TERM 1

LESSON PLAN 1
NATURAL SCIENCES
GRADE 8

KNOWLEDGE AREA	LIFE AND LIVING	TOTAL TIME: 8 WEEKS
Term	**1**	
Unit 1	**Photosynthesis and respiration**	
Date	**/ /20_ _**	
Resource	**Doc Scientia Textbook and Workbook Natural Sciences Grade 8 Page 13 – 28**	
Time	**2 weeks (9 days)**	
Core knowledge	**Photosynthesis** • Interactions and interdependencies in an ecosystem are driven by the need for energy to sustain life • The sun is the important source providing this energy in the form of light and heat • Plants use carbon dioxide (from the air), water (from the soil) and energy from the sun in a series of chemical reactions to produce glucose (food). This process is called photosynthesis • Oxygen gas is released into the air as a by-product. [No further detail is required] • Plants change glucose into starch, cellulose and other chemical compounds to enable processes such as growth and reproduction. **Activities/Practical tasks** • Writing about the requirements for, and products of photosynthesis. • Conducting an investigation to show that leaves produce starch [soak the leaf in boiling water, extract chlorophyll using ethanol/methylated spirits, add a few drops of iodine solution]. Write a report using the headings; aim, hypothesis, method, results, conclusion and discussion. **Respiration** • Food contains energy (potential energy). This energy can be released from food by a series of chemical reactions. This process is called respiration • Respiration (in all living organisms) is the process by which energy is released from food in a series of chemical reactions. [No further detail is required.] **Activities/Practical tasks** • Writing about the requirements for, and products of respiration • Testing for the presence of carbon dioxide in exhaled air using clear lime water.	

Practical tasks	Activity 1 P. 14 Practical investigation 1 P. 17 – 20 Activity 2 P. 23 Practical investigation 2 P. 24 – 25		
Assessment methods	**Class test**	**Control test**	**Project**
	Practical investigation	**Class work**	**Building of models, posters or interviews**
Resources	Work book, Transparencies, Pictures Summary P. 27 Mind maps P. 28		
Homework	Exercise 1 P. 20 – 22 Exercise 2 P. 26 – 27		