**Standard Deviants Accelerate: States of Matter
Video Guide**

As you view the video, fill in the guide.

1. What is matter?
* Anything that has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and takes up \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
1. Example of “non-matter” = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Matter can be divided into three categories \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_
3. Solids, liquids, and gases are called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Solids & Liquids**

1. In most elements are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in their natural state.

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| **Shape** | **Solids** | **Liquids** | **Gases** |
|  |  |  |

1. Phases of matter defined by:
	1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ between molecules
	2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of each molecule
2. \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ = the energy of objects in motion

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| **Movement****(Kinetic Energy)** | **Solids** | **Liquids** | **Gases** |
|  |  |  |

**Types of Solids**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = without shape (not strong)
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = arranged in a pattern

**Phase Changes**

1. \_\_\_\_\_\_\_\_ have to be permanent
2.
3. The key to phases of matter is \_\_\_\_\_\_\_\_\_\_\_
4. The key to changing a substance from one phase to another is \_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Any substance can go from one phase to another if you can changes its \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_
6. Condensation = \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_
7. Evaporation = \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_
8. Sublimation = \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_
9.  Label the X & Y axis
10. \_\_\_\_\_\_\_\_\_\_\_\_\_ = the force exerted on the substance
11. Every substance has a different \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Gases**

1. Gases are \_\_\_\_\_\_\_\_\_\_\_\_\_; don’t gain or \_\_\_\_\_\_\_\_\_\_\_\_\_ energy
2. Gas molecules have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ masses because \_\_\_\_\_\_\_\_\_ made of have \_\_\_\_\_\_\_\_\_\_\_\_\_\_ masses
3. The way molecules move depends on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_