

LEARNING GOALS and SUCCESS CRITERIA

|  |  |  |  |
| --- | --- | --- | --- |
| **Year:** | **8** | **Unit:**  | **Plate Tectonics and Rocks** |
| **Subject:** | **Science** | **Assessment:**  | **Tests: Week 4/5 and 9/10** |
| **LG** | **LG and SUCCESS CRITERIA** | **Where is this in my notebook?** |
| **1**3 Lessons | **SC1** | I can draw a labelled diagram of the Earth’s layers. |  |
| **SC2** | I can describe changes that have occurred over time due to continental drift using scientific theory to justify. |  |
| **LG1** | **Students will be able to explain how the Earth’s structure provides evidence to support tectonic plate theory** |  |
| **2**7 Lessons | **SC3** | I understand that movement at plate boundaries can be constructive and destructive. |  |
| **SC4** | I can identify movement at plate boundaries as convergent, divergent and transform. |  |
| **SC5** | I can identify and label faults and folds. |  |
| **SC6** | I can explain the formation of geological features at divergent and convergent plate boundaries. |  |
| **SC7** | I can explain why volcanoes occur at subduction zones and hot spots. |  |
| **LG2** | **Students will be able to identify and explain what happens at plate boundaries.** |  |
| **3**2 Lessons | **SC8** | I can identify the impacts of plate movements on human populations. |  |
| **SC9** | I can examine solutions to reduce impacts of plate movement on human populations e.g detection technology and engineering solutions. |  |
| **LG3** | **Students will be able to evaluate the impacts of tectonic events to human populations.** |  |
| **4**5 Lessons | **SC10** | I can distinguish the difference between a mineral and a rock |  |
| **SC11** | I can define the key terms of the rock cycle – weathering, erosion, deposition, compaction, cementation, melting, crystallisation, heat, pressure, uplift |  |
| **SC12** | I can construct a labelled diagram of the rock cycle |  |
| **SC13** | I can describe the role of weathering, erosion and deposition in the formation of sedimentary rocks |  |
| **SC14** | I can describe the role of heat and pressure in the formation of metamorphic rocks |  |
| **SC15** | I can describe the role of cooling and uplift in the formation of igneous rocks |  |
| **LG4** | **Students will be able to describe the key processes of the rock cycle** |  |
| **5**4 Lessons | **SC16** | I can use a dichotomous key to identify and compare rock types based on their observable properties |  |
| **SC17** | I can distinguish between extrusive and intrusive igneous rocks (crystal size, location) |  |
| **SC18** | I can examine fossil evidence to predict how and when a sedimentary rock was formed (body, trace and opalized) |  |
| **SC19** | I can explain how the properties of rocks determine their use e.g. sandstone, coal, pumice, marble |  |
| **LG5** | **Students will understand how the formation and properties of igneous, sedimentary and metamorphic rocks influence their use** |  |
| **6**3 Lessons | **SC20** | I can identify the key ores and minerals mined in Australia (coal, gold) |  |
| **SC21** | I can explore First Nation uses of rocks |  |
| **SC22** | I can investigate how First Nation people used quarrying to produce everyday objects |  |
| **SC23** | I can explain how mining impacts local environments and the importance of rehabilitation |  |
| **SC24** | I can explain the uses of rocks based on their mineral properties |  |
| **LG5** | **Students will recognise that mining of rocks and minerals provide valuable resources** |  |



**STUDENT UNIT PLANNER**

|  |  |  |
| --- | --- | --- |
| **Year Level:** | 8 | Student checklist: 🗹 when you know… |
| **Subject:**  | Science | [ ] Assessment due dates[ ] The learning goals and success criteria for this term [ ] Changes to routines e.g. excursions[ ] When assessment practice lessons will occur (exemplars)[ ] When revision lessons will occur |
| **Term/Year:** | 3 / 2023 |
| **Unit Title:**  | Plate Tectonics and Rocks |
| **Assessment:** | 2 online exams |
| **Key Resource:**  |   |
| **Student Achievement:** Last unit I achieved a \_\_\_\_\_\_\_\_result. At the end of this unit, I am aiming to achieve a \_\_\_\_\_\_\_\_ result. |
| **WK** | **Wk. Beg** | **Holidays or variations this week** | **Lesson 1** | **Lesson 2**  | **Lesson 3**  |
| 1 | 10 Jul. 23 |  | **LG 1: SC 1** * Introduction to Earth Structures – layers of the Earth
 | **LG 1: SC 2*** Tectonic Plates and Wegener’s Theory
 | **LG 1: SC 2** * Tectonic Plates and Convection
 |
| 2 | 17 Jul. 23 |  | **LG 2: SC 3, 4 & 6*** Plate Movement
* Divergent
 | **LG 2: SC 3, 4 & 6*** Plate movement
* Convergent and Transform
 | **LG 2: SC 5*** Plate movement
* Folds and Faults
 |
| 3 | 24 Jul. 23 |  | **LG 2: SC 7*** Plate movement
* Volcanoes
 | **LG 2: SC 7*** Plate movement and Impacts

 – Volcanoes | **LG 2: SC 7*** Plate movement – Mountain formation
 |
| 4 | 31 Jul. 23 |  | **LG 2: SC 3 LG 3: SC 8&9*** Plate movement and Impacts
* Earthquakes
 | **LG 3: SC 9*** Plate movement and Impacts
* Earthquakes
 | * Revision
 |
| 5 | 7 Aug. 23 |  | * EXAM
 | **LG 4: SC 10 & 12*** Minerals vs Rocks and the Rock Cycle
 | **LG 4: SC 10,12 &15 LG5 : SC16*** Igneous Rocks
 |
| 6 | 14 Aug. 23 |  | **LG 5: SC 17*** Igneous Rocks – Intrusive vs Extrusive
 | **LG 4: SC 11 & 13*** Weathering and Erosion
 | **LG 4: SC 13*** Sedimentary Rocks
 |
| 7 | 21 Aug. 23 |  | **LG 5: SC 18*** Fossilisation – geological time scale
 | **LG 5: SC 18*** Fossilisation – Sedimentary Rocks
 | **LG 4: SC 14 LG5: 16, 18 & 19*** Metamorphic Rocks
 |
| 8 | 28 Aug. 23 | FriStudent free day | **LG 4: SC 11*** Rock Cycle
 | **LG 6: SC 20 &24*** Valuable mineral resources and extraction
 | **LG 6: SC 23** * Mining Ore, minerals and metals
* rehabilitation
 |
| 9 | 4 Sep. 23 |  | **LG 6: SC 21 & 22*** Indigenous resources
 | * Revision
 | * Exam
 |
| 10 | 11 Sep. 23 |  | **END OF UNIT ACTIVITIES** |