Life Cycle of a CD

Team 4
Music playback began with the invention of the phonograph in 1876.

In the 1960’s, the development of digital electronic technology greatly helped in the progress of CD ROMs.

In the 1970’s, optical and digital technologies had reached a level where such a creation was possible.
Marketing

- CDs took the place of cassettes
  - Smaller
  - Convenient
- Pop culture made a large impact in the advertising of products
  - MTV
  - VH1
  - Britney Spears, etc.
Manufacturing

- Disc master preparation
  - Information is documented on a glass “disc master” which is encoded
  - It then goes through electroforming steps
    - Metal layers are put on the glass “disc matter” using currents
  - Information is then transferred onto a plastic disc
  - Reflective aluminum, clear acrylic and a label is then attached
- Replication
AOL has distributed 2 billion + CDs
  * Uses the natural gas equivalent of heating 200,000 homes for 1 year
To make 30 CDs
  * 300 cubic feet of natural gas is used
  * 2 cups of crude oil is used
  * 24 gallons of water is used
Transportation
  * Air pollution
Jewel Cases

- Made from a plastic called polystyrene through injection modeling process
- CDs are held in case by small circular grips
  - Protects the CD surfaces
- A sticker label is attached to the outside of the jewel case for closure
Sales, Distribution, and Transportation

- CDs, DVDs, Blu-Ray, etc. are sold in most stores (blank are cheapest, Blu-Ray most expensive)
  - Wal-Mart
  - RadioShack
  - Best Buy
- They are shipped from factories to retailers
  - Flown
  - Driven
  - Imported/Exported
Consumption

- Used to listen music, watch movies, store data
- Needs some type of device to read disc
  - CD player
  - Computer
- UK buys most CDs in the world
Final Disposition

- Considered a class 7 recyclable plastic
- Usually thrown out/broken/scratched
  - End up in landfill
    - Take over a million years for a CD to completely decompose
- MP3’s are becoming more convenient