CCG: Formulate and express scientific questions or hypotheses to be investigated.

- Content Standard
  - Make observations. Formulate and express scientific questions or hypotheses to be investigated based on the observations.

    Applies to the following Standards

SC.03.SI.01	Make observations. Based on these observations, ask questions or form hypotheses, which can be explored through simple investigations.
SC.05.SI.01	Make observations. Ask questions or form hypotheses based on those observations, which can be explored through scientific investigations.
SC.08.SI.01	Based on observations and scientific concepts, ask questions or form hypotheses that can be explored through scientific investigations.
SC.CM.SI.01	Based on observations and scientific concepts, ask questions or form hypotheses that can be answered or tested through scientific investigations.

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- Content Standard
  - Design scientific investigations to address and explain questions or hypotheses.

    Applies to the following Standards

SC.03.SI.02	Plan a simple investigation.
SC.05.SI.02	Design a simple scientific investigation to answer questions or test hypotheses.
SC.08.SI.02	Design a scientific investigation to answer questions or test hypotheses.
SC.CM.SI.02	Design a scientific investigation that provides sufficient data to

answer a question or test a hypothesis.

- Content Standard
  - Collect, organize, and display scientific data.

    Applies to the following Standards

SC.03.SI.03	Collect data from an investigation.
SC.05.SI.03	Collect, organize, and summarize data from investigations.
SC.08.SI.03	Collect, organize, and display sufficient data to support analysis.
SC.CM.SI.03	Collect, organize, and display sufficient data to facilitate scientific analysis and interpretation.

- Content Standard
  - Analyze scientific information to develop and present conclusions.

    Applies to the following Standards

SC.08.SI.04	Summarize and analyze data including possible sources of error. Explain results and offer reasonable and accurate interpretations and implications.
SC.CM.SI.04	Summarize and analyze data, evaluating sources of error or bias. Propose explanations that are supported by data and knowledge of scientific terminology.

- Content Standard
  - Explain and analyze the interaction of energy and matter.

    Applies to the following Standards

SC.05.PS.06.03	Identify examples of energy transfer in the environment.
SC.08.PS.06	Describe and explain various energy transfers and resulting transformations.
SC.08.PS.06.01	Trace the flow of energy transformations in a system.
SC.08.PS.06.02	Explain the principle that energy is conserved, neither created nor destroyed.
SC.CM.PS.06	Describe and analyze examples of conservation of energy.
SC.CM.PS.06.01	Recognize that heat energy is a by-product of most energy transformations.
SC.CM.PS.06.04	Analyze the flow of energy through a system by applying the law of conservation of energy.

CCG: Understand the characteristics, structure, and functions of organisms.

- Content Standard
  - Describe the characteristics, structure, and functions of organisms.

    Applies to the following Standards

SC.CM.LS.01.01	Describe how biological systems can maintain equilibrium (homeostasis).

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- Content Standard
  - Understand the transmission of traits in living things.

Applies to the following Standards

SC.08.LS.03.02	Identify traits inherited through genes and those resulting from interactions with the environment.
SC.CM.LS.02.05	Recognize the existence of technology that can alter and/or determine inherited traits.

- Content Standard
  - Explain and analyze the interdependence of organisms in their natural environment.

Applies to the following Standards

SC.05.LS.05.04	Explain the relationship between animal behavior and species survival.
SC.05.LS.05.05	Describe the living and nonliving resources in a specific habitat and the adaptations of organisms to that habitat.
SC.08.LS.04	Identify and describe the factors that influence or change the balance of populations in their environment.
SC.08.LS.04.01	Identify that sunlight is the major source of energy in most ecosystems and that energy then passes from organism to organism in food webs.
SC.08.LS.04.02	Identify populations of organisms within an ecosystem by the function that they serve.
SC.08.LS.04.03	Differentiate between relationships among organisms including predator-prey, producer-consumer, and parasite-host.
SC.08.LS.04.04	Explain the importance of niche to an organism's ability to avoid direct competition for resources.
SC.CM.LS.03	Describe and analyze the effect of species, including humans, on an ecosystem.

SC.CM.LS.03.01	Predict outcomes of changes in resources and energy flow in an ecosystem.
SC.CM.LS.03.02	Explain how humans and other species can impact an ecosystem.
SC.CM.LS.03.03	Explain how the balance of resources will change with the introduction or loss of a new species within an ecosystem.

- Describe and analyze diversity of species, natural selection, and adaptations.

  Applies to the following Standards

SC.05.LS.06	Describe how adaptations help a species survive.
SC.05.LS.06.01	Describe changes to the environment that have caused the population of some species to change.
SC.05.LS.06.02	Identify conditions that might cause a species to become endangered or extinct.
SC.08.LS.05.01	Identify and explain how random variations in species can be preserved through natural selection.
SC.08.LS.05.02	Describe how animal and plant structures adapt to environmental change.

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- Content Standard
  - Identify the structure of the Earth system and the availability and use of the materials that make up that system.

    Applies to the following Standards

SC.05.ES.01.02	Recognize that soils vary in color, texture, components, reaction to water, and ability to support the growth of plants.
SC.08.ES.01	Recognize that Earth materials are limited, and

	explore strategies for addressing this problem.
SC.CM.ES.01	Describe how the importance and use of resources has changed over time with changes in economic and technological systems.
SC.CM.ES.01.01	Predict consequences of increased consumption of renewable and non-renewable resources.

- Content Standard
  - Explain and analyze changes occurring within the lithosphere, hydrosphere, and atmosphere of the Earth.

    Applies to the following Standards

SC.05.ES.02.02	Interpret data over a period of time and use information to describe changes in weather from day to day, week to week, and season to season.
SC.08.ES.02.05	Explain how geography affects climate.
SC.08.ES.03.03	Identify factors affecting water flow, soil erosion, and deposition.
SC.08.ES.03.04	Give examples of landform changes that occur at different rates.

- Content Standard
  - Understand the participatory obligations of U.S. citizens.

    Applies to the following Standards

SS.03.CG.03	Identify ways that people can participate in their communities and the responsibilities of participation.
SS.05.CG.05	Understand how citizens can learn about public issues.
SS.05.CG.05.01	Identify and give examples of resources that provide information about public issues.
SS.08.CG.05	Understand how citizens can make their voices heard in the political process.
SS.08.CG.05.01	Identify and give examples of ways that citizens can let their opinions be known in the political process.

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- Content Standard
  - Understand how individuals, groups, and international organizations influence government.

    Applies to the following Standards

SS.05.CG.06	Identify and give examples of how individuals can influence the actions of government.
SS.05.CG.06.01	Identify and give examples of actions citizens can take to influence government policy and decision-making.
SS.08.CG.06	Identify and give examples of how groups and organizations can influence the actions of government.
SS.08.CG.06.01	Identify and give examples of how groups and organizations can influence government policy or decisions and describe how these actions can lead to such influence.
SS.CM.CG.06	Understand how government policies and decisions have been influenced and changed by individuals,

groups, and international organizations.

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- Content Standard
  - o Understand the economic concept of scarcity.

Applies to the following Standards

SS.03.EC.01	Understand that limited resources make economic choice necessary.
SS.05.EC.01	Understand that all economic choices have costs and benefits, and compare options in terms of costs and benefits.
SS.05.EC.01.01	Know that whenever a choice is made, there is a cost.