



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
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Matter

Guide for Curriculum Unit 80.05.08
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The purpose of this unit is to show that by using the Law of conservation of matter, the student learns that matter is not created or destroyed, but merely transformed. The understanding of this law can be better explained through the use of measurements in experiments. The knowledge of the writing of simple equations, and chemical equations are necessary skills. Laboratory techniques must be developed in the young student, and also refined. To understand reactions, the structure of matter is discussed; to show the complicated structure of matter is essential for the clearer understanding of actions and reactions. This knowledge aids in understanding how drugs, prescription and non-prescription, have to be used, if at all. How the mere act of smoking tobacco results in carbon exhaled, for example. This can lead to a study of pharmacology and how the knowledge affects the individual. Illnesses which depend on chemicals for control can be introduced for study: insulin and its relationship to diabetes, lithium maintenance to block the receptor site from receiving too much dopamine and resulting in, for example, hallucinations, L-Dopa, to reduce tremors in Parkinsons disease, are all chemicals causing metabolic changes which may affect individuals. The effect of marijuana, cocaine, L.S.D. and others on thought processes can be stated as action and reaction data. Even the effect of psychopharmacologists, and neuropharmacologists working on experimental drugs to boost mental sharpness, can be better understood when one learns more of chemical brain carriers. Urine testing is also a good way to determine the results of body metabolism. The study of matter leads to a better understanding of the unique chemical nature of our lives; even to the care that we must take in handling of plants, or even leaves of plants that we admire, or eat parts of.

(Recommended for Physical Science, 9th grade level, and Biology, 9th and 10th grade level.)

Key Words

Chemistry Basic Laboratory Skills Conservation Matter Physics

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