

Title: The Moon Book

Author: Gail Gibbons

Publisher: Holiday House, Inc.

Reading Level: 3rd Grade

Copyright Year: 1997

Genre: Nonfiction

Synopsis of Story:

This book is easy to read and identifies the moon as our only natural satellite and describes the moon's movements and phases. A brief history of legends and stories is discussed as well as Neil Armstrong and Buzz Aldrin being the first men to walk on the moon. This book also explains that we are learning more about our "closest neighbor," the moon, every day. The book ends with a list of moon milestones, moon legends and stories, and more moon facts.

Theme: This book has a theme of learning about the moon.

Activity One: Solar Eclipse Project

Origination of Idea: This activity came from inside the Moon Book.

Objective:

- Students will create their own solar eclipse

Description of Activity:

- Go outside and have the students read The Moon Book with a partner.
- After reading the book, students will create their own solar eclipse
- They will come to the teacher for directions and to obtain supplies
- The teacher will remind them to NEVER LOOK DIRECTLY AT A SOLAR ECLIPSE BECAUSE THE SUN'S RAYS CAN HURT YOUR EYES!
- The directions you give them shall read:
 - Poke a pin through the center of a piece of heavy paper
 - Stand with your back to the sun. Hold the projector (the piece of paper you poked a hole in) at your shoulder so sunlight shines through the hole
 - Hold another piece of heavy paper in your other hand. This will be the screen
 - Move both papers until an image of the eclipse appears on the screen
 - Hold another piece of heavy paper in your other hand. This will be the screen
 - Move both papers until an image of the eclipse appears on the screen.
- Have the students summarize what a solar eclipse is and how the activity they did exemplifies a solar eclipse

Activity Two: Moon Phases Poster

Origination of Idea: This activity is an original idea from the brain of Julie Hamm

Objective:

- Students will become familiar with the 9 different phases of the moon

Description of Activity:

- After reading the Moon Book via buddy reading, assign each pair a phase of the moon (new moon, crescent moon, first quarter moon, Gibbous moon, full moon, Gibbous moon <again>, last-quarter moon, crescent moon <again>, new moon)
- Give each pair a large piece of poster board and have them draw what their phase looks like
- Then have them write three sentences about their phase on the poster
- Each pair will present their poster to the class and then the posters will be displayed on the wall

Title: From Seed to Plant

Author: Gail Gibbons

Publisher: Holiday House, Inc.

Reading Level: 2nd Grade

Copyright Year: 1991

Genre: Nonfiction

Synopsis of Story:

Throughout this book, readers begin to understand how seeds grow into plants. They learn the parts of the flower and how they are pollinated. Readers also learn how animals as well as humans help scatter seeds. Also, readers learn what is needed for a seed to grow. Finally, readers learn that they actually, unknowingly, eat a variety of seeds such as in many fruits and vegetables.

Theme: This book has a theme of the cycle seeds go through.

Activity One: Plant Your Own Seed

Origination of Idea: This activity was obtained from the back of the book: From Seed to Plant.

Objective:

- Students will plant and observe their seeds grow.

Description of Activity:

- After reading From Seed to Plant as a class, explain to the class that they will see all the steps a seed goes through until it becomes a plant
- Pass out clear plastic jars to all students
- Have them roll up a piece of black construction paper
- Have them slide the paper into the jar and fill it with water
- Have them wedge the bean seed between the black paper and the jar. Put the jars on the windowsill
- In a few days, the seeds will begin to sprout. Watch the roots grow down and the shoots grow up
- Put dirt into a larger clay pot
- Remove the small plants from the jar and place them in the soil, covering them up to the base of their shoots
- Water them daily and observe them
- Have students sketch and describe their plants daily
- Once they start growing, send the bean plants home with the students

Activity Two: Collect and Predict Seeds

Origination of Idea: This is an original idea from the brain of Julie Hamm

Objective:

- Students will identify what plants grow from certain seeds

Description of Activity:

- Read the book From Seed to Plant as a class
- In this book the author talks about acorn, sunflower, bean, and dandelion seeds.
- Have the students go outside on the playground and search for dandelion seeds and acorns.
- When you come back inside, give the students a sunflower seed and a bean seed. They should now have a total of 4 seeds (bean, acorn, dandelion seed, and sunflower seed)
- Have them fold two pieces of paper in half
- Have them draw a picture of a dandelion, bean plant, sunflower, and oak tree on one half of each side of each paper and label the plant.
- Then have them tape the seed on the other side and label the seed name (under the acorn they will write “acorn”, under the sunflower they will write “sunflower seed, etc)
- This will visually help them remember which seeds grow into which plants.

Title: Storms: Facts, Stories, Projects

Author: Jenny Wood

Publisher: Puffin Books

Reading Level: 3rd Grade

Copyright Year: 1990

Genre: Nonfiction

Synopsis of Story:

Throughout this book, readers learn about storms. They learn what a storm is and the different types of storms. Storms included are rainstorms, hailstorms, thunder and lightning storms, snowstorms, sea storms, hurricanes, tornadoes, and hurricanes. Also included are projects the reader can make such as a wind sock or barometer. There is also a section that has a list of true/false questions and a glossary with storm vocabulary in the back.

Theme: This book has a theme of storms

Activity One: Pop Bottle Tornado

Origination of Idea: This is an original idea from the brain of Julie Hamm

Objective:

- Students will make and describe their own tornado

Description of Activity:

- Have students read this book individually
- When they are finished, have them go to the back table and get 2 empty 2 Liter pop bottles, a plastic connector, and beads
- Give them instructions to make a tornado in a pop bottle:
- Fill one pop bottle $\frac{3}{4}$ the way
- Add a few drops of food coloring if they wish and allow them to put beads in if they wish
- Have them place the plastic connector on the pop bottle filled with water
- Then have them place the empty pop bottle on top of the one filled with water
- It should click into place and be secure
- Then have them turn the bottles upside down and swirl in a circular motion
- This will create a tornado as the water flows into the bottom pop bottle
- Have them write a few sentences comparing their tornado to what it said about tornadoes in the book

Activity Two: Rain Gauge

Origination of Idea: This book was obtained from the book: Storms: Facts, Stories, Projects

Objective:

- Students will construct a device to measure rain fall

Description of Activity:

- Read this book as a class
- When you finish reading the part about rain and thunderstorms, explain to students that they are going to make a tool to help them measure how many inches of rain falls the next time it rains
- Pass out a flat-bottomed glass jar or bottle to pairs of students or individual students
- Give them each a plastic funnel with the same diameter as the jar or bottle
- Pass out rulers and permanent markers
- Have them place the funnel in the jar
- Have them make inch marks on the jar with the permanent marker
- Place the jars outside in a safe place so they can catch the rain
- After the next rain, have students look at their jars and measure the amount of rainfall
- Have them keep a journal where they describe the rain storm or thunderstorm that occurred and then record the number of inches in the jar inches. Keep doing this as many days or weeks as you wish

Title: Science Detectives: How Scientists Solved Six Real Life Mysteries

Author: The Editors of YES Mag

Publisher: Kids Can Press

Reading Level: 5-6th Grade

Copyright Year: 2006

Genre: Nonfiction

Synopsis of Story:

This book describes how scientists unlocked six mysteries using scientific information. The cases they examined included The Case of the Contaminated Cook, The Case of the Vanishing Vultures, The Case of the Curious Corpse, The Case of the Hot Ice, The Case of the Twisted Code, and the Case of the Smoke-filled cockpit. Also included after each case is a small project the students can do to further understand the topic that was investigated. “Did You Know” facts and captions are scattered around the pages as well as real photographs that will help readers relate and visualize the mysteries. This book will make science and scientists become more interesting because it actually shows how science can be applied to real-life situations.

Theme: This book has a scientific detective theme

Activity One: Frozen Finds

Origination of Idea: This idea was obtained from page 26 of Science Detectives: How Scientists Solved Six Real Life Mysteries

Objective:

- Students will discover how objects are altered once they have been frozen

Description of Activity:

- Read “The Case of the Curious Corpse” as a class
- Then have students perform an experiment
- You will need: 5 plastic cups, shreds of newspaper, small pieces of bread, 3 berries, a small nail, a metal paperclip, a green leaf, small rocks, some grass, a leather shoelace, and tweezers
- Put newspaper in one cup, bread and berries in another cup, the nail and paper clip in another cup, the leaf in the 4th cup, and grass and shoelace in the last cup
- Have students write down observations in a journal about each of the objects
- Fill each cup $\frac{3}{4}$ full with water and place rocks on top of the “artifacts” to weigh them down. Freeze the cups
- After 3 days, let the cups thaw. Remove the artifacts with tweezers. Have students write in their journals how the condition of each object has changed
- Place the artifacts in a dry, bright place. After another four days look at them again. Ask students to record how they look now.
- Have them write a thesis statement about how artifacts are affected by the way they are stored

Activity Two: The Humpty Dumpty Effect

Origination of Idea: This idea was obtained from page 46 of Science Detectives: How Scientists Solved Six Real Life Mysteries

Objective:

- Students will see how difficult it is to sort through wreckage and try to reassemble it

Description of Activity:

- After reading “The Case of the Smoke-Filled Cockpit” as a class, assign each student a partner
- Give them a hardboiled egg and ask them to drop it on their desk a few times
- Have them peel the shell off and mix the pieces up
- Then have them try to reassemble the broken egg shell
- When they have finished, have students write a brief reflection about how difficult it would be to try to reassemble the front part of the Swissair III. There were roughly two million pieces of wreckage for the scientists to deal with!

Title: Comet Watch: The Return of Halley's Comet

Author: Frank. H. Winter

Publisher: Learner Publications Company

Reading Level: 5-6th Grade

Copyright Year: 1986

Genre: Nonfiction

Synopsis of Story:

Frank H. Winter describes the comet deemed "Halley's Comet." He also defines comets, discusses early beliefs about comets, and describes the most recent visits of Halley's Comet. Also, Winter provides information about space probes, space shuttles, and other space crafts that help take photos of comets. His words are aided with diagrams, pictures, and charts. Halley's Comet will not reappear until 2062!

Theme: This book has a theme of comets and spacecrafts

Activity One: Draw Your Own Comet

Origination of Idea: This is an original idea from the brain of Julie Hamm

Objective:

- Students will know what a comet looks like and will be able to draw one

Description of Activity:

- Have students read Comet Watch: The Return of Halley's Comet via buddy reading
- When they are finished have give the students a black piece of construction of paper as well as a piece of chalk
- Have them study page 10 again where it shows a picture of a comet and has the different parts labeled
- Have the students draw a comet on their paper using the chalk
- They are using chalk so they can smear it to create the tail and the hydrogen cloud around it
- When they are finished drawing their comet, have the students write the words, Hydrogen Cloud, Coma, Nucleus, and Tail" on a separate piece of plain white computer using a black marker
- Have them cut out the words and glue them on the correct parts of their comet

Activity Two: Design Your Own Space Craft

Origination of Idea: This is an original idea from the brain of Julie Hamm

Objective:

- Students will design and describe their own space craft

Description of Activity:

- Have the students read Comet Watch: The Return of Halley's Comet via buddy reading
- Have them bring in old coffee cans, boxes, aluminum foil, or any other items they can use to make their own spacecraft. Have them be creative with the items they bring in
- Ask them to construct a spacecraft using the information from the book with their partner. They have to have certain parts such as an antenna, solar cells, camera, front bumper shield, rocket engine, rear bumper shield, and a star mapper
- Hot glue might need to be used to make items stay
- When their spacecraft is complete, have them present their project to the class, explaining each part of the spacecraft.
- Hang them in the hall or the classroom

The Moon Sign book is full of examples of celebrities, and in my opinion, reading those examples helps to develop a deep and true understanding of different Moon Signs. On many occasions, such a study gave me a knowledge that contradicted the widespread stereotypes of astrology, and still that knowledge was real and valuable. Each chapter of the book has A Surprise Moment, and this is where I am telling the reader about my little discoveries. Free. Android. The time of beginning or ending penumbral eclipse is simultaneous around the country but a place of beginning total eclipse differs from place to place. The Moon Book will show you the phases of the moon eclipse at your place. You will be able to set up any observing place beforehand if the moon eclipse star chart is selected. When you move to a distant place for observing the moon eclipse, you will be able to know in advance a place where the Earth's shadow starts hiding the moon.