Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Modern Marvels**

**Farming Technology**

1. Farmers have 4 main jobs, list them-
   1. To feed the world
2. The Johansson’s farm \_\_\_\_\_\_\_\_\_\_\_\_\_ acres.
3. Before he invented the plow, John Deere was a \_\_\_\_\_\_\_\_\_\_\_\_.
4. In the mid-1800’s \_\_\_\_\_\_\_\_% of Americans lived on a farm.

**Plowing**

|  |  |
| --- | --- |
| Then =Horse | Now=Tractor  Who invented first tractor?  When? |

**Planting**

|  |  |
| --- | --- |
| Then= Hand Planting | Now=Mechanical Seed Drill  Who invented first tractor?  When? |

**Fertilizing**

|  |  |
| --- | --- |
| Then=  \*Chinese- Animal Manure  \*Romans-Bird Manure & garbage  \*Native Americans- | Now=Chemical Fertilizer  Who invented first chemical fertilizer?  When? 1842 |

**Genetic & Biotechnology Discoveries**

1. What are benefits of altering the genes in crops?
   1. Higher Yields
   2. Decreased reliance on chemical pesticides & herbicides
   3. Plants with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ nutritional values
2. What are the concerns of those against gene modification?
3. List at least 3 obstacles that farmers face each year?

**Chemicals** (herbicides to kill weeds, pesticides to kill pests)

1. DDT was invented by \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ who received a Noble Prize for his invention.
2. DDT was banned from use in \_\_\_\_\_\_\_\_, after the book \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ uncovered some horrible side effects of the chemical.

**More Genetic & Biotechnology Discoveries**

1. What is unique about the corn seed that Monsanto developed?
2. What are 2 fears of using genetically resistant seed crops?

**Organic**

1. What does it mean for a crop to be labeled organic?
2. Organic food makes up \_\_\_\_\_\_\_\_\_% of food
3. Why is organic food more expensive?

**Harvesting Grain**

|  |  |
| --- | --- |
| Then=Threshing Machines  Who invented first Threshing Machine?  When? | Now= Combine  What was unique about what the combine could accomplish?    Describe today’s combine: |

1. What does GPS stand for? \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_.
2. Trimble auto pilot system is accurate within \_\_\_\_\_\_\_\_”.
3. All the increase in technology and changes in farming mean there are \_\_\_\_\_\_\_\_\_\_ farms, and \_\_\_\_\_\_\_\_\_\_ farmers