6th Grade - Science

6th Life Science	In grade 6, life science is science at the macro-level with students taking a naturalist approach to the subject matter. They employ their inherent curiosity about the world around them while encountering historical primary texts to enrich their appreciation of the living world and connect them to the individuals who have shaped our shared understanding of the same. One advantage of using naturalist texts is that they are more appropriate for young students. The fact that life science is presented in the 6th grade will guide the content and organization of the course itself. The content for this course centers on the study of the classification of living things—a continuation of material encountered in 5th grade. Students study the characteristics defining divisions within the six kingdoms of living things—Archaebacteria, Eubacteria, Protista, Fungi, Plantae, and Animalia— however, the bulk of class time is dedicated to Kingdom Animalia as it is most rich with concrete and observable examples of living things. While studying Kingdom Animalia, students articulate the taxonomic classification levels of phylum, class, order, family, genus, and species and the characteristics of each level. Through exploration of classification, students analyze the relationship between form and function. Proper habits of observation and communication are foundational to scientific reasoning. That is why, during their time in this class, students are required to keep nature journals. Through the process of writing descriptions with detailed observations and general commentary and analysis, students practice basic record keeping skills. Sketching is a vital part of the observation process as it forces the students to look deeply at their subjects to visually replicate them. Students are also required to use solid scientific terms in their written notes, providing a very natural way to explore and practice using the language of scientific discovery. Labs will also play a key role in the study of life science. Most labs will be exercises in observation. Students will be required to provide written details about an organism (or part of an organism) such as size, shape, texture, smell, and function. Additionally, they shall provide detailed sketches of what is being observed. At times students will participate in dissection labs which provide them the opportunity to explore internal as well as external structures of organisms. Observation and Classification of Life Kingdom Protista and Fungi Kingdom Plantae Introduction to Kingdom Animalia, Sponges, Cnidarians, and Worms Mollusks and Echinoderms Arthropods Introduction to Phylum Chordata and Fish Amphibians Reptiles Birds Mammals Biomes, Naturalists, and Land Ethics