

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## A Picnic on Jupiter: The States of Matter Challenge for Kinder Chemists

Imagine sorting your lunch as it floats through space while deciding if a juice box can survive a frozen moon or a hot sun.

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**1. Imagine you have a magic lunchbox that shrinks everything. If you put a hard apple inside, what happens to its shape?**

- A. It stays the same shape because it is a solid.
- B. It turns into a puddle like water.
- C. It disappears into the air like a gas.
- D. It grows into a giant tree.

**2. A balloon is full of \_\_\_\_\_ because it spreads out to fill the whole space inside.**

- A. Solid rocks
- B. Cold juice
- C. Invisible gas
- D. Hard metal

**3. True or False: If you pour orange juice from a tall bottle into a wide bowl, the juice changes its shape.**

- A. True
- B. False

**4. You leave a chocolate bar in a hot car and it turns into a gooey mess. What happened to the state of matter?**

- A. It stayed a solid.
- B. It changed from a solid to a liquid.
- C. It turned into a gas and flew away.
- D. It turned into a hard rock.

**5. When you see steam rising from a bowl of hot soup, the liquid water is turning into \_\_\_\_\_.**

- A. A solid
- B. A liquid
- C. A gas
- D. An ice cube

**6. True or False: If you put a toy car in a round bowl, the toy car will change its shape to be round.**

- A. True
- B. False

**7. Which of these would be the HARDEST to keep in a box without a lid?**

- A. A pile of wooden blocks

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- B. A puddle of milk
- C. A cloud of invisible gas
- D. A handful of sand

**8. If you put water in a very cold freezer, it becomes \_\_\_\_\_.**

- A. Soft and squishy
- B. A hard solid
- C. A floating gas
- D. Hot steam

**9. True or False: Bubbles in a soda are tiny pockets of gas hiding inside a liquid.**

- A. True
- B. False

**10. Why does rain fall as drops instead of staying in the sky like a cloud?**

- A. The gas turned back into liquid water.
- B. The water turned into a solid rock.
- C. The clouds got too full of toys.
- D. The sun turned the water into wood.