

## The Manufacturing Process

Technology Education



## Manufacturing Process

- The assembly line was improved largely by Henry Ford and his engineers, Ford was also the first to build factories around that concept.
- It usually consists of 4 workers in control of one specific job and their work related movements are reduced to a minimum.



## Manufacturing Process

- Manufacturing is the process of turning materials into usable products.
- Everyday products, such as vehicles, telephones, and clothing are manufactured.



## Manufacturing Process

- Design & Engineering
- Purchasing
- Production
- Quality Control
- Packaging
- Marketing & Distribution



## Manufacturing Process

- An **assembly line** is a manufacturing process in which interchangeable parts are added to a product in a sequential manner to create a finished product.



## Design & Engineering

- Designers and engineers create new or improved designs for products that people will want to buy.
- Solve some kind of problem or improve our lives.
- Some products are redesigned to be safer or to be lower in cost.



## Purchasing

- Purchasing agents follow through on the materials specified in the product design.
- They find suppliers that will provide the highest quality materials at the best prices.
- They must also choose suppliers that will deliver the materials on time.
- They make sure the production department has what it needs to make the product.



## Packaging

- Protect the product during shipment.
- Packaging can also be used to make a product more appealing and recognizable.



## Production

- In this phase, the product is produced.
- 3 main types of manufacturing systems
  - Custom Production: one product made at a time, or just a few. Ex.- musical instruments
  - Batch Production: generated in a batch called a lot. Ex- Gym uniform t-shirts
  - Continuous Mass Production: large quantities Ex.- chocolate bars



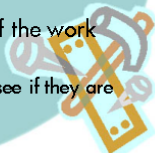
## Marketing & Distribution

- Marketing is taken into account during many stages of the process.
- In the beginning, marketing techniques are used to find out what people want and if enough people are likely to buy a product.
- Marketing also involves advertising, which tells people about the product.
- Then the product is shipped and sold to customers.



## Quality Control

- Quality control ensures that the product is produced as planned, according to standards outlined from the beginning.
- Materials are inspected to make sure they are of the required quality.
- As products are made, the quality of the work being done is also inspected.
  - For example, products are checked to see if they are the right size or shape.



## Manufacturing Process

- [http://www.glencoe.com/sec/Tech\\_Ed/teaching\\_tips.shtml](http://www.glencoe.com/sec/Tech_Ed/teaching_tips.shtml)



## Marketing & Distribution

