



Activity: Imagine you are a South Louisiana cane farmer. After each harvest, there is a lot of plant material left in your fields. You'd like to collect that material and use it to run a steam-powered factory. What will your factory produce? What does your steam engine look like? Draw an image of your engine **below**. Give a short description of what it does, how it works and what your factory produces.

STEAM POWER

Sugar mills in South Louisiana are very efficient factories that use the waste fibers of the processed cane, called *bagasse*, to fuel the boilers which cook the cane syrup. The steam generated during the cooking process is captured after the first boiling and reused in subsequent vats. This represents a vast savings in fuel costs for mills. In addition, steam power runs the engines controlling the crushers and juicers.

The steam engine was one of the most important inventions of the Industrial Revolution. Steam engines were used in all sorts of applications including factories, mines, locomotives, and steamboats.

The steam engine helped to power the Industrial Revolution. Before steam power, most factories and mills were powered by water, wind, horse, or man.

One of the first steam engines was invented by Thomas Savery in 1698. It wasn't very useful, but other inventors made improvements over time. The first useful steam engine was invented by Thomas Newcomen in 1712.

In 1778, steam power really took off with improvements made by James Watt. The Watt steam engine improved the efficiency of steam engines considerably. His engines could be smaller and use less coal. By the early 1800s, Watt steam engines were used in factories throughout England.

Steam power is still heavily used around the world in various applications. Many modern electrical plants use steam generated by burning coal to produce electricity. Also, nuclear power plants use steam generated by nuclear fusion to produce electricity.