

Date: _____

Chapter 5, lesson A: Particle Model and Properties (5.A)

1. Complete the table. Use the following words.

ice milk orange juice rock sand water
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Solids	Liquids
rock	milk
sand	orange juice
ice	water

2. Which of these sentences is/are correct?

Tick (✓) the correct box beside each sentence.

Materials can be solids only.

True

☐

False

☒

Materials are made up of particles.

☒☐

3. Complete the sentences. Use the following words.

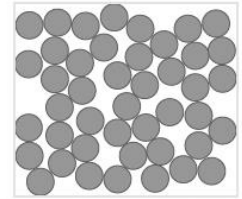
material	particles	substance
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A substance is made of one type of matter.

A material can be made of one or more substances.

All matter is made up of particles.

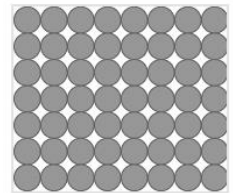
4. Adam notices that sand behaves like a liquid. It takes the shape of the container that it is poured into. Adam draws the particle model below to show the particles in sand.



Is Adam correct? Explain.

Adam is incorrect. His particle model shows a liquid but sand is a solid. Sand is made up of many small grains of sand. Each grain of sand has a fixed shape.

5. The diagram shows the particle model of a substance.



- a. What is the state of the substance?

solid

- b. Describe the way the particles are arranged and how they move.

The particles are packed very closely together. They have fixed positions. They vibrate about their fixed positions. They cannot move around one another.

6. Draw a line to match each word to its correct description.

word	description
material	glass is used to make windows
particle	water exists as a solid, liquid and gas
substance	In a solid these are close together

Red lines indicate the following matches: 'material' to 'glass is used to make windows', 'particle' to 'water exists as a solid, liquid and gas', and 'substance' to 'In a solid these are close together'.