

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

Science  
Matter

Study the notes and definitions below.

(a) **Matter**-anything that has mass and takes up space

(b) There are three common states of matter.

(i) **solids**-have a definite shape and volume; the atoms in a solid are packed close together

(ii) **liquids**-have volume but no shape; takes the shape of the container; the atoms in a liquid  
slide around

(iii) **gas**-no definite shape or volume; spreads out to fill the container; the atoms in a gas are  
spread out

All substances have certain characteristics called properties. **Physical properties** can be observed or measured. Physical properties that can be observed are **colour, shape, size, texture, length, density, luster and height**.

Many physical properties can be measured using the following instruments:

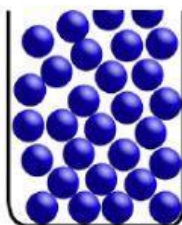
(c) **balance scale**-used to measure **mass**, which is the amount of matter an object has eg. golf ball

(d) **graduate cylinder**: measures **volume** which is the amount of space the matter takes up

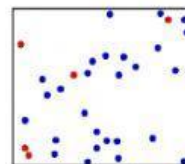
(c) **measuring cup/spoon**: also measure volume



particles in a solid



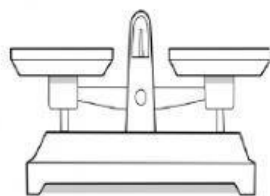
particles in a liquid



particles in a gas



balance scale



balance scale



graduate cylinder



measuring cup

(A) Match the words in Column A with the definition or clue in Column B. Write the letter only, not the brackets.

Column A

Column B

- |                              |  |
|------------------------------|--|
| 1. _____ gas                 | (A) The atoms are tightly packed together              |
| 2. _____ mass                | (B) An instrument used to measure volume.              |
| 3. _____ solids              | (C) This can be observed and measured eg. color        |
| 4. _____ matter              | (D) A kind of matter with no definite shape or volume. |
| 5. _____ physical properties | (E) An instrument used to measure mass.                |
| 6. _____ volume              | (F) A tool used to measure the length of a book        |
| 7. _____ balancing scale     | (G) This is the amount of matter an object has.        |
| 8. _____ graduated cylinder  | (H) This kind of matter has volume and takes the       |

shape of its container.

9. \_\_\_\_\_ ruler

(I) This is the amount of space matter takes up.

10. \_\_\_\_\_ liquids

(J) Anything that has mass and takes up space.