



Scope and Sequence

Grade: 1st Month:

Content Area: Science

Sub Content/Unit: Animals

| <i>What our students will know and be able to do</i> | <i>Learning Activities</i> | <i>Materials</i> | <i>Assessment tools</i> | <i>Notes</i> |
|--|--|--|--|---------------------|
| <ul style="list-style-type: none"> Tell about an animal's adaptations, diet, habitat, and communication | <ul style="list-style-type: none"> Animal research report: students will research and report their animal | <ul style="list-style-type: none"> Ebooks Post It notes (for note taking) Organization page Rough draft page Final draft page | <ul style="list-style-type: none"> Written report/oral presentation | |



Scope and Sequence

Grade: 1st Month:

Content Area: Science

Sub Content/Unit: Light and Shadows

| <i>What our students will know and be able to do</i> | <i>Learning Activities</i> | <i>Materials</i> | <i>Assessment tools</i> | <i>Notes</i> |
|--|---|---|---|---------------------|
| <ul style="list-style-type: none"> ● Understand the concept of translucent, transparent, and opaque ● Understand how light travels ● Understand how light affects sight ● Be able to send a message using flashing light | <p><u>Lesson 1</u></p> <ul style="list-style-type: none"> ● KWL - light ● Light video: <ul style="list-style-type: none"> ▶ Light The Dr. Binocs Show ... ● Vocab, intro using a glass, a plastic bag, and a book: <ul style="list-style-type: none"> ○ Transparent ○ Translucent ○ opaque <p><u>Lesson 2</u></p> <ul style="list-style-type: none"> ● Review what we know ● Turn off lights, cover windows, and explore the dark with flashlights ● Write/draw a picture of observations on posters as you explore! | <ul style="list-style-type: none"> ● Class set of flashlights ● Glass cup ● Filmy plastic bag ● Book ● Class set of handheld mirrors ● Inspire Science workbook, student edition (print selected pages) | <ul style="list-style-type: none"> ● Observation, engagement | |

Lesson 3

- Bring in an item in a paper bag
- Turn off lights, cover windows - walk around so students can “see” the item in the dark
- Share - what did they see?
- Show in the light - were they right?
- Journal pgs 12-13

Lesson 4

- Which colors are easiest to see in a dim room? Dark or light?
 - Make a prediction/hypothesis
 - Do the experiment (show papers with dark colors and light colors)
 - Review results
 - Journal pg 20

Lesson 5

- Look at shadows - light source held high or low (pencil, flashlight)
- Journal pg 32-33

Lesson 6

- Light and Mirrors - Inquiry Activity pg 40-41

Lesson 7

- Light and Mirrors help us - sending messages
- Journal pgs 46-49

Lesson 8

- How is your name spelled in Morse Code?
- Paper first, then try with flashlight

Final Lesson

- End with Art Project - Stained glass windows - tissue paper, contact paper, black strips of construction paper.



Scope and Sequence

Grade: 1st Month:

Content Area: Science

Sub Content/Unit: Plants

| <i>What our students will know and be able to do</i> | <i>Learning Activities</i> | <i>Materials</i> | <i>Assessment tools</i> | <i>Notes</i> |
|--|---|---|---|---------------------|
| <ul style="list-style-type: none"> ● Understand what plants need to grow ● Know the structures of a plant (roots, stem, leaves, flowers) ● Know how plants grow/the life cycle of a plant (seed, germination, sprout, seedling, plant, flower/fruit) ● Understand the function of structures ● Understand how plants make their own food ● Know what parts of a plant we eat | <p>Day 1: What do plants need to grow?</p> <ul style="list-style-type: none"> ● Display pictures (from Plants Unit 2 pgs. 36-41) ● Students create flip books <p>Day 2: Experiment</p> <ul style="list-style-type: none"> ● Revisit what plants need to grow ● Explain experiment and fill out predictions ● If time, set out the plants, labeled, in the appropriate places | <ul style="list-style-type: none"> ● Various TPT resources ● Ziplock bags ● Celery ● Mason jars ● Food coloring ● Bean seeds ● 6 bean plants | <ul style="list-style-type: none"> ● Observation and participation | |


Day 3: Plant Structures:
roots, stem, leaves,
flower

- Provide student mini books “Parts of a plant” - read and color each structure
- Cut out/assemble plant structure craft

Day 4: How do plants grow?

- Show mini book with pictures, explain seed, germination, sprout, seedling, plant, flower/fruit
- Students make flip book with pictures

Day 5: How do plants grow? Pt. 2

- Watch “Bean Time Lapse”
 -  Bean...
- Students “plant” their seeds in their “greenhouse.”
Tape to window.

Day 6: Plant Pumpkin Seeds for the patch + class exploration of the school greenhouse

Day 7: Function of structures pt. 1: roots & stems

- Discuss function of roots and stems
- Explain celery experiment and have each group prepare their experiment with the following roles:
 - 1 person fills jar with water
 - 1 person does food coloring
 - 3 people cut the ends of celery and put them in the water
- Pass out and have students complete the first part of the celery experiment


page. Leave overnight.

Day 8: Make observations about celery - complete celery experiment page.

Function of structures pt. 2: leaves

- Key vocabulary words:
 - Photosynthesis
 - Chlorophyll
- Explain the process of photosynthesis with pg 1 of "Plants make their own food."

Day 9: Continue function of structures pt 2: leaves

- Review process of photosynthesis
- Show Magic School Bus episode: The Magic School Bus gets planted
 -  The ...

- Complete pg 3 of “Plants make their own food”


Day 10: Review how plants use sunlight to make their own food. Explain that I have planted bean seeds in three different containers - place one in the closet, one on the shelf away from the window, and one in the window. Leave for later.

Compare/contrast

- Review key plant structures: roots, stem, leaves
- Display picture of oak tree vs. daisy
- Explain venn diagram (using red/blue/purple as an example? Maybe with colored disc counters?)
- Pass out papers with daisy/oak picture on one side and venn diagram on the


other. Complete venn diagram as a class

Day 11: Do we eat all the parts of a plant?

- Read “Tops and Bottoms”
- Complete Tops and Bottoms sorting page
- Play “Dirt Made My Lunch”:
 -  The ...

Day 12: Do we eat all the parts of a plant?

Continued

- Begin with “Dirt Made My Lunch”:
 -  The ...
- Display worksheet “parts of a plant.” Discuss ideas for each section.
- Pass out bowls of food to each team - have them figure out what goes where and place it on their paper. Then they can eat them!
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Scope and Sequence

Grade: 1st

Month:

Content Area: Science

Sub Content/Unit: Space

| <i>What our students will know and be able to do</i> | <i>Learning Activities</i> | <i>Materials</i> | <i>Assessment tools</i> | <i>Notes</i> |
|--|---|---|--|---------------------|
| <ul style="list-style-type: none"> ● Know that the sun is a star ● Know that the moon is a satellite ● Know the phases of the moon and what they mean ● Know that our sun is the center of our solar system ● Know that we have 8 planets and what those planets are, in order ● Understand the difference between rock planets and gas giants | <p>Part 1: The Sun is a Star</p> <ul style="list-style-type: none"> ● <i>Core ideas:</i> <ul style="list-style-type: none"> ○ <i>The sun is a star</i> ○ <i>Day sky vs. night sky</i> ○ <i>Phases of the moon</i> <p>Lesson 1:</p> <ul style="list-style-type: none"> ● Show “Turn and Talk Card 1.” Let students discuss/share what they know about the sun. ● Read “The Sun” big book | <ul style="list-style-type: none"> ● Various TPT resources ● Oreos ● Popsicle sticks ● Paper plates ● Solar system models (one per 3-4 students - at least 7, plus 1 for the teacher to model) | <ul style="list-style-type: none"> ● Observation and assessment | |


- Show Storybots Sun song:
[Outer Spa...](#)
- Complete Interactive Notebook Day 1:
"I learned that . .
."

Lesson 2:

- Watch video about the sun:
[The Sun fo...](#)
- Show "Turn and Talk Card 2." Let students discuss/share facts they have learned about the sun.
- Complete Interactive Notebook pages 2-3
 - What we can see in the day sky
 - During the day I see

- If time, demonstrate how to trace a person's shadow outside for tomorrow's lesson


Lesson 3:

- Show "Turn and Talk Card 4." Let students discuss/share what they know about shadows.
- "What Makes a Shadow?" Read aloud:
 What Mak...
- Shadow experiment: outside in the morning, trace a partner's shadow and record how long it is
- That afternoon, do the same experiment. Compare and

discuss results.
Why are they
different?

Lesson 4:

- Review how to trace a shadow and write their name inside the shadow. Review how to heel/toe measure.
- Outside, partners trace each other's shadows.
- Complete Interactive Notebook pg 4: My Shadow
- If time, let student watch Peep and the Big Wide World, Shadow Play:

 Peep and t...

Part 2: The Moon
Lesson 1:

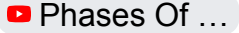
- Turn and Talk card 1: What do you know about the moon?
- Watch Storybots: “The Moon Song”:
[▶ Outer Spa...](#)
- Read Big Book about the moon
- Complete Interactive Notebook pg 1 about the moon: “Today I learned . . .”

Lesson 2:

- Turn and Talk card 2: What do you see in the night sky?
- Show Pixar Short “Day and Night”
- Day/Night/Both sorting activity - “At Night I See . . .”

- Pick sticks to sort
- Interactive Notebook pg. 2 about night: “At night I can see . . .”

Lesson 3:

- Watch Dr. Binocs “Phases of the Moon”:

- Demonstrate moon reflection with paper earth, moon, and flashlight sun. :)
- Complete Interactive Notebook pg 3: Phases of the moon

Lesson 4:

- Review Phases of the moon
- Every student gets 8 Oreos (budget for 10 in

case of
breakage)

- Together, practice twisting open cookies and scraping frosting to create moon phases
- When they are all in place, glue down. Students can eat the extras. :) TAKE HOME THAT DAY - ANTS!


Part 2: Our Solar System

- *Core ideas:*
 - *The sun is the center of our solar system*
 - *We have 8 planets (sorry, Pluto!) (know the 8 planets)*
 - *Our solar system is part of our galaxy, which is*

*called the
Milky Way*

- *Our planets
are divided
into two
groups:
rocky
planets and
gas giants*

Lesson 1:

- KWL: What is a solar system?
How many planets do you think are in our solar system?
(show me on your fingers)
What do you know about any of the other planets? What do you wonder about space?
- Read “The Planets in our Solar System”
- Show Storybots “Planets” song:
 Outer Spa...


Lesson 2: Learning the planets in our solar system

- Play the song “These are the planets in our solar system”:
[▶ The Planet...](#)
- Explain mnemonics
- Wiggle Break:
My Very
Excellent
Monkey Just
Served Unicorn
Noodles:
[▶ The Best T...](#)
- Color/assemble mnemonic planet book

Lesson 3:

- Play the song “These are the planets in our solar system”:
[▶ The Planet...](#)
- Wiggle Break:
My Very
Excellent
Monkey Just

Served Unicorn
Noodles:

 The Best T...


- Make mnemonic planet book

Lesson 4:

- Play the song
“These are the
planets in our
solar system”:

 The Planet...

- Wiggle Break:
My Very
Excellent
Monkey Just
Served Unicorn
Noodles:

 The Best T...

- Finish mnemonic planet book


Lesson 5:

- Play the song
“These are the
planets in our
solar system”:

 The Planet...

- Wiggle Break:
My Very
Excellent

Monkey Just
Served Unicorn
Noodles:


 The Best T...

- Color the pages
in the solar
system book

Lesson 6:

- Play the song
“These are the
planets in our
solar system”:

 The Planet...

- Wiggle Break:
My Very
Excellent
Monkey Just
Served Unicorn
Noodles:
 The Best T...
- Finish
coloring/cutting/a
ssembling solar
system books


Lesson 7:

- Play the song
“These are the
planets in our

solar system”:

 The Planet...


- Wiggle Break:
My Very
Excellent
Monkey Just
Served Unicorn
Noodles:

 The Best T...


- Groups work on
solar system
models

Lesson 8:

- Play the song
“These are the
planets in our
solar system”:

 The Planet...

- Wiggle Break:
My Very
Excellent
Monkey Just
Served Unicorn
Noodles:

 The Best T...

- Groups work on
solar system
models

Lesson 9:

- Introduce Planet Reports
- Students decide which planet they want to research - write down names so they can't switch. :)
- Students may use Planets classroom or class books to research.

Lesson 10:

- Continue working on Planet Reports

Lesson 11 - 13:

- Students share planet reports