**Origins of the Industrial Revolution**

**Pre-Industry**

Middle Ages = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Farming

* Most farm land was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_land, meaning peasants worked on the same large, open piece of farmland. Fences / property lines not used—empty strips of land often separated farms.
* Disadvantages:
  + The land between the strips was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + No fences allowed cattle to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ off of farmland.
  + Peasants lives were at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ level—barely produced enough food to survive.

**Agricultural Revolution**

**Middle Ages**: (fill in the rectangles)

|  |  |
| --- | --- |
|  |  |
|  |  |

* Middle Age farmers \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in one crop, but found that after several years, crops began to die
* To solve this problem, \_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_ fields were left \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (empty) to regain nutrients
* This is a very \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ use of land.

**Agricultural Revolution** **(1600’s)**: Fill in the blanks

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**Crop rotation**

* Each field is planted with a different crop, and crops rotate through each field once every \_\_\_\_\_\_\_ years
* Fields \_\_\_\_\_\_\_\_\_\_\_ of nutrients by one crop are replenished by planting different crops.
* Fields not left inefficiently \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Enclosure movement**

* Wealthy landlords fenced in pastures, creating modern concept of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Villages lost common lands and political power as \_\_\_\_\_\_\_\_\_\_\_ became more powerful.

**The 1st I**\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **of the Industrial Revolution were part of the Agricultural Revolution**

* Jethro Tull invented a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that planted seeds efficiently.

**Results**

* More \_\_\_\_\_\_\_\_\_\_\_\_ available
* Population \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* New crops: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The Cottage Industry**

**Merchants’ roles in cottage industry**

* Supplied materials - \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (textiles) to cottages to be prepared and spun.
* Took supplies from spinning cottage to weaving cottage to dying cottage.
* Merchants sell product for more than the material and labor costs—make a \_\_\_\_\_\_\_\_\_, become part of middle class

**Steps in Cottage Industry**:

**Effects of the Cottage Industry system**

* Big profits for new class of merchants
* Alternative source of income for some \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Textiles become 1st industry in Industrial Revolution—Cottage Industry expands to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (separate cottages brought under one roof)

**Capitalism**

* An economic system based on private ownership, free competition, and profit.
* Cottage industry is an example of early capitalism

**Origins of the Industrial Revolution (Cont.)**

**The Factory System**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = 1st Industry in Industrial Revolution

The Industrial Revolution began in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because of a favorable combination of resources, money and a large workforce

* This combination of \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_ are known as the **Factors of Production**

**Simple Machines Helping the Textile Industry**

Problems faced by textile industry

* Population growth = greater demand for clothing / textiles
* Need machines to help produce more cloth
* Cottages too small to hold big machines & more workers; inefficient taking materials to different cottages

Hargreaves- invented \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Machine spun 8 times faster than single wheel.

Arkwright- invented \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (water powered spinning machines)

Cartwright- invented a water powered \_\_\_\_\_\_\_\_\_\_\_\_\_\_. One person could do the work of 800.

Eli Whitney- invented the Cotton Gin. This separated seed from cotton.

**Rise of the Factory System**

* New machines, often too large for homes, were put into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Factories located near power source: \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_

**Effects of Textile Factories in Britain**

* Prices of mass produced textiles were much \_\_\_\_\_\_\_\_\_\_ than hand produced products.
* The majority of villagers were forced to leave to find work in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as farm labor was replaced by equipment.

**Steam Engine: The Need for Energy**

* Early factories relied on \_\_\_\_\_\_\_\_\_\_ mills and wind mills for power
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_power evolved in response to the increasing need for power.

**How the Watt Steam Engine works**

* Steam forced from high to low pressure produces power.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ patented the modern steam engine.

**Effect of Steam Engine**

* Steam power, used wherever coal existed, \_\_\_\_\_\_\_\_\_\_\_\_\_ textile production
* Improved mining which in turn \_\_\_\_\_\_\_\_\_\_\_ other industries

**The need for Iron and Steel**

* Farming tools, new factory machines, railways made out of iron, then steel
* Smelting makes iron ore more pure, but requires large amounts of carbon and heat
* Bessemer process (Henry Bessemer) makes turning \_\_\_\_\_\_\_\_into \_\_\_\_\_\_\_\_\_\_\_\_\_\_ more efficient—steel production goes up

**The Need for Coal**

* Coal is necessary for smelting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Steam engines \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by coal.

**Effects of iron and coal**

* Britain produced more iron than all other countries in the world combined
* Becomes wealthiest & most \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ nation of 1800’s

**Transportation**

* Increased \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of goods leads to a need for better transportation
* New technologies make railroads, steam boats, and bridges possible