

① Label the diagram with the words from the box.

condensation

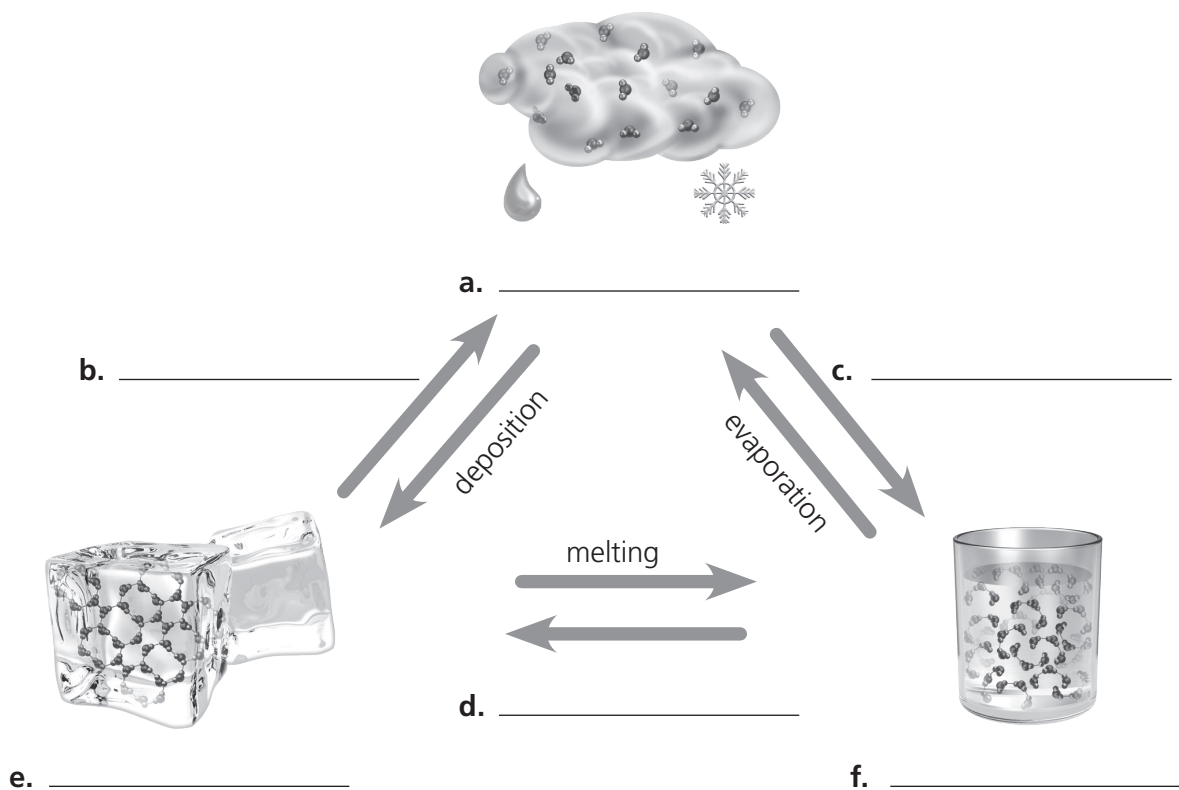
sublimation

gases

liquids

solidification

solids



② Tick the boxes that apply to the states of matter.

property	liquid	solid	gas
definite shape	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
indefinite shape	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
definite volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
indefinite volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
can be compressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

③ Which of these changes of matter are physical (P) or chemical (C)?
Write.

a. fermentation ☐

b. frying an egg ☐

c. folding paper ☐

d. breaking glass ☐

e. oxidation ☐

f. sharpening a pencil ☐

g. dissolving sugar in tea ☐

h. sieving sand and pebbles ☐

④ Match the properties to their definitions.

a. density	1. the scratch resistance of an object
b. solubility	2. the amount of matter an object has
c. mass	3. the amount of matter in a volume
d. thermal conductivity	4. how much space an object occupies
e. hardness	5. how much heat an object can conduct
f. volume	6. how easily a substance dissolves in another substance

⑤ Complete the text.

<p>When we mix two or more pure substances, we get two different results: homogenous or heterogenous mixtures. In a homogenous mixture, such as (1) _____ or (2) _____ water, it is not possible to see the individual substances.</p>	<p>But in a heterogenous mixture, such as (3) _____ or (4) _____ they can be seen. If we want to separate the substances, there are three methods: (5) _____, (6) _____ and sieving.</p>
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⑥ Draw diagrams to show the forces and their effect on objects.

a. gravity and buoyancy on an ice cube in water	b. friction slowing a parachute down	c. a magnet on a paperclip

⑦ Water has a density of 1.00 kg/l. Look at the density of these materials and objects. Which ones will float on water? Tick (✓).

a. cork: 0.25 kg/l <input type="checkbox"/>	c. steel boat: 0.90 kg/l <input type="checkbox"/>
b. iron: 7.90 kg/l <input type="checkbox"/>	d. iron boat with cargo: 1.20 kg/l <input type="checkbox"/>