

<</Report Section>><</Report Section>>

|                                                 |                                                                                                                                                                                                                          |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Subject</b>                                  | <b>Triple Science - Biology</b>                                                                                                                                                                                          |
| <b>Specification</b>                            | AQA                                                                                                                                                                                                                      |
| <b>Recommended Revision Guides</b>              | Available through School Gateway:<br><b>Collins GCSE Grade 9-1 Revision - AQA GCSE 9-1 Biology All-in-One Complete Revision and Practice.</b>                                                                            |
| <b>Recommended websites and other resources</b> | <a href="https://cognitoedu.org/home">https://cognitoedu.org/home</a><br>Access Sparxscience using the Sparxmaths login - <a href="https://sparxmaths.com/">https://sparxmaths.com/</a><br>One stop revision checklists. |

|                                                        |                                                                                |
|--------------------------------------------------------|--------------------------------------------------------------------------------|
| Link to the GCSE <b>Specification</b> :                | <a href="#">*****Click here for the specification*****</a>                     |
| Year 11 Science Revision Google Classroom Code:        | <b>5dz44fe</b>                                                                 |
| Link to the Year 11 Science Revision Google Classroom: | <a href="#">*****Click here for the Year 11 Revision Google Classroom*****</a> |

### **Paper 1 - Topic 1 - Cell biology**

| Spec Ref                                                                                              | Spec Page | Topic                                              | Kerboodle Knowledge organiser Link | Video Link                                                                                                                                                 | SPARX Independent Learning Code |
|-------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| 4.1.1.1                                                                                               | 15        | Eukaryotes and prokaryotes                         | B1                                 | <a href="#">Video - Cell types and cell structure</a>                                                                                                      | R848 R883 R489                  |
| 4.1.1.2                                                                                               | 15        | Animal and plant cells                             | B1                                 | See video - Cell types and cell structure                                                                                                                  |                                 |
| 4.1.1.3                                                                                               | 16        | Cell specialisation                                | B1                                 | <a href="#">Video - Cell differentiation and specialisation</a>                                                                                            | R220 R976                       |
| 4.1.1.4                                                                                               | 16        | Cell differentiation                               | B1                                 | See video - Cell differentiation and specialisation                                                                                                        | R509                            |
| 4.1.1.5                                                                                               | 17        | 1.5 Microscopy ***RP 1***                          | B1                                 | <a href="#">Video - Microscopy</a><br><a href="#">Video - Size conversions</a><br><a href="#">Video - types of microscope</a><br>See RP 1 video link below | R878 R132 R585                  |
| 4.1.1.6                                                                                               | 18        | Culturing microorganisms (biology only) ***RP 2*** | B5                                 | <a href="#">Video - bacterial division</a><br>See RP 2 video link below                                                                                    | R308 R611 R426                  |
| 4.1.2.1                                                                                               | 19        | Chromosomes                                        | B2                                 | <a href="#">Video - Chromosomes, cell cycle and mitosis</a>                                                                                                | R258                            |
| 4.1.2.2                                                                                               | 19        | Mitosis and the cell cycle                         | B2                                 | See video - Chromosomes, cell cycle and mitosis                                                                                                            | R368                            |
| 4.1.2.3                                                                                               | 20        | Stem cells                                         | B2                                 | <a href="#">Video - stem cells types</a>                                                                                                                   | R478                            |
| 4.1.3.1                                                                                               | 21        | Diffusion                                          | B1                                 | <a href="#">Video - Diffusion</a>                                                                                                                          | R264 R534 R428                  |
| 4.1.3.2                                                                                               | 22        | Osmosis ***RP 3***                                 | B1                                 | <a href="#">Video - Osmosis</a><br>See RP 3 video link below                                                                                               | R949 R110 R685                  |
| 4.1.3.3                                                                                               | 22        | Active transport                                   | B1                                 | <a href="#">Video - active transport</a>                                                                                                                   | R786 R137                       |
| Links to paper questions on this topic: <a href="#">Biology Topic 1 - Cell Biology exam questions</a> |           |                                                    |                                    |                                                                                                                                                            |                                 |

### **Paper 1 - Topic 2 - Organisation**

|         |       |                                                    |       |                                                                                                                                                                                                                                      |                                    |
|---------|-------|----------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| 4.2.1   | 23    | Principles of organisation                         | B3/B4 |                                                                                                                                                                                                                                      | R948                               |
| 4.2.2.1 | 23/24 | The human digestive system ***RP 4*** & ***RP 5*** | B3    | <a href="#">Video - what are nutrients?</a><br><a href="#">Video - food tests</a><br><a href="#">Video - digestive enzymes</a><br><a href="#">Video - Digestive system</a><br>See RP 4 video link below<br>See RP 5 video link below | R154 R244 R667 R647 R800 R642 R615 |
| 4.2.2.2 | 25    | The heart and blood vessels                        | B4    | <a href="#">Video - heart</a><br><a href="#">Video - blood vessels</a>                                                                                                                                                               | R806 R652 R350                     |
| 4.2.2.3 | 25    | Blood                                              | B4    | <a href="#">Video - blood</a>                                                                                                                                                                                                        | R673                               |
| 4.2.2.4 | 26    | Coronary heart disease: a non-communicable disease | B7    | <a href="#">Video - Lifestyle and Cardiovascular disease</a>                                                                                                                                                                         | R583                               |
| 4.2.2.5 | 26    | Health issues                                      | B7    | <a href="#">Video - Health issues</a>                                                                                                                                                                                                | R902                               |

|                                                                                                       |    |                                                           |    |                                                         |                        |
|-------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------|----|---------------------------------------------------------|------------------------|
| 4.2.2.6                                                                                               | 27 | The effect of lifestyle on some non-communicable diseases | B7 | <a href="#">Video - lifestyle and risk factors</a>      | R506                   |
| 4.2.2.7                                                                                               | 28 | <b>Cancer</b>                                             | B7 | <a href="#">Video - Cancer</a>                          | R669                   |
| 4.2.3.1                                                                                               | 28 | Plant tissues                                             | B4 | <a href="#">Video - Plant leaf tissues</a>              | R451<br>R318           |
| 4.2.3.2                                                                                               | 29 | Plant organ system                                        | B4 | <a href="#">Video - xylem, phloem and transpiration</a> | R419 R600<br>R973 R547 |
| Links to paper questions on this topic: <a href="#">Biology Topic 2 - Organisation exam questions</a> |    |                                                           |    |                                                         |                        |

**Paper 1 - Topic 3 – Infection and Response**

|                                                                                                                 |    |                                                               |    |                                                       |              |
|-----------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------------|----|-------------------------------------------------------|--------------|
| 4.3.1.1                                                                                                         | 30 | Communicable (infectious) diseases                            | B5 | <a href="#">Video - Communicable disease</a>          | R329<br>R417 |
| 4.3.1.2                                                                                                         | 31 | Viral diseases                                                | B5 | <a href="#">Video - Viral diseases</a>                | R366         |
| 4.3.1.3                                                                                                         | 31 | Bacterial diseases                                            | B5 | <a href="#">Video - Bacterial diseases</a>            | R421         |
| 4.3.1.4                                                                                                         | 31 | Fungal diseases                                               | B5 | <a href="#">Video - Fungal and protist diseases</a>   | R875         |
| 4.3.1.5                                                                                                         | 32 | Protist diseases                                              | B5 | See video - Fungal and protist diseases               |              |
| 4.3.1.6                                                                                                         | 32 | Human defence systems                                         | B5 | <a href="#">Video - Human immune system</a>           | R582         |
| 4.3.1.7                                                                                                         | 32 | Vaccination                                                   | B6 | <a href="#">Video - vaccinations</a>                  | R938         |
| 4.3.1.8                                                                                                         | 33 | Antibiotics and painkillers                                   | B6 | <a href="#">Video - Antibiotics and painkillers</a>   | R328         |
| 4.3.1.9                                                                                                         | 33 | Discovery and development of drugs                            | B6 | <a href="#">Video - clinical trials</a>               | R781         |
| 4.3.2.1                                                                                                         | 34 | Monoclonal antibodies (biology only) (HT only)                | B6 | <a href="#">Video - monoclonal antibodies</a>         | R691         |
| 4.3.2.2                                                                                                         | 34 | Uses of monoclonal antibodies (biology only) (HT only)        | B6 | <a href="#">Video - Uses of monoclonal antibodies</a> | R486         |
| 4.3.3.1                                                                                                         | 35 | Detection and identification of plant diseases (biology only) | B5 | <a href="#">Video - plant disease and defences</a>    | R746<br>R914 |
| 4.3.3.2                                                                                                         | 36 | Plant defence responses (biology only)                        | B5 | See video - plant disease and defences                | R632         |
| Links to paper questions on this topic: <a href="#">Biology Topic 2 - Infection and response exam questions</a> |    |                                                               |    |                                                       |              |

**Paper 1 - Topic 4 – Bioenergetics**

|                                        |    |                                        |                                                                |                                                                      |                      |
|----------------------------------------|----|----------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------|----------------------|
| 4.4.1.1                                | 36 | Photosynthetic reaction                | B8                                                             | <a href="#">Video - photosynthesis</a>                               | R827                 |
| 4.4.1.2                                | 37 | 2 Rate of photosynthesis<br>***RP 6*** | B8                                                             | <a href="#">Video - factors affecting the rate of photosynthesis</a> | R732<br>R979<br>R248 |
| 4.4.1.3                                | 37 | Uses of glucose from photosynthesis    | B8                                                             | See video - photosynthesis                                           | R917                 |
| 4.4.2.1                                | 38 | Aerobic and anaerobic respiration      | B9                                                             | <a href="#">Video - respiration</a>                                  | R336<br>R268         |
| 4.4.2.2                                | 39 | Response to exercise                   | B9                                                             | <a href="#">Video - exercise and oxygen debt</a>                     | R545                 |
| 4.4.2.3                                | 39 | Metabolism                             | B9                                                             | <a href="#">video - metabolism</a>                                   | R434                 |
| Links to paper questions on this topic |    |                                        | <a href="#">Biology Topic 2 - Bioenergetics exam questions</a> |                                                                      |                      |

| RP | Required Practical Name            | Video of Required Practical                         | SPARX Independent Learning Code |
|----|------------------------------------|-----------------------------------------------------|---------------------------------|
| 1  | Microscopy                         | <a href="#">Video - Microscopy RP</a>               | R132                            |
| 2  | Culturing microorganisms           | <a href="#">Video - Culturing microorganisms RP</a> | R611                            |
| 3  | Osmosis                            | <a href="#">Video - Osmosis RP</a>                  | R110                            |
| 4  | Food tests                         | <a href="#">Video - Food tests RP</a>               | R647                            |
| 5  | Effect of pH on enzymes            | <a href="#">Video - Enzymes RP</a>                  | R642                            |
| 6  | Light intensity and photosynthesis | <a href="#">Video - Photosynthesis RP</a>           | R248                            |

