

Subject	Grade	Standard	Objective
Science	Second	4. Life Science	2. Identify basic needs of living things (plants and animals) and their abilities to meet their needs.
Content Big Ideas		Standard 1 Big Ideas – Intended Learning Outcomes	
(N) Living things have parts that function to meet their basic needs.	(PoS) When science investigation is done the way it was done before, we expect to get a very similar result.	(T) People use appropriate tools and models to investigate the world.	
(N) Senses can warn individuals about danger; muscles help them to fight, hide, or get out of danger.	(NoS) Sometimes people aren't sure what will happen because they don't know everything that might have an effect.	(A) People working alone or in groups often invent new ways to solve problems and get work done.	
(N) Living things not only need water, food, air, and waste removal, but also a particular range of temperatures in their environment.	(CoS) When doing science activities, it is often helpful to work with a team and to share findings with others. All team members should reach their own individual conclusions, however, about what the findings mean.	(S) The tools and ways of doing things that people have invented affect all aspects of life.	
Indicators: Measureable Outcomes framed by Standard 1 Big Ideas			
Indicator 1. Communicate and justify how the physical characteristics of living things help them meet their basic needs.			
Indicator 2. Observe record and compare how the behaviors and reactions of living things help them meet their basic needs.			
Indicator 3. Identify behaviors and reactions of living things in response to changes in the environment including seasonal changes in temperature and precipitation.			
Science language students should be able to use correctly: physical characteristics, behaviors, reaction, environment, seasonal, temperature, precipitation, migration, hibernation, dormancy.			
Guidance for Combining Content and Process		Guidance for Combining Science, Technology, and Society	
Suggested Strategies			
Students can conduct a simple experiment (e.g., making predictions, gathering data, and drawing conclusions) to investigate how water is transported throughout a plant. Some examples could include: celery or carnations in colored water. Students share findings using diagrams, journals, charts, etc. (L) (FA) (M) (PoS) (CoS)		(T) Teachers can use the Internet to find pictures of plants and animals.	
Working in groups, students can compare and contrast the behaviors that animals use to meet their needs (i.e. feeding patterns, building nests, protections, communication). They can communicate and justify their conclusions in the form of class discussion, journals, posters, reports, etc. (L) (FA) (M) (PoS) (CoS) (NoS)		(T) Students can use magnifiers to help see things they could not see without them.	
Working in groups, students can compare and contrast the behaviors that plants use to meet their needs (i.e. growing towards the sunlight, flowers/nectar for pollination, seed dispersal methods, toxins). They can communicate and justify their conclusions in the form of class discussion, journals, posters, reports, etc. (L) (FA) (M) (PoS) (CoS) (NoS)		(T) Students can use instruments to help make observations about habitat components. For example, data can be collected from a fish tank to assess the environmental health (dissolved oxygen, pH, nitrogen content).	
Students can sort various plants and animals according to how they respond to seasonal changes in temperature and precipitation (example categories might include: hibernate, migrate, go dormant, die, other, etc.). Once the sort is completed, students can communicate and justify the placement of the various living things into their categories during a class discussion. (L) (PoS) (CoS) (NoS)		(S) Students can discuss how their basic needs are met in their environment (i.e. air, food, water, waste removal, etc.).	
Life Sciences (CT) Changes over time (N) Nature of Living Things	Curriculum Connections (M) Mathematics (L) Language Arts	Processes, Communication and Nature of Science (PoS) Processes of science (CoS) Communication of science (NoS) Nature of science	Applications: Science, Technology, and Society (T) Tools of science (A) Applications of science (S) Implications of science for people