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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Circulatory system and blood

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|  |  |  |  |  |  |  |  | 2  V | A | S | O | D | I | L | A | T | I | O | N |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 3  P |  |  |  |  |  |  |  |  |  | F |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | U |  |  |  |  |  |  |  |  |  | F |  |  |  |  |  |  | 4  O |  |  |  |  |  |
|  |  |  |  |  |  |  | L |  |  |  |  |  | 5  C |  |  |  | U |  |  |  |  |  |  | X |  |  |  |  |  |
|  |  |  |  |  |  |  | M |  |  |  |  |  | A |  |  |  | S |  |  |  |  |  |  | Y |  | 6  P |  |  |  |
|  |  |  |  | 7  V | A | S | O | C | O | N | S | T | R | I | C | T | I | O | N |  |  |  |  | H |  | U |  |  |  |
|  |  |  |  |  |  |  | N |  |  |  |  |  | D |  |  |  | O |  |  |  |  |  |  | A |  | L |  |  |  |
|  |  |  |  |  |  |  | A |  |  |  |  |  | I |  |  |  | N |  | 8  C |  |  |  |  | E |  | M |  |  |  |
|  |  |  |  |  | 9  P |  | R |  |  |  | 10  P | L | A | S | M | A |  |  | 11  A | T | R | I | U | M |  | O |  |  |  |
|  |  |  |  |  | L |  | Y |  |  |  |  |  | C |  |  |  | 12  A |  | P |  |  |  |  | O |  | N |  |  |  |
| 13  V | E | N | A | C | A | V | A |  |  | 14  H | A | E | M | O | G | L | O | B | I | N |  |  |  | G |  | A |  |  |  |
|  |  |  |  |  | T |  | R |  |  |  |  |  | U |  |  |  | R |  | L |  |  |  |  | L |  | R |  |  |  |
|  |  |  |  | 15  V | E | N | T | R | I | C | L | E | S |  |  |  | T |  | 16  L | Y | M | P | H | O | C | Y | T | E | S |
|  |  |  |  |  | L |  | E |  |  |  |  |  | C |  |  |  | A |  | A |  |  |  |  | B |  | V |  |  |  |
|  |  |  |  |  | E |  | R |  |  |  |  |  | L |  |  |  |  |  | R |  |  |  |  | I |  | E |  |  |  |
|  |  |  |  |  | T |  | Y |  |  | 17  A | R | T | E | R | I | E | S |  | I |  |  |  |  | N |  | I |  |  |  |
|  |  |  |  |  | S |  |  |  |  |  |  |  |  |  |  |  |  |  | E |  |  |  |  |  |  | N |  |  |  |
|  |  |  |  |  |  |  | 18  R | E | D | B | L | O | O | D | C | E | L | L | S |  |  |  |  |  |  |  |  |  |  |
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| **Across**  **2.** in warm conditions, the diameter of small blood vessels near the surface of the body increases, which increases blood flow  **7.** in cold conditions, the diameter of small blood vessels near the surface of the body decreases, which reduces blood flow  **10.** straw-coloured liquid part of blood  **11.** the anterior (nearer to the head) chambers of the heart that receive blood from the body or lungs  **13.** vein that carries deoxygenated blood from the body to the right atrium  **14.** chemical found in red blood cells which binds to oxygen to transport it around the body  **15.** the lower chambers of the heart that pump blood around the body (left) or back to the lungs (right)  **16.** white blood cells that produce antibodies and antitoxins to destroy pathogens  **17.** blood vessels with thick elastic walls that carry oxygenated blood away from the heart under high pressure  **18.** blood cells with a concave shape which are adapted to the transport of oxygen. As they move through the blood vessels they carry oxygen from the lungs to body cells | **Down**  **1.** the net movement of particles from a high concentration to a lower concentration (along their concentration gradient)  **3.** vessel that carries deoxygenated blood from the right ventricle to the lungs  **4.** bright red substance formed when oxygen binds to haemoglobin in red blood cells; this is how oxygen is transported to tissues  **5.** muscle that makes up the heart; it continuously contracts and relaxes  **6.** vessel that carries oxygenated blood from the lungs to the left atrium  **8.** small blood vessels that are one cell thick and permeable for diffusion of gases; join arteries to veins  **9.** cell fragments which help in blood clotting  **12.** artery that carries oxygenated blood from the left ventricle to tissues around the body |