

# Teacher Notes and Answers

## Transition quizzes and worksheets

The transition quizzes and worksheets are designed to enable teachers to quickly assess pupils' prior understanding. They can be given to pupils who might have difficulty following the concepts introduced in the unit and as a means of helping them to recall and revise what they have learnt at key stage 2. The quizzes and worksheets have been written so that most pupils will be able to answer the majority of questions. Fuller explanation and recap of key stage 2 may be necessary for those pupils who are not able to complete the transition questions.

### Unit B Reproduction

#### Quiz

- 1 egg, larva, pupa, young ant, adult ant.
- 2 baby, child, adolescent, adult, old age.

#### Worksheet

- 1 Carries water and food through the plant – stem.  
Carries and protects the seeds – fruit.  
Allows the plant to reproduce – seed.  
Helps the plant to produce seeds – flower.
- 2 The sentences should be linked to the diagrams in the following order:  
The female frogs lay eggs ..... Tiny tadpoles begin....The tadpole begins to grow bigger....The tadpole keeps growing....Now we have an adult frog....

### Unit C Environment and feeding relationships

#### Quiz

- 1 chain
- 2 predator
- 3 bird
- 4 light
- 5 plant
- 6 cat
- 7 lettuce

Word going down: habitat.

#### Worksheet

- 1 seaweed → sea snail → cod  
oak (acorns) → squirrel → hawk
- 2 Eats prey – predator; A plant that makes its own food – producer; Eaten by a predator – prey; The place where an animal lives – habitat.
- 3 Frog – pond; squirrel – wood; camel – desert; rabbit – fields.

### Unit D Variation and classification

#### Quiz

- 1 B – bug V; C – bug Y and bug W; D – bug X and bug Z.
- 2 All the bugs have big round eyes.
- 3 Bug has black 'nose', bug has white 'nose'.
- 4 **a** car    **b** torch    **c** tanker    **d** rocks.

#### Worksheet

- 1 **A** Scientist is female Go to **B**.  
Scientist is male Go to **C**.
- B** Scientist has blonde hair Astronomer.  
Scientist has dark hair Chemist.
- C** Scientist has dark hair Go to **D**.  
Scientist has light hair Go to **E**.

- D** Scientist has glasses Biologist.  
Scientist has no glasses Geologist.
- E** Scientist has hat Archaeologist.  
Scientist has no hat Physicist.

- 2 Moving, respiring, sensing, feeding, growing, reproducing, excreting.
- 3 Grow, food, run.
- 4 Elsie's cyber pet can move and sense. However, it does not reproduce, respire, excrete or grow. So it is not alive.

### Unit F Simple chemical reactions

#### Quiz

- 1 Reversible: **a, b, d**. Irreversible: **c, e**
- 2 **a** – non-reversible reaction, **b** – reversible reaction

#### Worksheet

- 1 For example: When water freezes and changes to ice it is a reversible reaction.  
When salt dissolves in water this is an example of a reversible reaction.  
Steam condensing to water is a reversible reaction.  
Dissolving a solid in water is an example of a reversible reaction.  
Water evaporating is an example of a reversible reaction.  
Non-reversible reactions make a new material.
- 2 melting → evaporating; freezing ← condensing.

### Unit H Solutions

#### Quiz

- 1 **a** mixture; **b** solution.
- 2 **a** condensed; **b** insoluble; **c** evaporated; **d** dissolved.

#### Worksheet

- 1 In order of the diagrams: muddy water, mixture of sand and salt, magnet, iron and sulphur, funnel, Bunsen burner.
- 2 In order of the diagrams: Sieve; Filter funnel and paper; Bunsen burner, tripod and evaporating basin.
- 3 **a** Bunsen burner, tripod and evaporating dish, **b** filter funnel and paper, **c** sieve
- 4 Soluble: sugar, salt, ink.
- 5 Insoluble: oil, sand, soil, flour, wax.

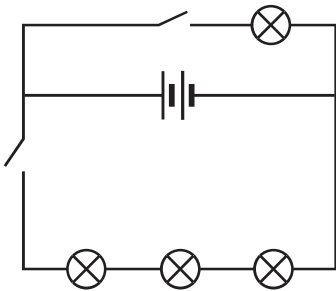
### Unit J Electrical circuits

#### Quiz

- In order of diagrams: switch, wire, bulb or lamp, battery or cell.
- Broken wire, cell not connected properly, broken lamp.

#### Worksheet

1



- 2 a 2 and 3; b A and C; c none

### Unit K Forces and their effects

#### Quiz

- On the parachute – air resistance and gravity, on the boat – upthrust, water resistance, gravity; on the apple – gravity.
- Tug of war – moving to the right, boxing – moving to the right, car being pushed – moving to the right.
- 10 N; 5 N; 2.5 N; 0.15 N

#### Worksheet

- car – B, golfer – A, child with cushion – C.
- elephant upthrust and gravity; boat upthrust and gravity
- a The forcemeter on the right shows a smaller force.  
b This is because of the upthrust from the water.

### Unit L The Solar System and beyond

#### Quiz

- Having a great time. This last trip has been my best yet. I have travelled past the 10 planets in our solar system, Mercury, Venus, Earth, Moon, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto. The planets are all larger than the Sun. The Sun orbits around the planets. I have seen the Earth spinning on its axis as it orbits around the Moon, every 24 hours. It orbits so quickly we can only see one side of the Moon at any time. It is nearly night now as the Sun is moving behind the Moon – I will write again soon.

#### Worksheet

- a Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto,  
b Mercury; c Pluto; d Mercury; e Pluto.
- orbits, gravity, axis, orbits, face.
- a 24 b Sun c 365 d East e West.
- The side away from the Sun should be shaded.