

Integrated Science - Hydrosphere 5 (Shapes and Polarity)

List of reference material and practice sheets: (collect all of these materials...)

Links to PowerPoint presentations at the Integrated Science website

Hydro 5 (Shapes)

Shapes notesheet

Shapes Practices:

Hydro 5 Practice 1 (Lewis to shapes)

Hydro 5 (Polarity)

Polarity notesheets

Molecular Polarity Part 1 (Electronegativity and Bond Polarity)

Molecular Polarity Part 2 (Small Molecules)

Molecular Polarity Part 3 (BIG Molecules, and Ionic)

Polarity Practices:

Hydro 5 Practice 2 (Lewis to shapes to polarity)

Hydro 5 Practice 3 (Lewis to shapes to polarity)

Hydro 5 Practice 4 (BIG mlcs and ionic)

Key terms and concepts

all the concepts from Phusikos 1 & 2 & 3 & 4

PLUS:

shape and function related

two types of charge - negative and positive

opposites attract

like repel

central atom

outside atom

regions of electron density around the central atom (REDACA)

geometries

linear

trigonal planar

tetrahedral

electronegativity

polar bond

non-polar bond

polar molecule

non-polar molecule

general rules for determining polarity of small molecules (corners...)

general rules for BIG molecules and ionic substances

hydrocarbon regions

O / OH regions

ionic ("super polar")

Integrated Science - Hydrosphere 6 (Solutions / Solubility)

List of reference material and practice sheets: (collect all of these materials...)

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Hydro 6 (What's in Water - or not - and why)

Solutions notesheets

Hydro 6 What's in Water (definitions)

Hydro 6 Part 2 (Like Dissolves Like)

Solutions Practices:

Hydro 6 Practice 1 (Lemonade – Solutions, Law of Conservation of Matter)

Hydro 6 Practice 2 (Golden Rule of Solubility)

Hydro 6 Practice 3 (Solutions, Solubility concepts review)

Hydro 6 Practice 4 (Inquiry into Dissolved Gases - Carbon Dioxide)

Hydro 6 Practice 5 (Dissolved Oxygen readings)

~~Hydro 6 Practice 6 (Dissolved Oxygen lab)~~

Key terms and concepts

all the concepts from Phusikos 1 & 2 & 3 & 4 & from Hydro 5

PLUS:

Law of Conservation of Matter

dissolving

solute

solvent

solution

key characteristics of solutions

the Golden Rule of Solubility

polarity

like dissolves like