



States of Matter

NAME: _____

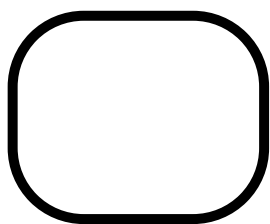
This worksheet may be used alongside the [My Teacher's House Is Not Haunted VST interactive](#)

1. What state of matter is the helium inside a floating balloon?

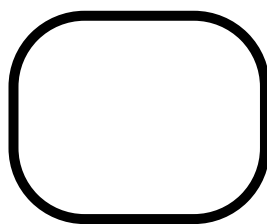
Describe the motion of the helium particles inside the balloon.



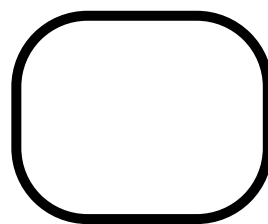
2. Illustrate the arrangement of particles in solids, liquids, and gases in the spaces provided.



Solid



Liquid

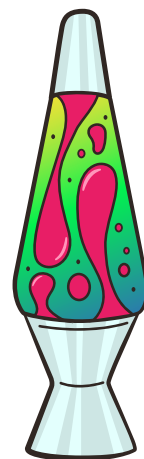


Gas

3. How does particle motion differ between solid, liquid, and gas states?

4. Explain what causes the wax blobs in a lava lamp to float.

Use the terms thermal energy and density as part of your explanation.



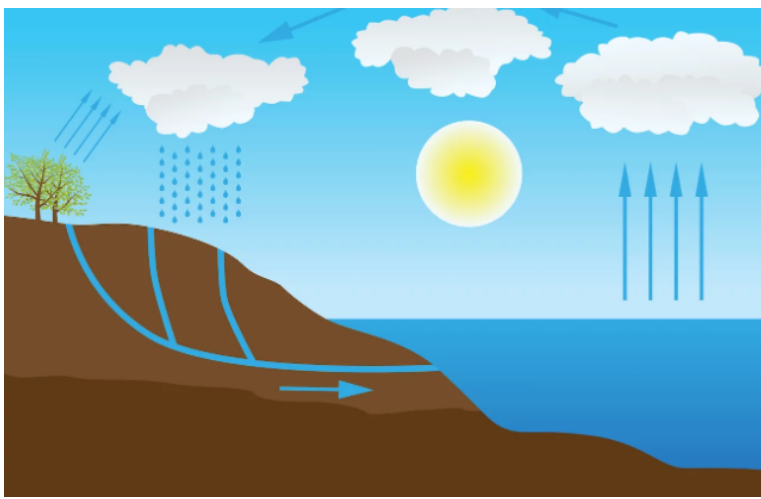
5. Explain what causes the wax blobs in a lava lamp to sink.

Use the terms thermal energy and density as part of your explanation.

6. Complete the sentence using the terms liquid, melting, solid, and freezing.

When water changes from a _____ to a solid, it undergoes _____; but when it changes from a solid to a _____, it undergoes _____.



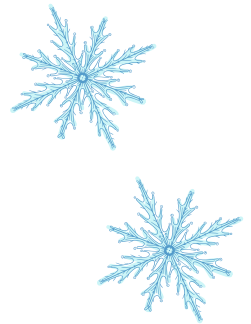


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7. In the water cycle diagram, label areas that represent vaporization and condensation. Describe the state transitions occurring at these areas.

8. Upon heating, how do dry ice (frozen carbon dioxide) and frozen water respond differently?

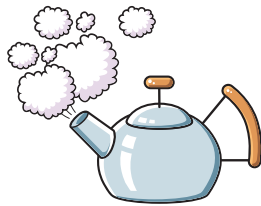
9. What change of state occurs when frost forms on windows?
What makes this phase change unique?



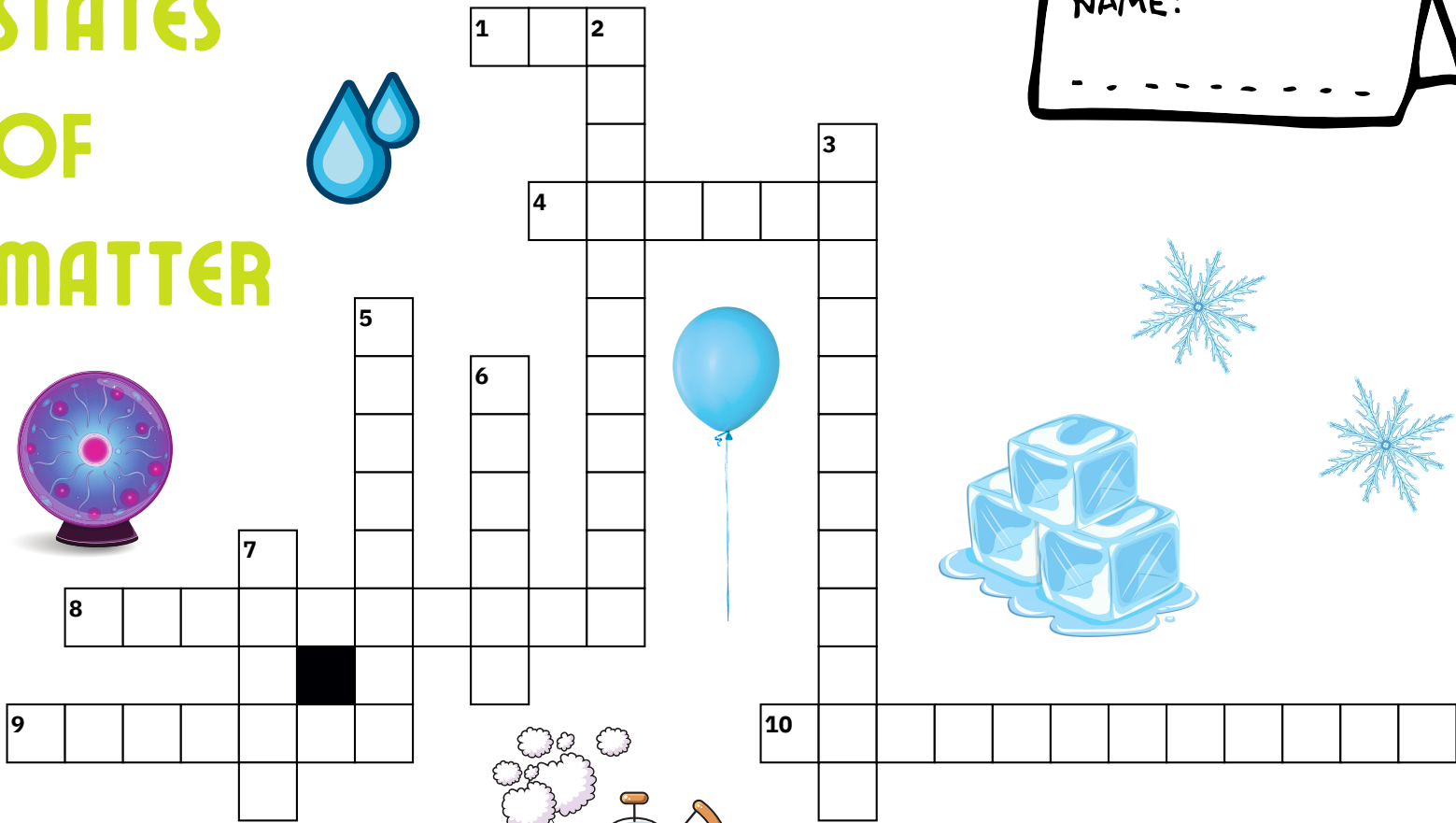
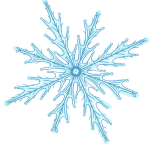
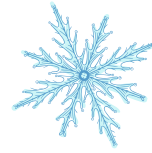
10. What is plasma, and how is it different from solids, liquids, and gases?



STATES OF MATTER



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Across

1. The state of matter where particles are spread out and fill the volume of their container.
4. The state of matter found in stars and neon lights.
8. When a gas turns directly into a solid without becoming a liquid first.
9. The process by which a solid becomes a liquid.
10. The process by which a gas becomes a liquid.

Down

2. When a solid turns directly into a gas without becoming a liquid first.
3. The process by which a liquid becomes a gas.
5. The process by which a liquid becomes a solid.
6. The state of matter that doesn't have a definite shape but has a definite volume.
7. The state of matter with a definite shape and volume.