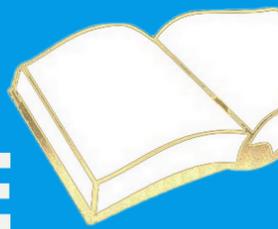


2020 - 2021

3RD GRADE SCIENCE STUDY GUIDE



CGA WEEKLY SCIENCE LESSONS

Participate in the weekly Canyon Grove Family Science lessons. These video based lessons are fun and are a great way to learn science!

You can also rewatch the lessons for review. For 3rd grade standard review you should watch lessons 1, 4-5, 8, 13-14, & 19-20.

PRACTICE NOTICING AND DESCRIBING DETAILS

Noticing (observation) and describing details is an essential part of Science. Choose any object and pretend you've never seen it before. Describe the details and things about it that you like or don't like, that make you curious, or that make it beautiful or not beautiful. It's easy to do this with art when you try to draw a still life or photograph.

ASK QUESTIONS IN FRONT OF YOUR CHILDREN AND RESEARCH WITH THEM ANSWERS TO QUESTIONS THAT THEY HAVE:

Be curious about the world around you and take time to research things with your children that they have questions about...

LEARN ABOUT SCIENTISTS AND WHAT MOTIVATED THEIR DISCOVERIES

Take time to learn about specific scientists. What question or problem were they trying to solve? What led to their discoveries? What were their lives like? How did they think about the world?

SCIENCE IS A WAY OF THINKING



PRACTICE LOOKING AT AND INTERPRETING DATA

This is a critical skill in science, technology and engineering as well as just living in our modern world.

This can occur very naturally and easily by using a topic that is important to your child and start researching it. Are they thinking about starting a business or getting a pet or making a recipe? Find data about your topic with them that will be helpful. Some examples would be: life expectancy of certain breeds of animals, most used recipes, average prices for certain products or services. The list is endless. If you need more ideas, [HERE](#) are a couple of activities where you can practice using data.

OBSERVE NATURAL PHENOMENA

Take as many opportunities as possible to observe natural phenomena.

You don't have to focus on explaining the why to your student. Just focus on noticing details and asking questions. Let them gather conclusions about why they think it behaves the way it does and enjoy the experience. You can do it through media or out in nature or at a museum. Natural phenomena can be exotic like watching a geyser at Yellowstone or an everyday occurrence like what happens to the garbage that we collect every day. Here is a [fun website](#) with everyday mysteries

TAKE A LOOK AT THE TOPICS THAT WERE COVERED THIS YEAR IN 3RD GRADE

Read through the topics on the next page to see all the interesting ideas we talk about in 3rd grade.



APPLY THE PRICIPLES ABOVE TO EXPLORE THE TOPICS BELOW

As you look through each topic, which activities above could you apply to each of these topics?

Visit our website for more information about our programs

www.canyongrove.com



GRADE LEVEL TOPICS

WEATHER AND CLIMATE PATTERNS



- Patterns that indicate typical weather conditions expected during a particular season. Examples of data could include temperature, precipitation, or wind speed.
- Describe climate patterns in different regions of the world. Examples of climate patterns could be average seasonal temperature and average seasonal precipitation.
- Design a solution that reduces the effects of a weather-related hazard. Examples could include barriers to prevent flooding or wind-resistant roofs.

EFFECTS OF TRAITS ON SURVIVAL

- Describe changes that organisms go through during their life cycles. Emphasize that organisms have unique and diverse life cycles but follow a pattern of birth, growth, reproduction, and death.
- Identify patterns of traits that plants and animals have inherited from parents. Emphasize the similarities and differences in traits between parent organisms and offspring and variation of traits in groups of similar organisms.



EFFECTS OF TRAITS ON SURVIVAL



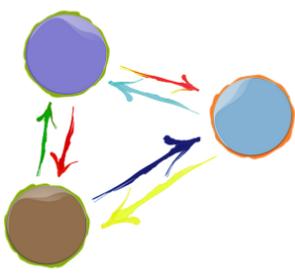
- The environment can affect the traits of an organism. Examples could include that the growth of normally tall plants is stunted with insufficient water or that pets given too much food and little exercise may become overweight.
- Variations in traits and behaviors can affect the ability of an individual to survive and reproduce. Examples of traits could include large thorns protecting a plant from being eaten or strong smelling flowers to attracting certain pollinators.

EFFECTS OF TRAITS ON SURVIVAL

- In a particular habitat (system) some organisms can survive well, some survive less well, and some cannot survive at all. Examples of evidence could include needs and characteristics of the organisms and habitats involved such as cacti growing in dry, sandy soil but not surviving in wet, saturated soil.
- Changes in the environment that impacts the types of plants and animals living in that environment.



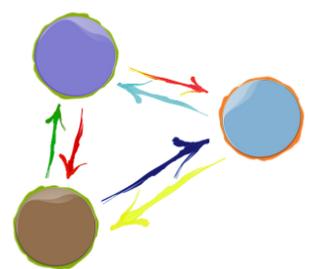
FORCE AFFECTS MOTION



- The effects of balanced and unbalanced forces on the motion of an object. Examples could include an unbalanced force on one side of a ball causing it to move and balanced forces pushing on a box from both sides producing no movement.
- Patterns of an object's motion that can be used to predict future motion. Examples of motion with a predictable pattern could include a child swinging on a swing or a ball rolling down a ramp.

FORCE AFFECTS MOTION

- The gravitational force exerted by Earth causes objects to be directed downward, toward the center of the spherical Earth
- Cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. Examples could include the force an electrically charged balloon has on hair, or how distance between objects affects the strength of a force.
- Design a solution to a problem in which a device functions by using scientific ideas about magnets.



WATCH FOR MORE INFORMATION ABOUT THE CANYON GROVE SCIENCE BEE

SOMEWHERE, SOMETHING INCREDIBLE IS WAITING TO BE KNOWN.

Carl Sagan