

# 4<sup>th</sup> Grade Science SOLs

## Study Guides & Review Worksheets

### Ocean

#### Terms to Know

- Continental Shelf:** The shallow, gently sloping underwater area near the coast.
- Continental Slope:** A steep slope that connects the continental shelf to the deep sea.
- Continental Rise:** A mound of sediment at the base of the continental slope.
- Abyssal Plain:** A dark, flat area on the ocean floor that is thousands of feet below the ocean's surface.
- Trench:** A narrow canyon in the ocean floor. Usually tens of thousands of feet deep.
- Salinity:** The amount of salt dissolved in water.

#### The Ocean Floor

#### Tides & Currents

Tides are the regular rise and fall of sea levels. Tides are caused by the gravitational pull of the moon and the sun.

Ocean currents describe the motion of the water. Currents are created by wind and temperature differences in the water.

#### Marine Food Web

#### Salinity

Salinity can be different in different parts of the ocean. Things that affect salinity include rates of evaporation, the depth of the water, melting icebergs, and the amount of runoff from nearby land.

### Plant & Animal Structure

#### Term to Know

- Photosynthesis:** The process plants use to make oxygen.

#### Parts of a Plant

- Stem:** Anchor and absorb nutrients.
- Stem:** Helps water travel up to other parts of the plant.
- Leaves:** They perform photosynthesis.
- Roots:** They anchor the plant in the soil.

#### Photosynthesis

Plants produce their own food through the process of photosynthesis. They use green pigment called **chlorophyll** along with carbon dioxide, water, and sunlight to produce food (sugar). Oxygen is released during photosynthesis.

#### Pollination

**Pollination** is the process where pollen is moved from the stamen of a flower to the pistil of another flower. This can be moved by wind, water, or animals. Flowers attract pollinators.

### Weather vs. Climate

**Climate** is the weather of a given area averaged over at least 30 years. The following describes climate:

- average wind
- average temperature
- average humidity
- average rainfall

#### Masses

These bring different weather conditions.

#### Low Pressure

- strong winds
- stormy weather

L

#### Clouds

#### Cumulonimbus

- big, fluffy, and dark bottoms
- thunderstorms
- hot, rain, wind

#### Cirrus

- feathery
- fair weather
- rain or snow will fall soon

#### Extreme Weather

#### Thunderstorms

- warm, humid conditions
- heavy rain
- lightning and thunder

#### Hurricanes

- over warm, tropical water
- winds of at least 74 miles per hour

#### Tornadoes

- form from thunderstorms
- change of wind direction
- air begins to rotate

Vestal's 21<sup>st</sup> Century Classroom

# Grade 4 Sol Study Guide

**Michael Rajnik**



## **Grade 4 Sol Study Guide:**

Grade 4 Sol Study Guide: Bestsellers in 2023 The year 2023 has witnessed a remarkable surge in literary brilliance, with numerous captivating novels captivating the hearts of readers worldwide. Lets delve into the realm of top-selling books, exploring the engaging narratives that have enthralled audiences this year. The Must-Read : Colleen Hoover's "It Ends with Us" This touching tale of love, loss, and resilience has captivated readers with its raw and emotional exploration of domestic abuse. Hoover skillfully weaves a story of hope and healing, reminding us that even in the darkest of times, the human spirit can prevail. Uncover the Best : Taylor Jenkins Reid's "The Seven Husbands of Evelyn Hugo" This captivating historical fiction novel unravels the life of Evelyn Hugo, a Hollywood icon who defies expectations and societal norms to pursue her dreams. Reid's absorbing storytelling and compelling characters transport readers to a bygone era, immersing them in a world of glamour, ambition, and self-discovery. Discover the Magic : Delia Owens' "Where the Crawdads Sing" This mesmerizing coming-of-age story follows Kya Clark, a young woman who grows up alone in the marshes of North Carolina. Owens crafts a tale of resilience, survival, and the transformative power of nature, entrancing readers with its evocative prose and mesmerizing setting. These popular novels represent just a fraction of the literary treasures that have emerged in 2023. Whether you seek tales of romance, adventure, or personal growth, the world of literature offers an abundance of captivating stories waiting to be discovered. The novel begins with Richard Papen, a bright but troubled young man, arriving at Hampden College. Richard is immediately drawn to the group of students who call themselves the Classics Club. The club is led by Henry Winter, a brilliant and charismatic young man. Henry is obsessed with Greek mythology and philosophy, and he quickly draws Richard into his world. The other members of the Classics Club are equally as fascinating. Bunny Corcoran is a wealthy and spoiled young man who is always looking for a good time. Charles Tavis is a quiet and reserved young man who is deeply in love with Henry. Camilla Macaulay is a beautiful and intelligent young woman who is drawn to the power and danger of the Classics Club. The students are all deeply in love with Morrow, and they are willing to do anything to please him. Morrow is a complex and mysterious figure, and he seems to be manipulating the students for his own purposes. As the students become more involved with Morrow, they begin to commit increasingly dangerous acts. The Secret History is an exceptional and gripping novel that will keep you wondering until the very end. The novel is a warning tale about the dangers of obsession and the power of evil.

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