Scales of production

Although you may only produce one final product in school in industry they have different methods of production. Commercial production is split into five categories.

### Quick explanations

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>One off production</strong></td>
<td>- One product is made often a prototype.</td>
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<tr>
<td><strong>Batch production</strong></td>
<td>- A small quantity of the product is made two or more up to one hundred.</td>
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<tr>
<td><strong>Mass production</strong></td>
<td>- A large number of the product is made on a production line. Many hundreds of the product could be made. This is often called repetitive flow production.</td>
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<tr>
<td><strong>Continuous production</strong></td>
<td>- Many thousands of the product are made. The difference between this and mass manufacturing is that continuous production is on 24 hours a day.</td>
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<tr>
<td><strong>Just in time production</strong></td>
<td>- The arrival of parts at just the exact time that they are required in the factory.</td>
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### Production types detailed explanations

#### One off production

This is when only one product is made at a particular time. This one off product could be a prototype a one off object or a hand made object. Prototypes are made to see if a product works before it goes into large scale production. One off production takes a long time and often means it is expensive. A classic product could be a mobile phone prototype, a one off specialist product, handmade items, etc.

#### Batch production

This is when a series of products which are all identical are made jointly in either large or small numbers. Once these have products have been made once more of the same products may be made using the same equipment. This equipment includes tools, moulds, machinery and labour. A classic product could be a chair, newspapers, books, electrical products, etc.
Scales of production

**Mass production**

Mass production involves the product going through many stages of a production line. There are workers and machines at certain stages along the line that are responsible for making certain parts of the product. This means the product is often made over days or even weeks depending how complicated it is. This product is often quite reasonably priced due to the large scale production techniques used. However if a problem occurs it will stop the whole line of production. A classic product could be a car. The technique was first implemented by US automobile pioneer Henry Ford in 1908, for the manufacture of the Model T Ford automobile.

**Continuous production**

This is where a product is continuously produced over a period of hours, days, weeks or even years. This kind of production means the product will often be quite reasonably priced. A classic product could be screws, bricks, food products, etc

**Just in time production.**

Just in time production means just that. This involves the arrival of parts at just the exact time that they are required in the factory. This means that less storage space is needed at the factory, so saving space at the factory. If the flow of parts is stopped or is late the line will stop and this production technique could then become very costly.

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**Quiz time!**

Read the text above and then answer these questions below. Write your answers on a sheet of paper, don't forget to write your name on the sheet!:-

1). Your company is looking into how you can mass manufacture your product. Look into scales of production and produce an A4 sheet with the five types of production. Use notes, pictures, colour and a ruler