Subject	Grade	Standard	Objective
Science	**First**	**2. Earth and Space Science**	**3. Compare and contrast the seasonal weather changes.**

Content Big Ideas	Standard 1 Big Ideas – Intended Learning Outcomes	Science, Technology, and Society Big Ideas
(E) Seasonal weather changes occur each year.	(PoS) People can often learn about things around them by just observing those things carefully, but sometimes they can learn more by doing something to the things and noting what happens (raise questions about the world around them, be willing to seek answers to some of those questions by making careful observations and trying things out). (CoS) When doing science activities, it is often helpful to work with a team and to share findings with others. In this sharing, describing things as accurately as possible is important in science because it enables people to compare their observations with those of others (draw pictures that correctly portray at least some features of the thing being described, describe and compare things in terms of number, shape, texture, size, weight, color, and motion). (NoS) When people give different descriptions of the same thing, it is usually a good idea to make some fresh observations instead of just arguing about who is right.	(T) People use appropriate tools and models to investigate the world. (A) People working alone or in groups often invent new ways to solve problems and get work done. (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. Identify characteristics of the seasons of the year.
Indicator 2. Identify characteristics of weather, e.g., types of precipitation, sunny, windy, foggy, cloudy.
Indicator 3. Observe and record weather information within each season.

Science language students should be able to use correctly: data, foggy, globe, identify, map, models, precipitation, record, season, weather.

Guidance for Combining Content and Process	Guidance for Combining Science, Technology, and Society
Suggested Strategies The teacher can read literature about seasons and together with students, identify and chart the characteristics of each season. Encourage students to add information from their own background knowledge. As seasonal changes occur during the school year, the characteristics can be identified and new observations can be recorded on existing chart. (L) (CoS) Students can be introduced to weather by using a graphic organizer (What You Know, What You Want to Know, What You Have Learned [KWL Chart]). Student background knowledge can be used to complete the first two sections. Students can research literature on weather in order to complete the last section of the chart. (L) (CoS) Students can write, photograph, or draw pictures for a class/individual book that accurately portray the characteristics of weather. (L) (FA) (PoS) (CoS) Working as partners, students can keep a daily journal of the weather by drawing pictures and/or writing. Weekly class discussions on student findings will generate conclusions about how weather is affected by seasonal changes. Any observations made by students or groups that don't agree can be followed by continued observation. (L) (FA) (CoS) (NoS) A class graph can be recorded each day. (M)	(T) Students can use age-appropriate tools to better examine weather. (A) Students can determine how seasonal changes correlate with decisions about agricultural planting and harvesting. (S) Students can discuss and explain how the weather affects our daily lives.

Earth and Space Science	Curriculum Connections		Processes, Communication, and Nature of Science	Applications: Science, Technology, and Society
(E) Earth science	(M) Mathematics	(FA) Fine Arts	(PoS) Processes of science	(T) Tools of science
(SS) Space science	(L) Language Arts	(SS) Social Studies	(CoS) Communication of science	(A) Applications of science
			(NoS) Nature of science	(S) Implications of science for people