

SAMPLE SCOPE & SEQUENCE

Physical Sciences Foundation, LEVEL 2

Learning Design

Below is a suggested sequence of content for Physical Sciences Foundation PSC215118.

This is an example only; to be used to support teachers to develop their own scope and sequence documents and associated assessment matrices that meet the learning needs of their learners.

NOTE: This course may have been amended since the development of this sample teacher resource in 2018. Please visit the [TASC website](#) for current version of the course.

Term 1

Week	Unit and Topic	Subtopic	Criteria Addressed	Criteria Assessed
1	Physics	Introduction – course, criteria, syllabus, goal setting		
2	Forces and Motion	Scientific Notation, SI units	6, 8	Worksheet; Cr 6, 8
		Linear motion equations		
3		Newton's Laws 1 and 2 – trolley and bench investigation or air trolley prac	1, 2, 3, 6, 8	Trolley Investigation F = ma; Cr 1, 2, 3
4		Newton's 3rd Law – Action/reaction. Rocket construction		
5		Uniformly accelerated motion including vertical motion under the influence of Gravity – Video Physics App	1, 2, 3, 6, 8	Analyse film of launched rockets, or use stock footage from the app; Cr 2, 6, 8
6	Chemistry Structure and Properties of Materials	The Nuclear Atom, Electronic Structure.	1, 2, 3,	Prequiz – Model of the Atom Cr 7
		Lab Safety Crystal formation Investigation		Draw observation of different salt concentrations using a slide microscope; Cr 1
7		The Periodic Table, Chemical and Physical Change	1, 2, 3,	Does mass change Investigation; Cr 1, 2, 3

Week	Unit and Topic	Subtopic	Criteria Addressed	Criteria Assessed
8		Chemical Bonding –metallic, Ionic and Covalent		Observations from common chemical reactions
9		Test – Nuclear atom, naming of isotopes,		Test Cr 5, 7
10		Camembert in the classroom		Risk analysis, Hygiene, Cr 1
Break				
Break				

Term 2

Week	Unit and Topic	Subtopic	Criteria Addressed	Criteria Assessed
1	Physics Sources and Properties of Energy	Mechanical energy, Kinetic and potential energy. Intro to work and energy and their relationship.		Rubber band racer investigation – 1 hr demonstration
2		Thermal Energy Audit	4	Thermal Energy Audit of your House; Cr 4
3		Energy – Types of Energy		Energy Quiz; Cr 6, 8
4		Simple Machines – levers experiment	1, 2, 3, 8	Lever Experiment; Cr 2, 3, 4
5	Chemistry	Mole concept		
6	Properties of	Mole concept continued	1, 7	7
7	Materials and Reactions	Oxidation – metals reacting with water, acid and oxygen Acid and metal carbonate reactions	1, 2, 5, 5	2, 5, 7
8		Chemistry of solutions – dilutions/concentrations		6
9		Solubility/ Precipitation Reactions		2, 3, and 5 2 and 5
10		Bonding, Acid Carbonate reactions, solubility, precipitation		Test; Cr 5, 7
Break				
Break				

Term 3

Week	Unit and Topic	Subtopic	Criteria Addressed	Criteria Assessed
1	Physics	Nuclear Energy		
2	Sources and Properties of Energy	Spontaneous Radioactive Decay		M + M investigation – half life
3		Alpha, beta and gamma decay, properties of alpha, beta and gamma decay	Cr 1, 2	Use of Geiger counter to observe decay; Cr 1, 2
4		Fission and Fusion – nuclear reactors		Nuclear radiation Quiz; Cr 6, 8,
5		Nuclear Power – risks and benefits. Use Finland/France comparison to Australia's electrical energy generation as an example.	Cr 1, 3, 4	Investigation assignment; Cr 4
6		Chemistry	Acid and Bases	
	Acid and Bases and Chemistry	pH of household chemicals		
7	Stoichiometry and Titrations	Reactions with acids		Formative worksheet; Cr 5, 7
		Stoichiometry		
8		Acid and Base Reactions: Titrations	Cr 1, 2, 3, 7	
9		Titrations cont.		Practical Investigation; Cr 1, 2, 3, 7
10		Reaction Rate		C 3 5
		Investigate catalysts and temperature effect on reaction rate.		
Break				
Break				

Term 4

Week	Unit and Topic	Subtopic	Criteria Addressed	Criteria Assessed
1	Chemistry	Ginger beer making – fermentation, respiration, yeasts		Follow a recipe correctly and Cr 3
	(continued)			
2	Food	Fermentation in Food		Cr 3, 4
3	Physics	Static electricity and electrical energy		C 4 and 6



Week	Unit and Topic	Subtopic	Criteria Addressed	Criteria Assessed
4	Electrical Energy	Potential difference + Electrical resistance, Ohm's law		C 1, 3, and 8
5		Complete outstanding work		
6				
7				
8				
9				
10				
Break				
Break				

Sample Teacher R

