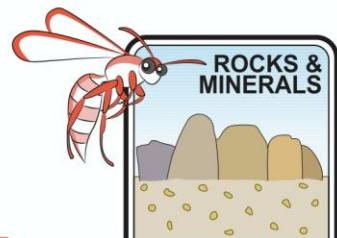


Year 8 WASP – Teacher Introduction



The WASP (Woodside Australian Science Project) is an initiative between Woodside and Earth Science Western Australia (ESWA).

These activities are designed to provide support for the Earth Science part of the Earth & Space Science and part of the Chemical Sciences topic required by the Year 8 Australian Curriculum.

Copies of this and other supporting material can be obtained from the WASP website <http://www.wasp.edu.au> or by contacting Julia Ferguson, julia@wasp.edu.au.

- Topic 1 Why Study Rocks?**
- Topic 2 Rock Cycle**
- Topic 3 Identifying Common Rock Types**
- Topic 4 Rocks and Minerals as Resources**
- Topic 5 Aboriginal Perspective**

Year 8 Australian Curriculum Science

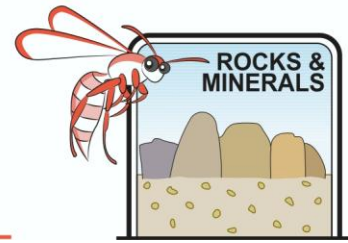
Earth & Space Science

- Sedimentary, igneous and metamorphic rocks contain minerals and are formed by processes that occur within Earth over a variety of timescales.
 - Representing the stages in the formation of igneous, metamorphic and sedimentary rocks, including indications of timescales involved.
 - Identifying a range of common rock types using a key based on observable physical and chemical properties.
 - Recognising that rocks are a collection of different minerals
 - Recognising that some rocks and minerals, such as ores, provide valuable resources.

Chemical Sciences

- The properties of the different states of matter can be explained in terms of the motion and arrangement of particles.
 - Using the particle model to explain observed phenomena linking the energy of particles to temperature changes.
- Differences between elements, compounds and mixtures can be described at a particle level.
 - Recognising that elements and simple compounds can be represented by symbols and formulas.
- Chemical change involves substances reacting to form new substances.
 - Identifying the differences between chemical and physical changes.
 - Identifying evidence that a chemical change has taken place.

Year 8 WASP – Teacher Introduction

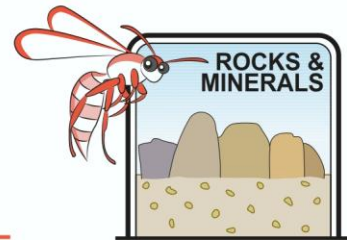


Topic 1 Why Study Rocks?

- We Need Rocks for Breakfast – Student Activity
- Why Study Rocks? – Student Activity

Topic 2 Rock Cycle

- Rock Cycle Relevance – Student Activity
- Weathering
 - 1. Physical Weathering**
 - Freezing (Plaster) – Student Activity
 - Frost Heave – Student Activity
 - Freezing – Student Homework
 - Thermal Expansion (Heat) – Student Activity
 - 2. Chemical Weathering**
 - Oxidation – Student Activity
 - Weathering (salt & water) - Student Activity
 - Acid Rain – Student Activity
 - Acid Weathering – Student Activity
 - Acid Weathering – Student Homework
 - Grave Concern – Student Activity
 - 3. Biological Weathering**
 - Biological Weathering – Student Activity
- Erosion
 - Erosion by Water – Student Activity
 - Erosion by Wind – Student Activity
 - Knocking Off the Rough Edges – Student Activity
 - Soil Creep (Gravity) – Student Activity
 - Landslide Preparation – Student Activity
 - Glaciation (Ice Erosion) - Student Activity
 - Yandy (Separation by Movement) – Student Activity
 - Erosion Timescale – Teacher Notes



Year 8 WASP – Teacher Introduction

- Deposition
 - Deposition Data – Student Activity
 - Graded Bedding – Student Activity
 - Grain Size Indicator – Teacher Notes
 - Flume Tube - Teacher Demonstration
 - Sedimentary Sandwiches – Student Activity

- Compaction and Cementation
 - Dewatering of Sediments – Student Activity
 - Sedimentary Pile – Student Activity

- Crystallisation
 - Melting and Crystallising – Student Activity

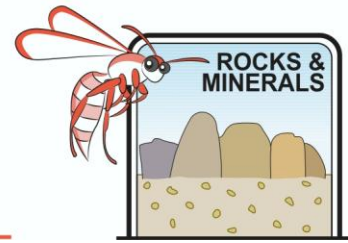
- Uplift
 - Uplift – Student Activity

Topic 3 Identifying Common Rock Types

- Rock Kit Possibilities for Year 8
- 1. General Rock Classification**
 - Rock Classification – Student Activity
 - Rock Classification – Dichotomous Key
 - Replica Rocks – Student Activity

 - 2. Sedimentary, Igneous and Metamorphic Rocks**
 - Identifying Sedimentary Rocks – Teacher Background
 - Recognising Sedimentary Rocks – Student Activity
 - Recognising Igneous Rocks – Student Activity
 - Recognising Metamorphic Rocks – Student Activity

Year 8 WASP – Teacher Introduction



Topic 4 Rocks and Minerals as Resources

- Rocks, Minerals & Resources – Teacher Background
- Common Minerals – Teacher Reference
- Minerals Form Crystals – Student Activity
- Recognising Minerals – Student Activity
- Mineral Composition – Web Search
- Mineral Resources – Teacher Background (with activity)
- Sources of Resources – Student Activity

Topic 5 Aboriginal Perspective

- Aboriginal Stone Tools – Teacher Notes
- Replica Petroglyph – Student Activity
- An Excellent Tool – Teacher Notes (with activity)
- Other Aboriginal Uses of Rocks – Teacher Notes