

Song Dynasty Economy

Name: _____

First, you will read about industrialization in Europe. Then you will read about the Song Dynasty economy and compare it to industrialization. Ultimately, you will answer whether or not the Song Dynasty came close to industrializing.

Industrialization	
<p>Mechanization: the main part of industrialization is the mechanization of work. Mechanization simply is the process of using non-animal power to do things. So pulling a plow with a horse is not mechanization, nor is plowing the field yourself. But if you hooked the plow up to a steam engine, now the work is mechanized.</p>	<p>Define mechanization in your own words:</p>
<p>Industrialization: the Industrial Revolution begins in Europe around 1760 AD. This is a period of considerable mechanization. The very first form of mechanization was the water wheel, which was in use for more than a millennium before the start of the industrial revolution. However, the use of the water wheel became industrialization when Europeans began to hook up machines to the water wheel. With the Spinning Jenny, water wheels could spin hundreds of spools of cloth at once. With the puddling furnace, water wheels could smelt iron or even steel. Later the water wheel was replaced by the Steam Engine</p>	<p>What were the steps of industrialization?</p>
<p>Other Signs: there are many other signs of industrialization. The population exploded, doubling every couple generations. Farming became more productive with the use of farming machines, meaning more people could be fed on less land. Industrial productivity also increases, doubling rates of iron, coal, or other raw materials every generation or so. The rate at which new inventions were created increased. People begin to follow the industrial jobs by moving into cities, increasing the percentage of urban population. Lastly, industrial countries always began to conduct more and more international trade.</p>	<p>What are five signs of industrialization?</p>

Song Dynasty	
Excerpt	Summarize
<p>The Chinese Census generally recorded households rather than exact number of people and are therefore not particularly precise. However, it is believed that when the Song Dynasty came to power in 960, there were about 80 million people living in its territory. By 1260, that number was probably closer to 200 million. Commercial development of the Song period made the urbanization of China inevitable. By the twelfth century China had fifty-two large urban prefectures with more than one hundred thousand households each.</p>	
<p>During Song times, heavy industry — especially the iron industry — grew astoundingly. Iron production reached around 125,000 tons per year in 1078 AD, an increase of 6x the output in 800 AD. Iron and steel were put to many uses, ranging from nails and tools to the chains for suspension bridges and Buddhist statues. The army was a large consumer: steel tips increased the effectiveness of Song arrows; mass-production methods were used to make iron armor in small, medium, and large sizes; high-quality steel for swords was made through high-temperature metallurgy. Huge bellows, often driven by waterwheels, were used to superheat the molten ore.</p>	

<p>The annual output of minted copper currency in 1085 alone reached roughly six billion coins. The most notable advancement in the Song economy was the establishment of the world's first government issued paper-printed money, known as Jiaozi (交子). For the printing of paper money alone, the Song court established several government-run factories in the cities of Huizhou, Chengdu, Hangzhou, and Anqi. The size of the workforce employed in paper money factories was large; it was recorded in 1175 that the factory at Hangzhou employed more than a thousand workers a day.</p>	
<p>The use of water power to move millstones, grinding stones and hammers, and chained-bucket irrigation mechanisms became more and more usual, especially with large land owners. As an implement to pluck out rice seedlings peasants made use of a machine called a "seedling horse", planting and fertilizing was the task of a machine called "dung-drill". In northern China, a "drill-tiller" was in use, while in the lower Yangtze region, a "plow-weeder" became widespread at the end of Southern Song.</p>	
<p>The invention of movable-type printing as made by Bi Sheng 畢昇 deeply contributed to the spread of literature, knowledge and thought. Song moveable types were made from clay, later from wood. The cheaper books became, the more widespread was literature of all kinds.</p>	
<p>Although trade by sea with India and the Middle East had existed since the late Han period, maritime trade grew rapidly during the Song era. Improvements in the technology of shipbuilding and navigation assisted overseas commercial activities. China mostly exported manufactured goods; its silk fabrics and porcelain products were appreciated worldwide.</p>	
<p>The Waterwheel (a wheel that is spun by running water to harness kinetic energy) had been used in China for at least a millennium. However, under the Song Dynasty the number of uses for this device increased dramatically. Waterwheels were used to power the massive blast furnaces of iron mills and for the grinding necessary both to making millet flour and gunpowder. They also were used to power fans in palaces and drive the mechanisms of the world's first mechanical clocks.</p>	
<p>The Windmill was also invented during the Song Dynasty. For the first time, people were able to produce the same sort of mechanical power of the water mill without needing running water. The Windmills of the era were not especially effective but were used in many flour and lumber mills in regions that lacked swift rivers.</p>	

Method Statement	A society counts as industrialized if...
Claim (pick one)	<ul style="list-style-type: none"> • The Song Dynasty was industrialized • The Song Dynasty was close to industrialization • The Song Dynasty did not come close to industrialization
Reason	Because...