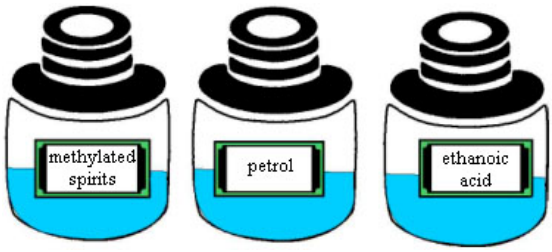
Freezing and melting points

This task is about freezing and melting points of some liquids.

Not everything will freeze when left in a freezer! The temperature inside a freezer is −4°C.
Below is a table of the melting points for three substances which are all liquids at room temperature.

Substance	Melting point (°C)
methylated spirits (meths) (mostly ethanol)	−114
petrol (mostly octane)	−56.8
ethanoic acid (used to make vinegar)	16.7

Three 500 mL bottles are each half-filled with the liquids and were placed in a freezer overnight.



a) Which liquid(s) would be frozen the next day?

- ○ Methylated spirits
- ○ Petrol
- ○ Ethanoic acid

b) Explain, in terms of particles, what has happened when a liquid has frozen.

c) Will the level in the frozen bottle(s) be higher or lower than before?

Higher| Lower

Explain your answer in terms of the particles.

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