

Student's book answer key:

Chapter 6 Student's Book

Practice Worksheet, pp. 94–95

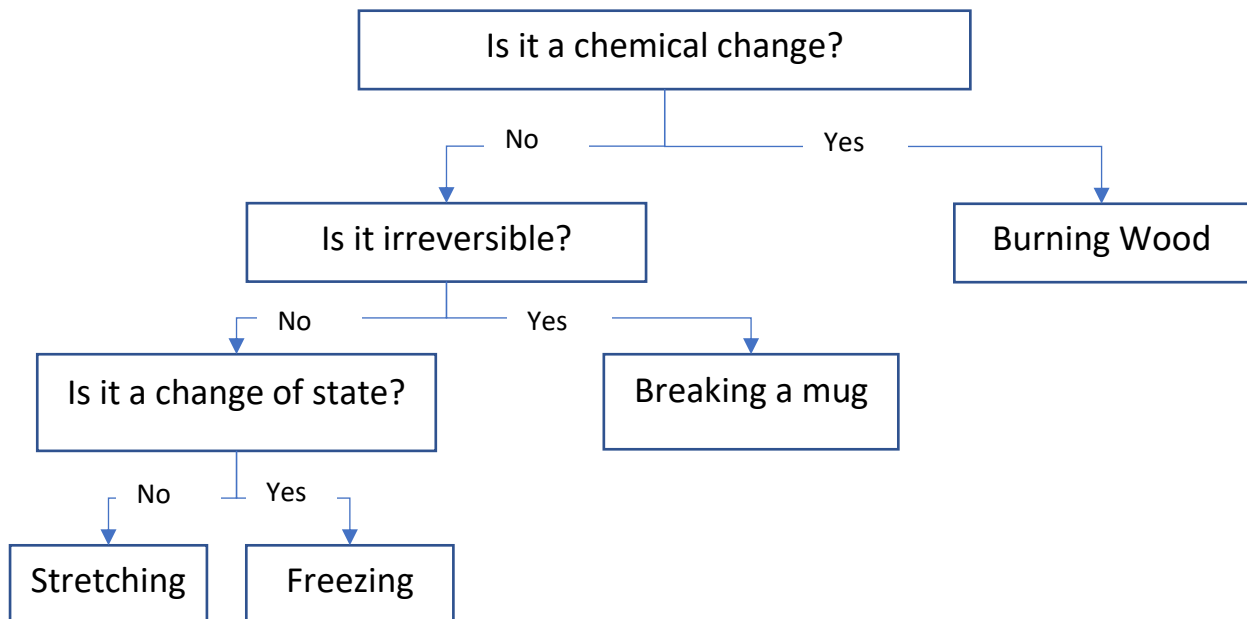
4. True, False, False, False
5. When the water is heated, its particles have more energy. The water particles move faster, breaking up the salt particles into the water faster.

3. (a)

Change	Physical	Reversible	Irreversible
Mixing water and chalk	✓	✓	
Mixing water and sugar	✓	✓	
Mixing vinegar and chalk			✓
Mixing vinegar and sugar	✓	✓	

- (b) Vinegar and chalk
(c) There is fizzing. / Bubbles are seen.

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Activity book answer key:

Let's Map It!, p. 60

A physical change can be a change in state or shape of a substance. It does not produce a new substance.

Many physical changes are reversible because the changes can be reversed.

Dissolving is an example of such a change.

If we increase the temperature of a solvent, the rate of dissolving will increase. The solvent particles have more energy and move faster. They are more able to break up the solute particles into the solvent.

If we increase the temperature of a solvent, more solute will dissolve in the solvent. The solute particles are broken up more easily.

Some physical changes are irreversible because we cannot change the substance back to the way it was before the change took place.

Chemical reactions involve substances called reactants reacting to form new substances called products.

The evidence that a chemical reaction is taking place may include the following:

- A gas being produced
- A change in temperature
- A change in colour

Let's Review, pp. 61–62

1.

Change	Physical	Chemical	Reversible	Irreversible
Melting ice cream	✓		✓	
Evaporating salt solution	✓		✓	
Cracking an egg	✓			✓
Boiling an egg		✓		✓
2. (a) Beaker **A**: 56°C; Beaker **B**: 42°C
(b) A; more; faster
3. Reactants: Butane and oxygen
Products: Carbon dioxide and water vapour
4. (a) volume of water – measuring cylinder
mass of the solid – measuring scale
temperature before and after adding the solid – laboratory thermometer
(b) Volume of water / Amount of the solid / Temperature of water before adding the solid (Any two)
(c) Solids **A**, **B** and **C**