

**3 (a)** Explain what is meant by the *internal energy* of a substance.

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..... [2]

**(b)** State and explain, in molecular terms, whether the internal energy of the following increases, decreases or does not change.

**(i)** a lump of iron as it is cooled

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..... [3]

**(ii)** some water as it evaporates at constant temperature

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..... [3]