Westward Expansion: Technological Advancements

Technological Advancements
Because of new advancements in technology people saw the Great Plains not as a “treeless wasteland” but as a vast area to be settled

1. Dry Farming
   - Type of farming that allowed farmers to farm without much water
   - Planted the seeds deeper to get more water
   - Popular crops = wheat, corn and potatoes

2. Wheat Farming
   - Wheat doesn’t need much water
   - Wheat can be made into flour which is non-perishable and can be used to make bread and cereal

3. Steel Plow
   - Great Plain soil was hard and rocky
   - Wooden plows weren’t strong enough
   - Harder steel was able to break through the tough topsoil

4. Windmills
   - Water-pumping windmills provided water for people and animals in areas with little rainfall
     1. Wind turns the blades of the windmill.
     2. The turning of the blades operates a pump that brings water up from underground sources (aquifers)
     3. The water flows into an open wooden box called a trough.

5. Mechanical Reaper
   - Mechanical reaper (mower) reduced farm labor needs and increased production of wheat and other grains

6. Beef Cattle Raising
   - Some areas were had natural grasses that were good for cows (cattle) to graze
   - Texas became the center of cattle ranching
   - People in the East wanted to eat beef; BEEF = $$$$
7. Barbed Wire
   - Barbed wire was used for fencing large ranches and farms
   - Built more quickly and cheaply than wood fences, which were expensive and hard to get (few trees for wood)
   - Kept livestock in and predators out

8. Sod Houses
   - Sod = the top layer of soil and grass (8-10 inches thick)
   - Settlers in the Plains built houses out of sod and wooden beams
   - Easy to build, durable, well-insulated, and practically free

9. Railroads
   - Made it easier to travel west
   - Farmers could ship their crops to the markets in the East

   Transcontinental Railroad
   - Linked the East to the West (from the Atlantic to the Pacific Ocean)
   - Transported people and goods
   - Made trade easier
   - Made it possible to start building factories in the West
   - Started as two railroads: Union Pacific (east to west) and Central Pacific (west to east)
   - Union Pacific: began in Omaha, Nebraska
   - Central Pacific began in Sacramento, California
   - “Meet me in the middle”
   - May 10, 1869: UP and CP met at Promontory Point, Utah
   - Leland Stanford, Gov. of California, drove the last spike.

   Who built the Transcontinental Railroad?
   - Union Pacific – 8,000 Irish immigrants and African-Americans
   - Central Pacific - 10,000 Chinese immigrants

10. Telegraph
    - Invented by Samuel Morse
    - (THINK MORSE CODE)
    - Allowed people to communicate across long distances
    - Messages could travel across the country in a matter of minutes.