

# Year 7 Science Intensive: Physical Sciences

## Work rate calendar (WRC) 2024

### Term 1

All students are expected to participate in all online lessons and complete all assessment as outlined in this **Work rate calendar**.

Teachers may adjust topics, class work, assessment, and submission dates. Adjustments will be communicated via QLearn or during lessons.

| Assessment                |                 |  |   |   |  |
|---------------------------|-----------------|--|---|---|--|
| Supervised assessment     |                 | Summative exams are to be supervised by the student's official exam supervisor.  |   |   |  |
| Non-supervised assessment |                 | Students must sign declaration of academic integrity.  |   |   |  |
| Week                      | Dates           | Unit   | Topic   | Class work / Assessment to be submitted                 |  |
| 1                         | 22 Jan – 26 Jan | Unit 1: Physical Sciences  | Monday 22 January — Welcome calls for students: Prep – Year 12  |   |  |
|                           |                 |  | Wednesday 24 January — Learning for success: Prep – Year 12   |   |  |
|                           |                 |  | Friday 26 January — Australia Day Holiday   |   |  |
|                           |                 |  | <b>Introduction to Year 7 Science. Science Skills. Lab &amp; Experiment Safety.</b>   |   |  |
| 2                         | 29 Jan – 2 Feb  |  | <b>Exploring Forces.</b>  |   |  |
|                           |                 |  | What are forces? Types of forces. Balanced and Unbalanced Forces. Net Force.  |   |  |
| 3                         | 5 Feb – 9 Feb   |  | Friday 9 February — Senior orientation day: Years 10–12   |   |  |
|                           |                 |  | <b>Gravity</b>  |   |  |
|                           |                 |  | What is gravity? Measuring mass & weight. Using a spring balance. Measuring gravitational forces – experiment. The effects of gravity on objects. |   |  |
| 4                         | 12 Feb – 16 Feb |  | <b>Friction</b>   |   |  |
|                           |                 | What is friction? The need for friction. Investigation - compare the friction of a variety of shoes on a floor surface Investigation - Friction & braking distance. Reducing friction. |   |   |  |
| 5                         | 19 Feb – 23 Feb | <b>Buoyancy, magnets, magnetic fields &amp; electromagnetism</b>   |   |   |  |
|                           |                 | What is Buoyancy? Investigation - Are things lighter in water? What does a magnet attract? Mapping the magnetic field. Making your own compass. Making an electromagnet.               |   |   |  |
| 6                         | 26 Feb – 1 Mar  | <b>Virtual Mousetrap Racer</b>   |   |   |  |
|                           |                 | Interactive task - mousetrap racer travelling on different surfaces - plan, conduct and communicate an investigation.  |   |   |  |
| 7                         | 4 Mar – 8 Mar   | <b>Scientific Investigation - Balloon Powered Vehicle</b>  |   |   |  |
|                           |                 | Summative Assessment Task  |   |   |  |
| 8                         | 11 Mar – 15 Mar | <b>Assessment Completion and Submission</b>  |   |   |  |
|                           |                 | <b>Scientific Investigation - Balloon Powered Vehicle</b>  |   |   |  |
|                           |                 |  | Summative Assessment Task   |   |  |
| 9                         | 18 Mar – 22 Mar | Monday 18 March – Wednesday 20 March — School camp: Years 7–8  |   |   |  |
|                           |                 | <b>Exploring simple machines</b>   |   |   |  |
|                           |                 |  | Levers, Pulleys, Wheel and Axle, Wedge, Inclined Plane and Screw.   | <b>SA1 Final</b><br><b>Due by 22<sup>nd</sup> March</b> |  |
| 10                        | 25 Mar – 29 Mar | Thursday 28 March — Cross country / Fun run: Prep – Year 12  |   |   |  |
|                           |                 | Friday 29 March — Good Friday  |   |   |  |
|                           |                 | <b>Applications of simple machines – bow and arrows, spear throwers, catapults</b>   |   |   |  |

# Year 7 Science Intensive: Earth Sciences

## Work rate calendar (WRC) 2024

Term 2

All students are expected to participate in all online lessons and complete all assessment as outlined in this **Work rate calendar**.

Teachers may adjust topics, class work, assessment, and submission dates. Adjustments will be communicated via QLearn or during lessons.

| Assessment                       |                 |   |   |  |
|----------------------------------|-----------------|---|---|--|
| <b>Supervised assessment</b>     |                 | Summative exams are to be supervised by the student's official exam supervisor. |   |  |
| <b>Non-supervised assessment</b> |                 | Students must sign declaration of academic integrity.                           |   |  |
| Week                             | Dates           | Unit  | Topic   | Class work / Assessment to be submitted  |
| 1                                | 15 Apr – 19 Apr | Unit 2: Earth Sciences  | <b>Introduction</b><br>Exploring the Solar System.  |  |
| 2                                | 22 Apr – 26 Apr |   | <b>Thursday 25 April — Anzac Day</b><br><b>Relative positions and movement of Earth, Sun and Moon</b><br>Rotations and orbits of the Earth and Moon relative to the Sun.                                    |  |
| 3                                | 29 Apr – 3 May  |   | <b>Day and Night</b><br>Demonstrate changes in daylight hours and the seasonal temperature change.  |  |
| 4                                | 6 May – 10 May  |   | <b>Monday 6 May — Labour Day</b><br><b>Phases of the Moon and Cultural Perspectives</b><br>Changes of the Moon phases relative to the Sun and Earth.<br>Stories about the Moon and Sun from other cultures. | <b>QLearn Unit 2 Mandatory Quiz – Earth Science</b>                                      |
| 5                                | 13 May – 17 May |   | <b>Tides</b><br>What causes tides? How tides relate to phases of the Moon and the difference between spring tides and neap tides.   |  |
| 6                                | 20 May – 24 May |   | <b>Eclipses, Seasons and Revision</b><br>Lunar and Solar Eclipses.<br>Causes of seasons.<br>Revise for exam.  |  |
| 7                                | 27 May – 31 May |   | <b>Practice Exam and Summative Exam</b><br>SA2 Earth Science Exam   | Practice Exam due 29 <sup>th</sup> May<br><b>SA2 Exam due Friday 31<sup>st</sup> May</b> |
| 8                                | 3 Jun – 7 Jun   |   | <b>Investigating Fossil Fuels</b><br>Renewable and Non-renewable resources.   |  |
| 9                                | 10 Jun – 14 Jun |   | <b>Renewable Energy Project: Formative Task</b><br>Examine renewable energies.<br>Choose and investigate a type of renewable energy.  |  |
| 10                               | 17 Jun – 21 Jun |   | <b>Friday 21 June — Athletics carnival / Sports day: Prep – Year 12</b><br><b>Renewable Energy Project: Presentation</b><br>Share research projects.  |  |

# Year 7 Science Intensive: Chemical Sciences

## Work rate calendar (WRC) 2024

### Term 3

All students are expected to participate in all online lessons and complete all assessment as outlined in this **Work rate calendar**.

Teachers may adjust topics, class work, assessment, and submission dates. Adjustments will be communicated via QLearn or during lessons.

| Assessment                       |                  |   |   |  |
|----------------------------------|------------------|---|---|--|
| <b>Supervised assessment</b>     |                  | Summative exams are to be supervised by the student's official exam supervisor. |   |  |
| <b>Non-supervised assessment</b> |                  | Students must sign declaration of academic integrity.                           |   |  |
| Week                             | Dates            | Unit  | Topic   | Class work / Assessment to be submitted  |
| 1                                | 8 Jul – 12 Jul   | Unit 3: Chemical Sciences   | <b>States of Matter &amp; Particle Model</b>  |  |
| 2                                | 15 Jul – 19 Jul  |   | <b>Pure Substances &amp; Mixtures</b>   |  |
| 3                                | 22 Jul – 26 Jul  |   | <b>Solutions &amp; Solubility</b>   |  |
| 4                                | 29 Jul – 2 Aug   |   | <b>Separating Mixtures</b><br>Handpicking, magnetism, decantation, filtration, evaporation, distillation, chromatography  |  |
| 5                                | 5 Aug – 9 Aug    |   | <b>Separating Mixtures</b><br>Handpicking, magnetism, decantation, filtration, evaporation, distillation, chromatography  |  |
| 6                                | 12 Aug – 16 Aug  |   | Wednesday 14 August — Royal Queensland (Ekka) Show Holiday<br><b>Summative Assessment - Part A</b><br>SCI_07_SA3_Scientific Investigation -Separating a mixture – Part A            | <b>SA3 draft assessment Part A due Friday 16<sup>th</sup> August</b><br>SCI_07_SA3_Scientific Investigation -Separating a mixture – Part A   |
| 7                                | 19 Aug – 23 Aug  |   | <b>Water borne diseases, Explore Water Treatment Processes, Australian Drinking Guidelines</b>  |  |
| 8                                | 26 Aug – 30 Aug  |   | Friday 30 August — Student free day<br><b>Summative Assessment – Part B &amp; C</b><br>SCI_07_SA3_Scientific Investigation -Separating a mixture – Part B & C                       | SCI_07_SA3_Scientific Investigation -Separating a mixture – Part B & C   |
| 9                                | 2 Sept – 6 Sept  |   | <b>Assessment Completion and Submission</b>   | <b>SA3 Final assessment due Friday 6<sup>th</sup> September</b><br>SCI_07_SA3_Scientific Investigation -Separating a mixture – Part A, B & C |
| 10                               | 9 Sept – 13 Sept |   | Wednesday 11 September — Connect excursion: Years 7–9<br>Friday 13 September — Connect excursion: Years 10–12<br><b>Indigenous perspectives water consumption and conservation.</b> |  |

Disclaimer: Information contained in this document is correct at time of publishing.

|               |                      |                      |            |               |                 |                  |
|---------------|----------------------|----------------------|------------|---------------|-----------------|------------------|
| <b>LEGEND</b> | Class work — send-in | Summative assessment | Exam block | School events | Public holidays | Student free day |
|---------------|----------------------|----------------------|------------|---------------|-----------------|------------------|

# Year 7 Science Intensive : Biological Sciences

## Work rate calendar (WRC) 2024

### Term 4

All students are expected to participate in all online lessons and complete all assessment as outlined in this **Work rate calendar**.

Teachers may adjust topics, class work, assessment, and submission dates. Adjustments will be communicated via QLearn or during lessons.

| Assessment                |                 |   |   |  |
|---------------------------|-----------------|---|---|--|
| Supervised assessment     |                 | Summative exams are to be supervised by the student's official exam supervisor. |   |  |
| Non-supervised assessment |                 | Students must sign declaration of academic integrity.                           |   |  |
| Week                      | Dates           | Unit  | Topic   | Class work / Assessment to be submitted              |
| 1                         | 30 Sept – 4 Oct | Unit 4: Biological Sciences   | <b>Classification</b><br>Patterns, Order and Organisation,<br>Linnaean hierarchal classification  |  |
| 2                         | 7 Oct – 11 Oct  |   | <b>Monday 7 October — King's Birthday Holiday</b><br><b>Classification</b><br>Classification changes due to improvements in microscopy<br>First Nations Australians classification systems  |  |
| 3                         | 14 Oct – 18 Oct |   | <b>Monday 14 October – Wednesday 16 October — School camp: Years 9–10</b><br><b>Dichotomous Keys</b>  |  |
| 4                         | 21 Oct – 25 Oct |   | <b>Classification with structural features.</b><br>Explore vertebrate classification<br>Explore types of mammals. Explore invertebrate classification   | <b>QLearn Unit 4 Mandatory Quiz – Classification</b> |
| 5                         | 28 Oct – 1 Nov  |   | <b>Food Webs &amp; Ecological Pyramids.</b><br>Feeding relationships & flow of energy and matter. Role of microorganisms.<br>Matter & Energy Flows in Ecosystems via pathways of food webs  |  |
| 6                         | 4 Nov – 8 Nov   |   | <b>Ecosystems.</b><br>Relationships in ecosystems (predator-prey). Threats to Ecosystems (introduced species). Management of Ecosystems.  | <b>SA4 Practice Exam Due 8th November</b>            |
| 7                         | 11 Nov – 15 Nov |   | <b>Revision &amp; Summative Exam</b>  | <b>SA4 Exam due Friday 15<sup>th</sup> November</b>  |
| 8                         | 18 Nov – 22 Nov |   | <b>Friday 22 November — Aquatic carnival: Prep – Year 11</b><br><b>Friday 22 November — Final day: Years 10–11</b><br><b>Do we need to save the bees?</b><br>Introduction to the importance of bees. Pollination and Ecosystem Services |  |
| 9                         | 25 Nov – 29 Nov |   | <b>Biodiversity.</b><br>Human impacts on honeybees.   |  |
| 10                        | 2 Dec – 6 Dec   |   | <b>Engineering challenge</b><br>Design a solution to help declining bee species   |  |
| 11                        | 9 Dec – 13 Dec  |   | <b>Wednesday 11 December — Connect day: Years 7–9</b><br><b>Engineering challenge</b><br>Design a solution to help declining bee species  |  |