

Unit Title	Chemical Reaction				
Subject group and discipline	Science	MYP year	2	Unit duration (hrs)	18

Inquiry: Establishing the purpose of the unit

Key concept	Related concept(s)	Global context <i>choose 1 and then drill down to exactly which aspect of these the unit will focus on</i>
Change	patterns	Scientific and technical innovation Systems, models, methods; products, processes and solutions

Statement of inquiry

This needs to be non-subject specific (as far as possible) and connect the key concept, related concepts and Global Contexts

Observing change allows the construction of patterns and the prediction of products using systems and models

Inquiry questions

Factual— What is a chemical reaction?

What is the link between respiration and photosynthesis?

Conceptual—Why do chemical reactions happen?

Why is the conservation of mass an important concept?

Debatable—What reaction is more important photosynthesis /respiration?

What are the advantages and disadvantages of different models to represent reactions?

Objectives

Summative assessment *This does not always have to be a GRASPS task but it does need to involve students demonstrating progress by transferring the skills and knowledge they have learnt to a real-life context. An analytical essay or practice exam questions (not quizzes) counts as real life context. Students need to construct a response using the knowledge and skills they practised in the unit.*

Learning objectives for the unit

B ii outline a testable prediction using scientific reasoning

B iii outline how to manipulate the variables, and outline how data will be collected

C iii discuss the validity of a prediction based on the outcome of the scientific investigation

C iv discuss the validity of the method

D i summarize the ways in which science is applied and used to address a specific problem or issue

Outline of summative assessment task(s) including assessment criteria:

Assessment 1: GRASPs – what soil pH is best for different plants.

Assessment 2: Working scientifically – how does changing the metal in a chemical reaction affect the temperature change.

Assessment 3: Discussing the validity of a prediction by looking at given data.

Relationship between summative assessment task(s) and statement of inquiry:

Students will use the skill of observing changes to predict products in various chemical reactions.

Approaches to learning (ATL) *These can be listed or you could offer some explanation of how they will be developed*

Thinking

Communication -Describe how to use and interpret a range of discipline-specific terms and symbols to explain specific chemical reactions. Find information for disciplinary and interdisciplinary inquiries, using a variety of media

Social Exercise leadership and take on a variety of roles within groups. Help others to succeed Give and receive meaningful feedback

Research Process data and report result, Communicate information and ideas effectively to multiple audiences using a variety of media and formats

Self management