

PHYSICAL SCIENCE
EXPLORING CREATION WITH PHYSICAL SCIENCE
FALL 2017 SYLLABUS

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Sep 1 **Read Module 1 The Basics**

Experiment 1.1 Atoms & Molecules

Experiment 1.3 Concentration

Sup. Exp. 1.B Acids & Bases

Study questions 2,3,7,8,11

Sep.8 **Read Module 2 Air**

Experiment 2.1 *Relative humidity* (discuss only)

Experiment 2.2 Oxygen & fire

Experiment 2.3 Greenhouse effect

Study guide questions 2,4,6,8,11,12,13,16,17,18

Sep 22 **Read Module 3 Atmosphere**

Experiment 3.1 Air pressure

Experiment 3.2 Changing temperatures

Sup. Exp.3.A “magic egg”

Study guide questions 2,4,5,7,9,10,11,13

Sep. 29 **Read Module 4 Water**

Experiment4.1 Chemical composition of water

Experiment 4.2 Water Polarity

Experiment 4.3 Solvents & Solutes 4.4 (discuss only)

Experiment 4.5 Water's Cohesion

Experiment 4.6 Forces between molecules

Study guide questions 2,4,5,6,8,10,12,14

Oct. 13 **In class review activity for Modules 1,2,3,4**

Oct. 20 **Read Module 5 Hydrosphere**

Experiment 5.1 Evaporation, Condensation, Precipitation

Experiment 5.2 Ice and salt (discuss only)

Experiment 5.3 Cloud formation

Study guide questions 2,4,5,8,9,10,12,13,19,20,21

Oct. 27 **Read Module 6 Earth**

Experiment 6.1 Sound travel (discuss only)

Experiment 6.2 Simulation of plastic rock

Experiment 6.3 Electromagnet

Experiment 6.4 Model plate tectonics (discuss only)

Sup. Exp. 6.A Mystery mixture

Study guide questions 2,4,7,8,11,12,13,16,18,

Nov. 3 **Read Module 9 Physics**

Experiment 9.1 Importance of direction

Experiment 9.2 Acceleration & gravity

Experiment 9.3 Measuring height with stopwatch

Sup. Exp. 9.A Momentum Lab (car)

Sup. Exp. 9.B Momentum Lab (golf ball, ping pong ball)

Study guide questions 1,2,4,5,7,8,10

Nov.17 **Read Module 10 NEWTON'S LAWS**

Lab. 10.1 demonstrating Newton's first law

Lab. 10.2 understanding Newton's first law

Lab. 10.3 friction

Lab. 10.4 Newton's third law

Study guide questions 1,2,4,6,9,10,12,13,16

Dec. 4 **In class review activity for Modules 5,6,9,10**

Class supplies:

Text: Exploring Creation with Physical Science by Wile

3-ring binder for class lab notes, notebook paper and writing utensils