**World Population Growth**

Student Note Sheet

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| **Record what you notice and wonder as we go through the pictures as a class** | |
| **Image** | **Notice / Wonder** |
| 1. **World Population Graph (in billions)** |  |
| 1. **Percent of Population in Urban Areas** |  |
| 1. **Map, population and traffic of Mont. Co.** |  |
| 1. **Local vs. Imported Ingredients** |  |
| 1. **Gaithersburg 1951 vs 2015** |  |
| 1. **Landfills** |  |
| 1. **Carbon Dioxide and Temperature Data** |  |

**Introduction:**

Human population growth has not been the same rate over time. For example

* In the year 1 A.D., there were approximately **170 million** people, about half the current population of the U.S. and Canada.
* We didn’t reach **one billion** people until 1804.
* In the year 2018, world population hit approximately **7.6 billion**.

The video you will watch shows a graphic simulation of human population growth over time.

**Video Comprehension Questions**

1. What two areas on the map have the highest density of dots at the beginning of the film? Do those areas still have large populations today?
2. At the beginning of the film, the areas with fairly dense dots are mostly in places where the climate is good and the land is fertile. Often along river banks and near deltas, people have developed forms of agriculture. What is the link between agriculture and population growth?
3. The bubonic plague (in the 1300’s) killed approximately 75 million people. What areas were hit hardest by the plague and why? How might increased population density contribute to a virus’s ability to spread?
4. **Connection to Social Studies:** 
   1. Approximately what year did you begin to notice the most significant population growth?
   2. What historical events, scientific and/or technological advances, and social changes were happening at that time?
   3. How did these influence population?
5. At the end of the video, which areas remained relatively unpopulated? Why might this be?
6. If current growth rates continue, our population would double to over 15 billion in 64 years. However, the United Nations mid-level estimate is that world population will plateau at just over 11 billion around the turn of the century. What changes could occur between now and 2100 to reduce the rate of growth?
7. **Connection to Math:** Knowing we are currently adding one billion people to the planet roughly every 12-14 years, approximately how many people are we then adding every year? How many every month?