Environmental chemistry is an interdisciplinary science that has been documented in fields such as biology, geology, and soil science. The set of concepts and principles that governs the relationships between the natural environment and living organisms is called environmental chemistry. One area of focus for environmental chemists when studying how organisms interact with their surroundings includes biodegradation of materials, decomposition reactions, chemical reaction kinetics, reaction rates, reaction mechanisms and stoichiometric equations. Other topics include cycles in nature such as carbon cycling in ecology or nitrogen-fixing bacteria in Geobiology. One of the main principles of environmental chemistry is that all of the elements in nature are chemically bonded and this bond is essential to the stability of the elements. Environmental chemists study many different types of chemical reactions such as redox, acid/base and photolytic reactions. They also study physical and biochemical changes that take place in aquatic processes such as sedimentation, desorption, oxidation/reduction and photolysis. They often use these reactions to explain why pollutants may be accumulating in some ecosystems and not others. Environmental chemistry impacts our everyday lives through protecting us from harmful chemicals and giving us cleaner water and air to breathe. Many plants and animals depend on a healthy environment to live and thrive. Environmental chemistry is an important component of the health of our environment and how we use it. Another important aspect of environmental chemistry is that it provides food for people, animals, human sewage, industry, energy production and development. Environmental chemistry has found its way into many different fields including biology, geology, soil science and science in general. Scientists in these fields are using the principles established by environmental chemists to help control pollution in many different ways including artificial fertilization to reduce the amount of nitrogen run-off into water bodies. Industrial pollution, for example, is often reduced by removing nitrogen from the atmosphere through advanced techniques such as ammonia absorption. Environmental chemistry is very important because without it we wouldn't have safe food to eat or clean water to drink. There are three different types of environmental chemistry: "non-aqueous" chemistry, "aqueous" chemistry and "total" chemistry. The first type of environmental chemistry is non-aqueous chemistry. Non-aqueous refers to the fact that no water is involved in the chemistry of this type of environment. The reason why non-aqueous environments are more important is because they are used by all living organisms on earth including humans. Non-aqueous environments include the atmosphere and oceans. Non-aqueous chemistry has been studied for thousands of years and has lead to many solutions to pollution issues such as air pollution, water pollution and global warming. Controlling non-aqueous chemicals such as ozone and carbon monoxide can prevent severe effects such as asthma, allergies and environmental damage to the air. The second type of environmental chemistry is aqueous chemistry. Aqueous means "watery" in this context. The chemistry in aqueous environments can take place in water or any other substance that is a combination of a solid, liquid or gas that does not contain oxygen in it.

398eeb4e9f3271