

Early Elementary Science

GOAL 11	STUDENT LANGUAGE
Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.	I can understand how to study science, do experiments and solve problems using science.
Learning Standards	
11 A. Know and apply the concepts, principles and processes of scientific inquiry	I wonder why, look carefully, write down what I see, ask questions and discover patterns.
11 B. Know and apply the concepts, principles and processes of technological design.	I can design, use and redesign something that helps me solve a problem and can show how something works.

Early Elementary Science

STUDENT LANGUAGE

GOAL 12

Understand the fundamental concepts, principles and interconnections of the life, physical and earth/space sciences.

I can understand basic concepts involving living things, properties of objects, energy, how and why things move, the earth, the planets and the solar system.

Learning Standards

12 A. Know and apply concepts that explain how living things function, adapt and change.

I can describe the different parts of living things and tell how they are alike and different.

12 B. Know and apply concepts that describe how living things interact with each other and with their environment.

I know what living things need to stay alive and what they need to get along with each other and the environment.

12 C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

I can tell about different ways we can make of get energy and how it is used. I can tell how things are the same and how they are different.

12 D. Know and apply concepts that describe force and motion and the principles that explain them.

I can show the different ways things can move. I can tell how gravity and magnets work.

12 E. Know and apply concepts that describe the features and processes of the Earth and its resources.

I can tell about the land, oceans and atmosphere of Earth. I can compare the seasons, weather and sun patterns.

12 F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

I can describe the changes we see as Earth turns, as the moon moves around Earth and as Earth moves around the sun. I can tell about the sun and its planets.

Early Elementary Science

STUDENT LANGUAGE

GOAL 13

Understand the relationships among science, technology and society in historical and contemporary contexts.

I know and follow science safety rules, use scientific equipment, use scientific data accurately, understand how scientists have helped us and understand how science affects our lives.

Learning Standards

13 A. Know and apply the accepted practices of science.

I know science safety rules and watch out for dangers. I can do a science activity more than once and tell what I have learned.

13 B. Know and apply concepts that describe the interactions between science, technology and society.

I can discover science all around me. I can use science equipment. I can tell how science affects my life.

Late Elementary Science

GOAL 11	STUDENT LANGUAGE
Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.	I can study science, do experiments and solve problems using science.
Learning Standards	
11 A. Know and apply the concepts, principles and processes of scientific inquiry	I can ask questions, make observations, collect and record information, construct charts, make explanations and display results.
11 B. Know and apply the concepts, principles and processes of technological design.	I can identify a design problem and build, test and retest something to solve the problem.

GOAL 12

Understand the fundamental concepts, principles and interconnections of the life, physical and earth/space sciences.

I can apply basic concepts involving living things, properties of objects, energy, how and why things move, the earth, the planets and the solar system.

Learning Standards

12 A. Know and apply concepts that explain how living things function, adapt and change.

I can describe simple life cycles and compare characteristics of plants and animals.

12 B. Know and apply concepts that describe how living things interact with each other and with their environment.

I can describe how organisms live and depend on each other in their environments.

12 C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

I can describe different types of energy and properties of solids, liquids and gases.

12 D. Know and apply concepts that describe force and motion and the principles that explain them.

I can describe different motions and forces in nature.

12 E. Know and apply concepts that describe the features and processes of the Earth and its resources.

I can describe cycles relating to the earth and explain how earthquakes and volcanoes form.

12 F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

I can describe patterns within the solar system such as seasonal changes and identify constellations such as the Big Dipper, Orion and Cassiopeia.

Late Elementary Science

STUDENT LANGUAGE

GOAL 13

Understand the relationships among science, technology and society in historical and contemporary contexts.

I can explain how scientists have helped us and how science and technology affect our lives.

Learning Standards

13 A. Know and apply the accepted practices of science.

I can follow science safety rules and avoid injuries during science activities. I can use scientific data accurately and explain why my results may be different from others doing the same experiment.

13 B. Know and apply concepts that describe the interactions between science, technology and society.

I can explain how technology is used in science. I can tell why recycling is important. I can tell how technology such as dams, highways and power plants change an ecosystem. I can tell how my personal choices such as saving energy and littering affect my environment.

Middle/Jr. High Science

GOAL 11	STUDENT LANGUAGE
Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.	I can use the scientific processes and can design, build and test for scientific purposes.
Learning Standards	
11 A. Know and apply the concepts, principles and processes of scientific inquiry	I can make a prediction, conduct an experiment, interpret and report results.
11 B. Know and apply the concepts, principles and processes of technological design.	I can design, build, and test something to solve a problem.

GOAL 12

Understand the fundamental concepts, principles and interconnections of the life, physical and earth/space sciences.

I can explain concepts of life, physical and earth/space science and their interconnections.

Learning Standards

12 A. Know and apply concepts that explain how living things function, adapt and change.

I can explain how to apply the concepts of how plants and animals live, change and adapt to their environments.

12 B. Know and apply concepts that describe how living things interact with each other and with their environment.

I can explain how to apply the concepts of how plants and animals depend on each other and the environment.

12 C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

I can explain how to apply the concepts of how matter and energy interact with each other.

12 D. Know and apply concepts that describe force and motion and the principles that explain them.

I can explain how to apply the concepts of force and motion.

12 E. Know and apply concepts that describe the features and processes of the Earth and its resources.

I can explain how to apply the concepts of Earth's systems and resources.

12 F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

I can explain how to apply the concepts of how objects in the universe, including Earth, act as a system.

Middle School/ Junior High Science

STUDENT LANGUAGE

GOAL 13

Understand the relationships among science, technology and society in historical and contemporary contexts.

I can explain the accepted practices of science, such as comparing and recording data accurately, and know how science, technology and society are connected.

Learning Standards

13 A. Know and apply the accepted practices of science.

I can explain how to apply methods for collecting data properly.

13 B. Know and apply concepts that describe the interactions between science, technology and society.

I can explain how to apply concepts of how science, technology and society interact with each other .

Early High School Science

GOAL 11	STUDENT LANGUAGE
Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.	I can understand and use the scientific processes and technological design.
Learning Standards	
11 A. Know and apply the concepts, principles and processes of scientific inquiry	Using the scientific process, I can conduct investigations that help me understand what I am observing and can explain what I have learned.
11 B. Know and apply the concepts, principles and processes of technological design.	I can design, build, and test models that are useful and develop methods to solve problems.

Early High School Science

STUDENT LANGUAGE

GOAL 12

Understand the fundamental concepts, principles and interconnections of the life, physical and earth/space sciences.

I can explain how to apply the concepts of life, physical and earth/space science and their interconnections.

Learning Standards

12 A. Know and apply concepts that explain how living things function, adapt and change.

I can explain how to apply concepts about how different organisms function, adapt and change.

12 B. Know and apply concepts that describe how living things interact with each other and with their environment.

I can explain how to apply concepts about how different organisms interact with each other and use their environment.

12 C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

I can explain how to apply concepts about the properties of matter and energy and the interactions between them.

12 D. Know and apply concepts that describe force and motion and the principles that explain them.

I can explain how to apply concepts that describe force and motion and the principles that explain them.

12 E. Know and apply concepts that describe the features and processes of the Earth and its resources.

I can explain how to apply concepts that describe how Earth's landforms, water and atmosphere are interrelated parts of a dynamic, constantly changing system.

12 F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

I can explain how to apply concepts about the structure of the universe and the Earth's relationship to it.

Early High School Science

STUDENT LANGUAGE

GOAL 13

Understand the relationships among science, technology and society in historical and contemporary contexts.

I can explain how science, technology and society are connected.

Learning Standards

13 A. Know and apply the accepted practices of science.

I can explain how to collect accurate and reliable evidence using accepted practices. I can perform science investigations in an appropriate and safe way.

13 B. Know and apply concepts that describe the interactions between science, technology and society.

I can explain how to apply concepts that describe the interaction among science, technology and society.

Late High School Science

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Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.	I can understand and use the scientific processes and technological design.
Learning Standards	
11 A. Know and apply the concepts, principles and processes of scientific inquiry	Using the scientific process, I can conduct investigations that help me understand what I am observing and can explain what I have learned.
11 B. Know and apply the concepts, principles and processes of technological design.	I can design, build, and test models that are useful and develop methods to solve problems.

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I can explain how to apply concepts about the properties of matter and energy and the interactions between them.

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I can explain how to apply concepts about the structure of the universe and the Earth's relationship to it.

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