

Module 4: Exploring Creation With Physical Science

Cohesion - The phenomenon that occurs when individual molecules are so strongly attracted to each other that they tend to stay together, even when exposed to tension (97)

Electrolysis - Using electricity to break a molecule down into its constituent elements (81)

Hard water - Water that has certain dissolved ions in it, predominately calcium ions (100)

Polar molecule - A molecule that has slight positive and negative charges due to an imbalance in the way electrons are shared (88)

Solute - A substance that is dissolved in a solvent (90)

Solvent - A liquid substance capable of dissolving other substances (90)

Schedule

This module is the longest one and could take almost 3 weeks.

Read 81-84, do Experiment #4.1 (don't do this experiment in a "good" bowl, the battery can leave a yellow stain)

Read 85-86

Read 86-90, read Water's Polarity and do experiment 4.2 (This may take two days.)

Read 90-93, read and do experiment 4.3

Read 93-97, read text and do experiment 4.4 (This may take two days.)

Read 97-99, read text and do experiment 4.5

Read 99-100

Read 103-104 Take the next one or two days to do the study questions

Test

Always do the On Your Own questions and check your work afterwards.

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Module 5: Exploring Creation With Physical Science

Adiabatic cooling - The cooling of a gas that happens when the gas expands (125)

Condensation - The process by which water vapor turns into liquid water (109)

Percolation - The process by which water passes from above the water table to below it (122)

Residence time - The average time a given molecule of water will stay in a given water source (112)

Transpiration - Emission of water vapor from plants (109)

Schedule

Read 105-107

Read 108-109. Do experiment #5.1

Read the follow-up on pp. 111-114

Read The Ocean pp.114-116

Read 116-119 do experiment 5.2 → Start early, ex.5.2 will take more time than usual

Read 119-122 read Firm and Groundwater and Soil Moisture

Read 122-123 read Surface Water and do experiment 5.3

Read 124-127

Study Guide

Test

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Module 6: Exploring Creation With Physical Science

Epicenter - The point on the surface of the earth directly above an earthquake's focus (149)

Fault - The boundary between a section of moving rock and a section of stationary rock (147)

Plastic rock - Rock that behaves like something between a liquid and a solid (136)

Sedimentary rock - Rock formed when heat, pressure, and chemical reactions cement sediments together (133)

Schedule

Read 131-133

Read 133-134 do experiment 6.1

Read 134-137

Read 137-143

do experiment 6.2

Read 143-145

do experiment 6.3

Read 145-147

Read 147-150

Read 150-152

Study Guide

Test

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