Answers

Set 1

1. Red blood cells, white blood cells, plasma & platelets (4)
2. Liquid part of the blood (1)
3. Hormones, urea, salts, sugars, carbon dioxide (4)
4. Liver (1)
5. Kidney (1)
6. Carry oxygen around the body to the cells (1)
7. Bioconcave, large surface area, no nucleus, contain haemoglobin (3)
8. To protect us against disease (1)

Set 2

1. Antibodies and antitioxins (2)
2. Engulf and digest them (2) (surround and eat them)
3. To form scabs to prevent micro-organisms entering the body (1)
4. Platelets accumulate under the fibrin mesh across a cut and then harden (1)
5. To pump blood around the body (1)
6. On sheet (9)
7. Artery, capillary, vein (3)

Set 3

1. Artery (1)
2. Vein (1)
3. Capillary (1)
4. Thick muscular walls – contract to move blood on, thick elastic walls – retain original shape, small lumen so high pressure (6)
5. Larger lumen as lower pressure, valves to stop backflow of blood (4)
6. When fatty deposits build up in the coronary arteries narrowing them. Caused by eating too much saturated fat or not enough exercise (2)
7. Fatty deposits narrow coronary arteries – reduces blood flow to the cells – lack of oxygen reaching heart muscle so cells stop working (4)
8. Wire mesh tube , keeps coronary arteries open – keeps blood flowing (2)

Set 4

1. Drugs that reduce cholesterol building up in blood vessels (2)
2. It allows blood to go the wrong way so replaced by biological or mechanical ones (3)
3. Man made heart that keeps the patient alive until a transplant is available (2)
4. See sheet (7)
5. Large surface area, good blood supply, thin walls, moisture lining (3)
6. Intercostal muscles contract, ribs up and out, diaphragm contracts down, volume increases, pressure decreases, air moves in (6)
7. Intercostal muscles relax, ribs down and in, diaphragm moves up, volume decreases, pressure increases, air moves out (6)

Set 5

1. Leaf, stem, root (3)
2. Stop water loss (1)
3. Cover the surface of the plant and protect them (1)
4. Lots of chloroplasts for photosynthesis (2)
5. Carbon dioxide can diffuse through quickly (1)
6. Water and minerals (2)
7. Sugars (1)
8. Translocation (1)

Set 6

1. Growing area of the plant e.g. shoot tip (1)
2. Holes in the leaf, open for carbon dioxide to get in for photosynthesis (2)
3. Less evaporation of water as cooler (2)
4. To stop water loss/evaporation through the stomata (1)
5. An instrument that measure the rate of transpiration (2)
6. Evaporation of water at the leaf surface which causes water to move from the xylem to replace it (2)
7. Light, temperature, wind movement, humidity (4)
8. What you change in an experiment (1)
9. What you measure (1)

Set 7

1. The factors that you keep the same to make it a fair test (1)
2. It gets faster as more photosynthesis means the stomata open (2)
3. It gets faster as evaporation at the leaf is faster (2)
4. It slows down as less concentration gradient (2)
5. It gets faster as water vapour is blown away so increases concentration gradient (2)
6. Roots – root hair cell has large surface area (2)
7. Osmosis – water moves from high concentration to low concentration through a semi permeable membrane (2)
8. Active transport - needs energy (2)
9. Movement of molecules from a low concentration to a high concentration (2)