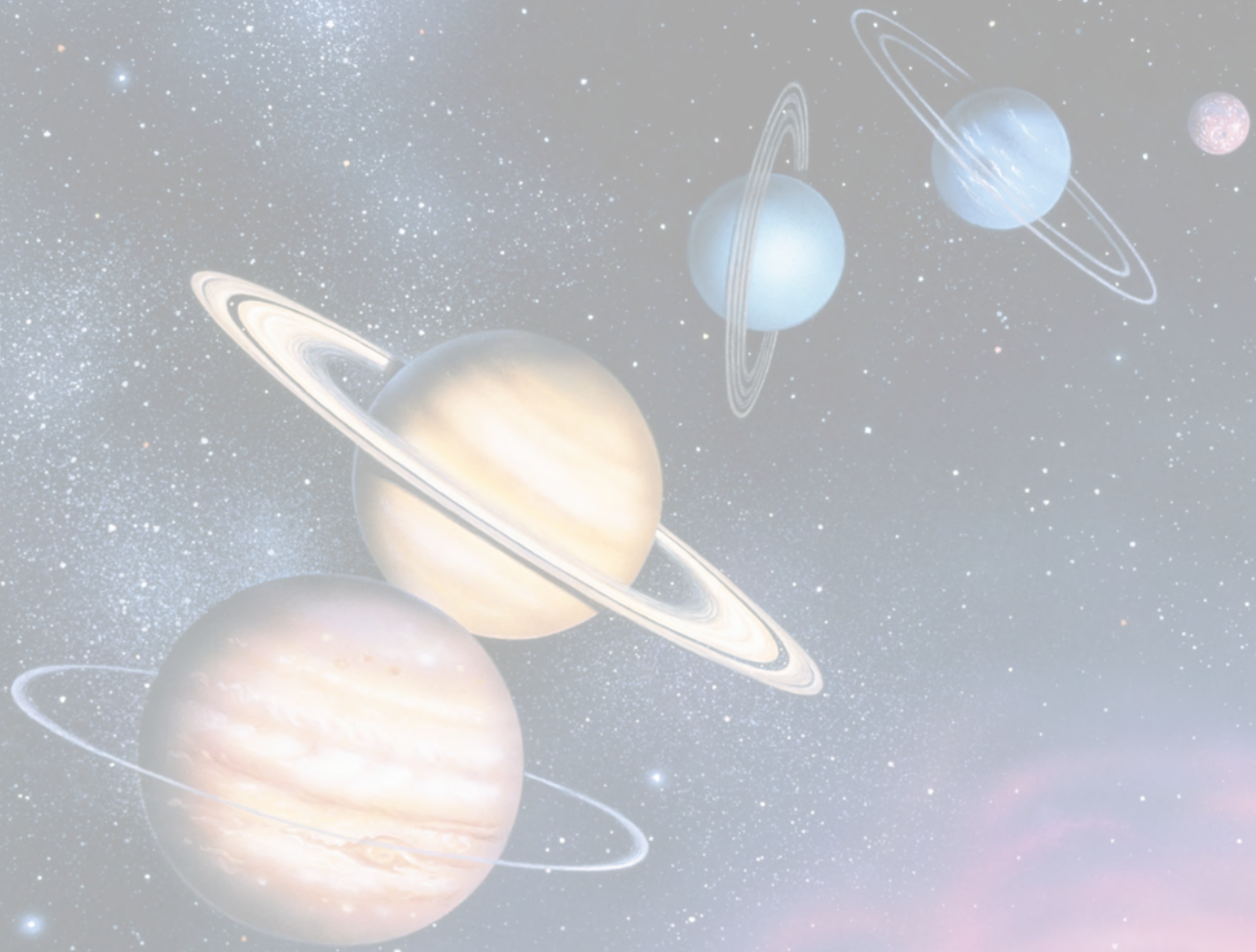


Making Montessori Mainstream



M3 by Multisori

EXPLORING OUR SOLAR SYSTEM
MONTESSORI UNIT STUDY



multisori®

primary

www.multisori.com

Recommended Supplies

M3 Solar System Unit Study:

What You'll Need to Use This Resource:

Items Needed for Every M3 Unit Study:

1. Laminator
2. Lamination sheets
3. Scissors
4. Straight edge cutting tool
5. Color printer
6. Color printer ink
7. Printer paper
8. Crayons
9. Markers
10. Pencils
11. Scotch tape
12. Stapler & staples

Optional Items:

1. Circular cutting tool
2. Cotton balls
3. Glitter Glue
4. Star Stickers
5. For 3-6 year olds:
safety scissors
6. Flashlight

Items Needed for This Unit Study:

1. Pushpins
2. Metal fasteners
3. Play-Doh (blue, green, white, orange and gray)
4. Multi-colored paint
5. Small paint brush
6. Construction paper
7. Glue or glue stick

[Click Here to Review
Optional Educational
Manipulatives & Tools
Available on Amazon](#)

**FIND SUPPLIES
ON AMAZON**



PREPARING THE ENVIRONMENT



Print/Remove

Print/remove only the materials that are developmentally appropriate for your student(s). Make multiple copies for subject areas in which your student(s) is/are in a sensitive period. Retain the electronic files for future use.



Laminate

Laminate only the materials that:

- will be repeatedly used,
- will only be functional if laminated (like puzzles), or
- you want to store for future use.



Organize

Gather printed materials, laminated materials, worksheets, books, mini-books, manipulatives and other educational products you gathered for the study. Separate these items into groups based on subject area.



Shelf

Set up shelves based on subject area. Use trays arranged on secure shelving that is accessible by your student(s) independently. Ensure that each tray contains all materials required to complete the activity on the tray (think about pencils, erasers, markers, glue, daubers, pom poms, dice, small objects, etc...) Prepare and shelf the trays in an orderly and tidy fashion.



Making Montessori Mainstream

The Fine Print

..... Do's & Don'ts

The term Multisori is trademarked. This, and all Multisori documentation not available in the public domain are copyrighted.

Please Do Not:

- Share this or any other Multisori documentation or information.
- Alter, edit or change the documentation or information in any way.
- Sell or loan the documentation or information in any way.
- Copy the documentation or information in any way.

Please Do:

- Join the Multisori Facebook group - it's free & provides ongoing support along with a worldwide, supportive tribe of like-minded homeschoolers.
- Tag your social media posts using our curriculum with #Multisori.

Feedback:

- If you are happy with your curriculum, please leave us a review on Google or on the Multisori website: www.multisori.com.
- If you have any questions at all, please do not hesitate to reach out to multisoriad1@gmail.com. Our team is standing by to assist you!



Customizing Your Unit Study

M3 Unit Studies are designed to fit a wide range of needs, for children ages 3, 4, 5, and 6. Children at these ages experience different sensitive periods and have varying interests. Use this guide to select activities from the unit study based on your students' current sensitive period(s) or other areas of interest. By doing so, you are able to "follow this child", and provide a customized learning experience.

Sensitive Periods

Grace & Courtesy:

- Write the Room: Planets
- Solar System Bingo
- Write the Room: Space Exploration

Language:

- Solar System Mini-Book
- Planets 3 Part Cards
- Solar System Counting
- Planet Sequencing
- Planets Handwriting & Sequencing Words
- Write the Room: Planets
- Earth's Moon Mini-Book
- Phases of the Moon 3 Part Cards
- Revolution, Rotation & Moon Phases
- Long Vowel Sound U, Phonogram oo
- Rocket Crafts
- Solar System Bingo
- Write the Room: Space Exploration
- My Favorite Planet Worksheet

Math:

- Solar System Counting
- Same vs. Different
- Planet Patterns
- Planet Sequencing
- Counting Puzzles
- Rocket Crafts
- Counting Puzzles

Movement:

- Solar System Dance Party
- Planets Cutting
- Create the Solar System
- Create Models of the Sun, Earth & Moon
- Make a Paper Rocket

Music:

- Solar System Dance Party

Spatial Relationships:

- Planetary Orbit Wheel
- Earth's Moon Mini-Book
- Make a Model of the Sun, Earth & Moon
- Make a Paper Rocket

Order:

- Planetary Orbit Wheel
- Solar System Mini-Book
- Solar System Dance Party
- Planet Patterns
- Planet Sequencing
- Phases of the Moon 3 Part Cards
- Create Models of the Sun, Earth & Moon
- Counting Puzzles
- Revolution, Rotation & Moon Phases
- Rocket Crafts
- Counting Puzzles

Refinement of Senses:

- Solar System Mini-Book
- Solar System Dance Party
- Planets 3 Part Cards
- Solar System Counting
- Same vs. Different
- Planet Patterns
- Planet Sequencing
- Write the Room: Planets
- Earth's Moon Mini-Book
- Phases of the Moon 3 Part Cards
- Create Models of the Sun, Earth & Moon
- Counting Puzzles
- Revolution, Rotation & Moon Phases
- Exploring Space Picture Book
- Rocket Crafts
- Make a Paper Rocket
- Solar System Bingo
- Write the Room: Space Exploration
- Counting Puzzles

Small Objects:

- Planets 3 Part Cards
- Planet Sequencing
- Phases of the Moon 3 Part Cards
- Make a Model of the Sun, Earth & Moon
- Counting Puzzles
- Rocket Crafts
- Make a Paper Rocket
- Solar System Bingo
- Counting Puzzles

Customizing Your Unit Study

M3 Unit Studies are designed to fit a wide range of needs, for children ages 3, 4, 5, and 6. Children at these ages experience different sensitive periods and have varying interests. Use this guide to select activities from the unit study based on your students' current sensitive period(s) or other areas of interest. By doing so, you are able to "follow this child", and provide a customized learning experience.

Other Areas

Art:

- Create the Solar System
- Create Models of the Sun, Earth & Moon
- Rocket Crafts
- Make a Paper Rocket
- My Favorite Planet Worksheet

Kinesthetic Learning:

- Solar System Dance Party
- Create the Solar System
- Write the Room: Planets
- Create Models of the Sun, Earth & Moon
- Solar System Bingo

Science:

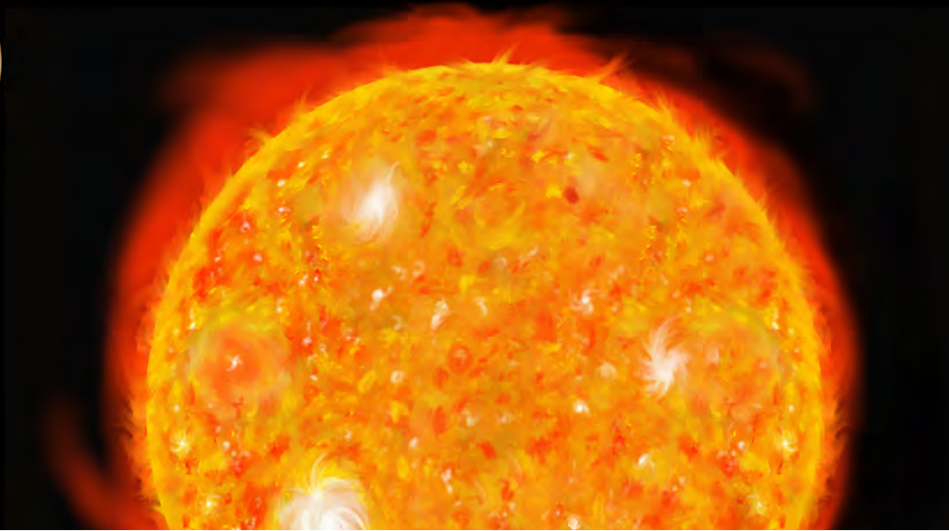
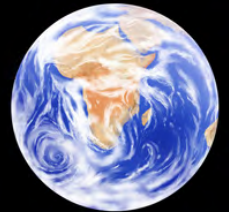
- Solar System Mini-Book
- Planetary Orbit Wheel
- Planets 3 Part Cards
- Write the Room: Planets
- Earth's Moon Mini-Book
- Phases of the Moon 3 Part Cards
- Exploring Space Picture Book
- Write the Room: Space Exploration

Practical Life:

- Planets Cutting



multisori®
MONTESSORI INSPIRED LEARNING



Solar System Unit Study

PART 1

The Planets

POSTERS

Ages 3-6

The Solar System, Our Solar System: Fun Facts for Kids & Planet Posters



Supplies Needed:

1. Our Solar System Photo Poster (attached)
2. Our Solar System: Fun Facts for Kids Poster (attached)
3. Planet Posters (attached)
4. Color Printer
5. Laminator
6. Lamination Sheets
7. Tape

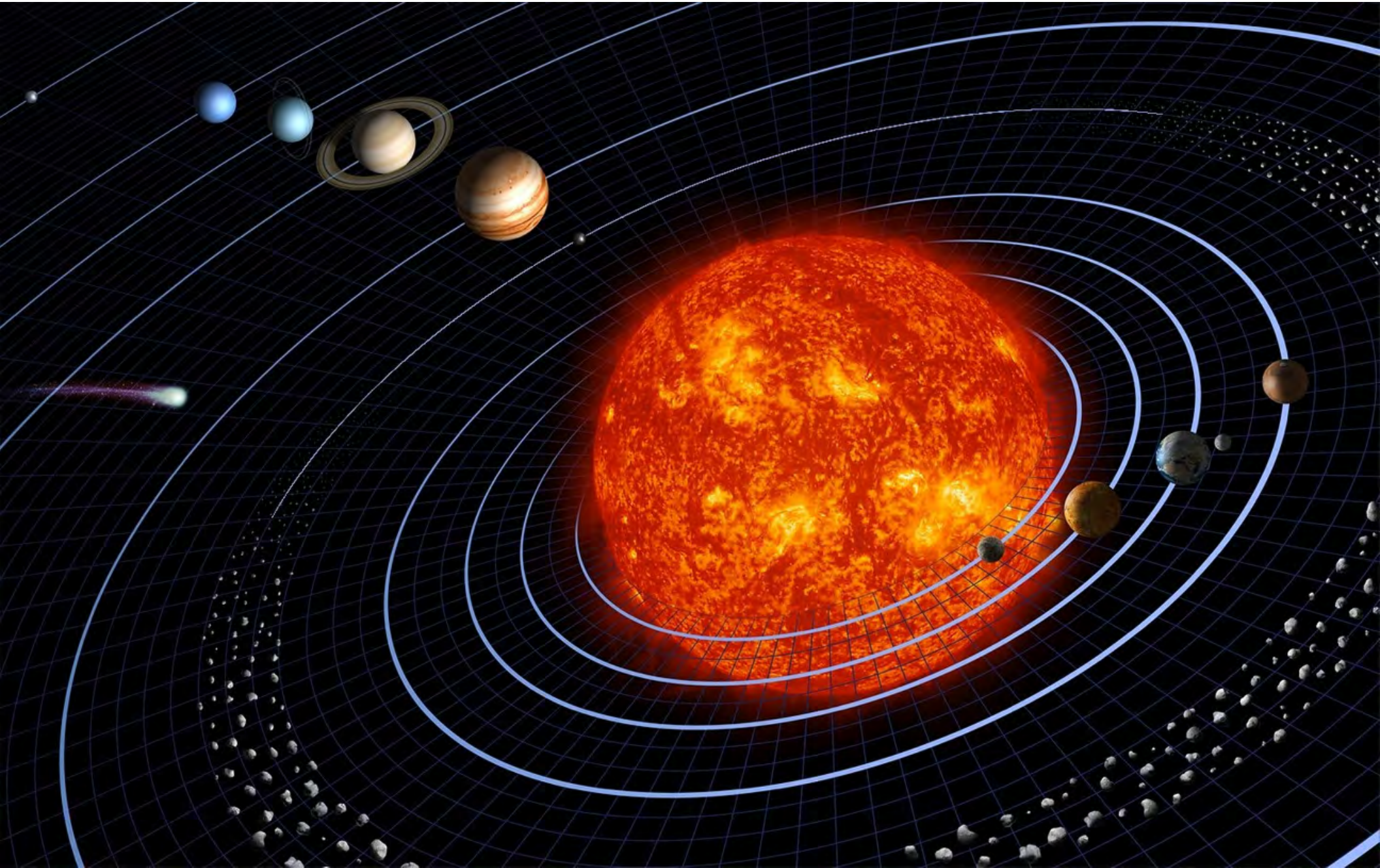
What To Do:

As you are preparing your learning environment for this unit study, print all of the posters, including the "Our Solar System" poster, "Our Solar System: Fun Facts for Kids" poster & "Planet" posters. Do not trim. Simply laminate and hang at your students' eye level. They will refer often to these fun, visually stimulating materials throughout the course of the unit study. These posters also serve as enticing invitations to learn.

Preparing the Environment



multisori® The Solar System



OUR SOLAR SYSTEM

FUN FACTS FOR KIDS



multisori®



Our solar system has one sun and eight planets. Earth is the third planet from the sun.



When the moon is furthest from the Earth, all of the planets in our solar system can fit between the Earth and moon (384,400 Km).



Saturn has the record for the most moons in our solar system. It has 150 moons and moonlets. Moonlets are small moons.



The Sun's gravity is what keeps all of the planets in our solar system orbiting or revolving around it. Without the sun's gravity, we would float around aimlessly.

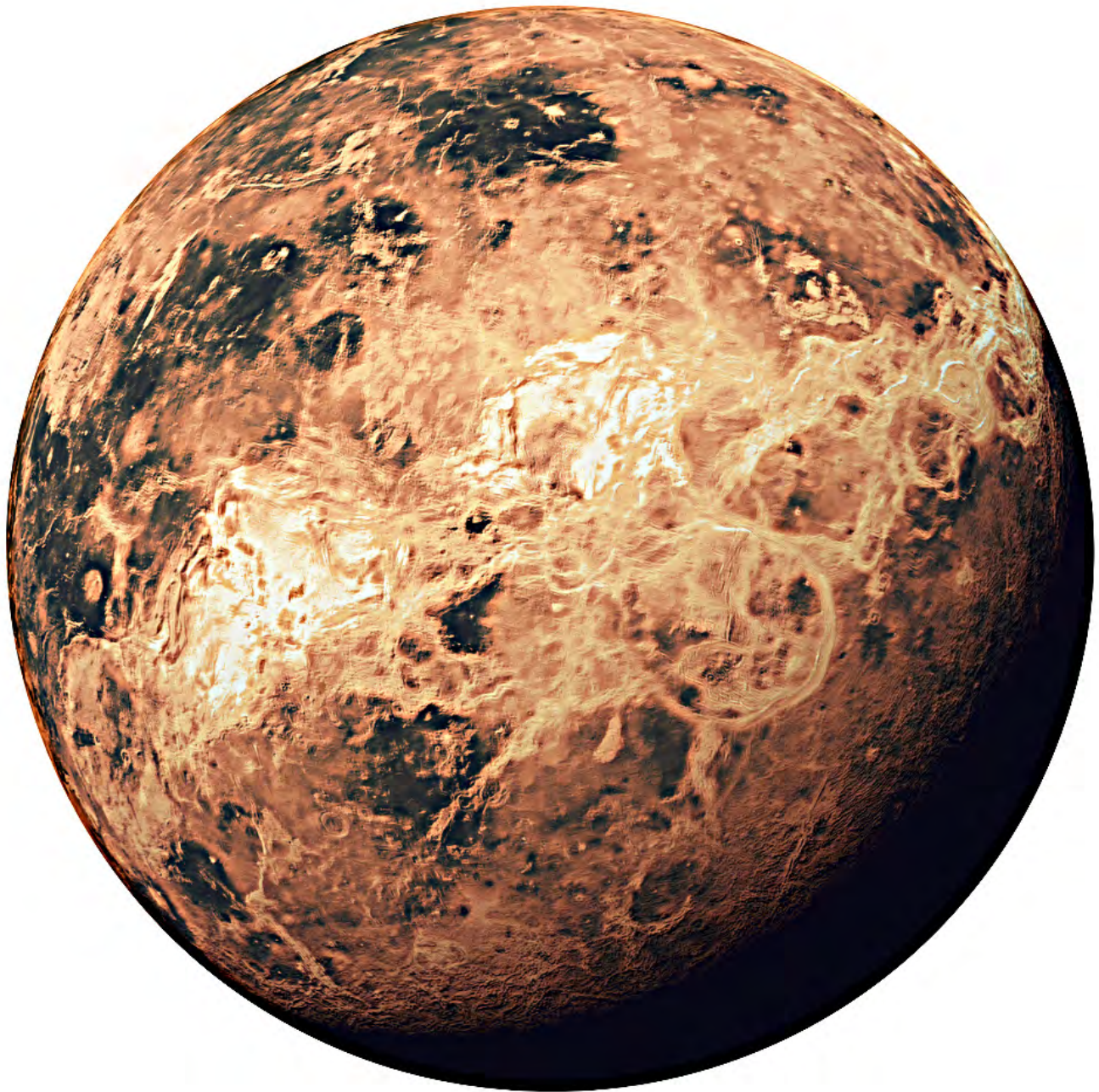


Our solar system lives in a galaxy called The Milky Way. The Milky Way contains hundreds of millions of galaxies just like ours!

Mercury



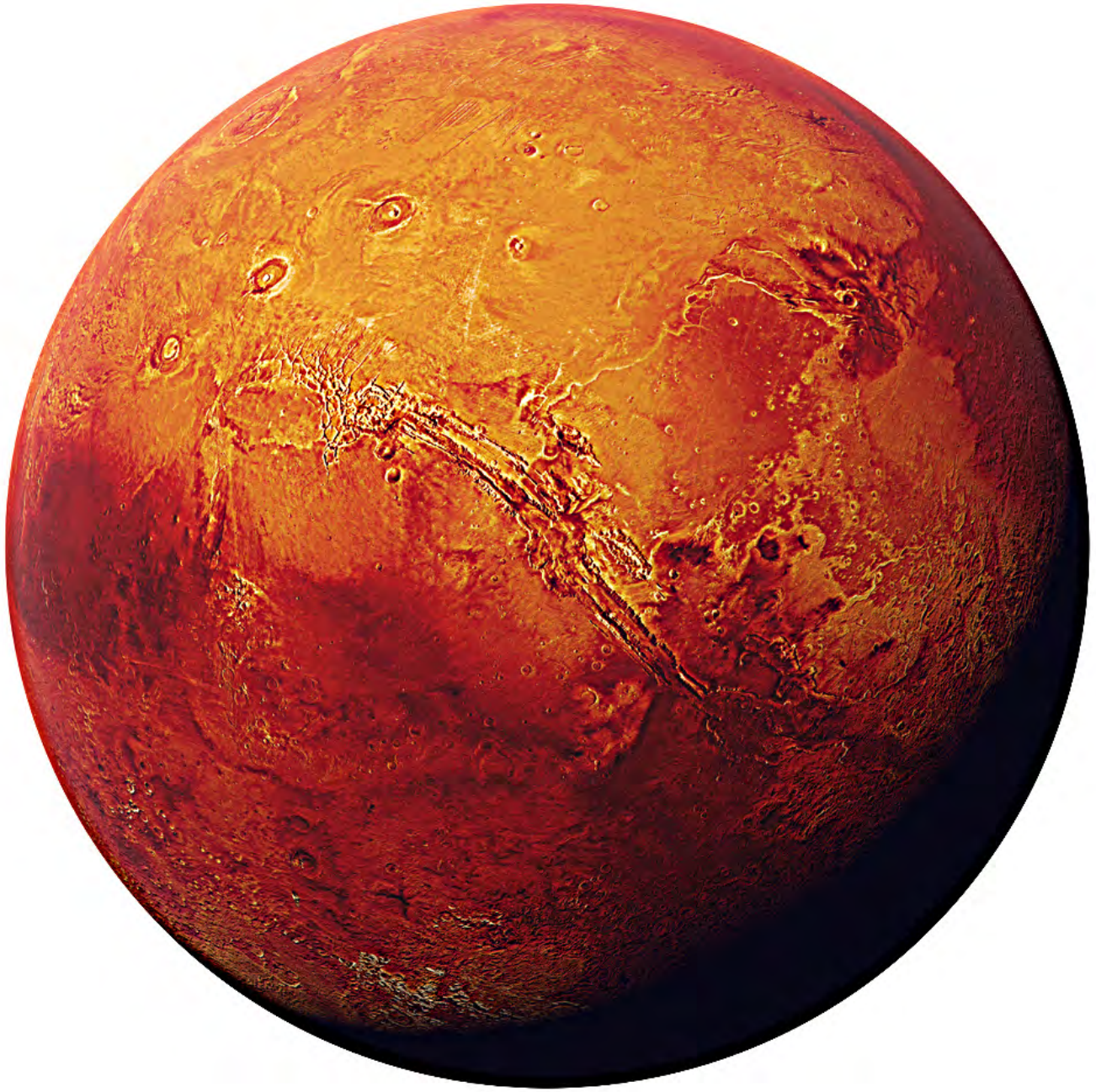
Venus



Earth



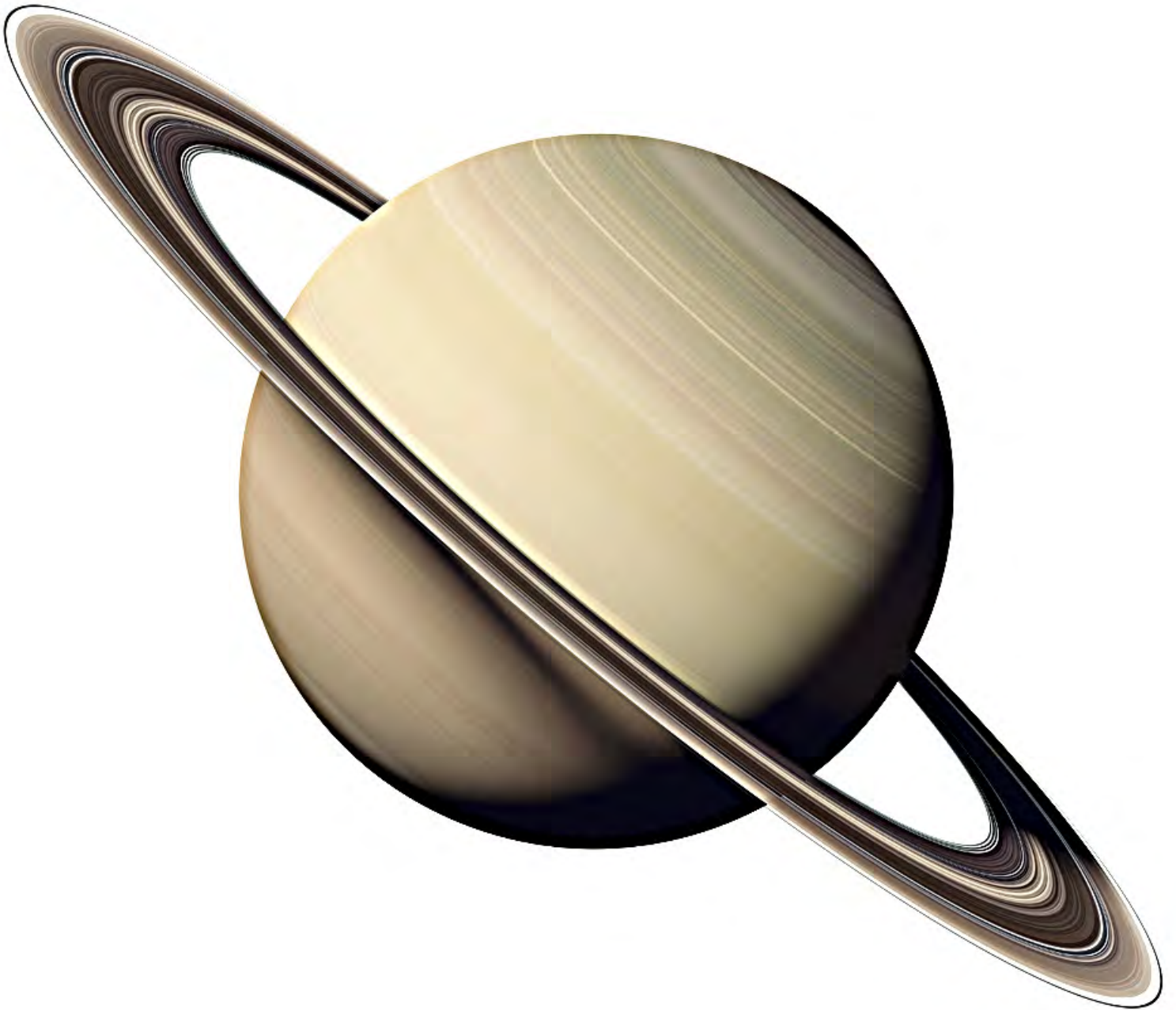
Mars



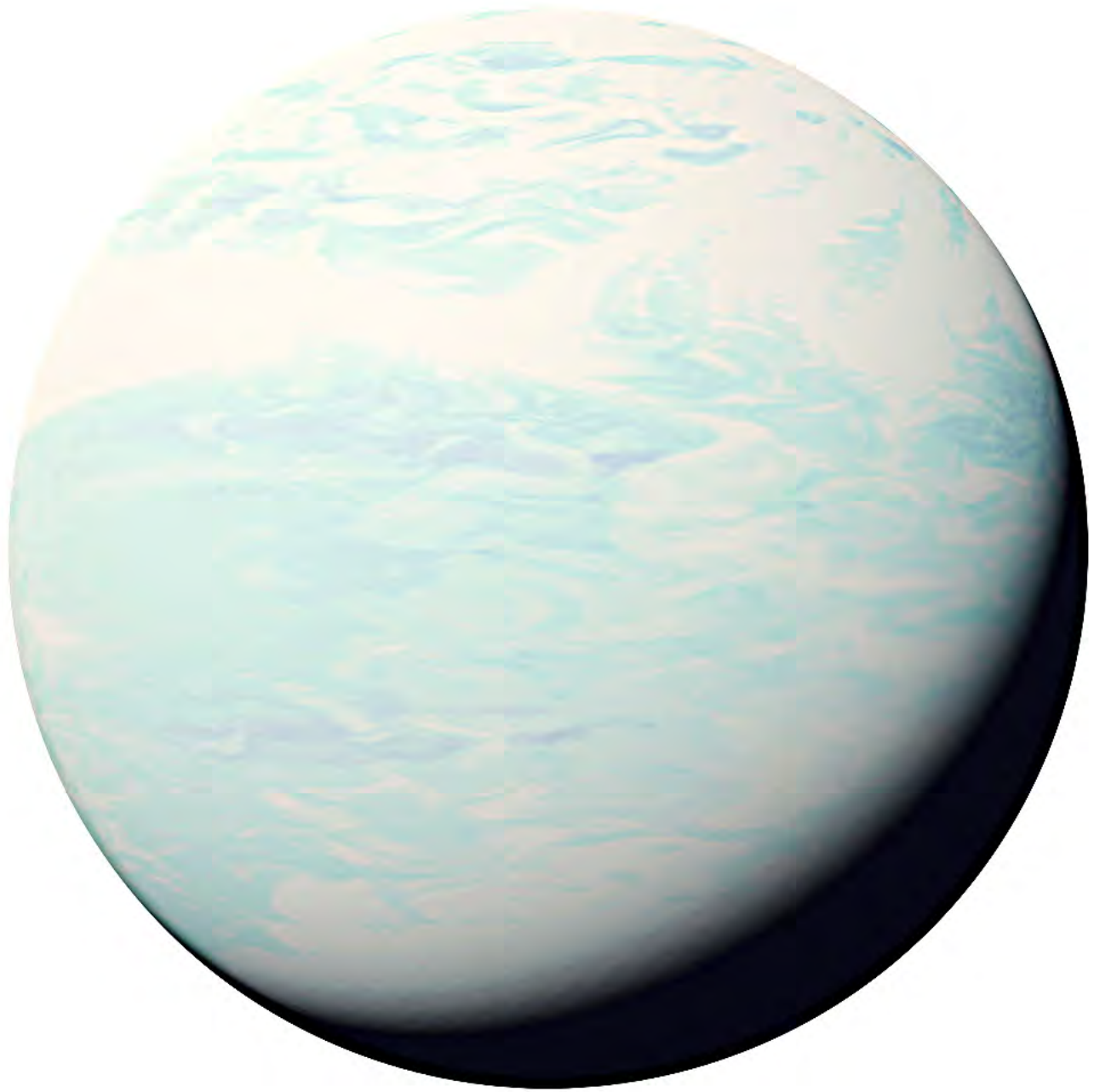
Jupiter



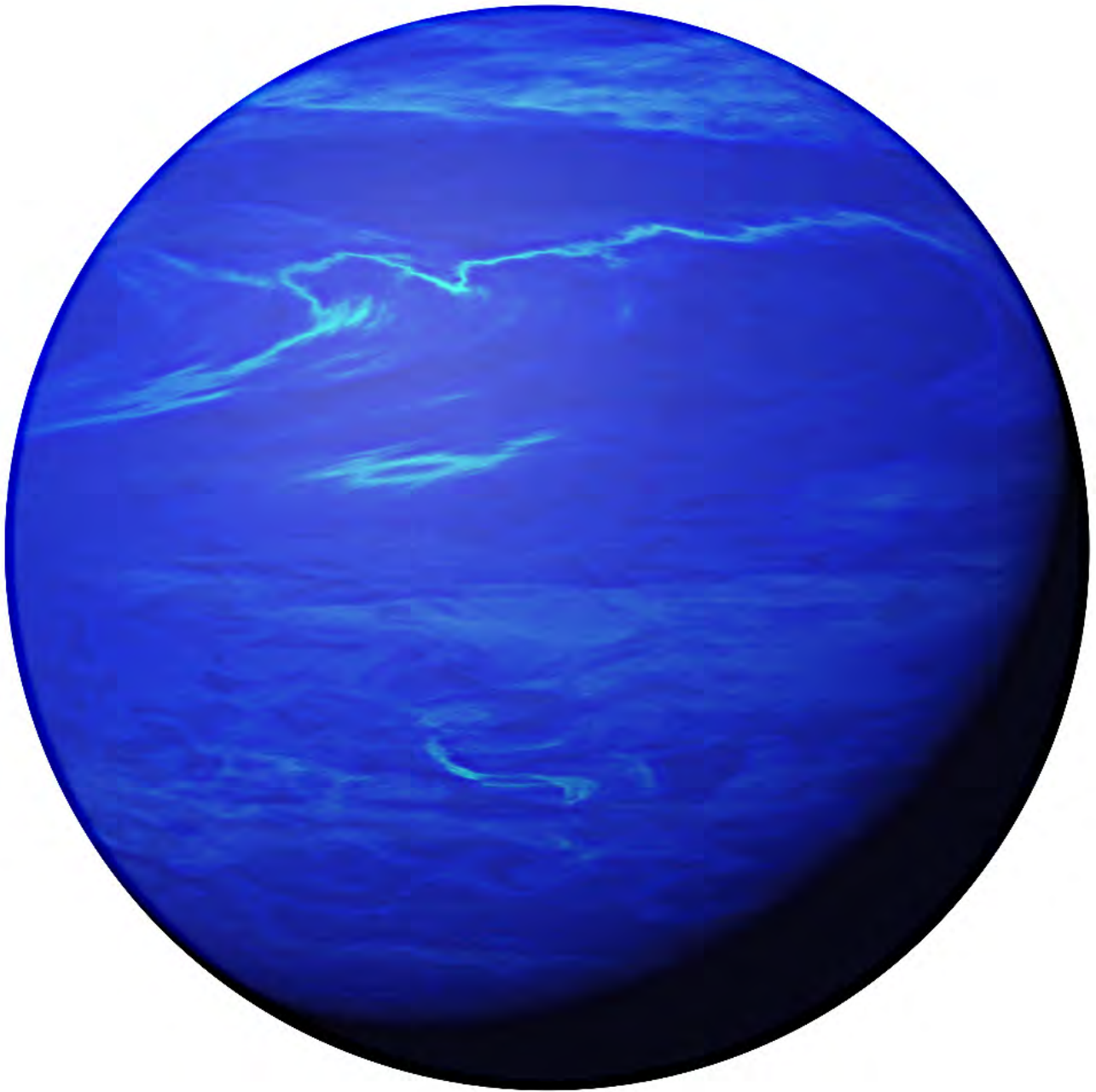
Saturn



Uranus



Neptune



Our Solar System Mini-Book



Supplies Needed:

1. Our Solar System Mini-Book (attached)
2. Color Printer
3. Laminator
4. Lamination Sheets
5. Scissors or Straight Edge Cutting Tool
6. Stapler or Other Binding Tool

What To Do:

Print, laminate & trim the mini-book along the light gray lines at the center of each full page. Please note: each 8.5 x 11 inch page that you print will create two pages of the mini-book when complete.

I recommend starting off your unit study by reading this mini-book. It sets the stage for the rest of the activities and serves as a resource for referring back to throughout the unit study.

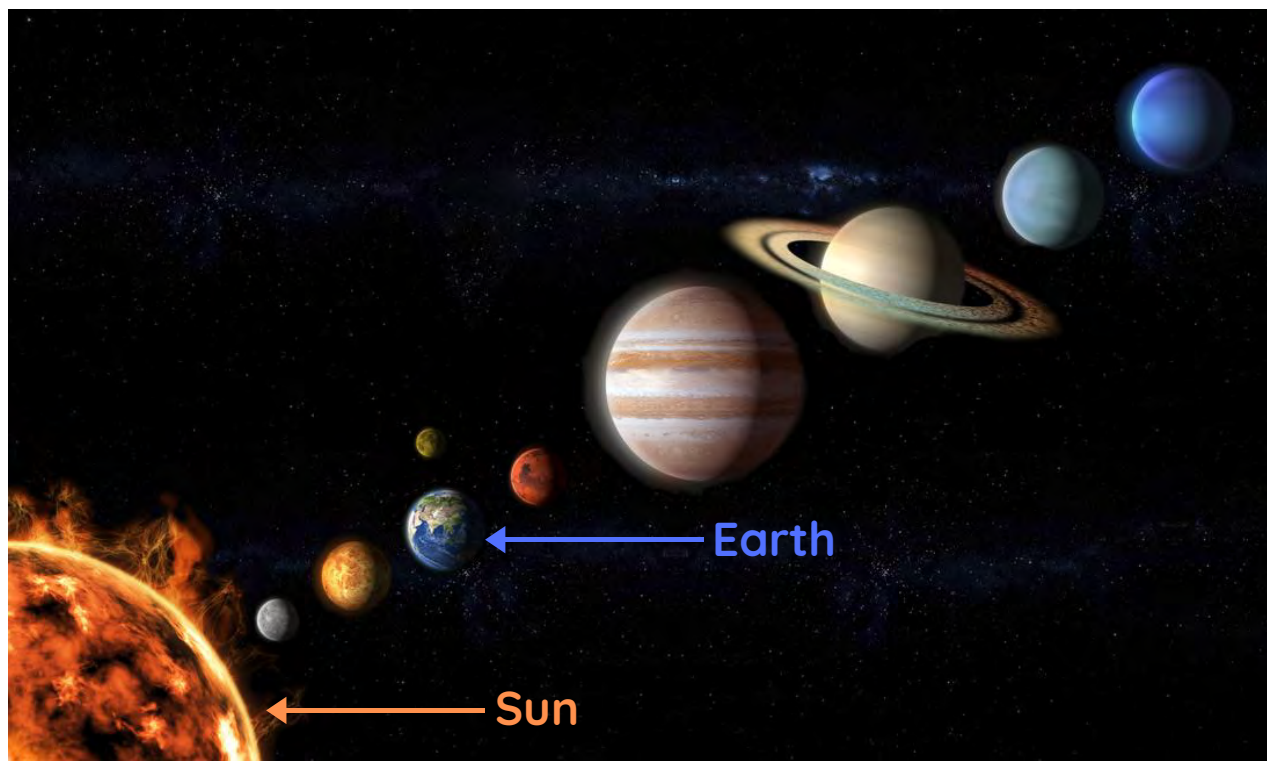
Language, Order, Refinement of Senses:
Visual Discrimination, Vocabulary, & Critical Thinking



Our Solar System

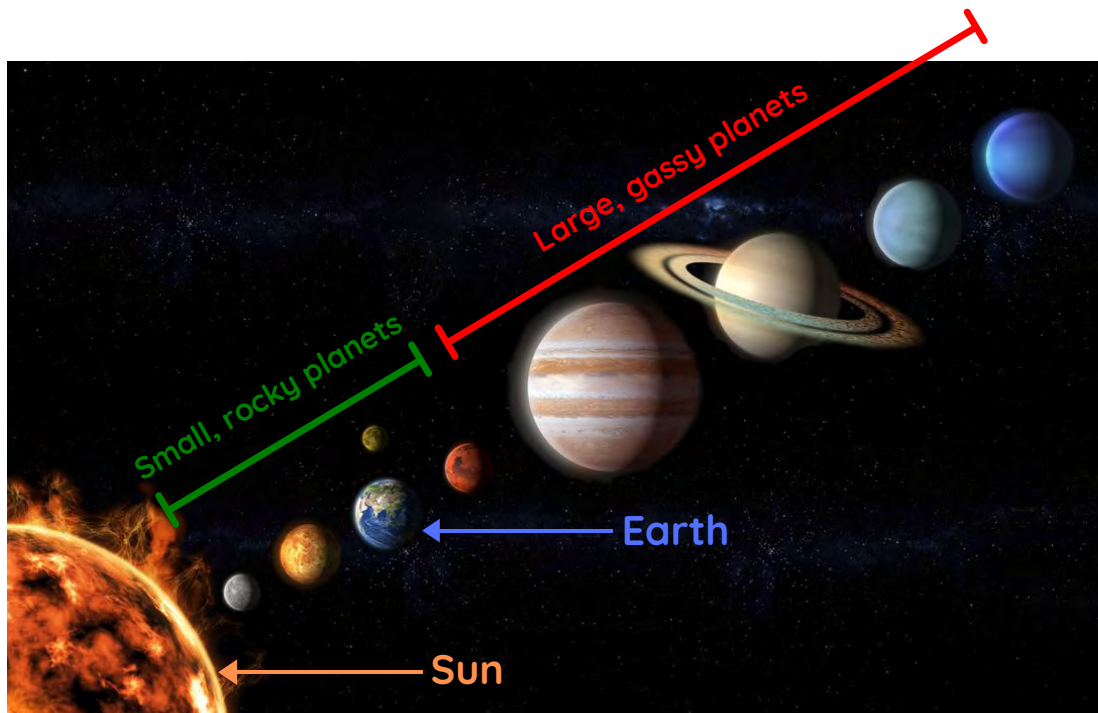
Why Multisori provides this material:

Children are born scientists. They enjoy seeing how things work (observing), guessing what will happen if... (predicting), testing out their hypotheses (experimenting) and figuring out why things occur (interpreting). Young children learn best when they are able to be involved - and the more senses the better! That's why Multisori provides this book to supplement your study of the Solar System - to give your students a wide variety of sensorial ways to learn. This process helps children build self-confidence and critical thinking skills.



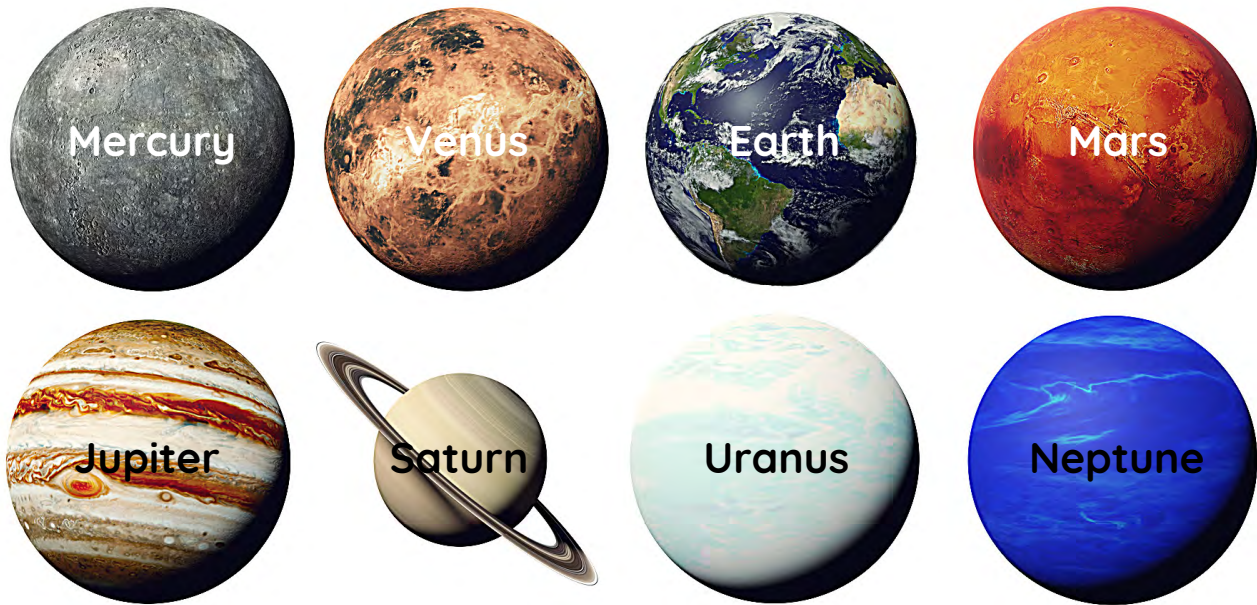
Did you know that Earth is just one of 8 **planets** in our Solar System? It's true! We have 7 neighboring planets, all of which orbit around our home star, the **Sun**.

1



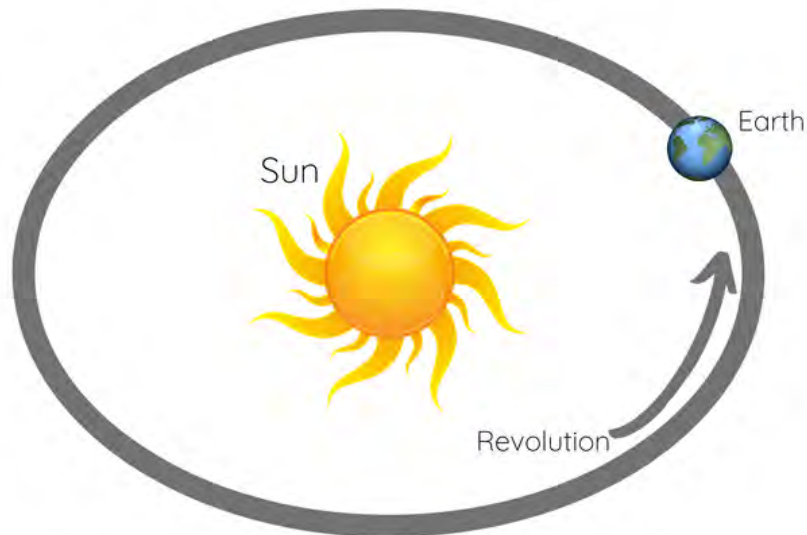
Our solar system's planets are amazing! The planets closest to the sun are small and rocky, while the planets farthest from the sun are big and gassy. Scientists discover new things about our neighboring planets all the time.

2



3

The eight planets are **Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune**. The first four - Mercury, Venus, Earth and Mars - are small, rocky and closest to the sun. The last four - Jupiter, Saturn, Uranus and Neptune - are large, gassy and farthest from the Sun.



4

All of the planets in our solar system **revolve** around the sun in a unique path called an **orbit**. It takes 365 days, or one year, for Earth to revolve around the sun. Each planet takes a different amount of time to revolve around the sun one time. This means that a year on another planet might be shorter or longer than here on Earth. The Sun's gravity is what keeps all of the planets in our solar system orbiting or revolving around it. Without the sun's gravity, we would float around aimlessly.



5

Earth has seasons because our planet is not positioned in a straight up and down fashion. Instead, is tilted along an imaginary line called it's **axis**.



6

This tilting of the Earth means that different parts of the earth are closer or further from the sun at different times of the year. As parts of the Earth move closer to the sun, they become warmer. As parts of the Earth move farther from the sun, they become colder. The four seasons are winter, spring, summer and fall.



MUSIC

Ages 1-6

Solar System Dance Party



Supplies Needed:

1. Computer
2. Speakers
3. Space to dance
4. Flashlights (Optional if you want to have a glow in the dark party)

What To Do:

Throughout the unit study, sing, laugh, and dance to one or more of these songs, each of which is a link to YouTube. If you have maracas, drums, rhythm sticks or other musical instruments, have them out and model their use.

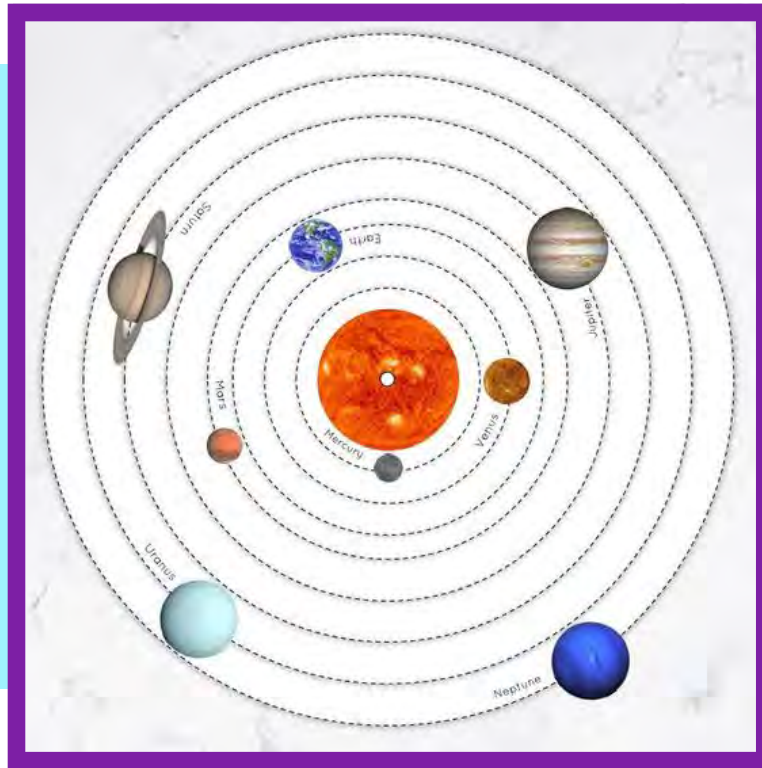
- **StoryBots Outer Space**
- **Mother Goose Club Cartoons: Eight Planets and More**
- **Kids TV: Planet Song**
- **Little Angel: Solar System**
- **Kids Learning Tube: Planet Song for Song/Solar System Song**
- **Guitar Bob: The Planets Song**
- **Patty Shukla Kids TV: Solar System Song**

Music, Movement, Order, Refinement of Senses:
Gross Motor Skills, Kinesthetic Learning, Rhythm, & Creativity

SCIENCE

Ages 4-6

Planetary Orbit Wheel



Supplies Needed:

1. Planetary Orbit Wheel, printed on cardstock or laminated and trimmed (attached)
2. Pushpin
3. Metal Fastener

What To Do:

NOTE: Please read the **Solar System mini book & fun facts 1st!**

Preparation: Cut between the gray and black dotted lines, removing the gray line and reserving the black dotted orbit line. You will end up with 8 wheels (one for each planet). Use a pushpin to punch a hole in the center of each wheel. Layer the wheels (largest on the bottom and smallest on the top) and attach with the metal fastener.

Presentation: This is a REALLY fun tool to present to a student for whom you would like to cultivate concentration and focus. The novelty of the manipulative combined with the fun of spinning will extend any of the lessons you work with this week. It's a great compliment to any week 1 activity: you can count the planets, discuss their relative sizes, discuss their distance from the sun, planetary characteristics and on and on. Enjoy!

Order, Spatial Relationships:
Sequencing, Vocabulary, Science

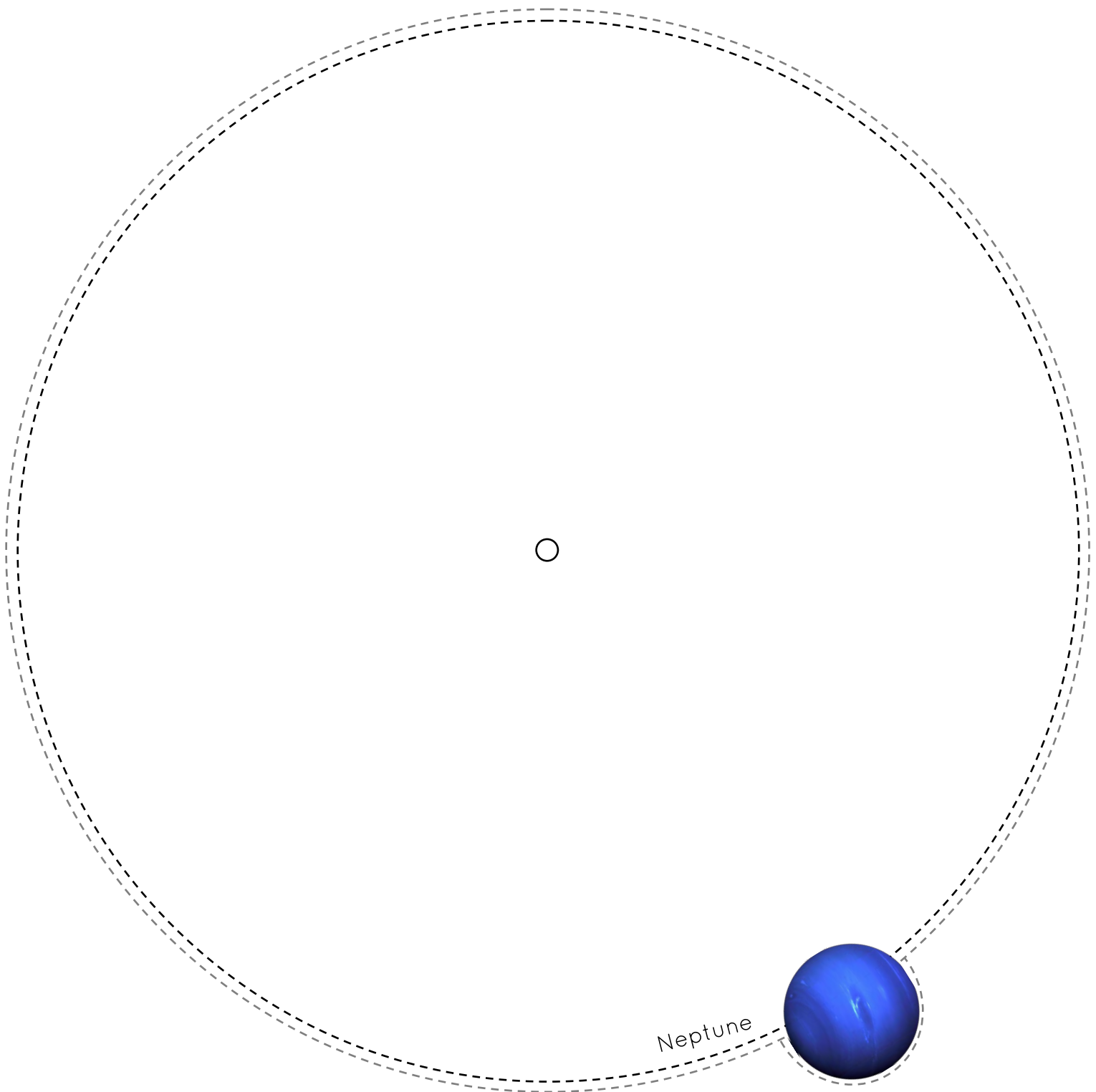
PLANETARY ORBIT WHEEL

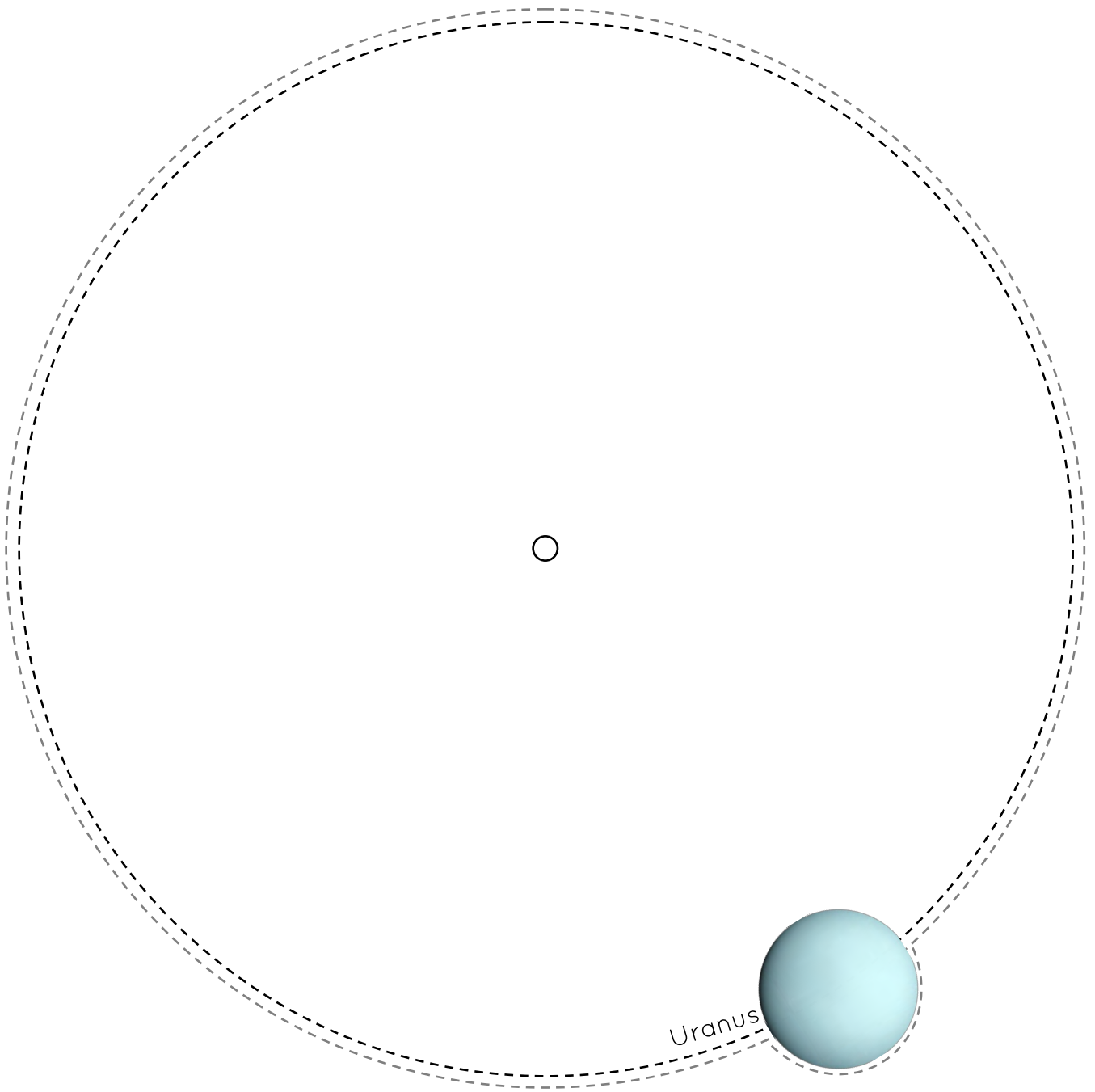
Preparation

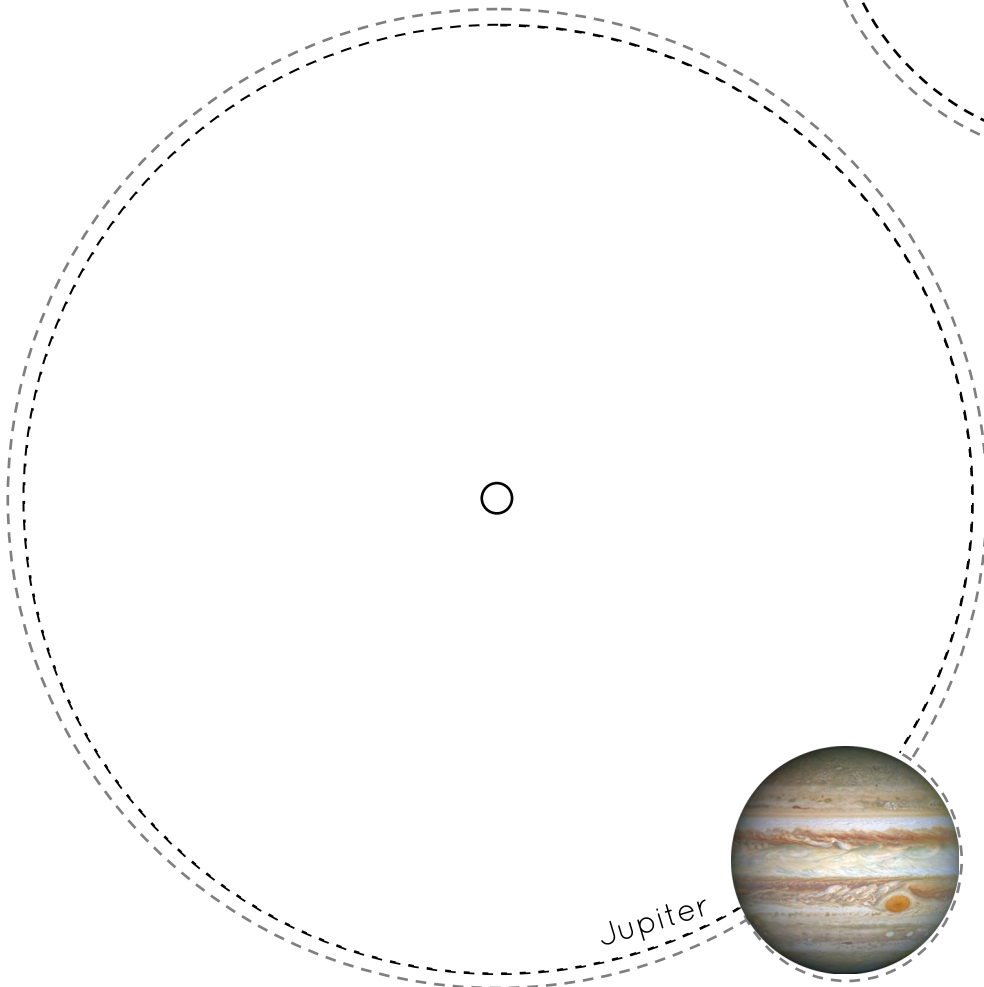
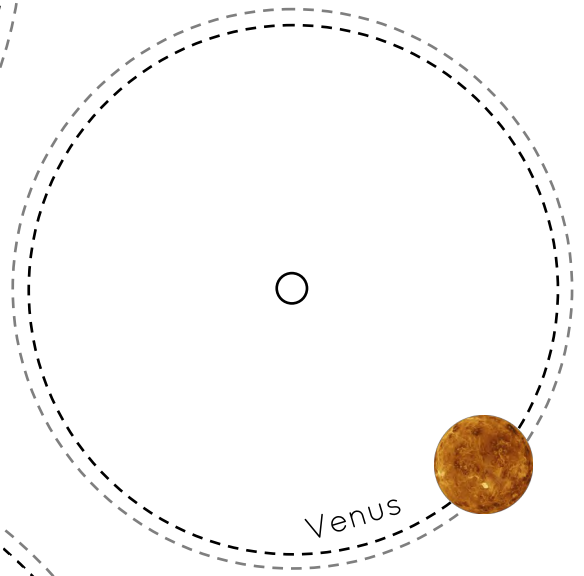
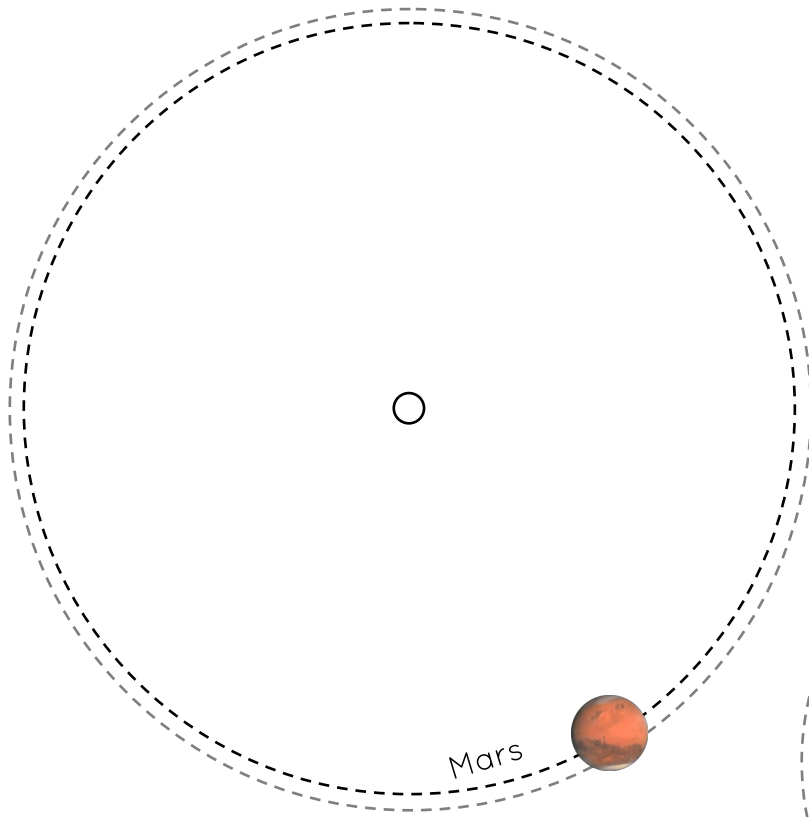
For best results, print on bright white cardstock (65lb or more).

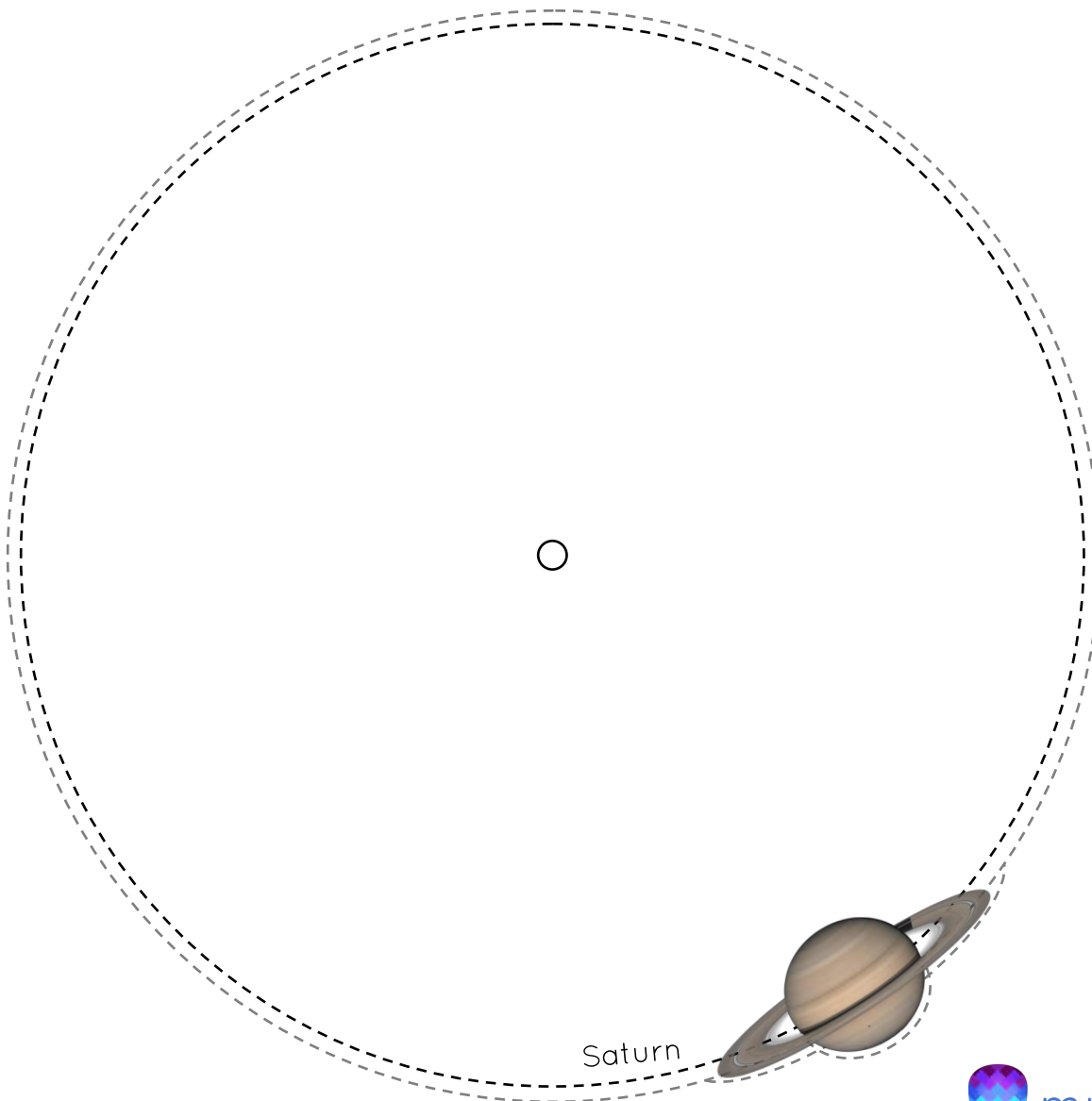
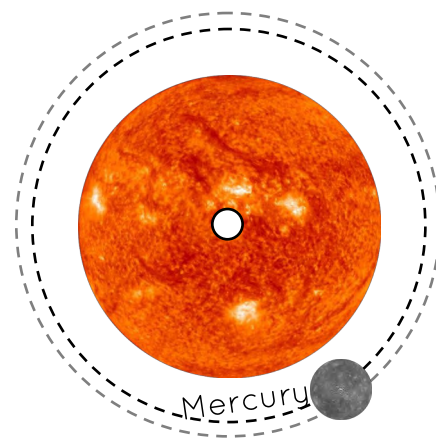
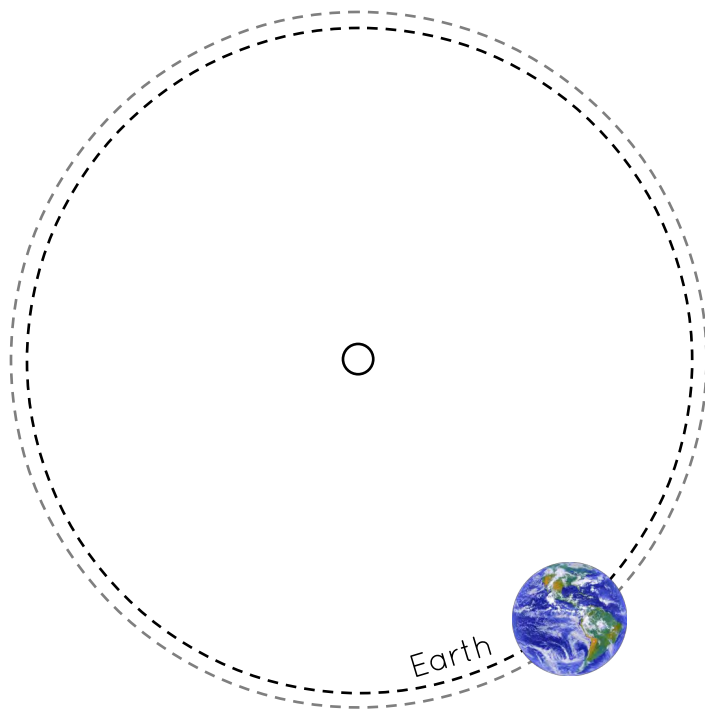
Cut between the grey and black dotted lines, removing the grey line and reserving the black dotted orbit line. You will end up with 8 wheels.

Use a pushpin to punch the hole in the center of each wheel. Layer the wheels (largest on the bottom and smallest on the top) and attach with metal fastener.









SCIENCE

Ages 3-6

Planets of the Solar System 3 Part Cards



control card



image card



label

Supplies Needed:

1. Planets of the Solar System 3 Part Cards, printed, laminated and trimmed (attached)

Note: You will end up with a set of control cards, image cards & label cards.

What To Do:

NOTE: Please read the Solar System mini book & fun facts first!

1. Begin with just a few cards. Place the control cards at the top of the workspace one at a time while reading the name of the planet. Continue for each card you have selected.
2. Next, present the image cards one at a time, saying the name of the planet while placing the image card beside the corresponding control card.
3. Finally, you can present the label cards, one at a time, by simply reading the label, and then matching to the corresponding image card. Place the label beneath the image card. Your student(s) is now ready to work independently!

Small Objects, Language, Refinement of Senses:
Visual Discrimination, Science, Vocabulary

PLANETS OF THE SOLAR SYSTEM 3-PART CARDS



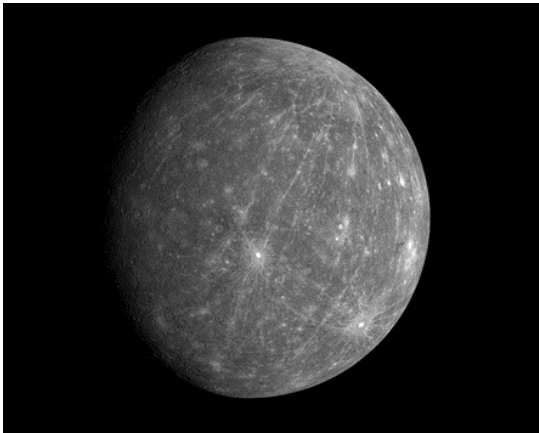
Earth



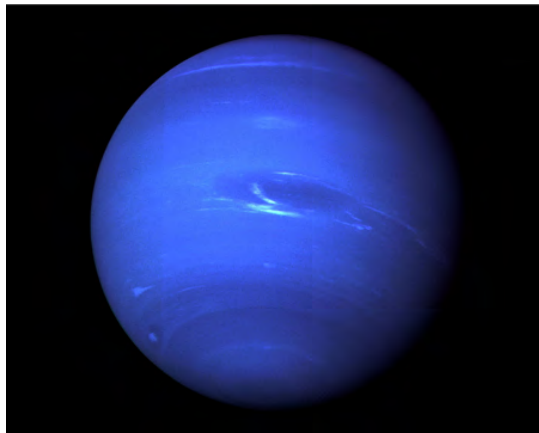
Jupiter



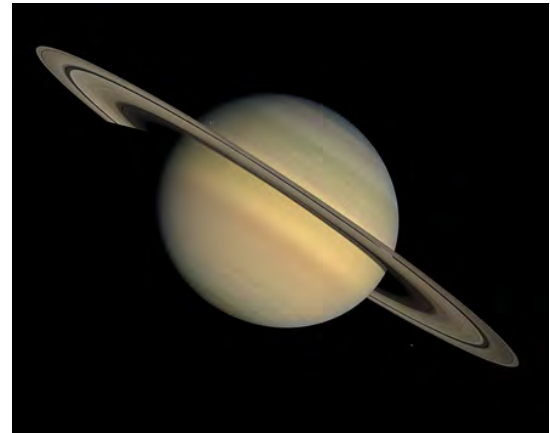
Mars



Mercury

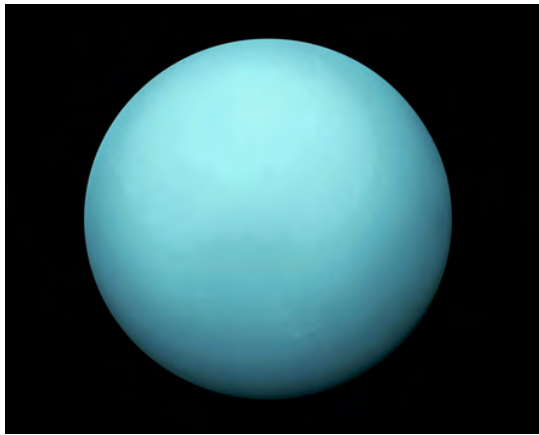


Neptune



Saturn

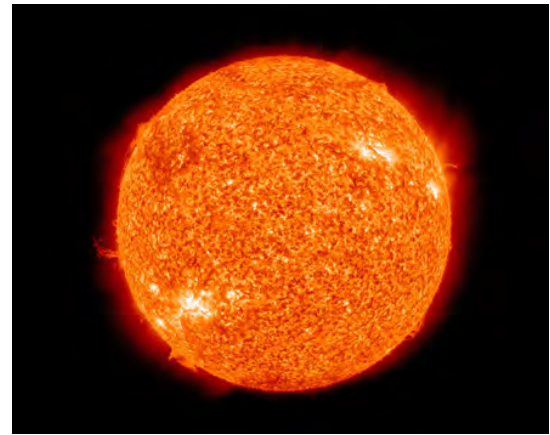
PLANETS OF THE SOLAR SYSTEM 3-PART CARDS



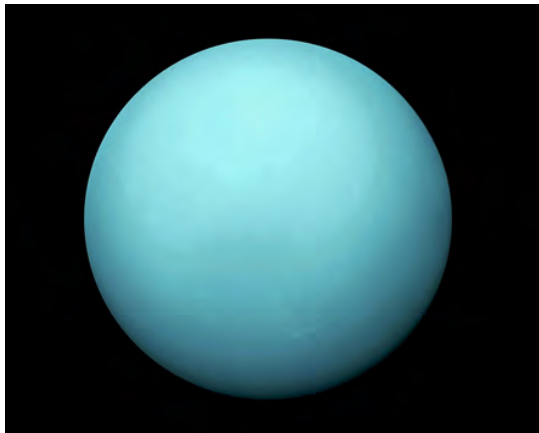
Uranus



Venus



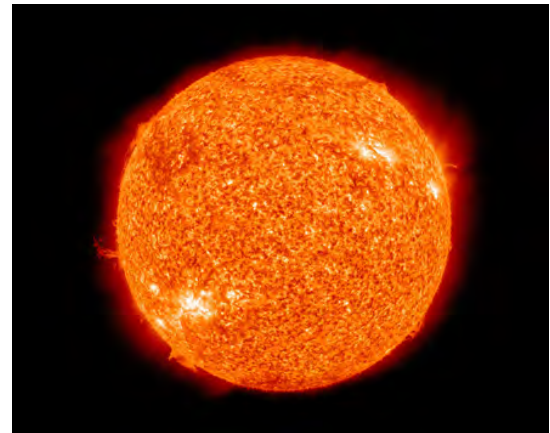
Sun



Uranus



Venus

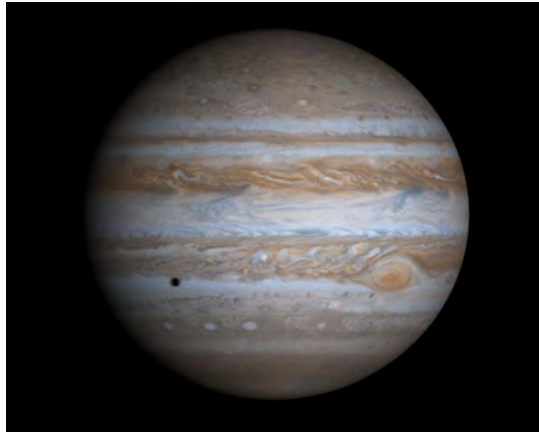


Sun

PLANETS OF THE SOLAR SYSTEM 3-PART CARDS



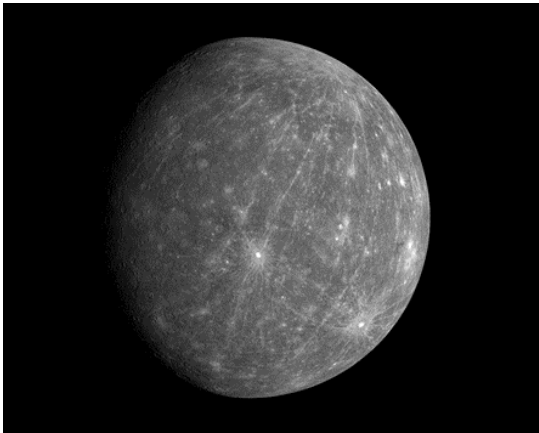
Earth



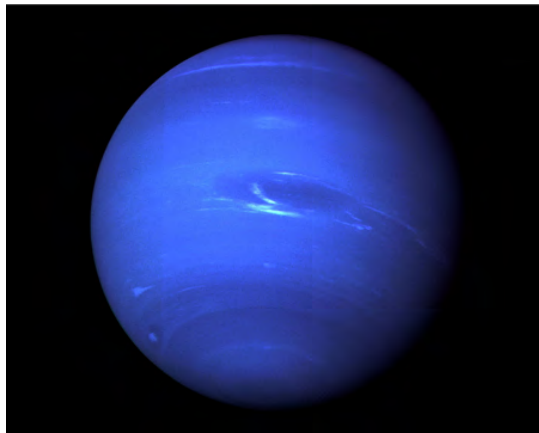
Jupiter



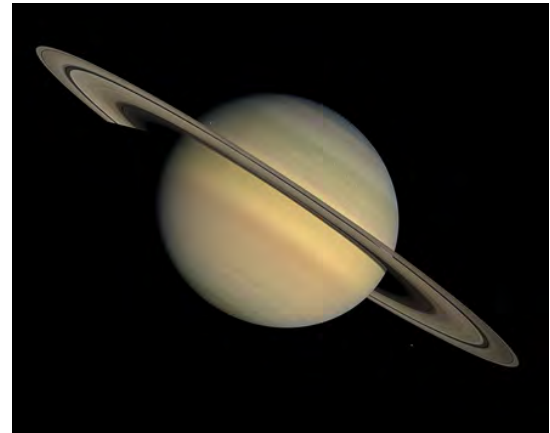
Mars



Mercury



Neptune

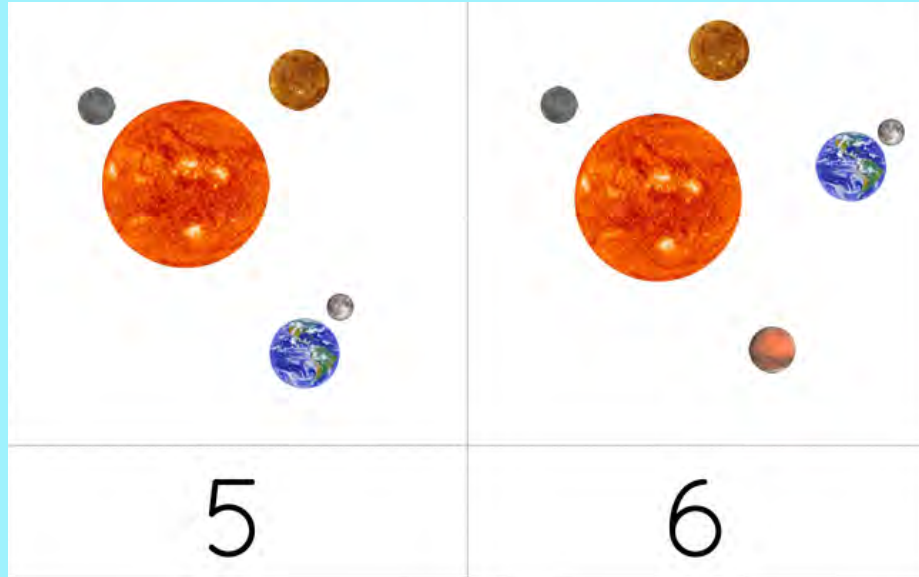


Saturn

MATH

Ages 2-6

Solar System Counting 3 Part Cards



Supplies Needed:

1. Solar System Counting Planets 3 Part Cards, printed, laminated and trimmed (attached)

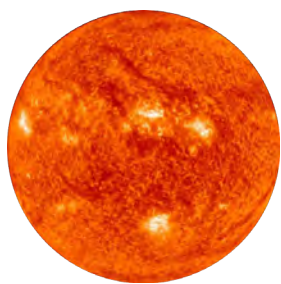
Note: You will end up with a set of control cards, image cards & label cards.

What To Do:

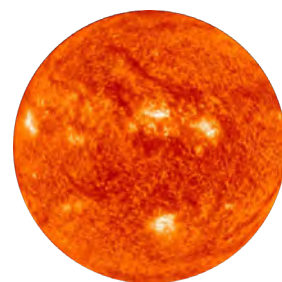
Presentation

1. Begin with just a few cards (1-5). Place the control cards at the top of the workspace in numerical order. Slowly, count the objects out loud while touching each object, then point to the number below. Read the number out loud so that the student(s) begin to recognize the numbers associated with each quantity. Continue for each card you have selected.
2. Next, present the image cards one at a time. The cards need not be presented in numerical order. As you reveal the selected card, again, use your finger to slowly count the objects out loud. Then, place the image card beside the corresponding control card.
3. Finally, you can present the label cards, one at a time by simply reading the label, and then matching to the corresponding image card. Place the label beneath the image card. Your student(s) is now ready to work independently!

Refinement of Senses, Math, Language:
Counting 1-10, Vocabulary



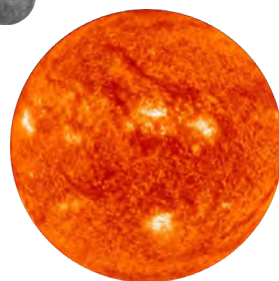
1



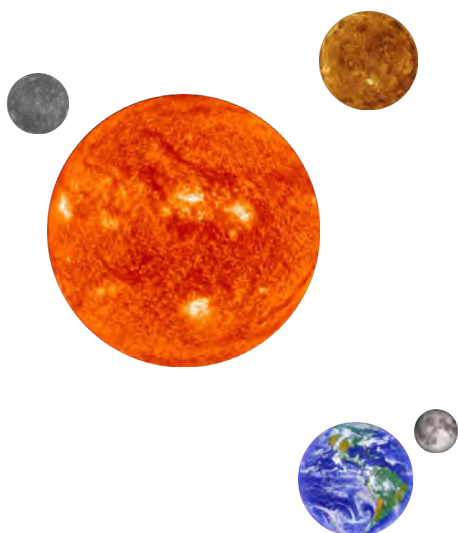
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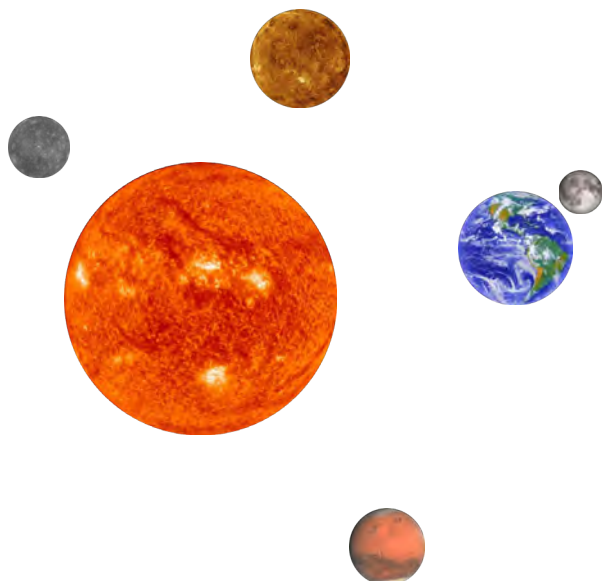
3



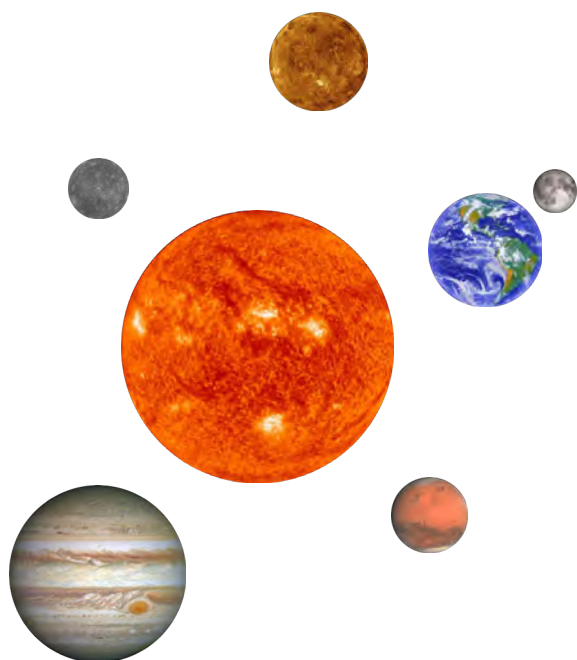
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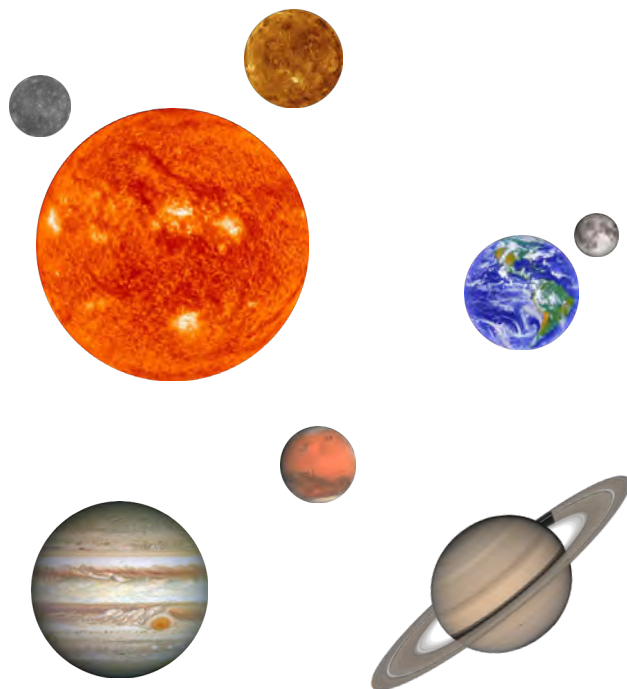
5



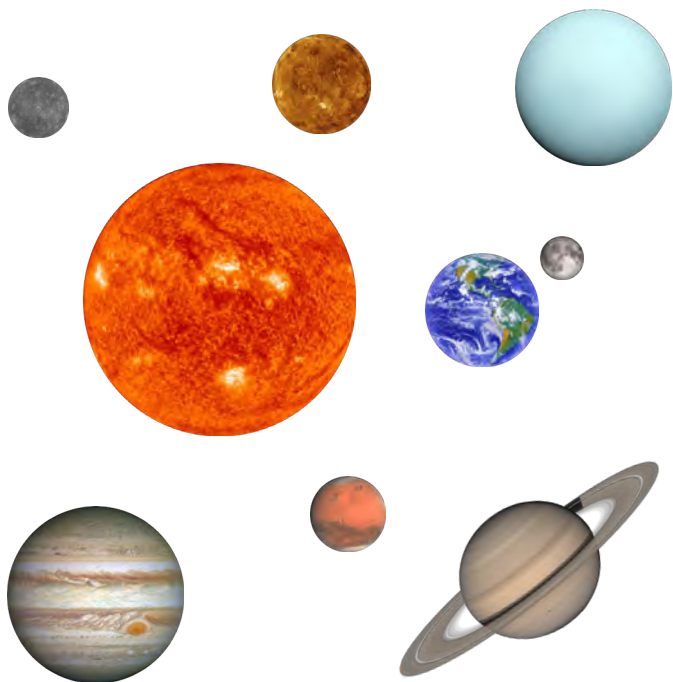
6



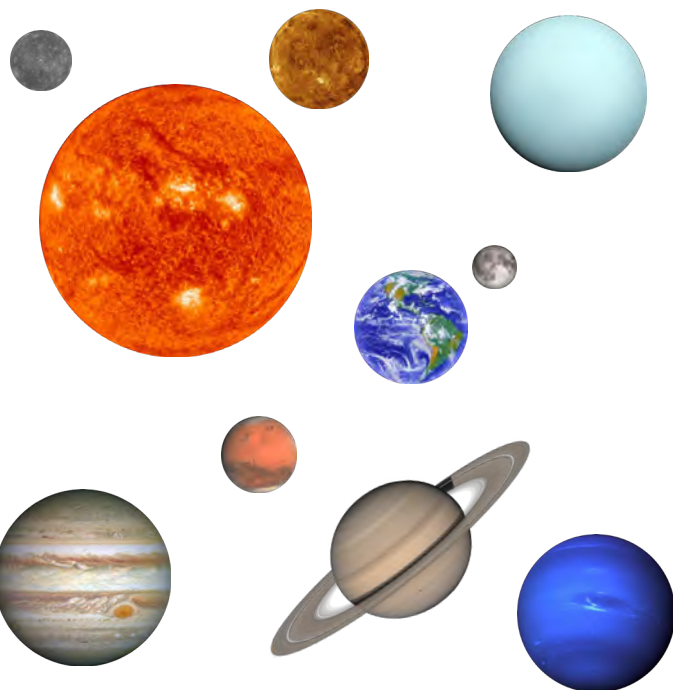
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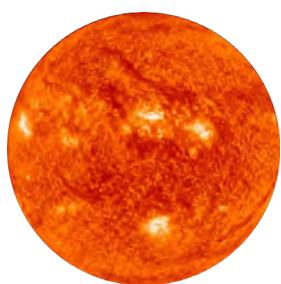
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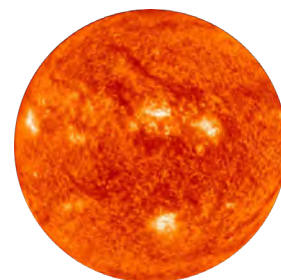
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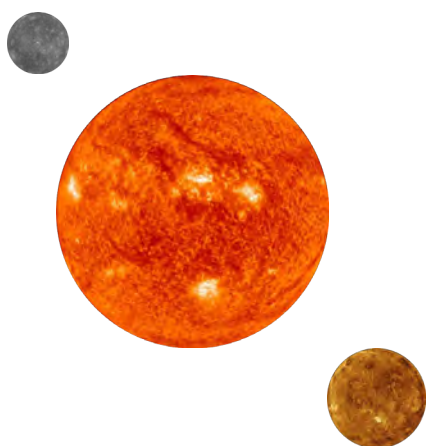
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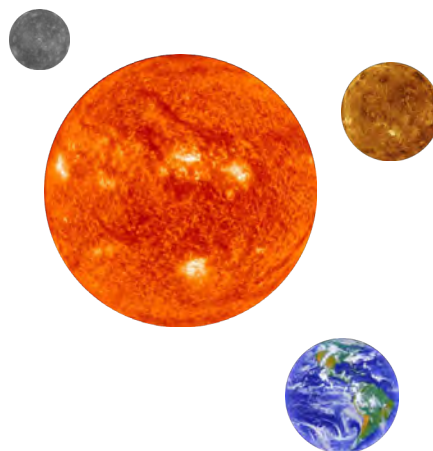
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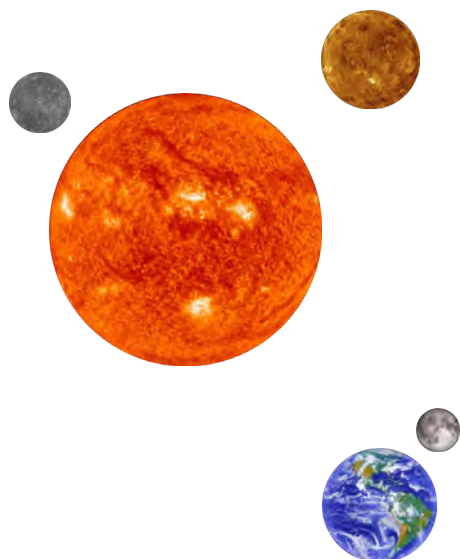
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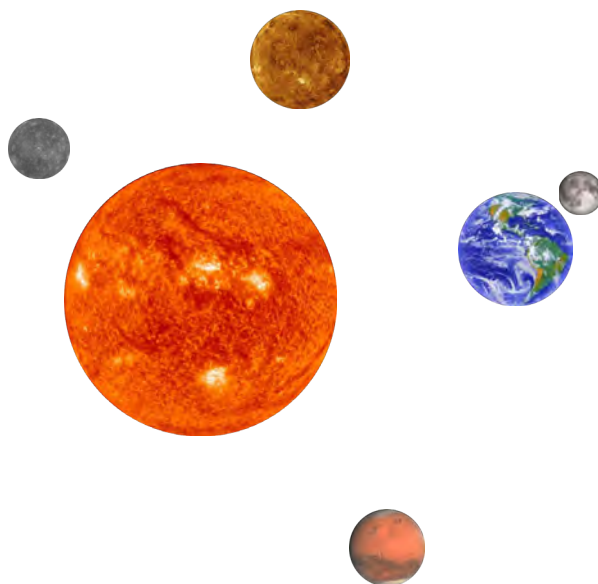
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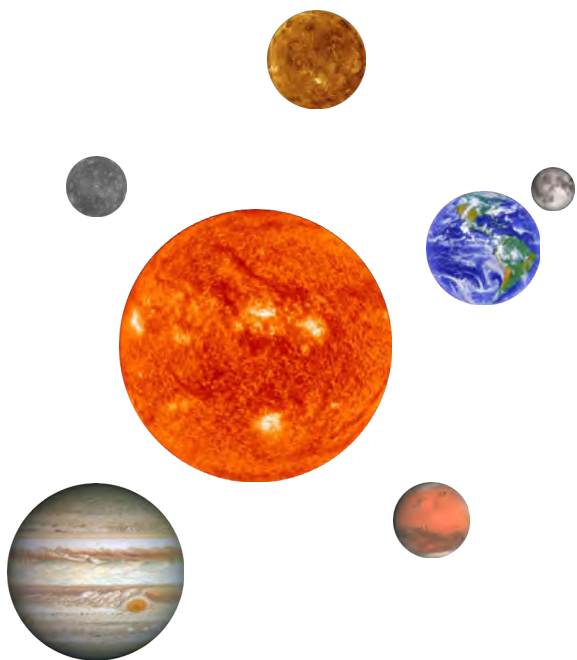
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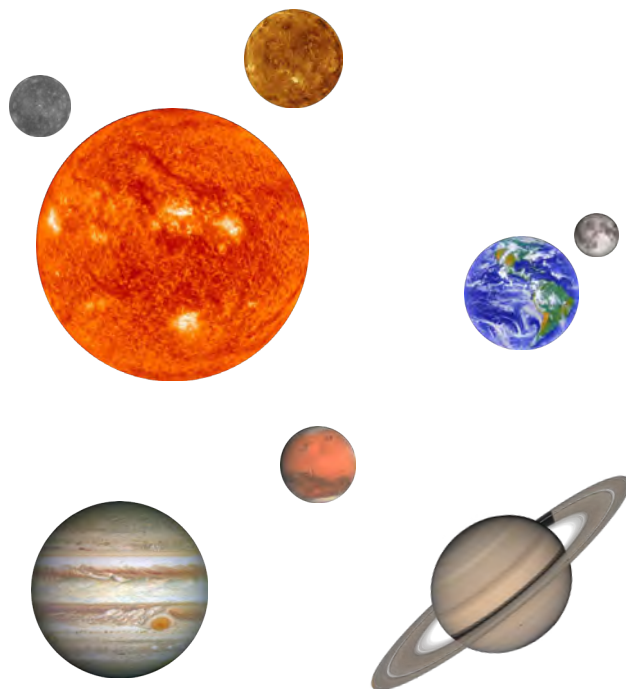
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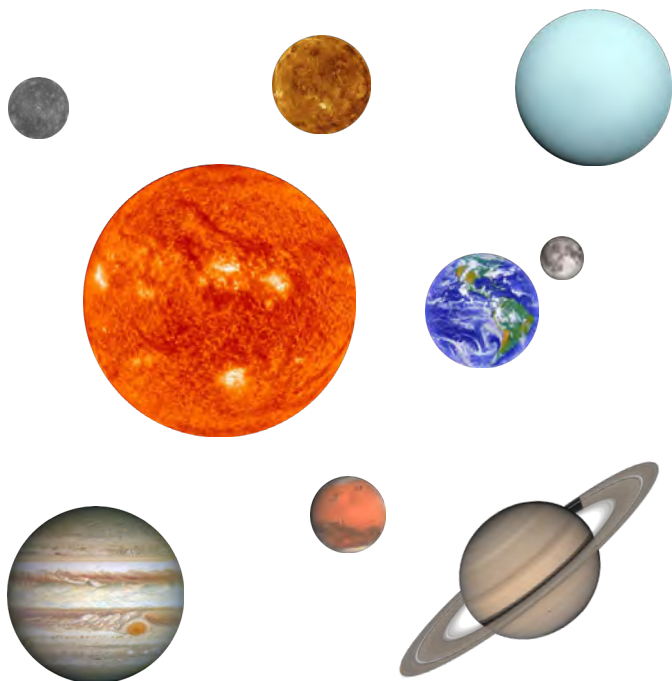
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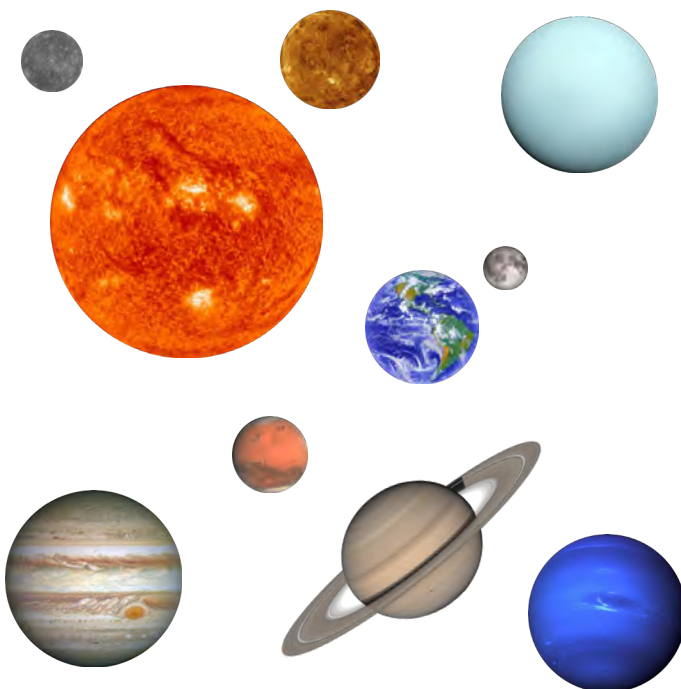
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8



9

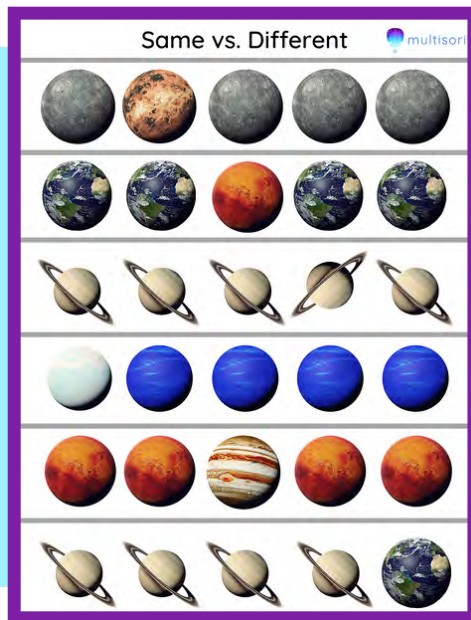


10

REFINEMENT OF SENSES

Ages 3-6

Same vs. Different



Supplies Needed:

1. Same vs. Different Worksheet (attached)
2. One pencil per child

What To Do:

Before You Begin:

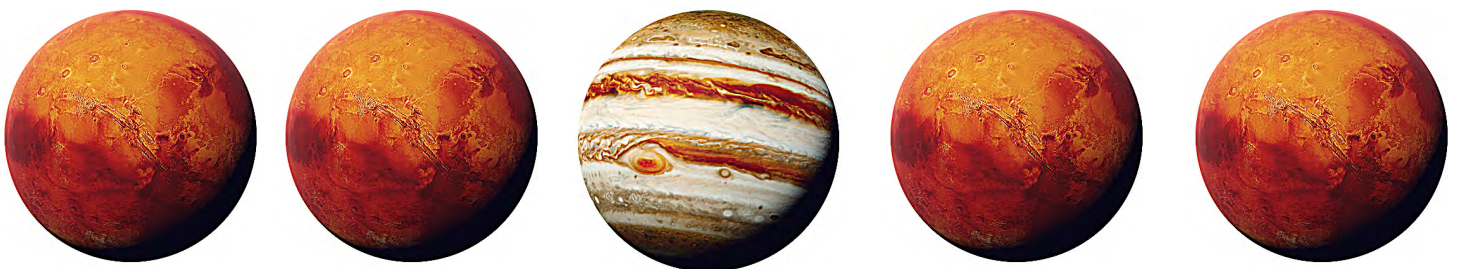
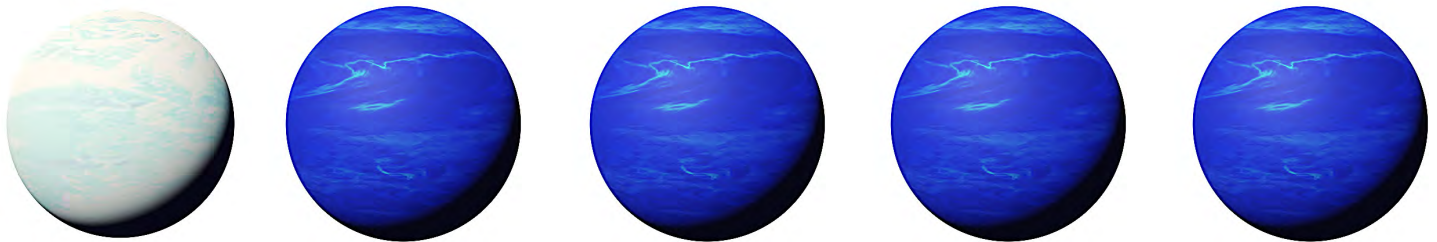
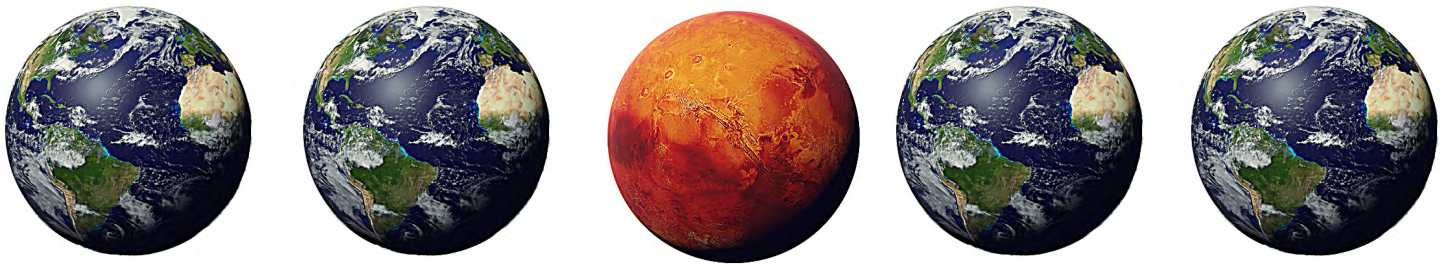
Please be sure to introduce the planets by reading "Our Solar System" mini-book prior to this activity. Print the attached "Same vs. Different" worksheet. You will need one copy per participant. Do not laminate or trim.

Presentation

1. Give each participant their copy of the "Same vs. Different" worksheet.
2. Ask the student(s) to circle the planet that is different from the others in each row of the worksheet.

Refinement of Senses & Math:
Visual Discrimination, Fine Motor Skills

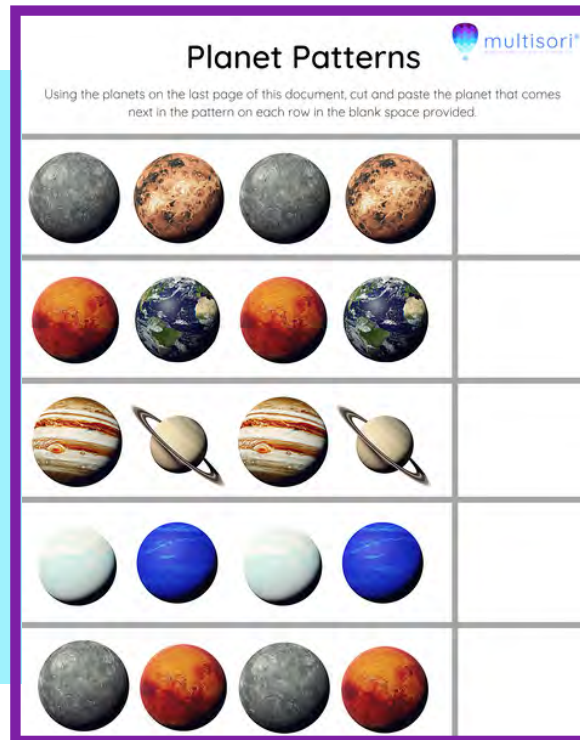
Same vs. Different



MATH

Ages 3-6

Planet Patterns



Supplies Needed:

1. Planet Patterns worksheets, printed in color (attached)
2. Safety Scissors
3. Glue or glue sticks

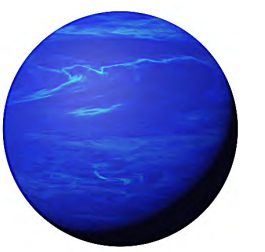
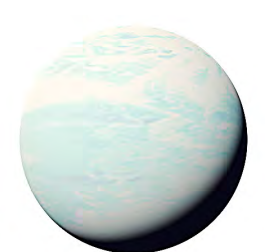
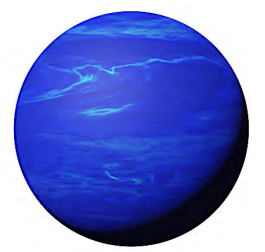
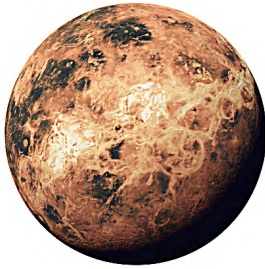
What To Do:

Using the planets on the last page of this document, cut and paste the planet that comes next in the pattern on each row in the blank space provided.

Math, Refinement of Senses, Order:
Patterns & Visual Discrimination

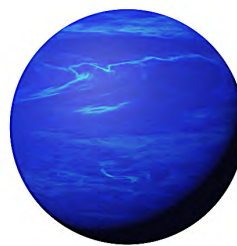
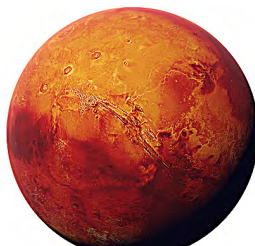
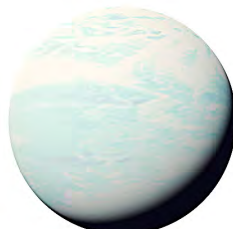
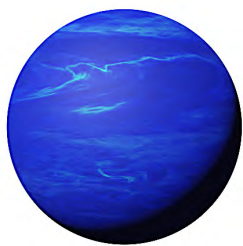
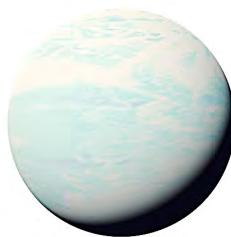
Planet Patterns

Using the planets on the last page of this document, cut and paste the planet that comes next in the pattern on each row in the blank space provided.



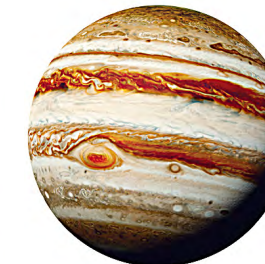
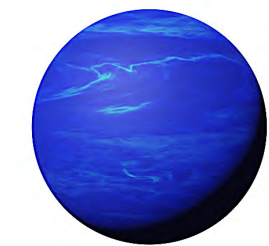
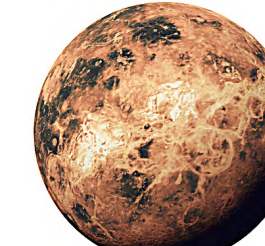
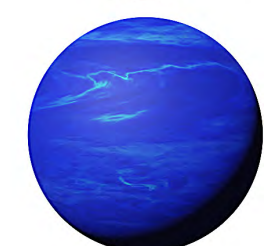
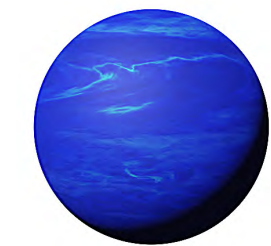
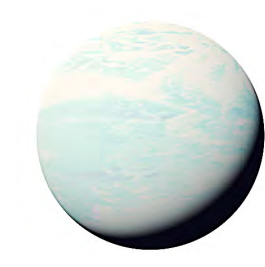
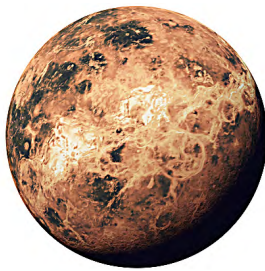
Planet Patterns

Using the planets on the last page of this document, cut and paste the planet that comes next in the pattern on each row in the blank space provided.



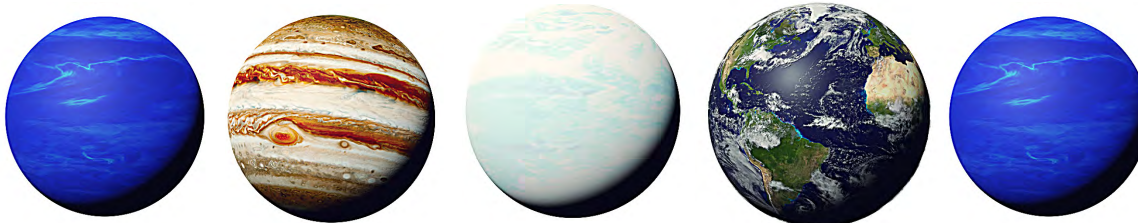
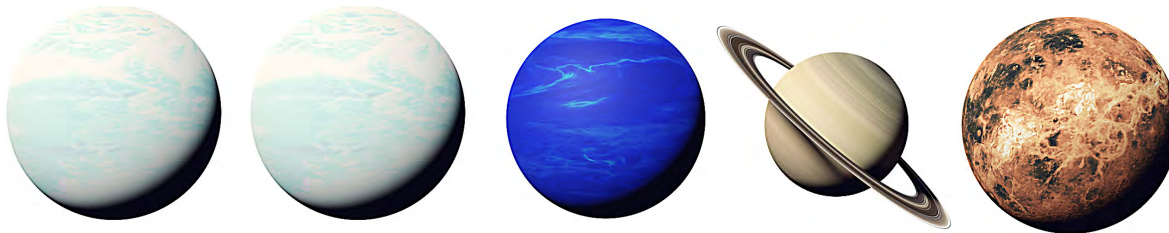
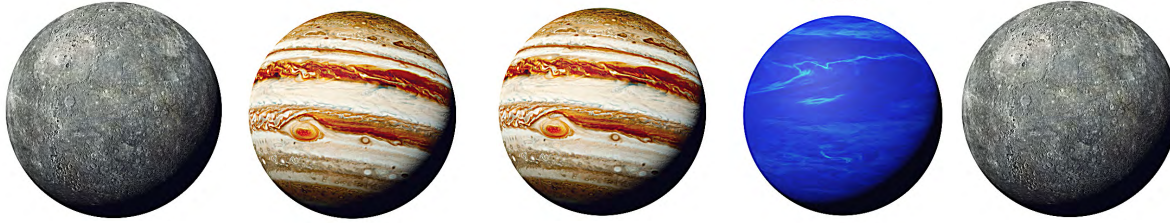
Planet Patterns

Using the planets on the last page of this document, cut and paste the planet that comes next in the pattern on each row in the blank space provided.



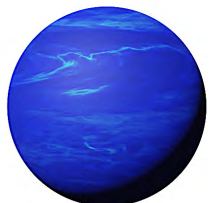
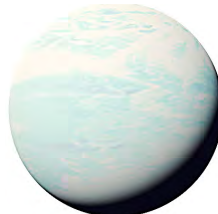
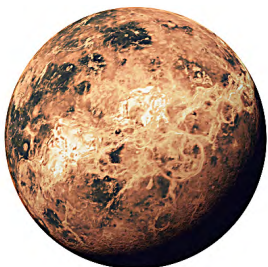
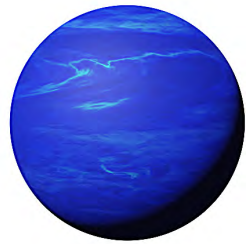
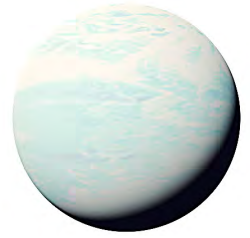
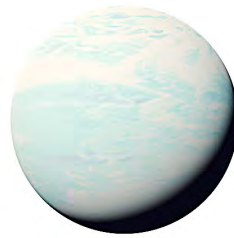
Planet Patterns

Using the planets on the last page of this document, cut and paste the planet that comes next in the pattern on each row in the blank space provided.



Planet Patterns

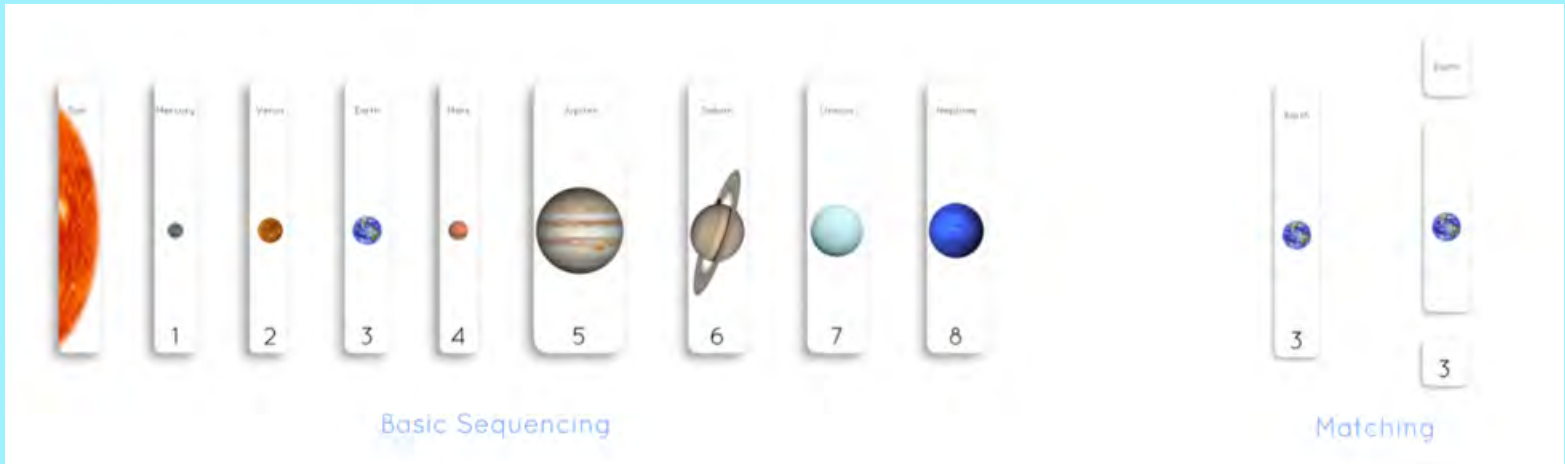
Using the planets on the last page of this document, cut and paste the planet that comes next in the pattern on each row in the blank space provided.



SCIENCE

Ages 3-6

Planets of the Solar System Sequencing Activity



Supplies Needed:

1. Planets of the Solar System Sequencing Activity, printed, laminated & trimmed (attached)

Note: You will end up with a set of control cards, a set of image cards and two sets of labels.

What To Do:

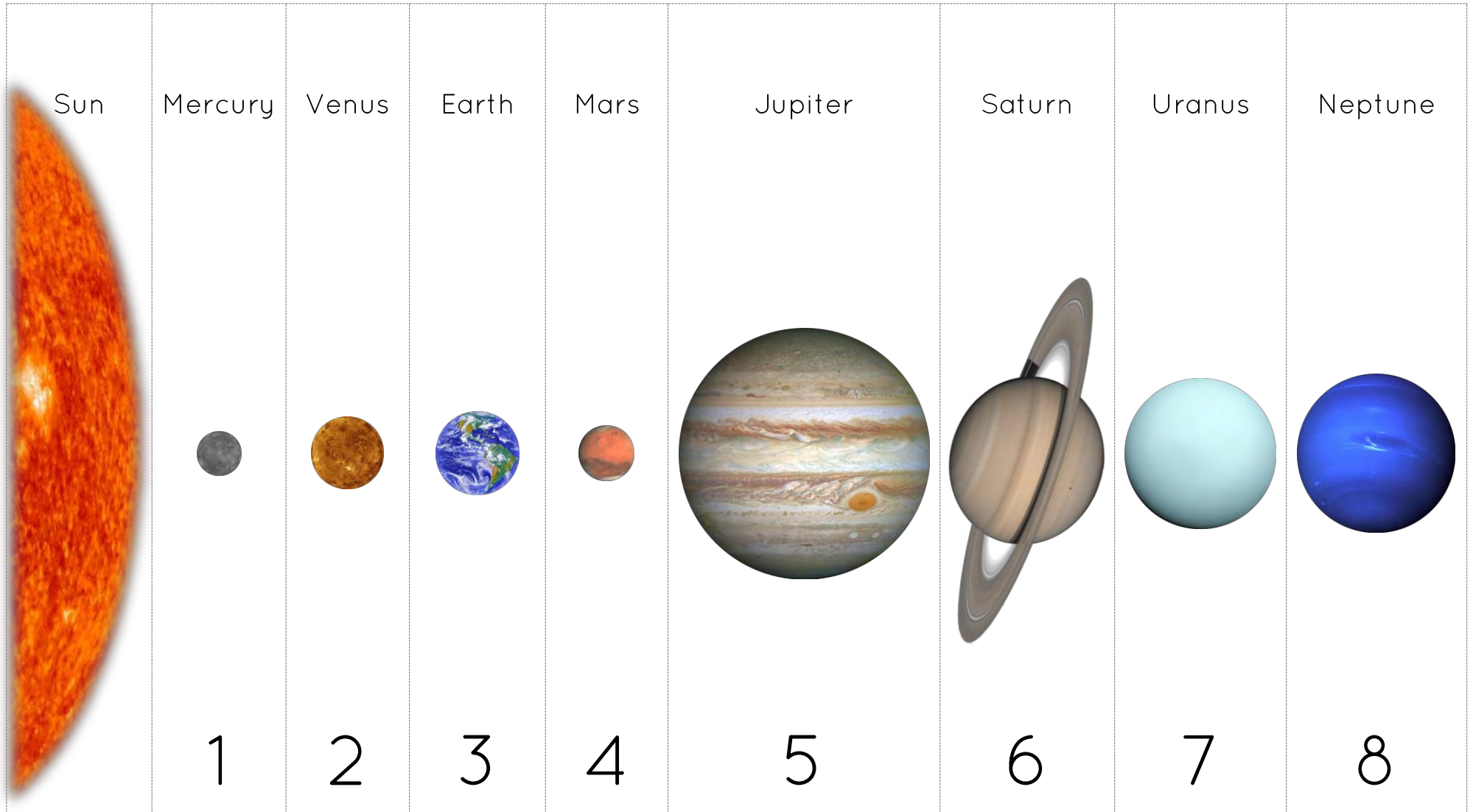
NOTE: Please read the Solar System mini book & fun facts 1st!

Basic Sequencing: Begin by placing the Sun card on the side of the workspace. Then, place each of the control cards, one at a time, while reading the name of the planet and the corresponding number. Continue for each of the 8 planets.

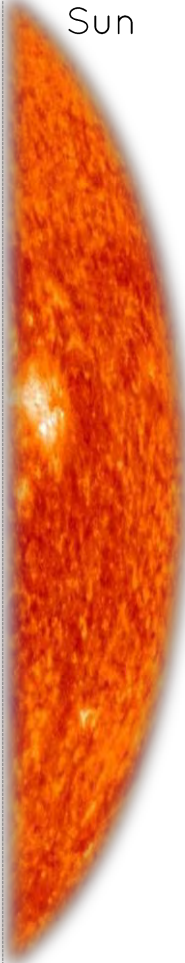
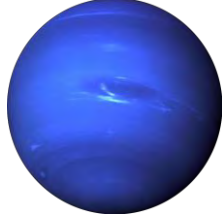
Matching: For this activity, you will use both sets of cards. Begin by placing the Sun card to the side of the workspace. Then, place each of the control cards, one at a time (and in order) while reading the name of the planet and the corresponding number. Continue for each of the 8 planets. Next, present the image cards one at a time, saying the name of the planet while placing the image card beside the corresponding control card. Finally, you can present the label cards, one at a time by simply reading the label, and then matching to the corresponding image cards. Place the planet name above the image and the number label beneath the image card. Your student(s) may now work independently.

Order, Language, Refinement of Senses, Small Objects, Math:
Sequencing, Vocabulary

PLANETS OF THE SOLAR SYSTEM SEQUENCING ACTIVITY



PLANETS OF THE SOLAR SYSTEM SEQUENCING ACTIVITY

Sun	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune
								
	1	2	3	4	5	6	7	8

LANGUAGE

Ages 4-6

Planets Handwriting & Sequencing Words



Supplies Needed:

1. Planets Handwriting & Sequencing Words Worksheets (attached)
2. Pencils

What To Do:

Please be sure you have read the "Our Solar System" mini-book and completed the planets sequencing activity before presenting this work. Provide the attached worksheets to your students one at a time, beginning with Mercury. Discuss sequencing words such as first, second, third and so on. Help students form and write complete sentences using appropriate punctuation and grammar to answer the questions. Stress the importance of capitalizing the first word of a sentence and using periods, question marks or exclamation points at the end. Be sure to define those terms.

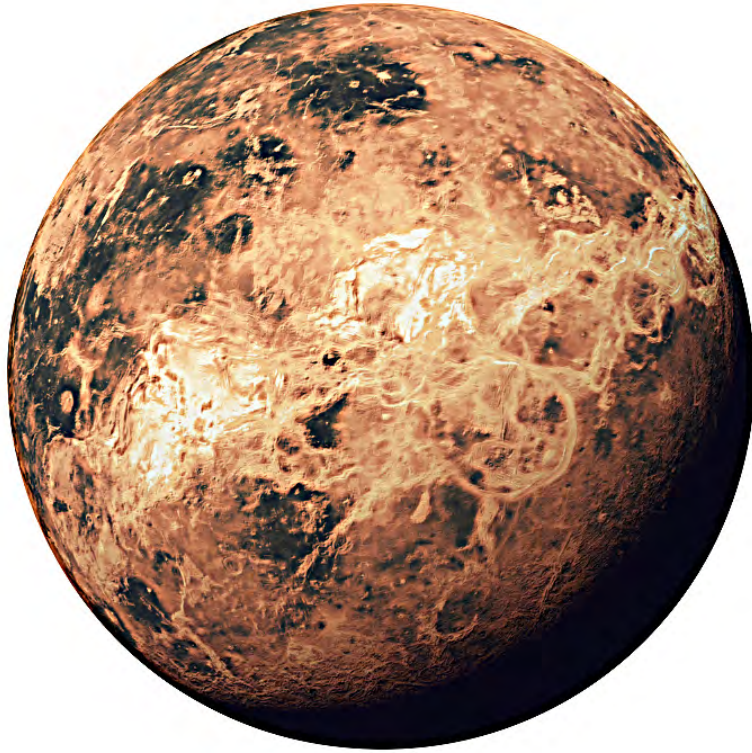
Language:
Handwriting, Grammar & Fine Motor Skills



M is for
Mercury

Mercury is the first
planet from the Sun.





V is for

Venus

Venus is the second

planet from the Sun.





E is for

Earth

Earth is the third

planet from the Sun.





M is for

Mars

Mars is the fourth

planet from the Sun.





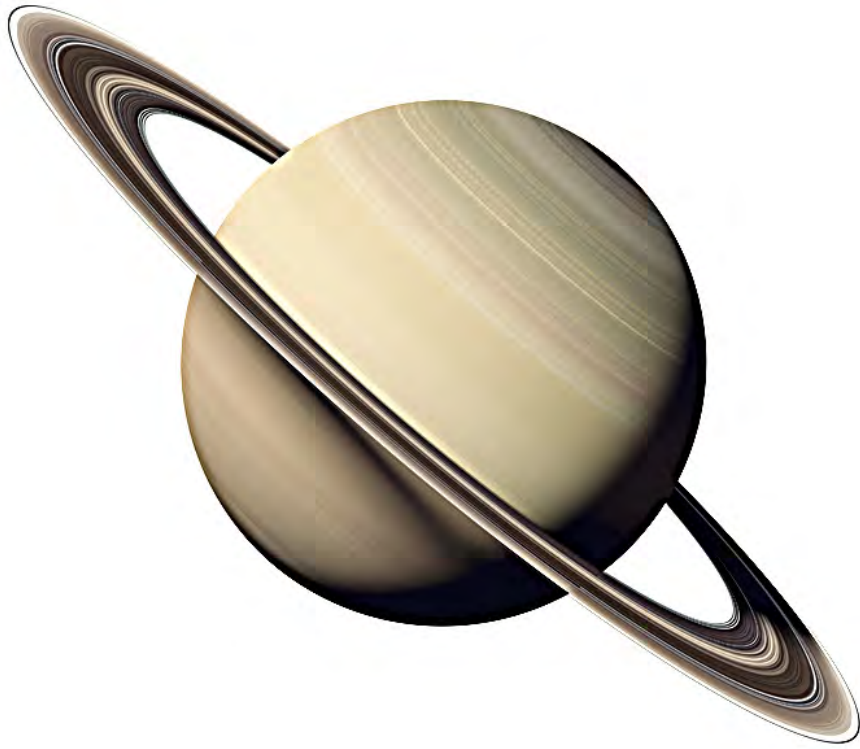
J is for

Jupiter

Jupiter is the fifth

planet from the Sun.





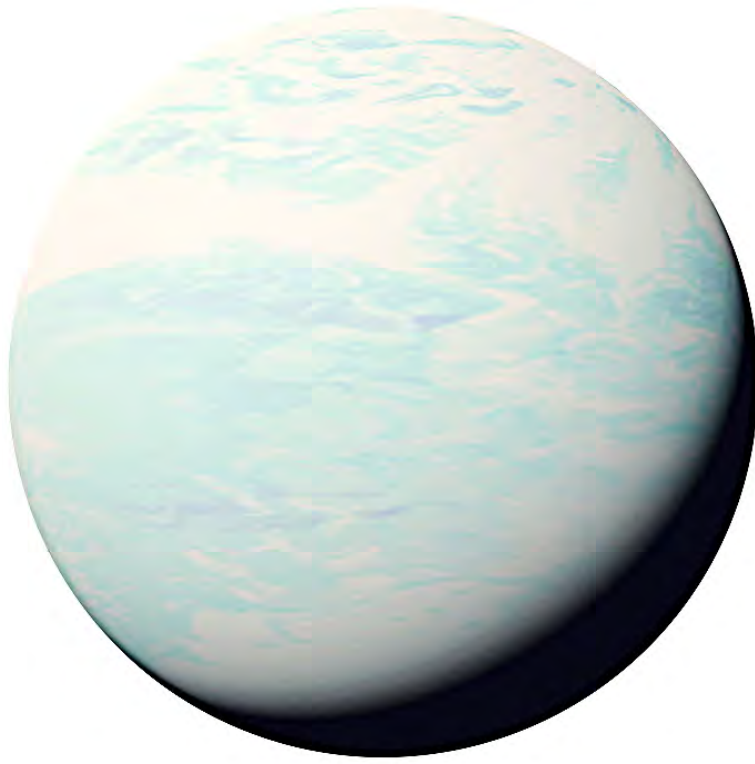
S is for

Saturn

Saturn is the sixth

planet from the Sun.





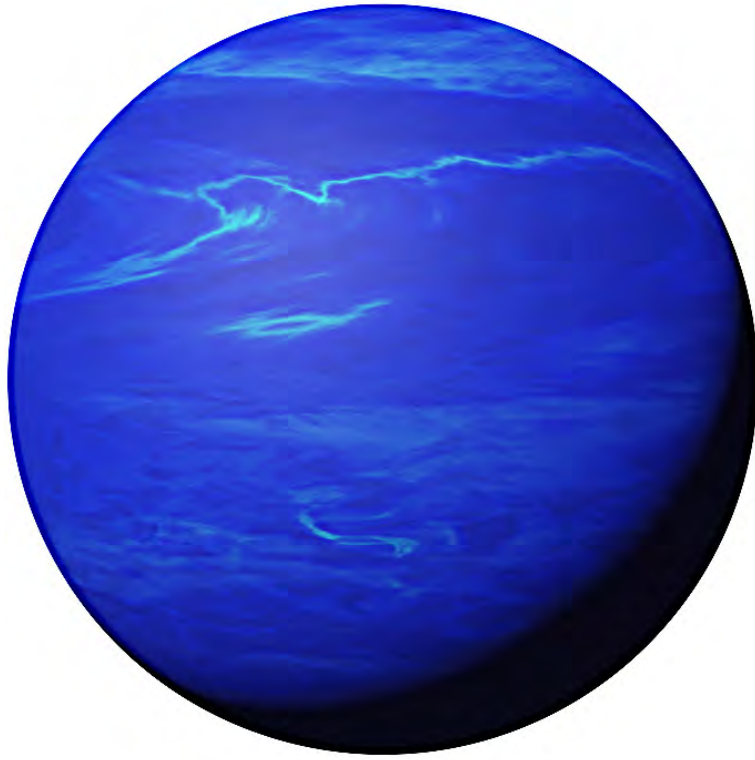
U is for

Uranus

Uranus is the seventh

planet from the Sun.





N is for

Neptune

Neptune is the eighth

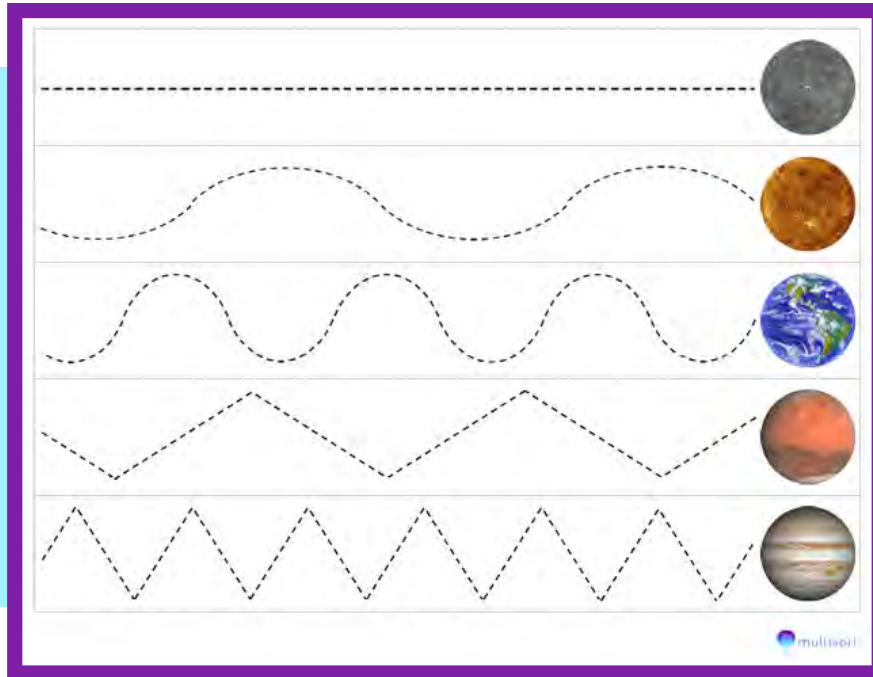
planet from the Sun.



PRACTICAL LIFE

Ages 3-6

Fine Motor Skills: Cutting



Supplies Needed:

1. Solar System Cutting Strips, printed and trimmed per instructions to the right (attached)
2. Safety scissors for student(s)

What To Do:

Preparation - Print on white paper. Cut along the light gray dotted lines to separate the strips.

Presentation - Following a demonstration of how to safely use scissors, cut along black dotted lines to either separate the images (as in the first 4 strips) or to cut toward an image (as in the last 10 strips)

Movement & Practical Life:
Patience, Fine Motor Skills, Development of Focus

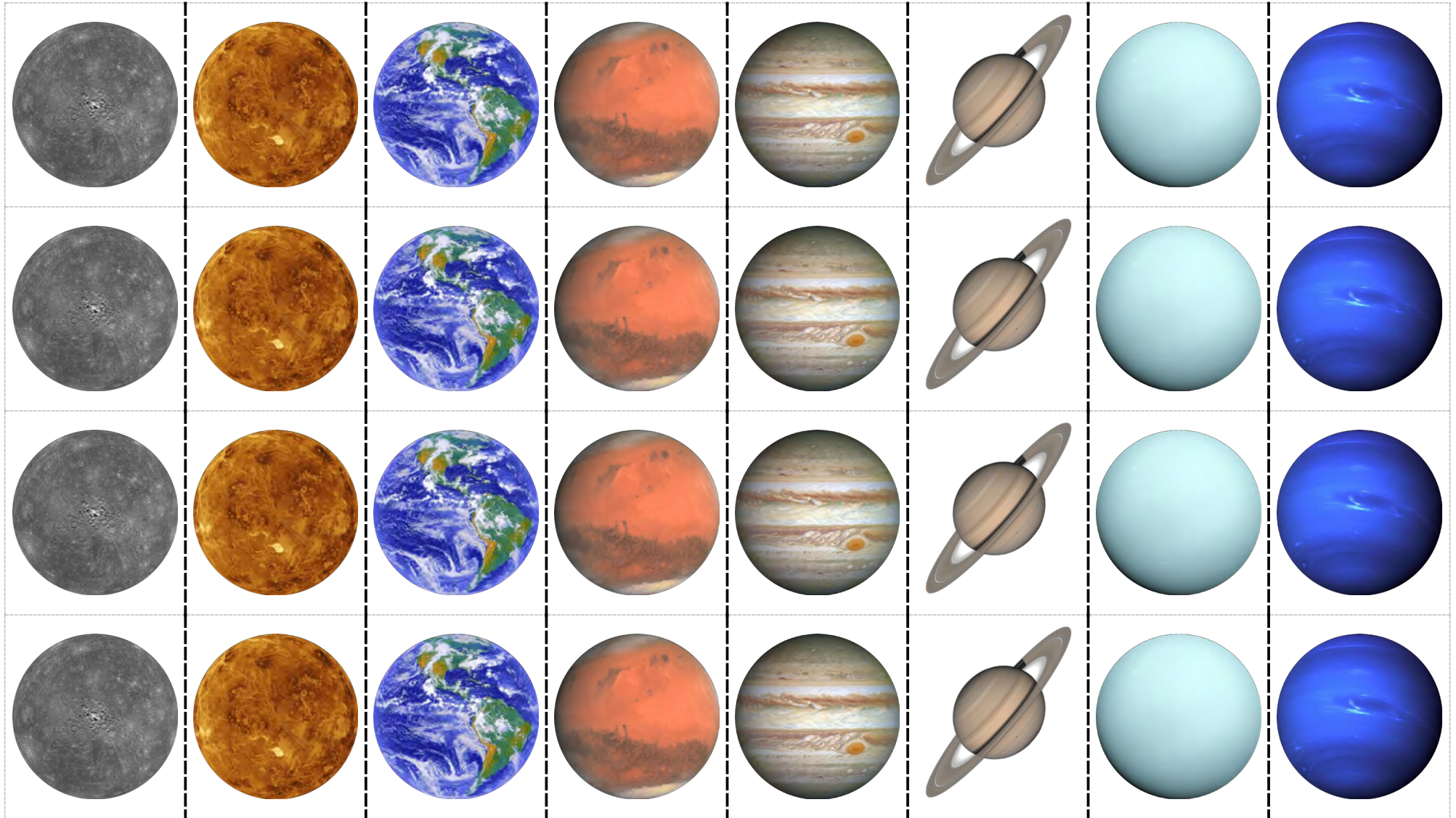
CUTTING STRIPS

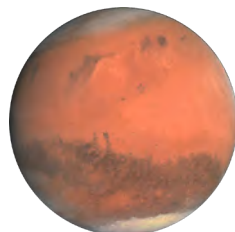
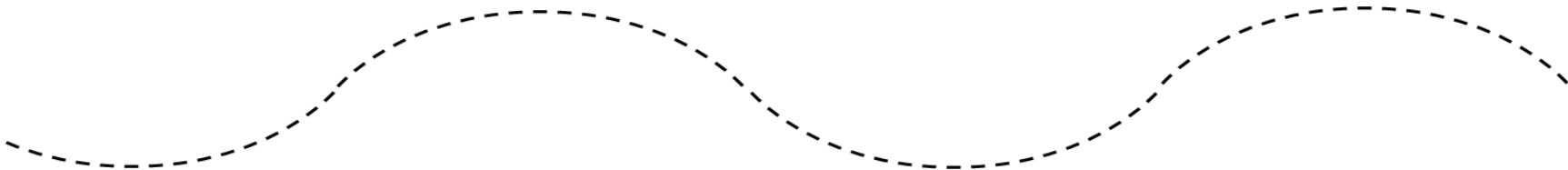
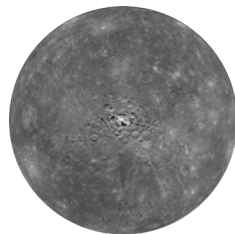
Preparation

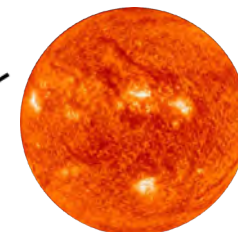
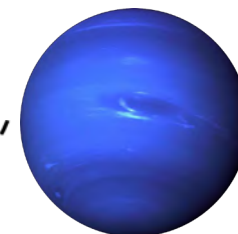
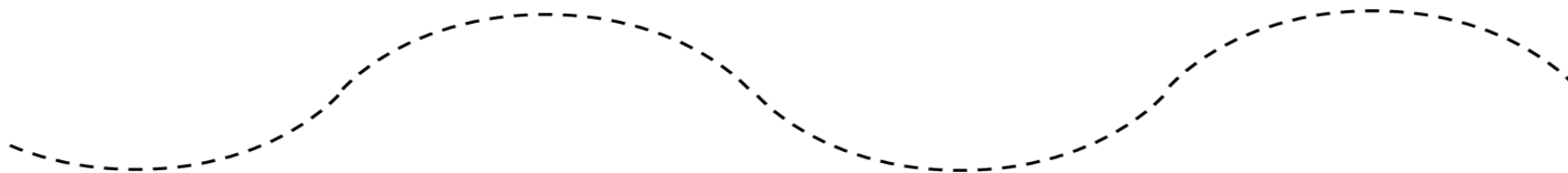
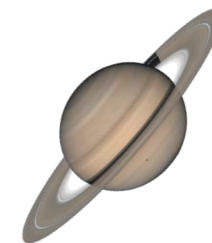
Print on bright white paper. Cut along the light grey dotted lines to separate the strips.

Presentation

Following a demonstration of how to safely use scissors, cut along black dotted lines to either separate the images (as in the first 4 strips) or to cut toward an image (as in the last 10 strips).







ART

Ages 2-6

Create your own Solar System



Supplies Needed:

1. Green, blue, orange, white and gray Play-Doh.

What To Do:

NOTE: Please read the Solar System mini book & fun facts 1st!

Use Play-Doh to create your own solar system on a piece of large paper. Use butcher or construction paper for best results. Have the picture of the planets available so that your student(s) can reference it. Consider re-reading the Solar System mini book and/or fun facts while your student(s) work(s). Enjoy!

Movement, Order, Refinement of Senses:
Fine Motor Skills, Kinesthetic Learning & Creativity

Create your own Solar System

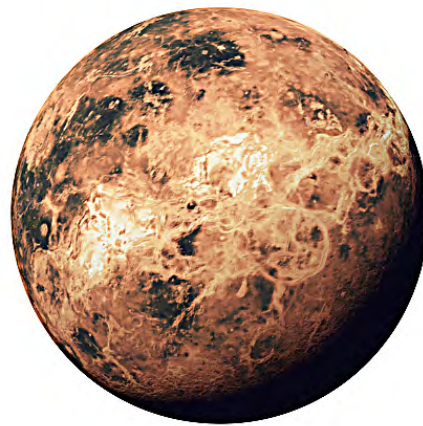
Use Play-Doh to create your own solar system on a piece of large paper.
(Butcher or construction paper would work best.)

Use the pictures below to assist in the creation of your solar system.

Mercury



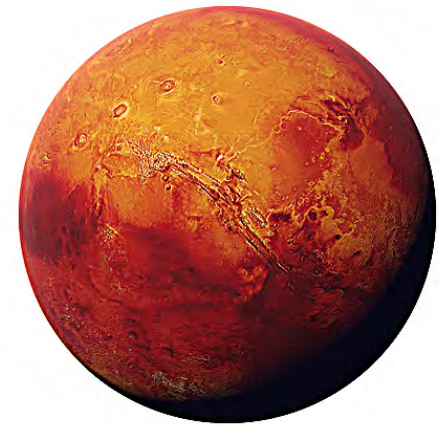
Venus



Earth



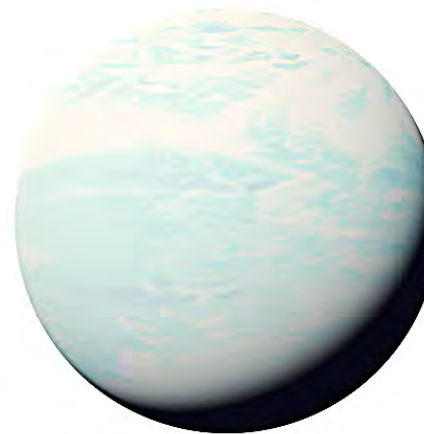
Mars



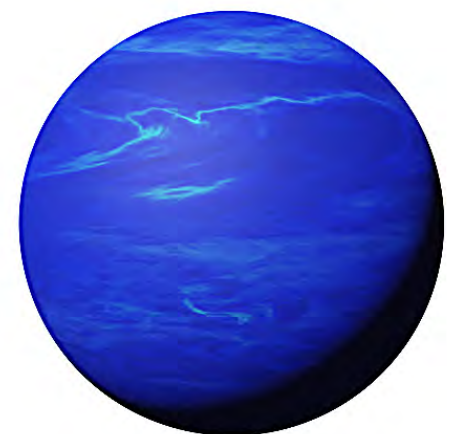
Jupiter



Saturn



Uranus



Neptune



KINESTHETIC LEARNING

Ages 4-6

Write the Room: The Planets



Supplies Needed:

1. The Planets Write the Room Pages, printed (attached) - you will need one copy per participant, plus one to cut and hang
2. Scissors
3. Tape
4. One pencil per child
5. Clipboards (optional)

What To Do:

Before You Begin:

Please be sure to introduce the planets by reading the "Our Solar System" mini-book prior to this activity. Print the attached "The Planets Write the Room" pages. You will need one copy per participant, plus one to cut and hang. Cut the images out and hang them in various places around the learning environment. Be sure you hang them at the eye level of your student(s).

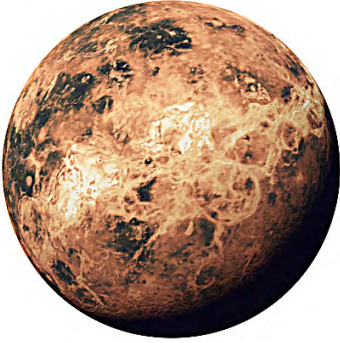
Presentation

1. Give each participant their copy of "The Planets Write the Room" pages, a pencil and a clipboard, if desired.
2. Ask the student(s) to locate each planet, then trace their name once found. Encourage patience, no pushing and kindness.
3. When complete, ask the students to return to you and have each one give you a tour of what they found. They should kindly walk you around and show you where each planet is hung. Depending on the child's age and readiness, ask what they found and/or how to spell it.

Language, Grace & Courtesy, Refinement of Senses:
Vocabulary, Science, Fine & Gross Motor Skills,
Handwriting, Patience, Memory & Kinesthetic Learning



Mercury



Venus



Earth



Mars

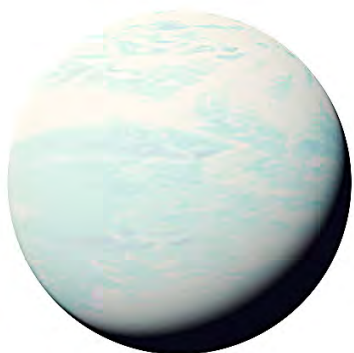


Jupiter

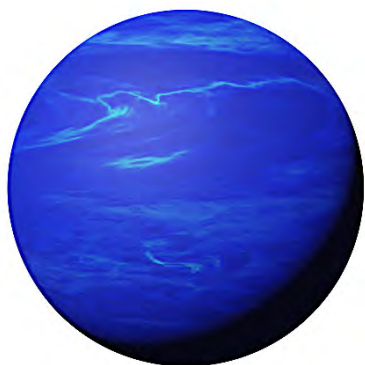




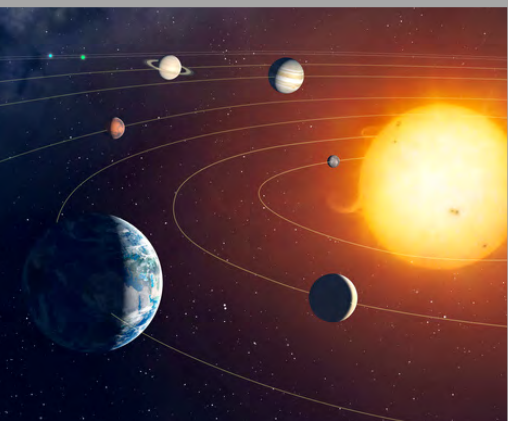
Saturn



Uranus



Neptune



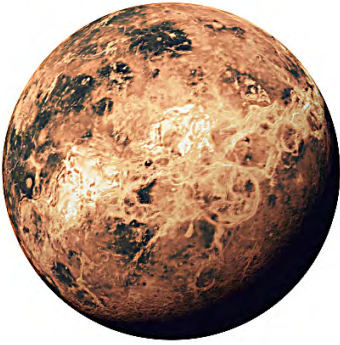
Solar System



Milky Way
Galaxy



Mercury



Venus



Earth



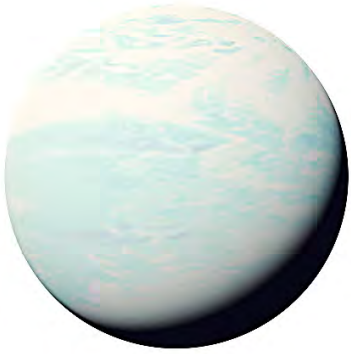
Mars



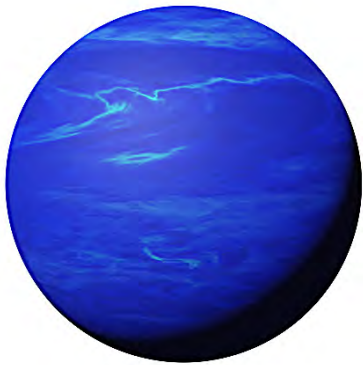
Jupiter



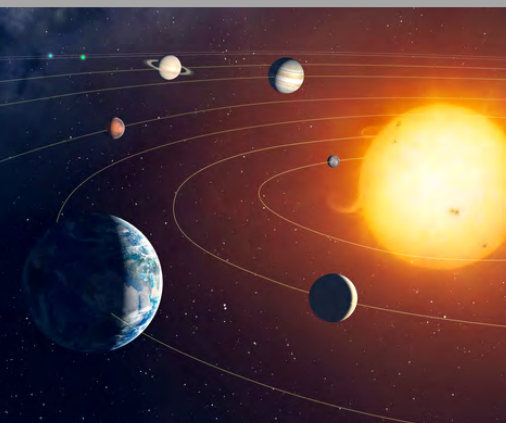
Saturn



Uranus



Neptune



Solar System



Milky Way
Galaxy



Solar System Unit Study

PART 2 Earth's Moon

POSTERS

Ages 3-6

The Moon Landing: Fun Facts for Kids



Supplies Needed:

1. The Moon Landing: Fun Facts for Kids Poster (attached)
2. Phases of the Moon Poster (attached)
3. Color Printer
4. Laminator
5. Lamination Sheets
6. Tape

What To Do:

I recommend putting these posters up in your learning environment only after you have introduced the solar system materials. It really is completely up to you, though! So, when you are ready to study the moon, print "The Moon Landing: Fun Facts for Kids" poster and the "Phases of the Moon" poster. Do not trim. Simply laminate and hang at your students' eye level. They will refer often to these fun, visually stimulating materials throughout the course of the unit study. The posters also serve as an enticing invitation to learn.

Preparing the Environment

PHASES OF THE MOON



waxing gibbous



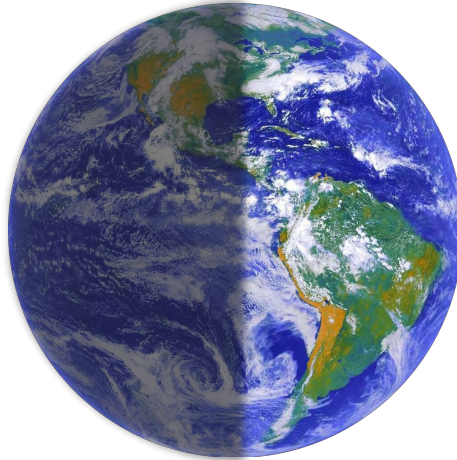
first quarter



waxing crescent



full moon



new moon



waning gibbous



third quarter



waning crescent



multisori® The Moon's Creation



THE MOON LANDING

FUN FACTS FOR KIDS



Fifty years ago, in 1969, three men on a mission called "Apollo 11" landed on the moon for the first time in history!



The landing site chosen by the Apollo 11 crew was an area called the Sea of Tranquility, which looked smooth and safe for landing.



Neil Armstrong was the astronaut who first set foot on the moon. When he did, he said "That's one small step for man, one giant leap for mankind."



Katherine Johnson carried out the calculations that made the mission to the moon possible, and got the astronauts home to Earth safely.



The Moon landing ended a 12 year long Space Race, which was a competition between the United States and the Soviet Union to see who could explore outer space first.

Earth's Moon Mini-Book



Supplies Needed:

1. Earth's Moon Mini-Book (attached)
2. Color Printer
3. Laminator
4. Lamination Sheets
5. Scissors or Straight Edge Cutting Tool
6. Stapler or Other Binding Tool

What To Do:

Print, laminate & trim the mini-book along the light gray lines at the center of each full page. Please note: each 8.5 x 11 inch page that you print will create two pages of the mini-book when complete.

I recommend transitioning to your study of the moon by reading this mini-book. It sets the stage for the rest of the activities and serves as a resource for referring back to throughout this section of the unit study.

Language, Refinement of Senses, Spatial Relationships:
Visual Discrimination, Vocabulary, & Critical Thinking



Why Multisori provides this material:

Children are born scientists. They enjoy seeing how things work (observing), guessing what will happen if... (predicting), testing out their hypotheses (experimenting) and figuring out why things occur (interpreting). Young children learn best when they are able to be involved - and the more senses the better! That's why Multisori provides this book to supplement your study of the Solar System - to give your students a wide variety of sensorial ways to learn. This process helps children build self-confidence and critical thinking skills.



Moon

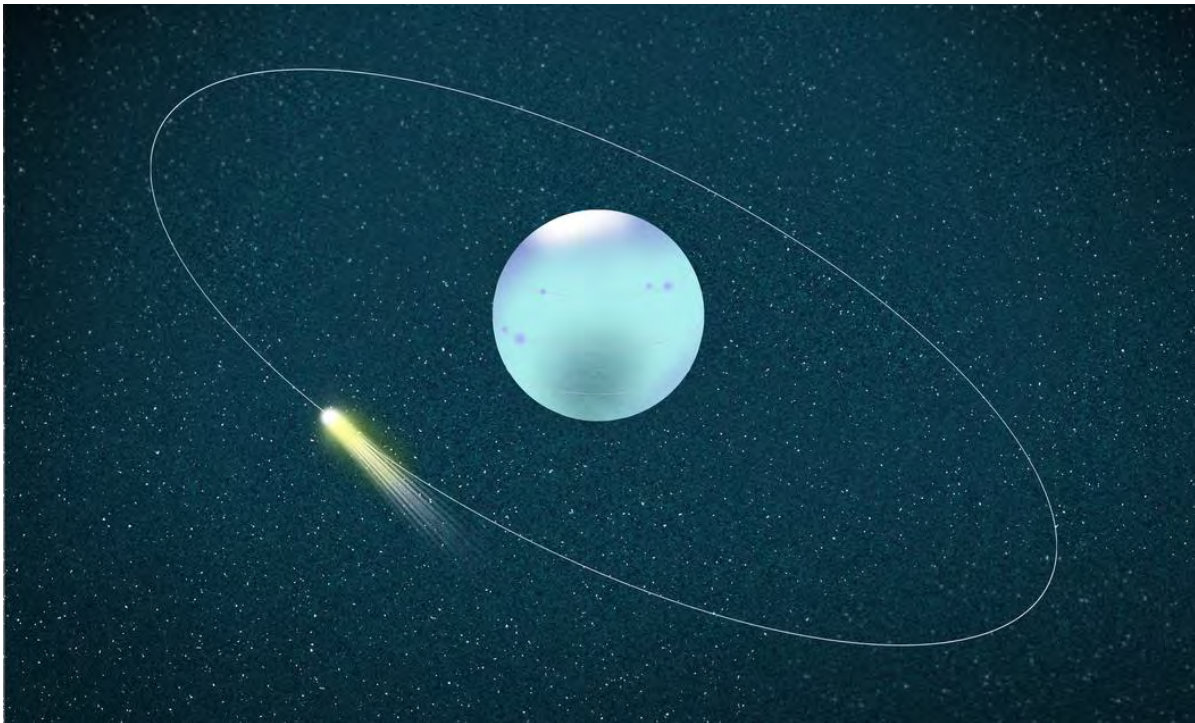


Earth

- 1 Earth's **Moon** is a dusty ball of rock that is $\frac{1}{4}$ the size of Earth. This means that you could fit 4 moons inside planet Earth.



- 2 The Moon's surface has **mountains**, **craters** and flat planes called **seas** made of hardened lava. The Moon can be very hot or very cold, depending on how much heat it receives from the Sun.



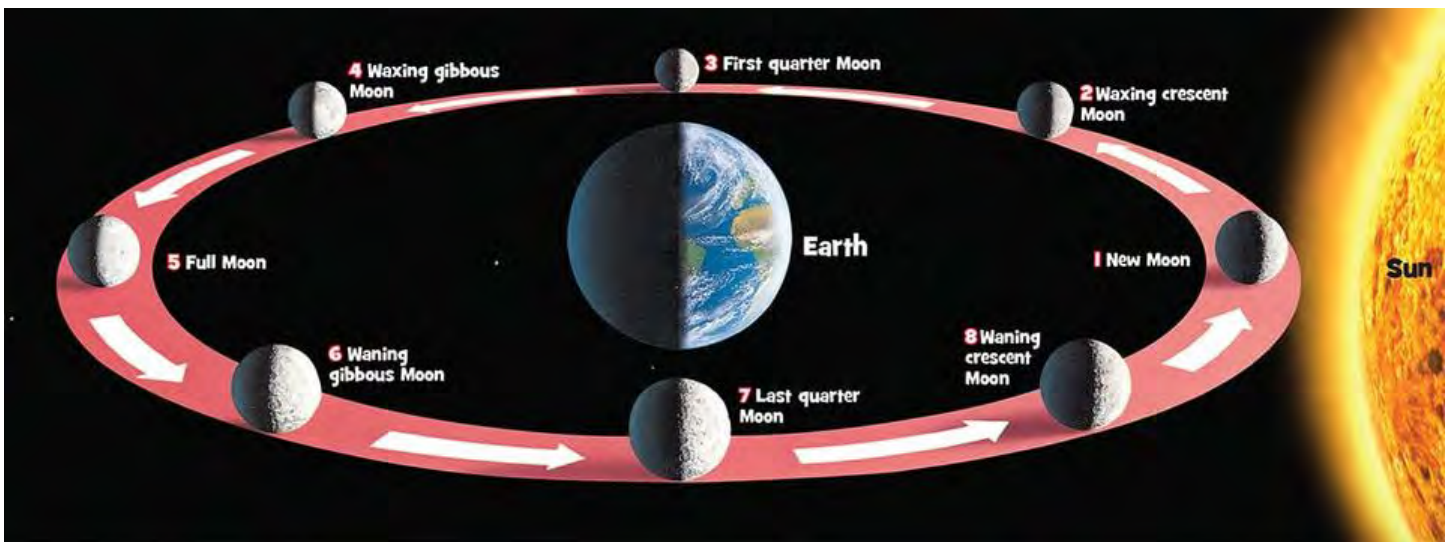
- 3 The Moon is Earth's only natural **satellite** - a celestial body that orbits a planet. It's **orbit** around our planet is called an **ellipse**. Can you name a shape that looks like an ellipse? (Hint: It starts with an "o"!) 



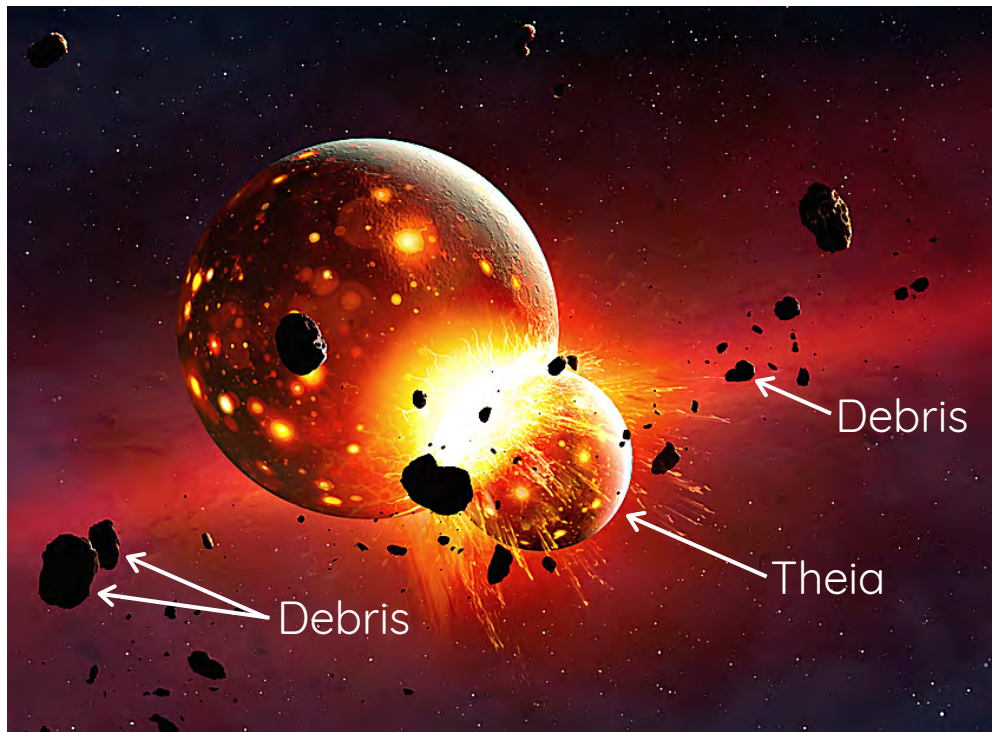
- 4 It takes about 29 days for the Moon to travel around the Earth and complete its orbit. 



- 5 Although the Moon appears to shine in the night sky, it doesn't **emit** (give off) its own light. We see the Moon because it **reflects** light from the Sun.



- Have you noticed how the Moon appears to change its shape each night? That's because, as the Moon orbits the Earth, the Sun lights up different parts of it. So, it's our view of the Moon that changes, not the Moon itself. When the Moon looks like it's getting bigger, it's called "**waxing**". When it looks like it's getting smaller, it's called "**waning**". When we can see the entire face of the moon, it's called a "**Full Moon**".
- 6 When we can't see the Moon in the sky at all, it's called a "**New Moon**".



7

Scientists aren't sure how the Moon formed. One popular **theory** is that a huge rock named **Theia** crashed into the Earth and the **debris** clumped together to make the Moon. How do you think the Moon formed?

Phases of the Moon 3 Part Cards



Supplies Needed:

1. Phases of the Moon 3 Part Cards, printed, laminated & trimmed (attached)
2. "Earth's Moon" mini-book, printed, laminated & trimmed (attached)

What To Do:

Before You Begin:

Gather the mini book and 3 Part Cards.

Presentation (feel free to break up over multiple days):

1. Read the "Earth's Moon" mini book to your student(s).
2. Review the book while referencing the "Phases of the Moon" poster.
3. Place the 3 part control cards at the top of the workspace, reading the name of each moon phase aloud as you do so.
4. Next, present the image cards one at a time again saying the name of each moon phase aloud as you do so.
5. Finally, present the label cards, one at a time, by reading the label and matching it to the corresponding image card. Place the label beneath the image card.
6. After receiving this lesson, your student(s) can work independently with these materials.

Refinement of Senses, Language, Order, Small Objects:
Science, Vocabulary, & Visual Discrimination

PHASES OF THE MOON 3-PART CARDS



new moon



waxing crescent



first quarter



waxing gibbous



full moon



waning gibbous

PHASES OF THE MOON 3-PART CARDS



third quarter



waning crescent



third quarter



waning crescent

PHASES OF THE MOON 3-PART CARDS



new moon



waxing crescent



first quarter



waxing gibbous



full moon



waning gibbous

ART

Ages 2-6

Create your own Play Doh Model of the Sun, Earth & Moon



Supplies Needed:

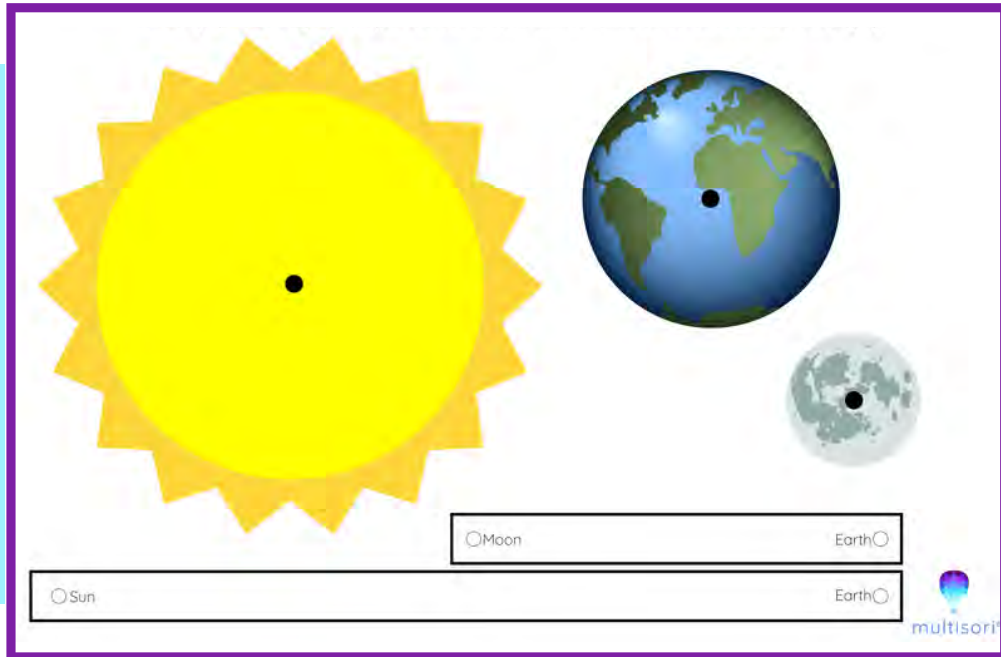
1. Green, blue, yellow, white and gray Play-Doh
2. Butcher or construction paper

What To Do:

Use Play-Doh to create your own model of the sun, earth and moon on a piece of large paper. Use butcher or construction paper for best results. Have the picture of the planets available so that your student(s) can reference it. Enjoy!

Order, Movement, Refinement of Senses:
Fine Motor Skills, Tactile Discrimination, & Kinesthetic Learning

Make a Model of The Sun, Earth & Moon



Supplies Needed:

1. Sun, Earth and Moon Model Component Parts (attached)
2. Three fasteners (brads).
3. Scissors
4. Circle Cutting Tool (optional)

What To Do:

Before You Begin:

Print and cut the Sun, Earth, Moon and two rectangular connectors pictured above. Display pre-cut elements on a tray along with three fasteners (brads).

Presentation:

1. Tell students that we will work together to create a model of the Sun, Earth and Moon.
2. Stack the two rectangular pieces on top of one another, with the shorter one on top. Be sure to line up the ends that read "earth".
3. Say "Let's start with the Earth, since that's where we are." Place the paper Earth on top of the "Earth" label, lining up the black center hole of the Earth with the white holes on the rectangular papers. Work with your student(s) to insert a fastener through the 3 pieces of paper.
4. Ask your student(s) to select the next celestial object to add. Line the Sun and Moon pieces up as you did the Earth piece, fasten and allow student(s) to experiment with the model. Answer questions & have fun! Reference your mini books and posters as needed.

Spatial Relationships, Small Objects:
Fine Motor Skills, Creativity, Basic Engineering

MATH

Ages 3-6

Counting & Skip Counting Puzzles



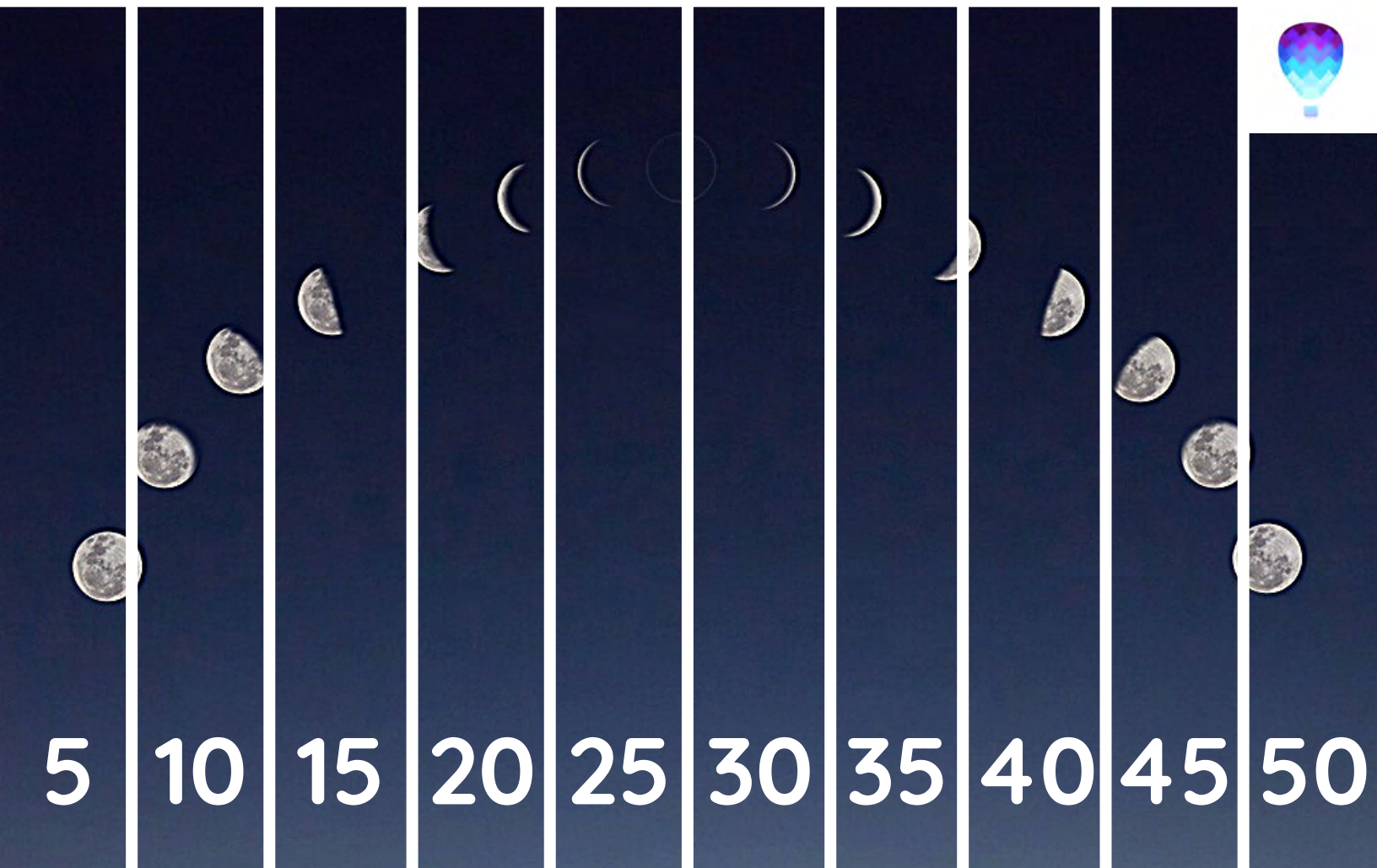
Supplies Needed:

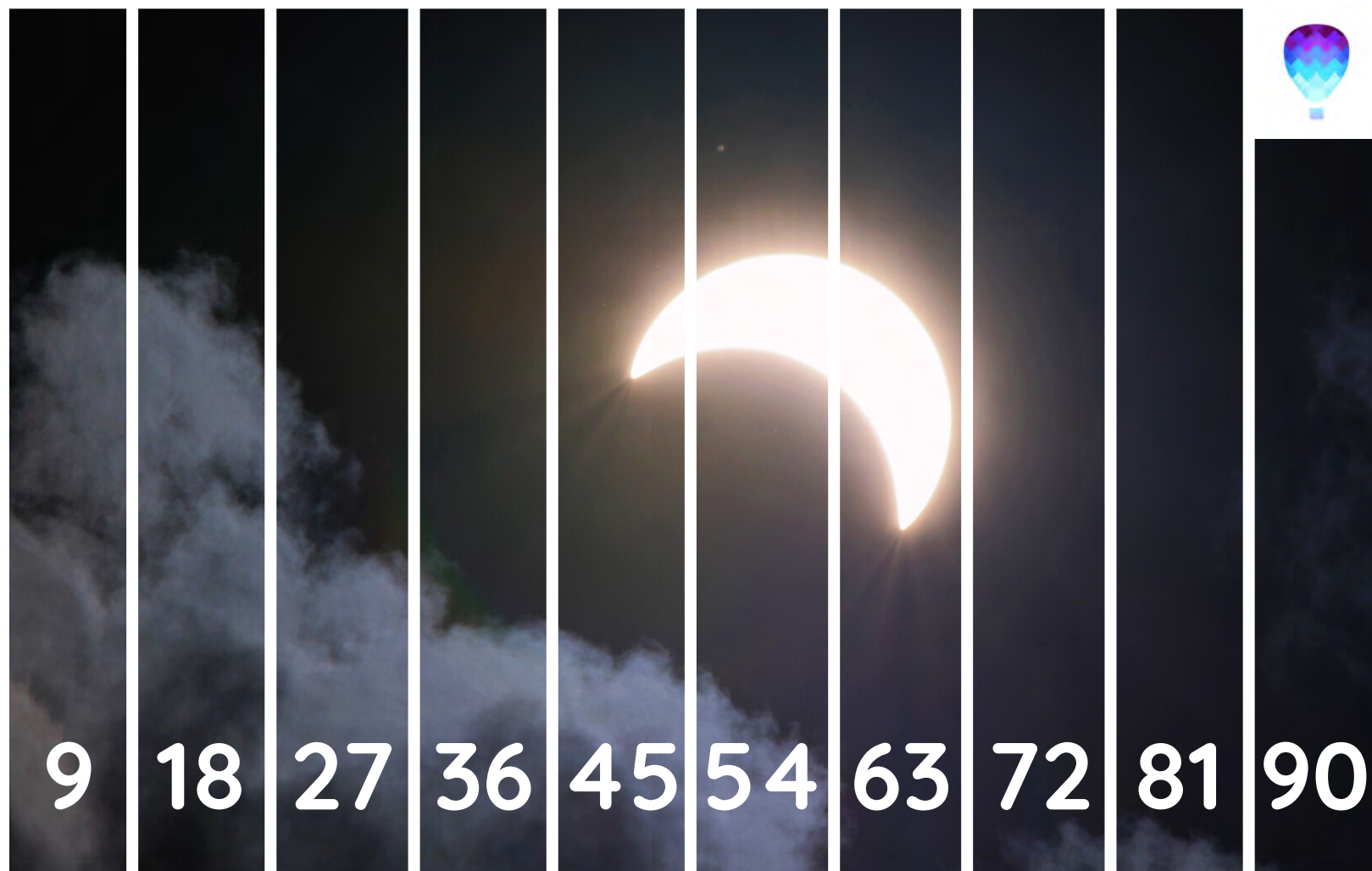
1. Counting and/or skip counting puzzles, printed, laminated & trimmed along white lines (attached)

What To Do:

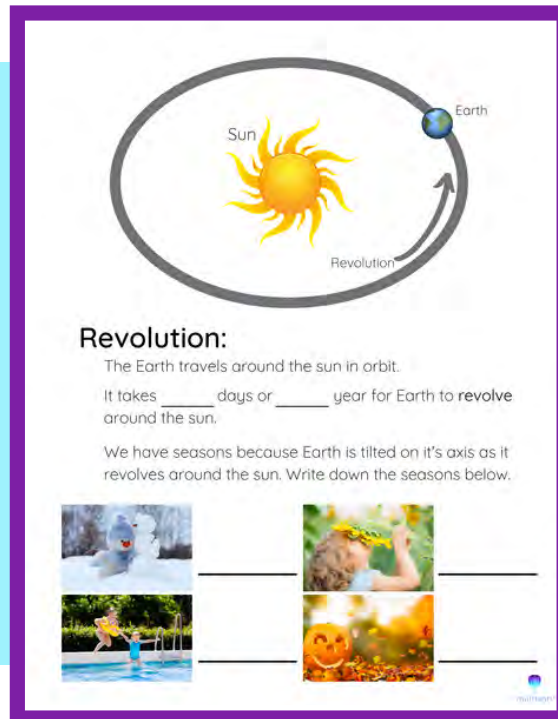
Determine which puzzles are appropriate for your student's level. Provide puzzles one at a time. Provide all puzzle pieces at once, in a random fashion. Ask your student to put the puzzle together using the counting or skip counting skill needed. Reuse throughout the unit study to reinforce the skill.

Math, Refinement of Senses, Order & Small Objects:
Counting, Skip Counting, Fine Motor Skills & Visual Discrimination





Review: Revolution, Rotation & Moon Phases



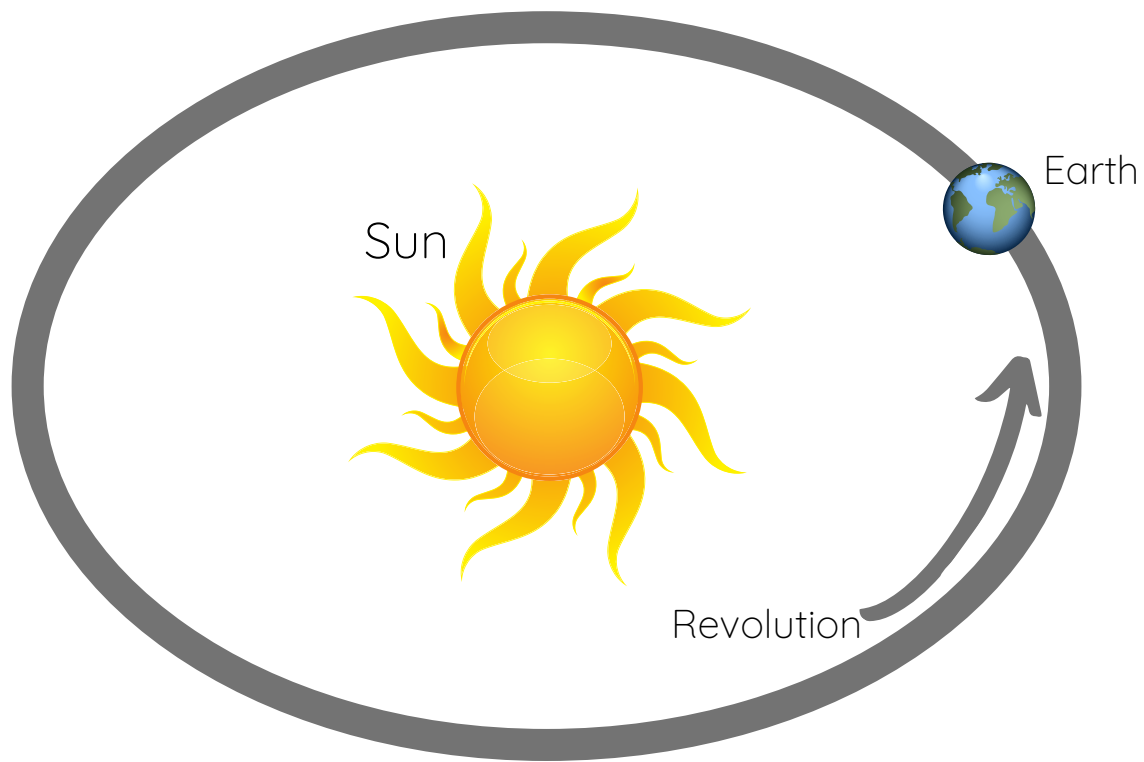
Supplies Needed:

1. Revolution, Rotation & Moon Phases Worksheets, printed (attached)
2. Pencil

What To Do:

1. Review the information learned regarding revolution, rotation and moon phases.
2. Read through the worksheet with your student(s) and ask them to answer aloud or write their answers, as developmentally appropriate.
3. Identify holes in knowledge, then go back and review information not completely retained or understood.

Refinement of Senses, Language, Order:
Critical Thinking, Memory, Handwriting, Visual Discrimination



Revolution:

The Earth travels around the sun in orbit.

It takes _____ days or _____ year for Earth to revolve around the sun.

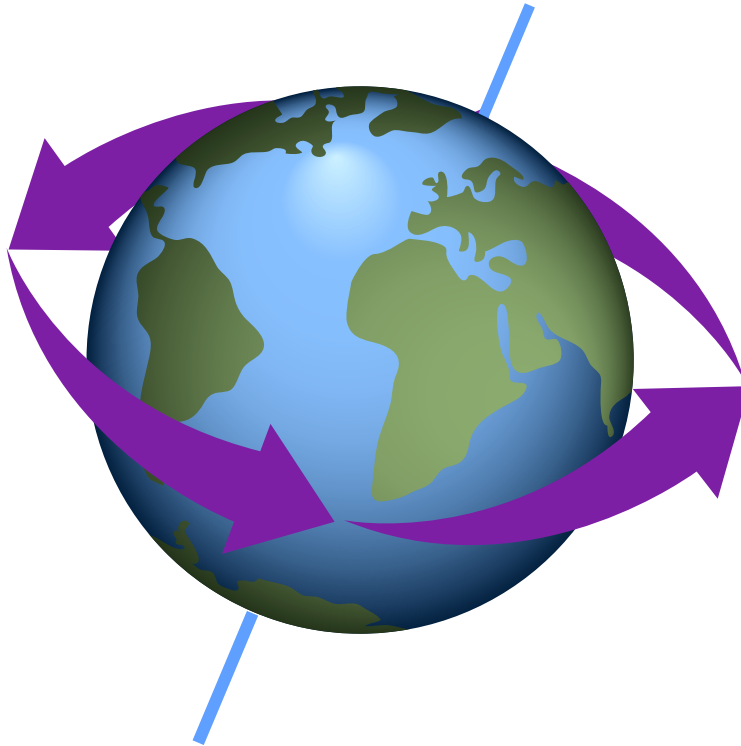
We have seasons because Earth is tilted on it's axis as it revolves around the sun. Write down the seasons below.











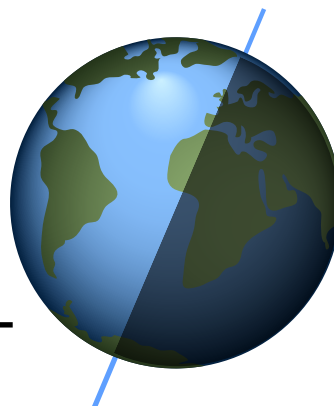
Rotation:

Earth spins on it's axis counterclockwise at a 23.5° angle.

It takes _____ hours or _____ day for Earth to make a complete **rotation**.

We have day time and night time because the Earth rotates on it's axis. The side that faces the sun experiences day time, while the other side of the planet that is facing away from the sun experiences night time. Write down which side of Earth is experiencing night or day time in the pictures below.







The Moon:

The moon **revolves** around the Earth.

It takes about 1 month for the moon to go around the Earth.

During the time that the moon revolves around the Earth, we see different phases of the moon. List the moon phases below.



Answer Key:

Page 1: 365 days / 1 year

Winter / Spring / Summer / Autumn

Page 2: 24 hours / 1 day

Day / Night

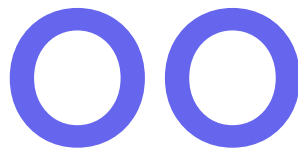
Page 3: Full Moon / First Quarter /

New Moon / Third Quarter

M3 READING PROGRAM

Ages 4-9

Long Vowel Sound / ū / Phonogram oo



Supplies Needed:

1. -oo Picture Cards, attached
2. -oo Word Cards, attached
3. -oo Handwriting Cards, if desired
4. Movable Alphabet OR Printed and Laminated Alphabet (included)

What To Do:

Before You Begin:

Print, laminate and trim Picture and Word Cards. Print Handwriting Cards, if desired, but do not laminate or trim.

STEP 1: Begin by teaching or reminding students of what a long vowel sound is. Tell your student(s) that there are many ways to make long vowel sounds, and today we are focusing on -oo, as in moon.

STEP 2: Identify each picture card and invite the student(s) to spell the words using the movable alphabet or laminated alphabet.

STEP 3: Ask the student(s) to match the Word Cards to the Picture cards.

STEP 4: Use the Word Cards as flashcards, and ask the student(s) to read the words to you.

STEP 5: If desired, practice handwriting using the handwriting cards.

Language:

Long Vowel Sound / ū / Phonogram oo, Handwriting

moon

food

hoop

spoon

bloom

tooth

moon

food

hoop

spoon

bloom

tooth

moon

food

hoop

spoon

bloom

tooth



a

b

c

d

e

f

g

h

i

j

k

l

m

n

o

p

q

r

s

t

u

v

w

x

y

z

a

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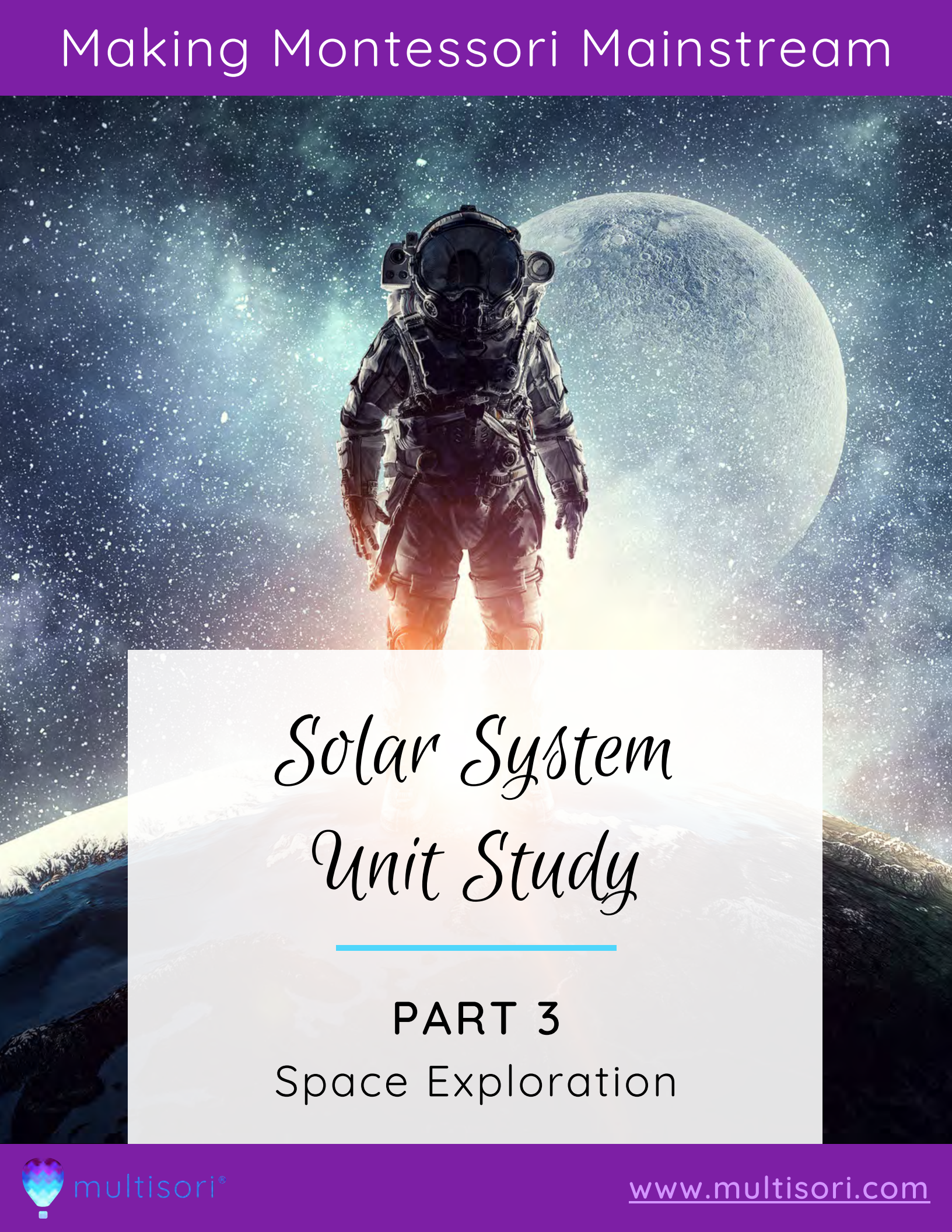
v

w

x

y

z

A full-page background image featuring an astronaut in a white spacesuit standing on the lunar surface. The astronaut is positioned in the center, with their back slightly to the viewer, looking towards the horizon. The Moon's surface is covered in craters and rocks, and a large, bright, cratered moon is visible in the sky behind the astronaut. The sky is a deep blue with numerous white stars. The overall scene is illuminated by a warm, golden light, possibly from the sun, creating a dramatic and inspiring atmosphere.

Solar System Unit Study

PART 3

Space Exploration

POSTERS

Ages 3-6

Space Exploration: Fun Facts for Kids



Supplies Needed:

1. Space Exploration: Fun Facts for Kids Poster (attached)
2. Color Printer
3. Laminator
4. Lamination Sheets
5. Tape

What To Do:

I recommend putting this poster up in your learning environment only after you have introduced the solar system and moon materials. It really is completely up to you, though! So, when you are ready to study space exploration, print "Space Exploration: Fun Facts for Kids" poster. Do not trim. Simply laminate and hang at your students' eye level. They will refer often to these fun, visually stimulating materials throughout the remainder of the unit study. The poster also serves as enticing invitations to learn.

Preparing the Environment

SPACE EXPLORATION

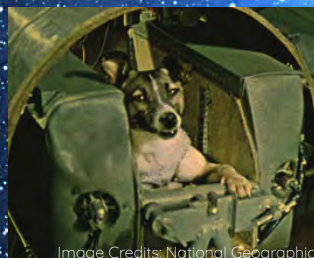
FUN FACTS FOR KIDS



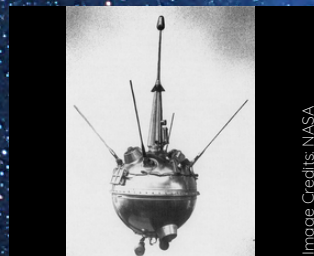
In 1947, fruit flies became the first living things to be launched into space. They rode in rocket called the U.S. V2 Rocket.



In 1949, just two years after the fruit flies were launched into space, a Rhesus monkey named Albert II became the first mammal to explore the solar system.



Eight years later, a Russian space dog named Laika was the first dog to be launched into orbit (this was in 1957). Laika was a mixed-breed husky.



Two years later, in 1959, an unmanned space craft named "Luna 2" became the first machine to travel to the moon. The mission failed: Luna 2 crashed and could not return to Earth.



In 1961, a Russian astronaut named Yuri Gagarin became the first human to go to space. During his mission, Yuri completed one orbit around Earth.

SCIENCE

Ages 2-6

Exploring Space Picture Book



Exploring Space Picture Book For Ages 2-6

Supplies Needed:

1. Exploring Space Picture Book (attached)
2. Color Printer
3. Laminator
4. Lamination Sheets
5. Scissors or Straight Edge Cutting Tool
6. Stapler or Other Binding Tool

What To Do:

Print, laminate & trim the visual mini-book along the light gray lines at the center of each full page. Please note: each 8.5 x 11 inch page that you print will create two pages of the picture book when complete.

I recommend transitioning to your study of space exploration by reading this visual mini-book. It sets the stage for the rest of the activities and serves as a resource for referring back to throughout the remainder of the unit study.

Language, Refinement of Senses:
Visual Discrimination & Vocabulary



Exploring Space Picture Book For Ages 2-6

Why Multisori provides this material:

Exploring outer space is an incredible and fascinating topic. Astronauts, rockets, space shuttles and other space craft are so interesting to learn about! This visual mini-book is designed to peak your student(s) curiosity and improve their vocabulary as it relates to space exploration and space craft.

Rocket

1

Space Shuttle

2

A detailed 3D rendering of a Mars rover, resembling the Curiosity rover, on a reddish-brown, sandy surface. The rover has six large, treaded wheels, a complex mechanical arm, and a mast with a camera. The background shows a hazy, orange-tinted sky and distant hills.

Mars Rover

3

A 3D rendering of a satellite in space. The satellite has a central body with a large parabolic dish antenna and two long, rectangular solar panel arrays extending outwards. It is positioned above the Earth's horizon, which shows a blue atmosphere and white clouds against a black starry background.

Satellite

4



5

Space Station

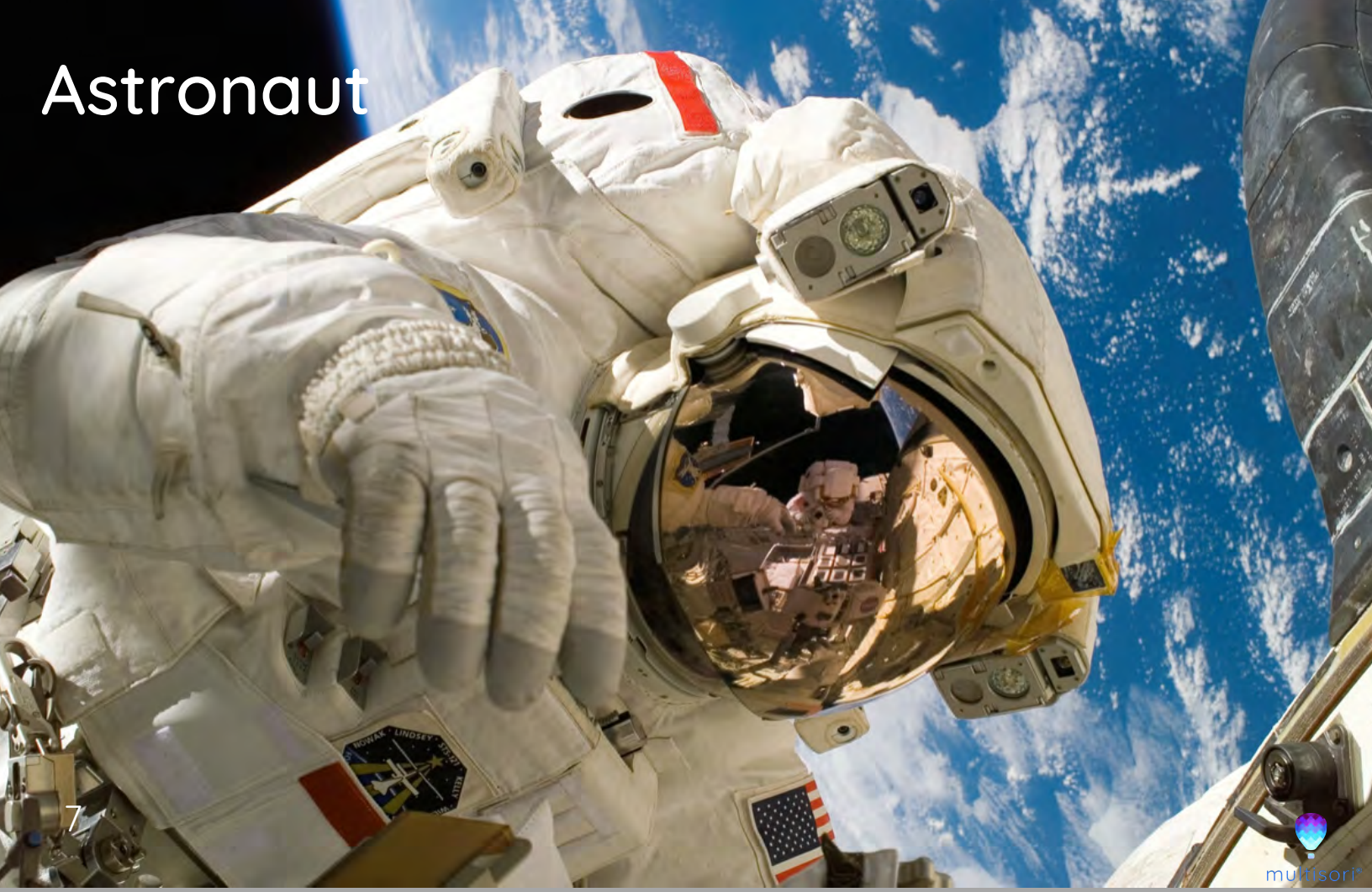


6

Space Craft



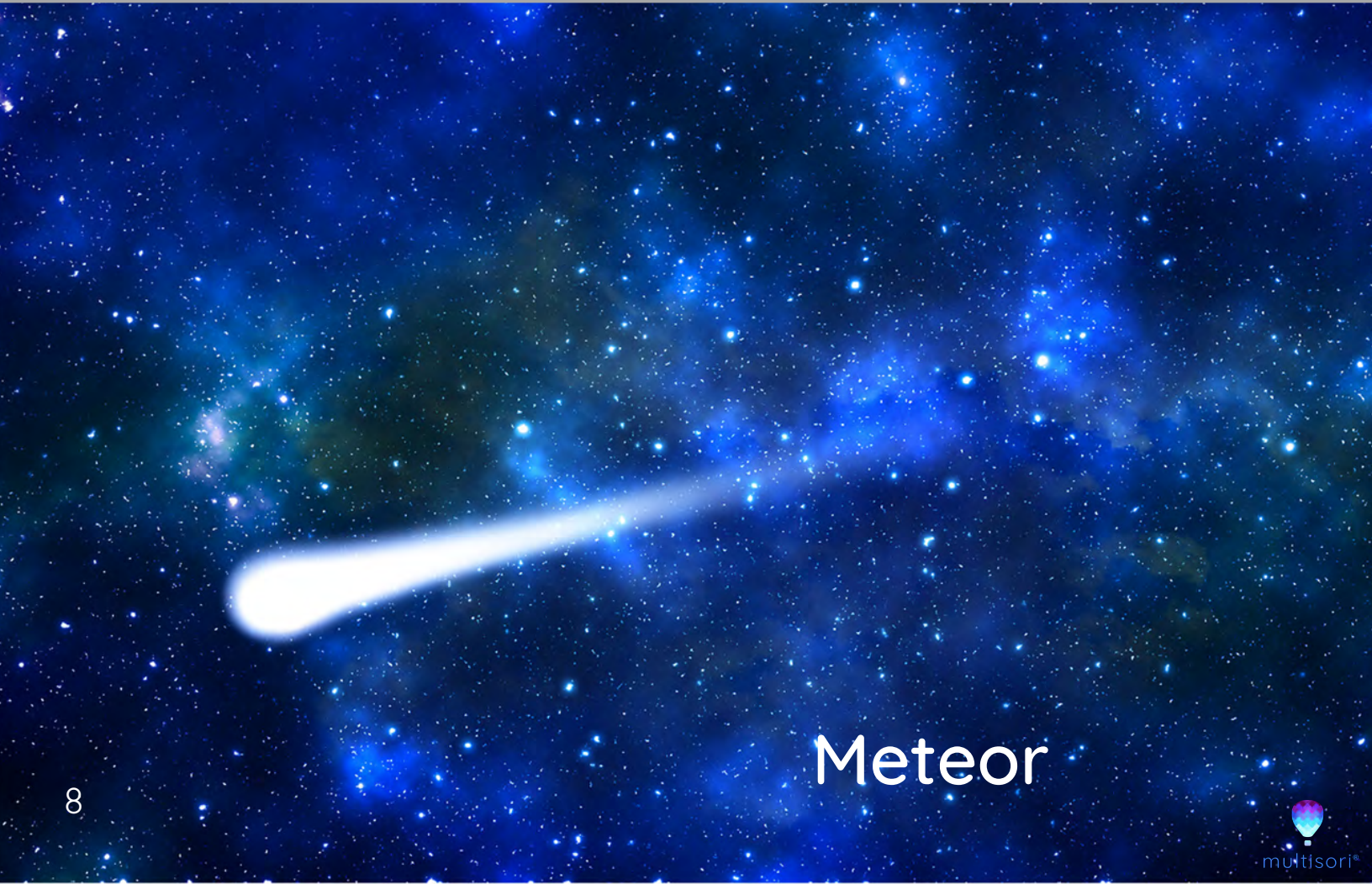
Astronaut



7

multisori

Meteor



8

multisori®

Asteroids

9

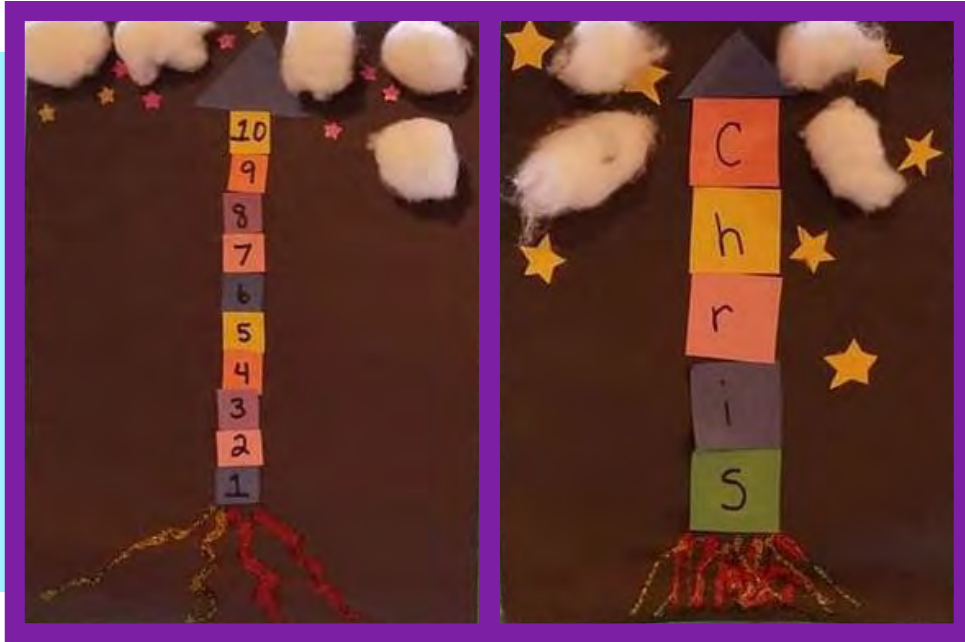
Space Shuttle Launch

10

ART

Ages 2-6

Simple Rocket Crafts



Supplies Needed:

1. Black Construction Paper (for background)
2. Various colors of construction paper (for building blocks of rocket)
3. Black marker
4. Cotton balls (for clouds)
5. Glitter glue, paint or markers (for rocket flames)
6. Scissors
7. Star stickers (optional)

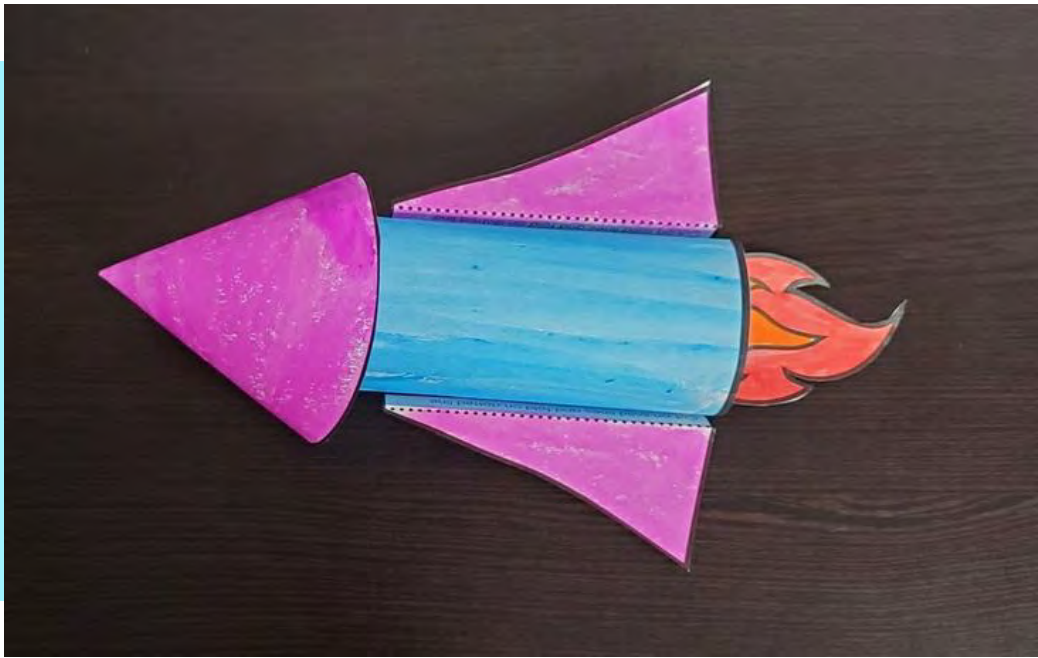
What To Do:

Before you Begin: Gather supplies. Decide on a challenging, but age/developmentally appropriate subject (such as counting, skip counting, learning the letters in a name, learning the letters of the word "rocket", etc...) Use the black marker, construction paper and scissors to create the necessary shapes and labels (numbers or letters). Assemble the rocket but do not glue to the paper. Take a picture of it so that you and/or your student(s) can reference it later.

What to Do: Tell your student(s) that we are going to build a name/word/counting/skip counting rocket. Explain how to assemble the rocket, referencing the square and triangle shapes. Show the student(s) the picture you took, if desired. Assist as needed to place and glue the various components into place.

Order, Refinement of Senses, Small Objects, Math, Language:
Fine and Gross Motor Skills, Creativity, Imagination

Make a Paper Rocket



Supplies Needed:

1. Paper rocket craft printables, printed but not trimmed (attached)
2. Scissors
3. Glue or glue stick
4. Crayons or markers
5. Stickers (optional)

What To Do:

1. Print one set of rocket printables per student.
2. Invite student(s) to color the shapes before cutting.
3. Cut out the colored shapes along the solid lines. (You may invite your student(s) to do this if developmentally appropriate).
4. Assist your student(s) as necessary to :
 - a. Roll the rectangle into a cylinder and glue together.
 - b. Roll the semi-circle into a cone and glue together.
 - c. Fold the two rocket wings along the dotted lines.
 - d. Glue the rectangular part of the rocket wings onto the cylinder.
 - e. Glue fire cutout on to the bottom of the cylinder.
5. Let the student(s) explore space with their rocket(s)! Use this as an opportunity to discuss the names and locations of the planets (Where are you going in your rocket? How far is that from Earth? From the Sun?) Enjoy!

**Movement, Refinement of Senses, Small Objects, Spatial Relationships:
Fine and Gross Motor Skills, Creativity, Imagination**

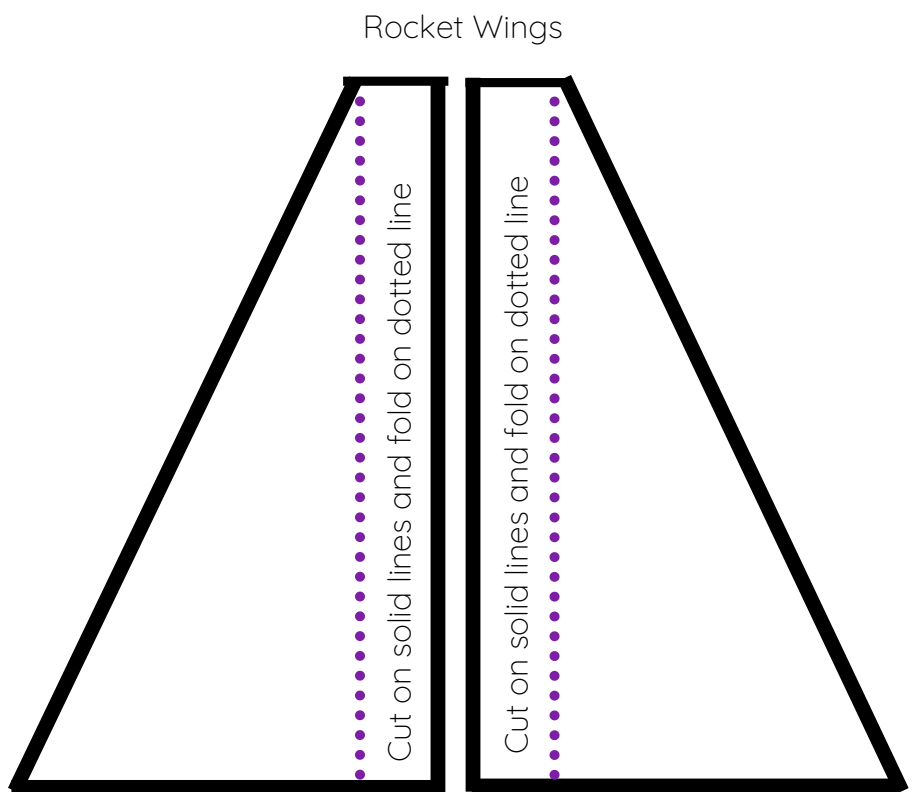
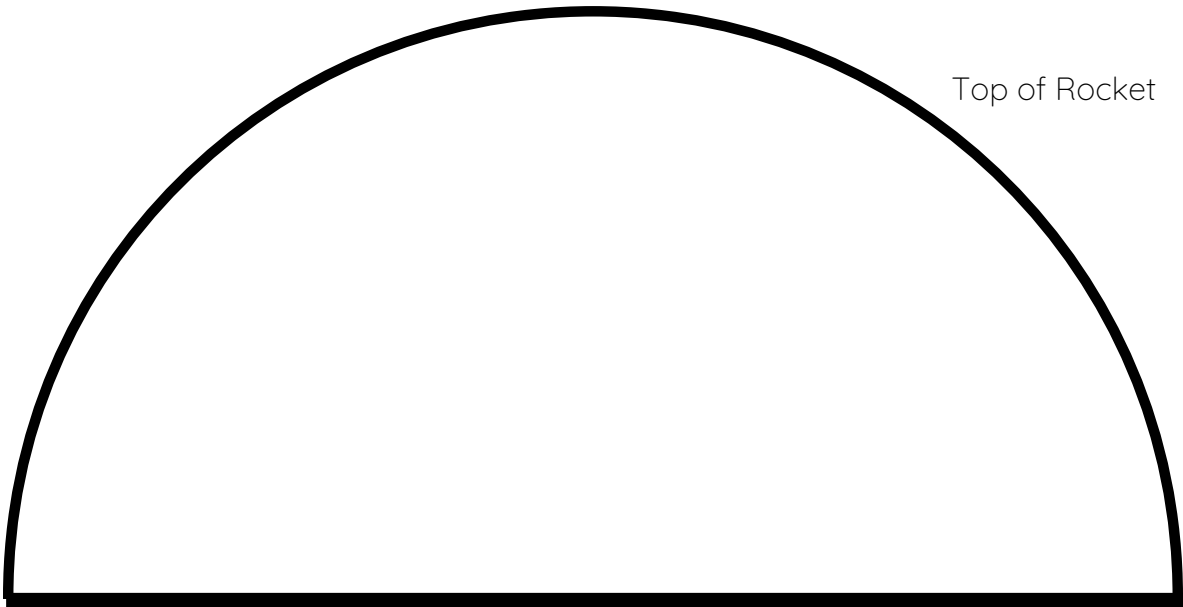
Paper Rocket Craft

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 - e. Glue fire cutout on to the bottom of the cylinder.
5. Let the student(s) explore space with their rocket(s)! Use this as an opportunity to discuss the names and locations of the planets (Where are you going in your rocket? How far is that from Earth? From the Sun?) Enjoy!



Body of Rocket

Paper Rocket Craft



KINESTHETIC LEARNING

Ages 4-6

Solar System Bingo



Supplies Needed:

1. Solar System Bingo Cards, printed, laminated and trimmed (attached)

What To Do:

Before You Begin:

Print the attached solar system bingo printable. Cut the pages with the bingo cards in half. For the rest, cut the black lines. Laminate for added durability. Play with 2-10 people. NOTE: Please review the included "Space Exploration" mini-book before playing.

Presentation

1. Each player chooses a unique bingo card and takes nine card markers.
2. Shuffle the caller cards.
3. One person can be chosen as the caller, or turns can be taken. The caller draws a caller card and announces the solar system item.
4. Each player marks the same item on their bingo card by covering it with a marker.
5. When someone has a complete line (in any direction), they say "BINGO" and win the round. Enjoy!

Small Objects, Language, Grace & Courtesy, Refinement of Senses:
Vocabulary, Science, Fine Motor Skills

solar system bingo



solar system bingo



solar system bingo



solar system bingo



solar system bingo



solar system bingo



solar system bingo



solar system bingo



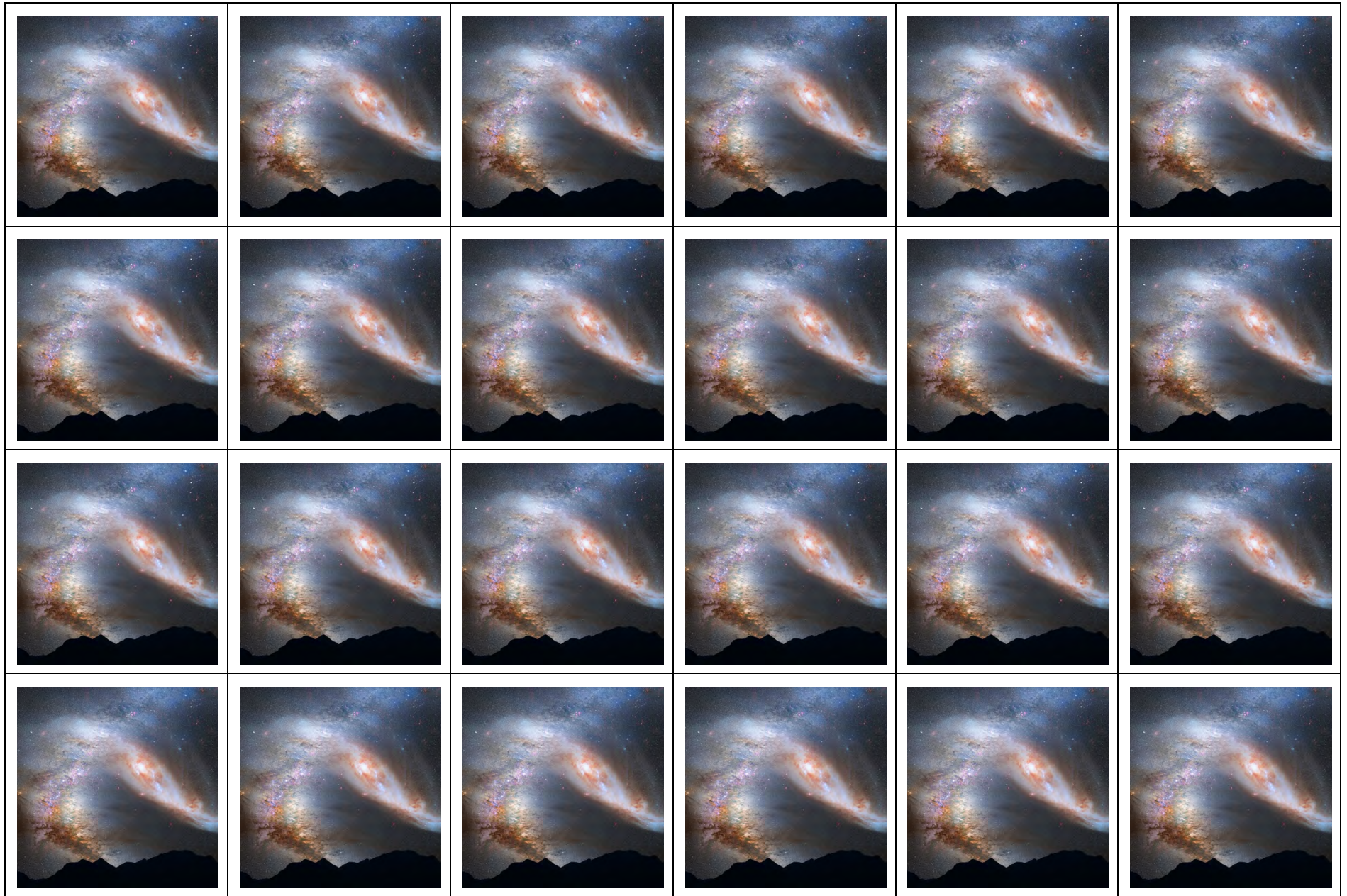
solar system bingo



solar system bingo



card markers



multisori®



caller cards



KINESTHETIC LEARNING

Ages 4-6

Write the Room: Space Exploration



Supplies Needed:

1. Space Exploration Write the Room Pages, printed (attached) - you will need one copy per participant, plus one to cut and hang
2. Scissors
3. Tape
4. One pencil per child
5. Clipboards (optional)

What To Do:

Before You Begin:

Please be sure to introduce space exploration by reading "Space Exploration" visual mini-book prior to this activity. Print the attached "Space Exploration Write the Room" pages. You will need one copy per participant, plus one to cut and hang. Cut the images out and hang them in various places around the learning environment. Be sure you hang them at the eye level of your student(s).

Presentation

1. Give each participant their copy of "Space Exploration Write the Room" pages, a pencil and a clipboard, if desired.
2. Ask the student(s) to locate each item, then trace their name once found. Encourage patience, no pushing and kindness.
3. When complete, ask the students to return to you in an orderly fashion. Have each child give you a tour of what they found. They should kindly walk you around and show you where each item is hung. Depending on the child's age and readiness, ask what they found and/or how to spell it.

Language, Grace & Courtesy, Refinement of Senses:
Vocabulary, Science, Fine Motor Skills, Handwriting, Patience, Memory



rocket



space

shuttle



Mars rover



satellite



space

station



space craft



astronaut



meteor



asteroids



launch



rocket



space
shuttle



Mars rover



satellite



space
station



space craft



astronaut



meteor



asteroids



launch

MATH

Ages 3-6

Counting & Skip Counting Puzzles



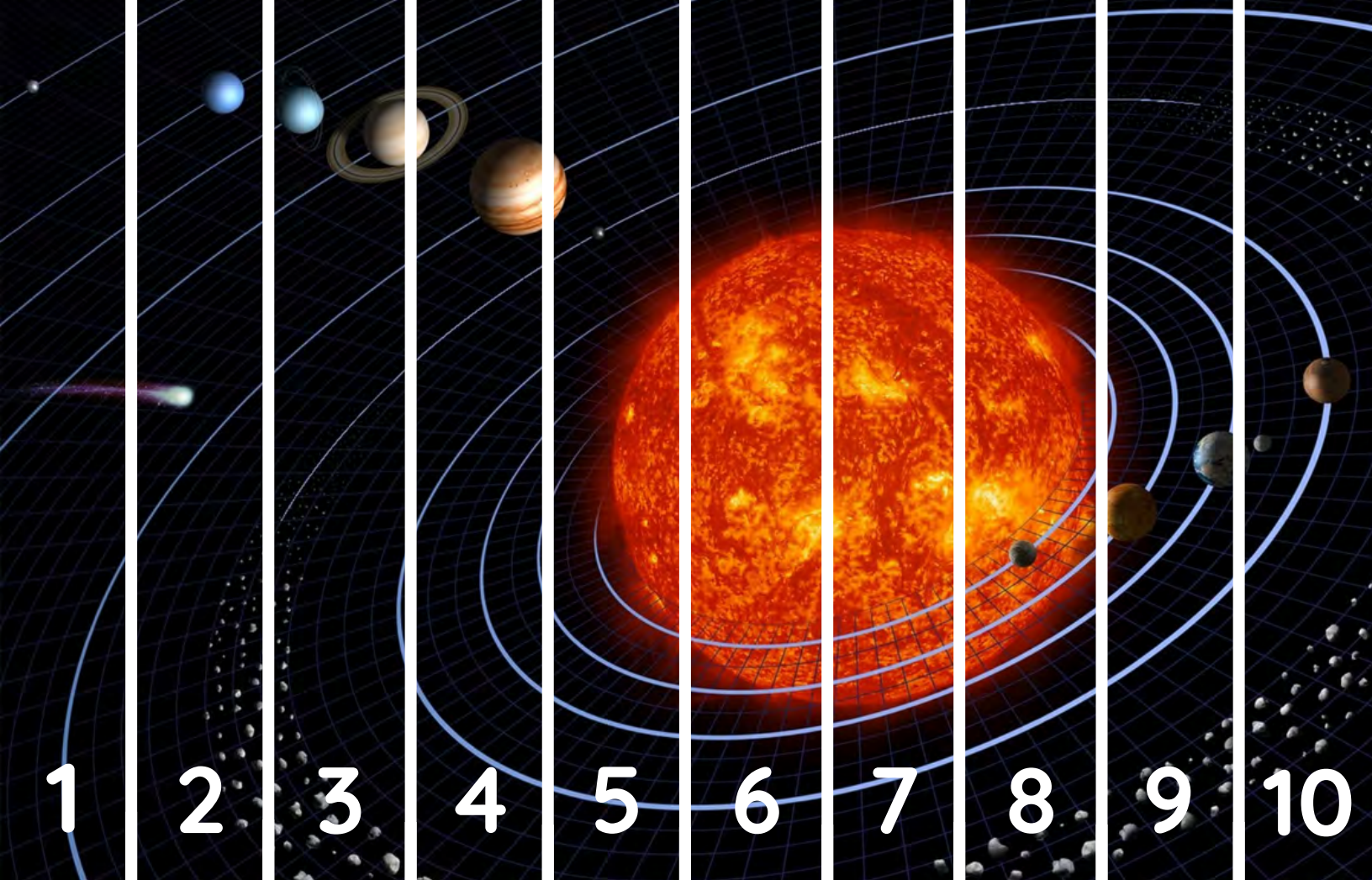
Supplies Needed:

1. Counting and/or skip counting puzzles, printed, laminated & trimmed along white lines (attached)

What To Do:

Determine which puzzles are appropriate for your student's level. Provide puzzles one at a time. Provide all puzzle pieces at once, in a random fashion. Ask your student to put the puzzle together using the counting or skip counting skill needed. Reuse throughout the unit study to reinforce the skill.

Math, Refinement of Senses, Order & Small Objects:
Counting, Skip Counting, Fine Motor Skills & Visual Discrimination





LANGUAGE

Ages 4-6

My Favorite Planet Worksheet

My Favorite Planet



What is your favorite planet in our solar system?

Why is that planet your favorite?

Draw your favorite planet below:



multisori

Supplies Needed:

1. My Favorite Planet worksheet, printed (attached)
2. Colored pencils, crayons and/or markers
3. Pencils

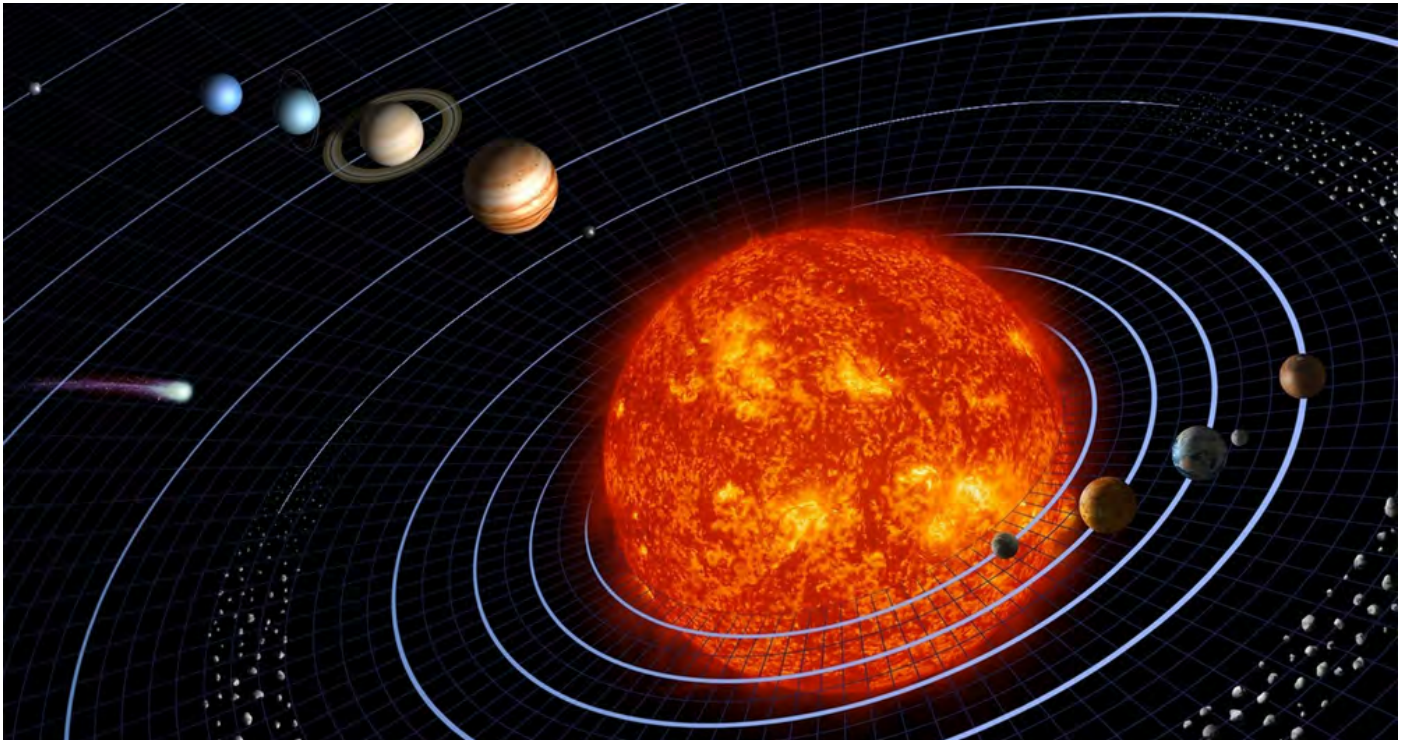
What To Do:

At the end of the unit study (as one of the very last activities), provide the "My Favorite Planet" worksheet to your students. Ask them to spend some time thinking about which of the planets is their favorite and why. Help them form and write complete sentences using appropriate punctuation and grammar to answer the questions. Stress the importance of capitalizing the first word of a sentence and using periods, question marks or exclamation points at the end. Be sure to define those terms. Then, ask students to draw their favorite planet at the bottom of the page.

Language:

Handwriting, Grammar, Fine Motor Skills, Critical Thinking & Art

My Favorite Planet



What is your favorite planet in our solar system?

Why is that planet your favorite?

Draw your favorite planet below: