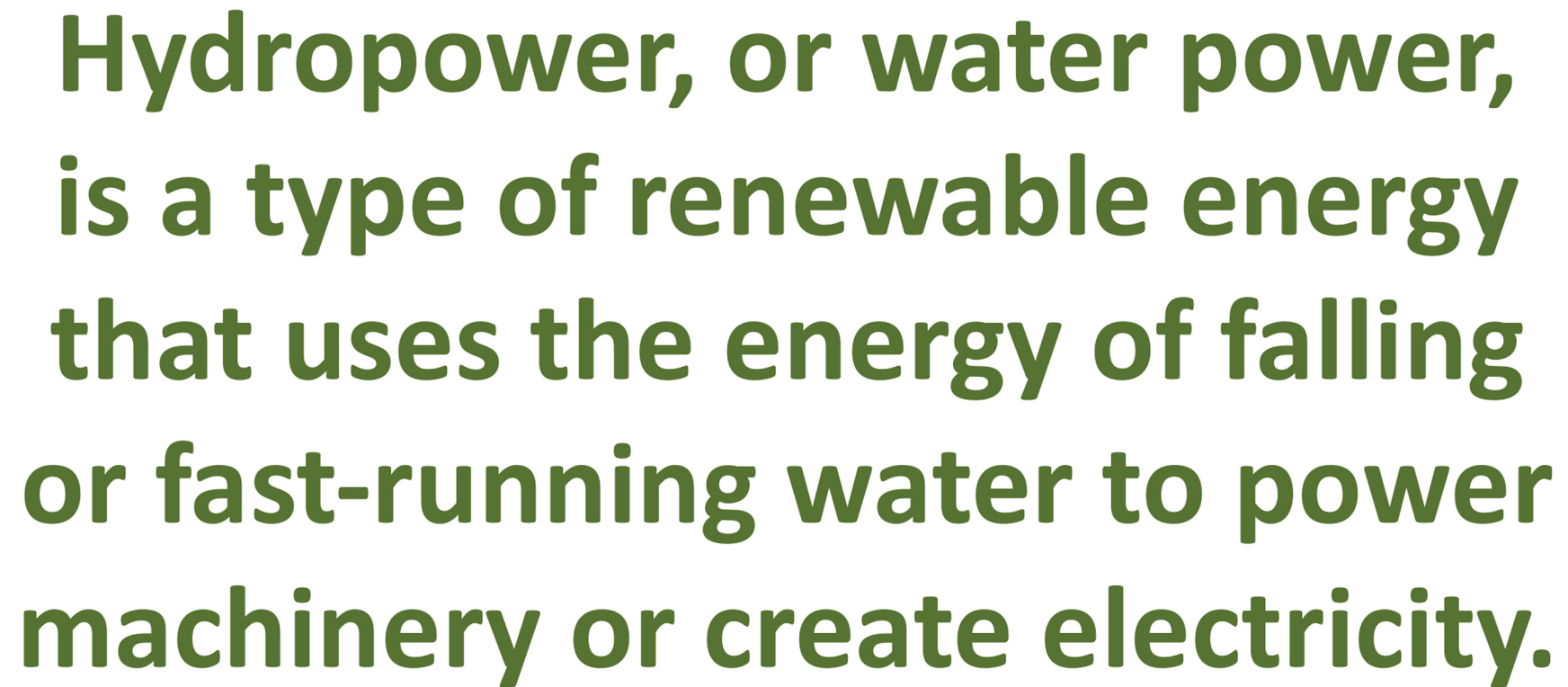




Cornerstones

# Hydropower





**Hydropower, or water power, is a type of renewable energy that uses the energy of falling or fast-running water to power machinery or create electricity.**

# Early hydropower

Water has been used since ancient times to turn waterwheels to produce flour from grain and to saw wood. Water-powered mills were used by the Romans and the people of China used hydropower to forge iron ore into cast iron in 1st century AD.



Images used from: Wikimedia Commons/Public domain

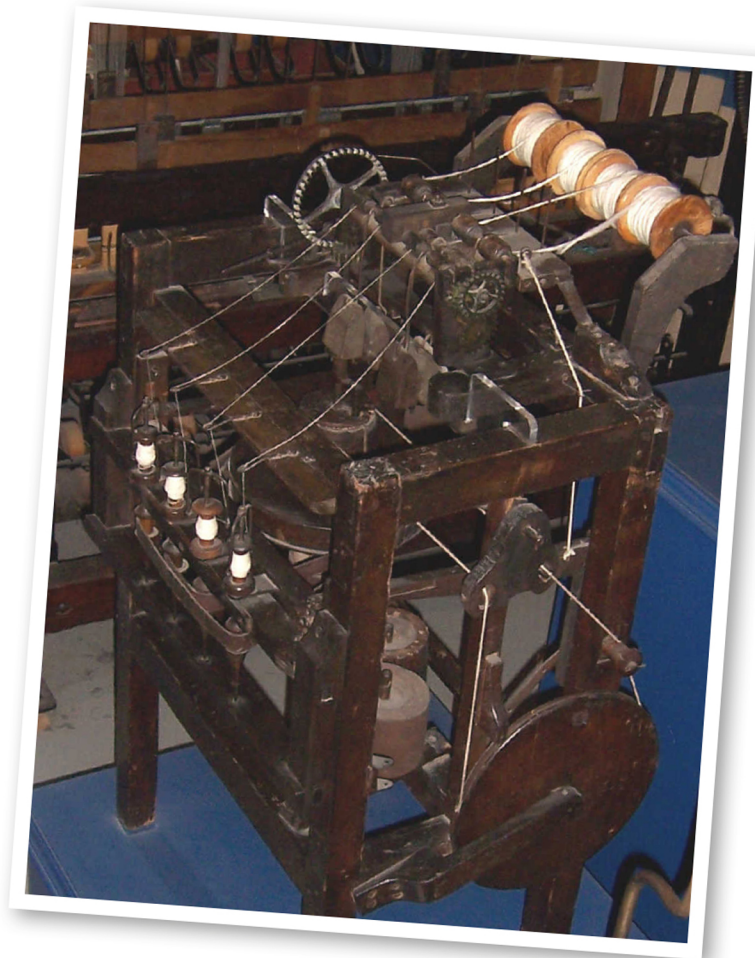


图 4-85 水转翻车



# The Industrial Revolution

During the 18th and 19th centuries, water power led to various new inventions that increased the variety and amount of goods factories could create. Richard Arkwright's water frame allowed factories to spin cotton threads faster than ever before.



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# Hydroelectric power

Hydroelectricity was developed in the late 19th century. To create hydroelectric power, the flow of water in dams and rivers is used to turn large turbines that are connected to a generator. As the turbines spin the generator, electricity is produced. Today, around 17% of the world's electricity comes from hydropower. It is a cheap, reliable and clean form of renewable energy.

