**Answer Key: Explain: Making Sense of Milk**

**Directions**
1. Read the *ChemMatters* article, “Making Sense of Milk”.
2. In the space below, make a list of **ten** items from the article that are connected to your experimentation and wondering about the physical properties of milk.

- Milk is a liquid.
- Milk contains: vitamins, minerals, lipids (fats), sugars, proteins, water
- Milk is a mixture.
- Sugars and minerals are dissolved in milk, and fat clumps float in milk.
- Casein is a type of protein found in 2% milk.
- The particles are evenly distributed in milk because of homogenization.
- Each type of milk has different ingredients.
- Some of the ingredients are easily absorbed by our body and others are not.
- Protein in cow’s milk is more digestible and bioavailable than other milks.
- Some milks have more additives compared to cow’s milk.

3. Define the following terms using your prior knowledge, [this video](#) and [this website](#).

- **Homogenous Mixture**: a mixture of particles that are evenly spaced between each other
- **Heterogeneous Mixture**: a mixture of particles that are not evenly spaced, and some sink to the bottom of the container
- **Solution**: a mixture of particles that are evenly spaced, and the size of the particles are so small that light is not bent as it travels through a container
- **Colloid**: a mixture of particles that are evenly spaced with medium sized particles
- **Suspension**: a mixture of particles that are not evenly spaced with large particles, so can be seen with the naked eye
- **Saturated fat**: type of lipid with long single bonded carbon chains
- **Polyunsaturated fat**: type of lipid with long carbon chains that sometimes have double bonds
- **Carbohydrate**: type of sugar
- **Soluble**: dissolves to from a solution
- **Emulsion**: a type of colloid with medium sized particles
4. Using the definitions create a concept map connecting the terms based on their relationships.