

## Science Knowledge Organiser – B2 Keeping healthy

### B2.1 How do our bodies resist infection?

|                          |  |
|--------------------------|--|
| Symptoms                 |  |
| Microorganism            |  |
| Antibody                 |  |
| Antigen                  |  |
| White blood cell         |  |
| Memory cell              |  |
| Reproduction in bacteria |  |

### B2.2 What are vaccines and antibiotics and how do they work?

|   |  |
|---|--|
| Immune system   |  |
| Immune  |  |
| Vaccine   |  |
| <b>Herd immunity</b>  |  |
| Antimicrobial   |  |
| Antibiotic  |  |
| Antibiotic resistance   |  |
| Mutation  |  |
| <b>Open-label trial</b>                                       |  |
| <b>Blind trial</b>  |  |
| <b>Double blind trial</b>                                     |  |
| Placebo   |  |
| How to prevent antibiotic resistance                          |  |
| Why drugs are tested  |  |
| Stages in drug trials   |  |
| Why vaccines are not considered to be 'completely risk free'. |  |

### B2.3 What factors increase the risk of heart disease?

|   |  |
|---|--|
| Arteries                                |  |
| Veins                                   |  |
| Capillaries                             |  |
| Blood pressure                          |  |
| Heart rate                              |  |
| Lifestyle disease                       |  |
| Epidemiological study                   |  |
| The heart as a double pump              |  |
| Why the heart needs a good blood supply |  |
| Heart disease                           |  |
| Heart attack                            |  |

### B2.4 How do our bodies keep a healthy water balance?

|                          |  |
|--------------------------|--|
| Homeostasis              |  |
| Receptor                 |  |
| Processor                |  |
| Effector                 |  |
| <b>Negative feedback</b> |  |
| Kidney                   |  |
| <b>ADH</b>               |  |
| Effect of alcohol        |  |
| Effect of Ecstasy        |  |
| How water gained         |  |
| How water lost           |  |

### B2 Opportunities for mathematics

- Calculate the population growth of microorganisms given appropriate data
- carry out calculations using experimental data, including finding the mean and the range
- extract information from charts, graphs and tables including data from epidemiological studies
- use ideas about correlation in the context of health risk factors
- use ideas about probability in the context of risk