

A UNIVERSE
OF STORIES



20 Passive Program Ideas



Presented by Esther Birkey
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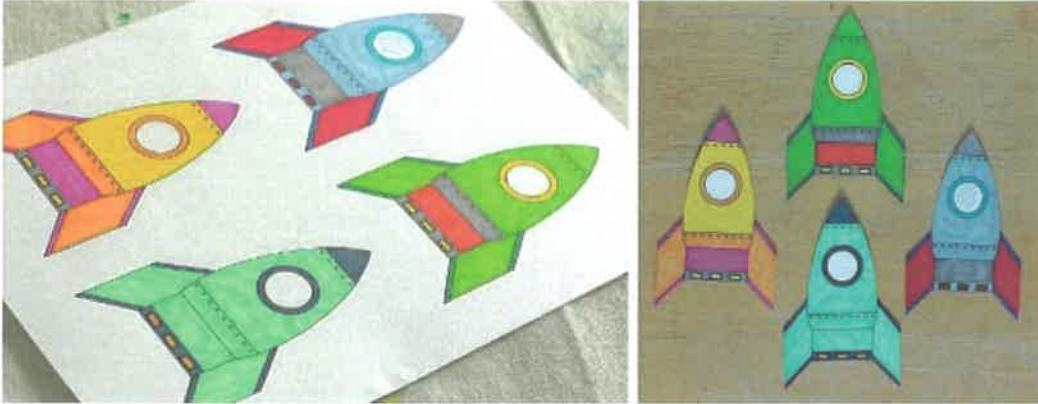
20 Passive Program Ideas

1. Straw Rockets
2. Build a LEGO Solar System
3. Space Bookmarks
4. Space Story Stones
5. Decorate alien underpants.
6. Build a Spaceship with a cup of LEGO
7. Star Wars I Spy Game
8. Indoor Star Gazing - Hunt for constellations
9. Space themed mazes and word searches
10. Design an Alien
11. Salt Dough Earth (Here We Are by Oliver Jeffers)
12. Color by Code - Space themed Math activities
13. Planet Puzzles
14. Activities based on 'Whatever Next' by Jill Murphy
15. Draw a Story Map
16. Pipe Cleaner Constellations
17. Space Mandalas and Zentangles
18. Rocket Sight Words or Names
19. Constellation art with rocks and sidewalk chalk.
20. Balancing Robot

1. Straw Rockets

From BuggyandBuddy.com

Color the rockets and cut them out.



Cut the bottom off a plastic pipette and attach it to the back of a rocket using tape or glue dots.

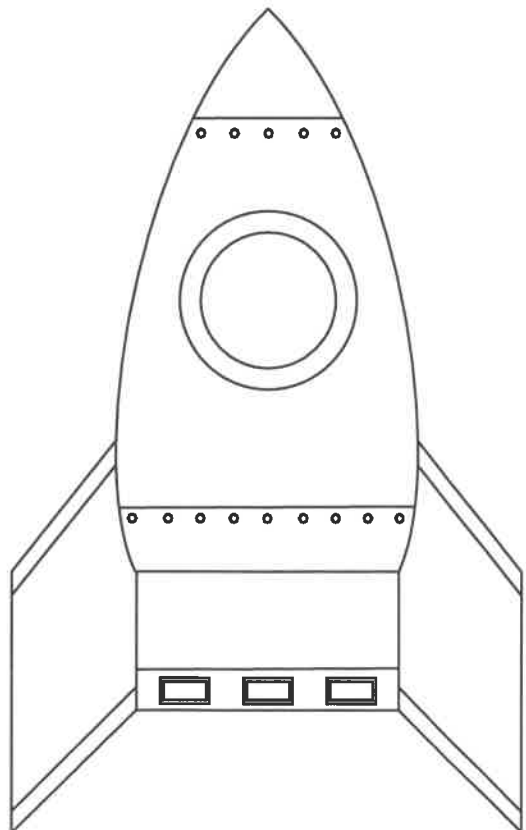
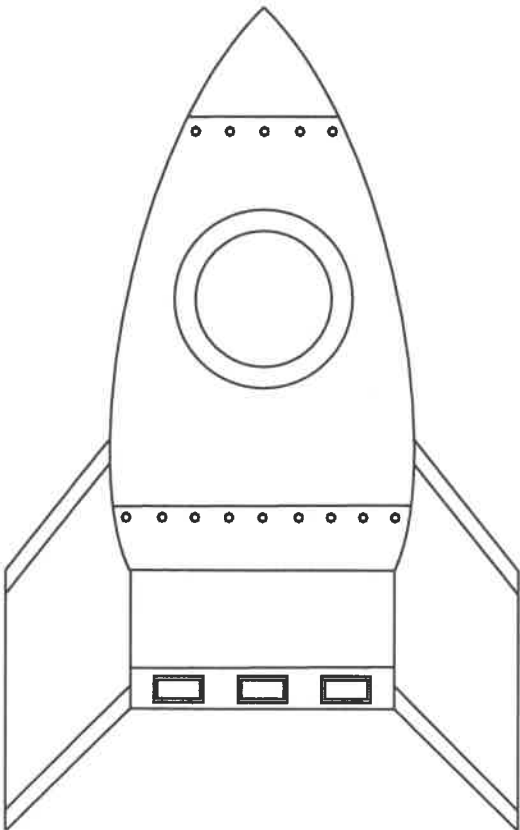
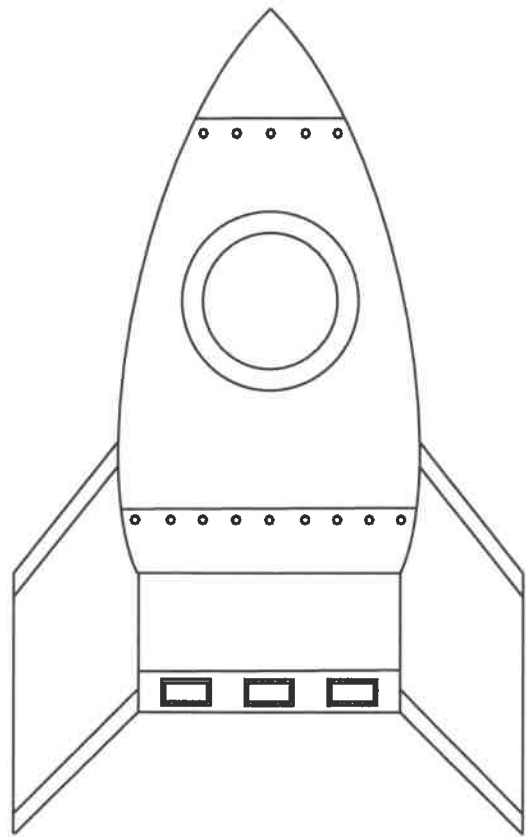
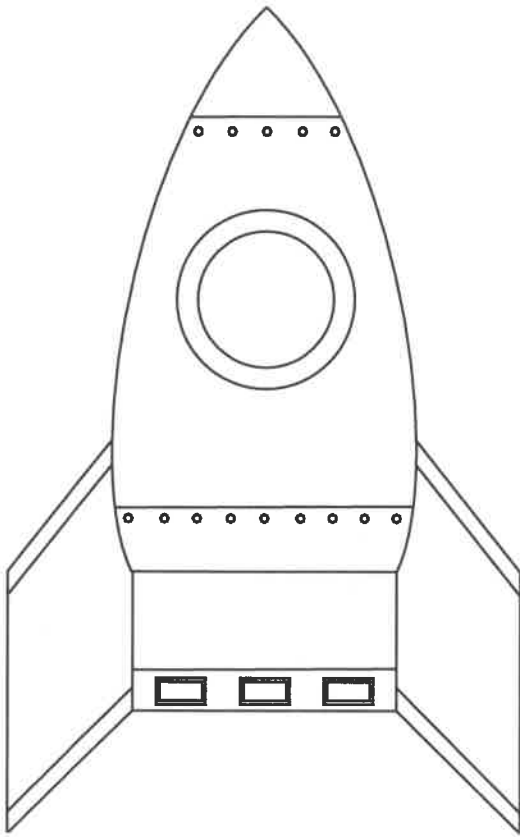


If you don't have any plastic pipettes handy, you can use a straw instead. (Just make sure this straw is wider than the other straw you'll be using for launching.) Cut the straw to fit the length of the rocket and tape one end shut so it's completely sealed. Attach it to your rocket with glue dots or tape.

Slip a straw into your pipette, and you're ready to launch.

Give your straw a big puff of air, and watch it take off!



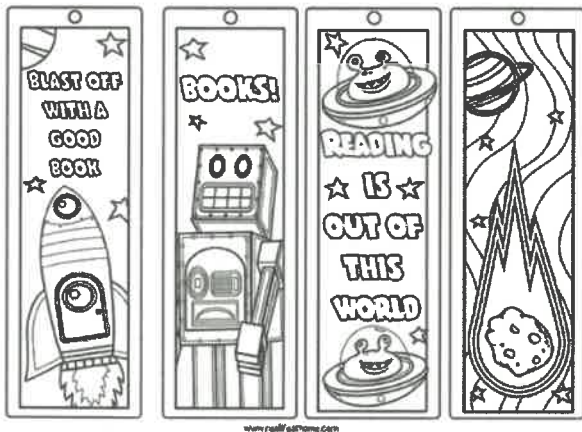


2. LEGO Solar System

<https://ideas.lego.com/projects/0b06291a-ff6b-4777-a42e-b1b5c79f02d4>
<https://www.kitchencounterchronicle.com/lego-solar-system/>
<https://jkbrickworks.com/earth-moon-and-sun-orrery/>
<https://www.youtube.com/watch?v=01EjyX03hm0&v=en>



3. Space Bookmarks



See PDF.

Can be downloaded for free from
<https://www.reallifeathome.com/space-bookmarks-reading-log/>

4. Space Story Stones

<http://www.youclevermonkey.com/2016/01/space-pretend-play.html>

To make your own space themed story stones, you will need:

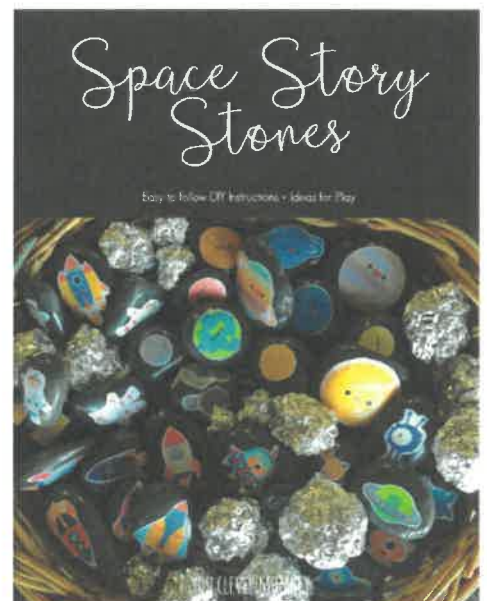
- clean dry flat stones (these came from a garden supply store)
- Mod Podge
- paint brush
- space pictures

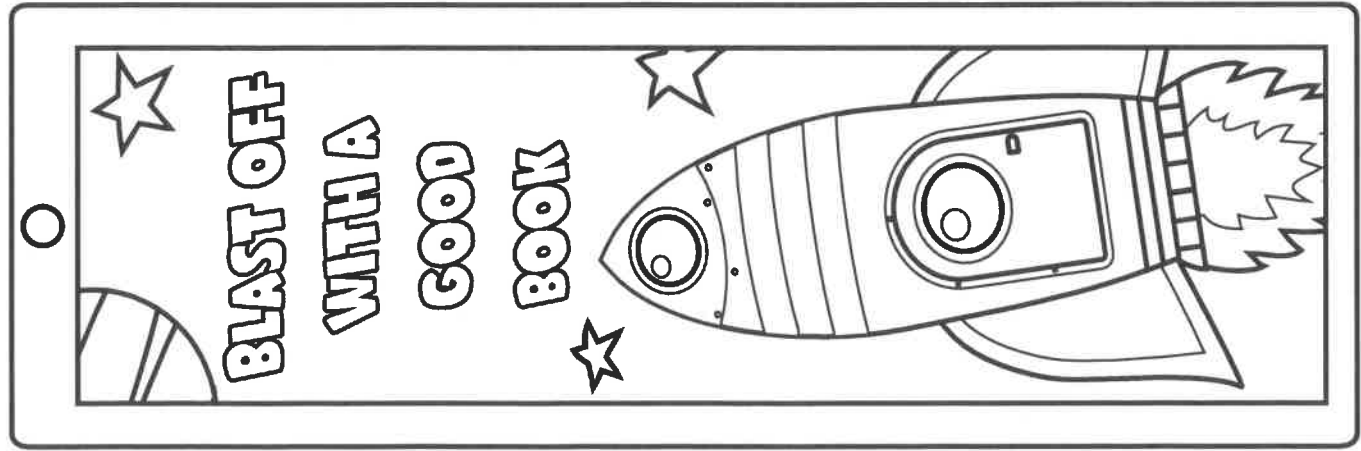
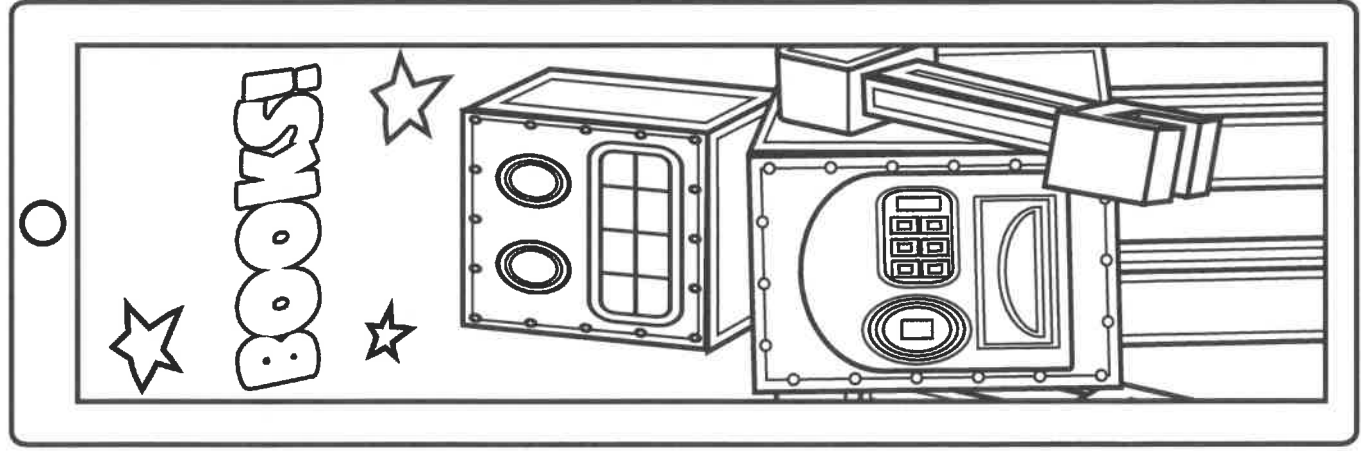
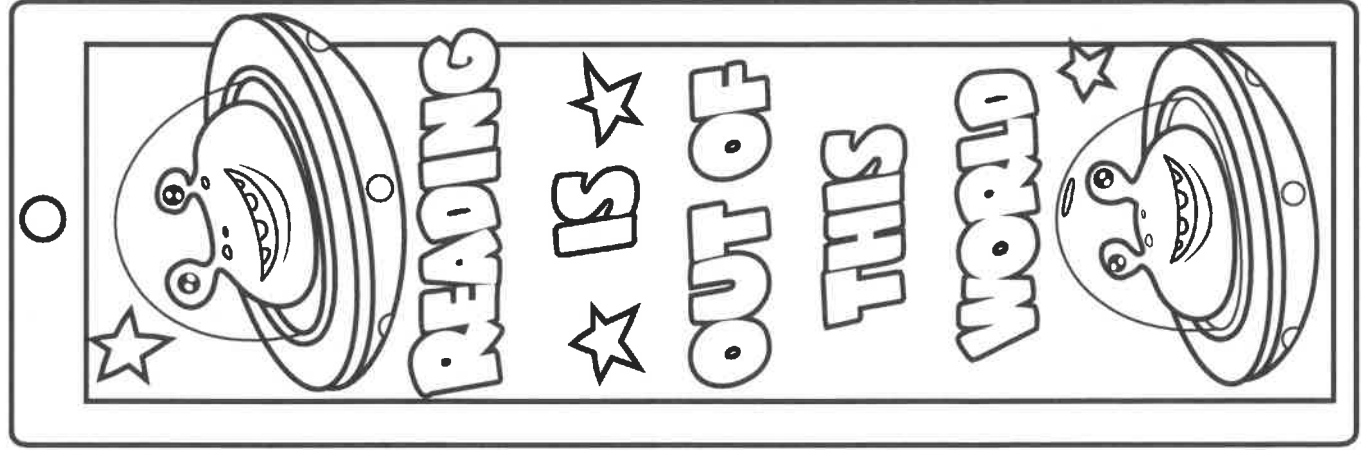
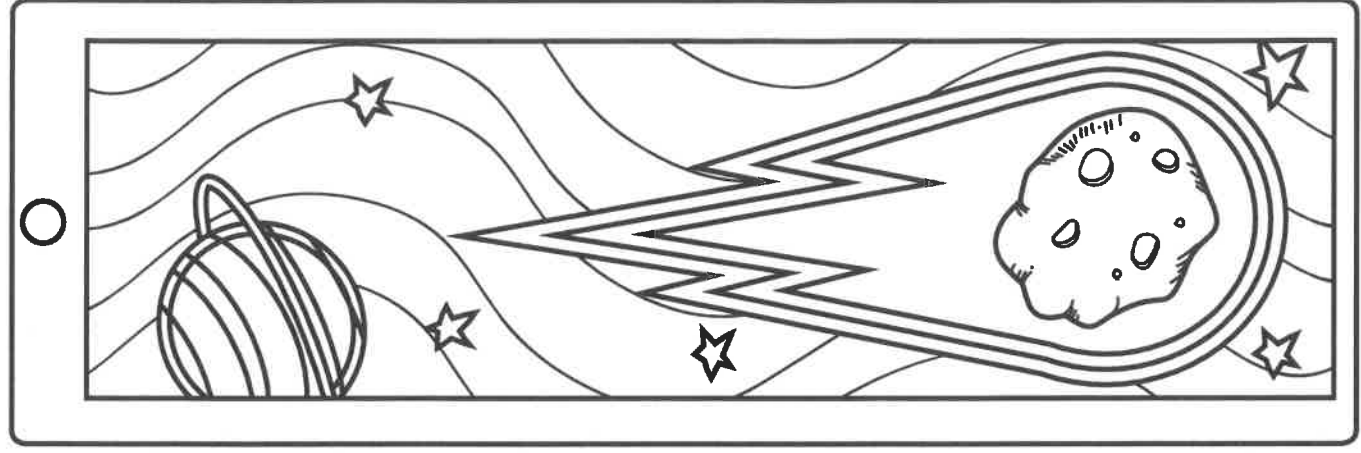
Simply cut out the pictures and then match them to a similar sized stone.

Paint the stone with some Mod Podge then lay the image on the Mod Podge while still wet then cover the picture with another layer of Mod Podge.

Leave them to dry on some baking paper or an old plastic shopping bag - something the Mod Podge won't stick to.

When dry, re-coat the entire stone with another later of Mod Podge. Start on the reverse side then front before leaving to dry completely.





[illegible]

5. Decorate Alien Underpants



Activity based on 'Aliens Love Underpants' by Claire Freedman

See PDF.

https://clubs-kids.scholastic.co.uk/clubs_assets/50581

https://clubs-kids.scholastic.co.uk/clubs_assets/50583

<http://www.hellowildthings.com/2013/01/underpants.html?m=1>

6. Build a Spaceship with a cup of LEGO



Challenge patrons to create a spaceship with just one cup of LEGO.



7. Star Wars I Spy Game

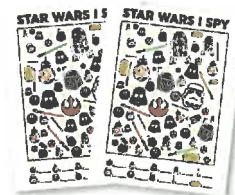
Free Printable

<https://www.simpleeverydaymom.com/star-wars-free-printable-i-spy/>

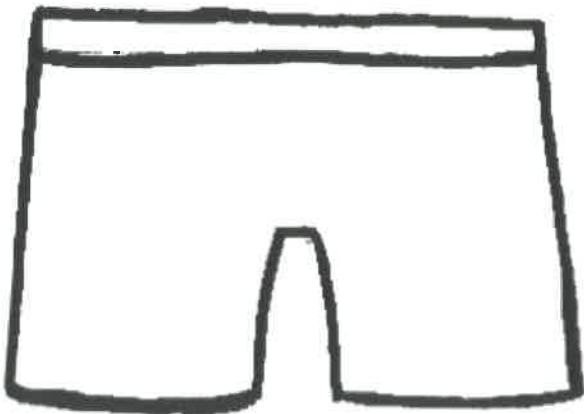
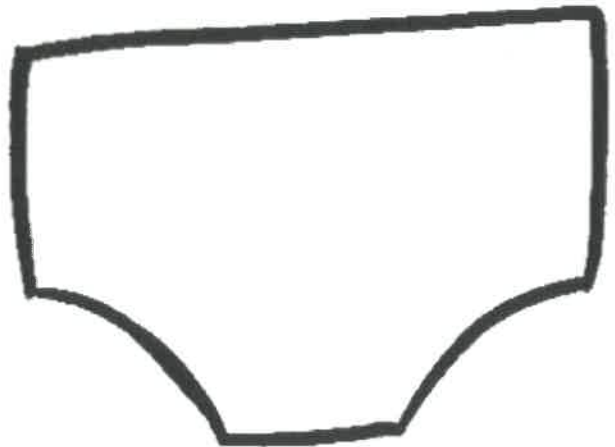
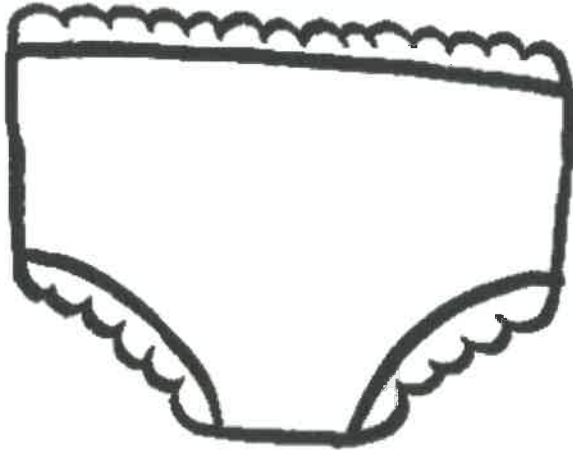
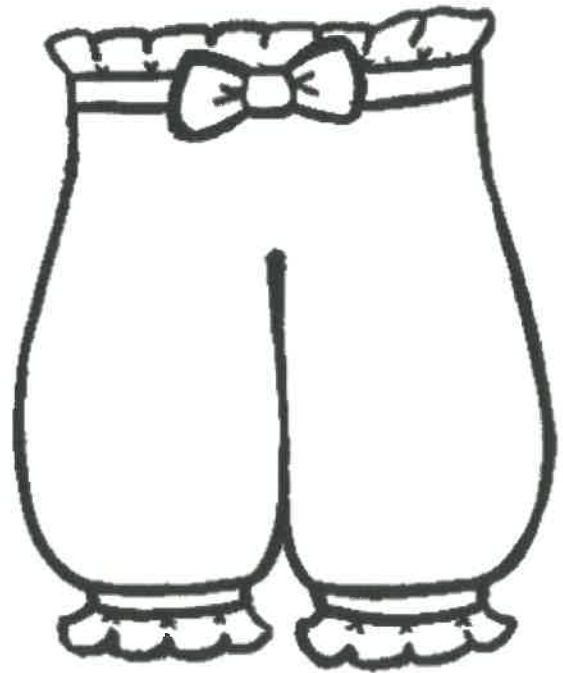
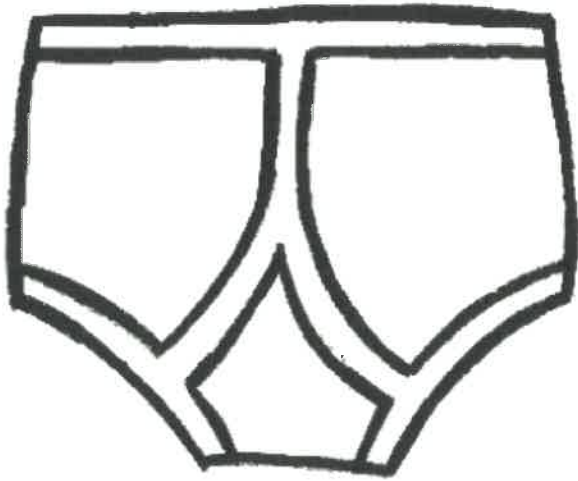
See PDF.

FREE PRINTABLE
STAR WARS
I SPY GAME

simpleeverydaymom.com













DESIGN YOUR OWN **UNDERPANTS**



HOW NOT TO BE A ZOMBIE






STAR WARS I SPY



	x _____		x _____		x _____		x _____		x _____
	x _____		x _____		x _____		x _____		x _____

STAR WARS I SPY ANSWER KEY

 x 10  x 7  x 10  x 6  x 6

 x 3  x 6  x 7  x 4  x 5

8. Indoor Star Gazing

Idea from <https://tscpl.org/events/stars-scavenger-hunt>

Create 10 constellations in your library and have patrons complete a scavenger hunt to find all the summer sky constellations. Reward patrons with small incentives or a prize drawing.



9. Space Themed Word Searched & Mazes (FREE)

https://www.nasa.gov/centers/johnson/about/resources/jscfacts/activity_coloring_sheets.html

<https://resource-bank.scholastic.co.uk/resources/254798>

<https://www.kidspuzzlesandgames.co.uk/themes/space>

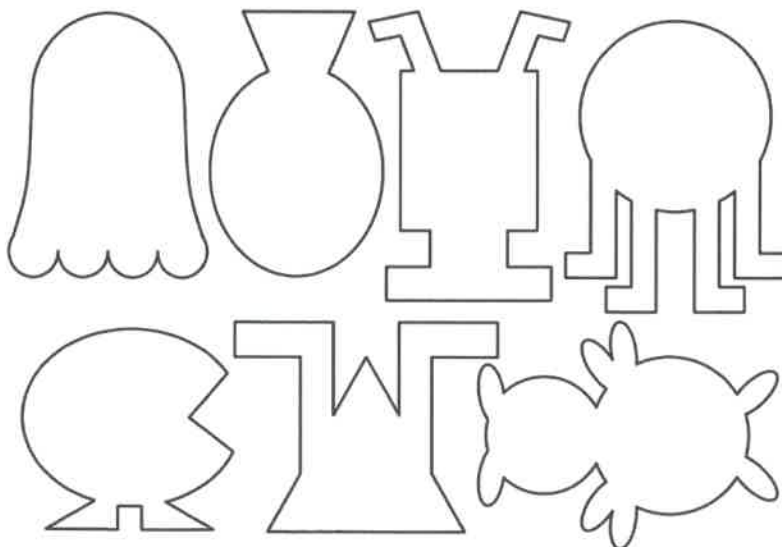
http://www.thekidzpage.com/colouring_menus/activities/pages/c0083f.htm

<https://www.nasa.gov/audience/foreducators/5-8/index.html>

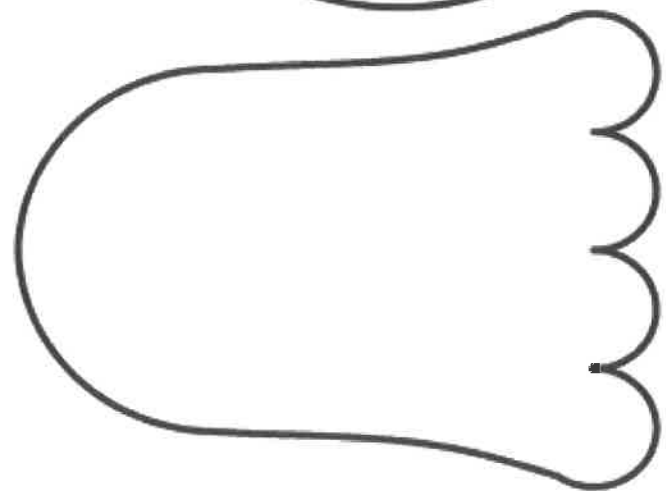
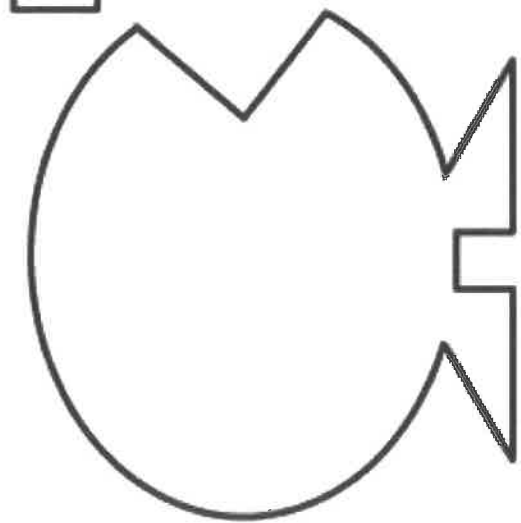
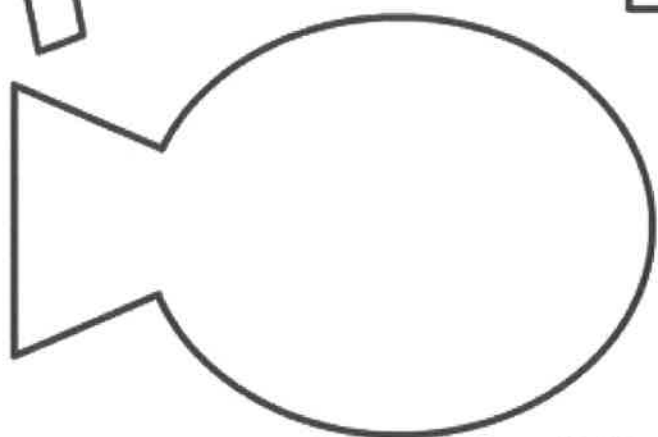
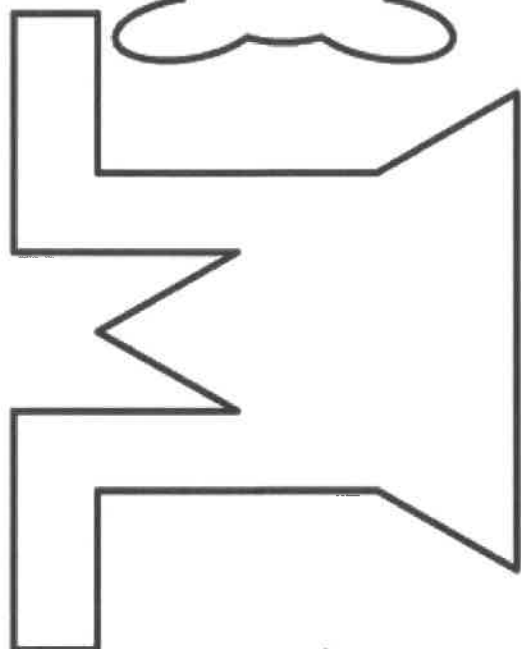
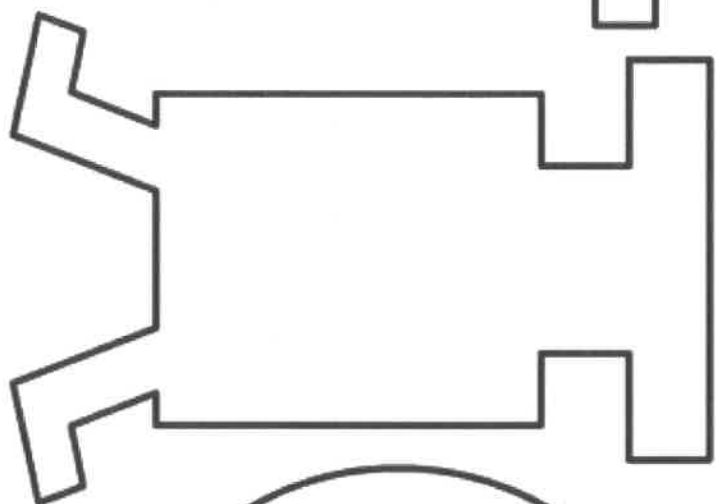
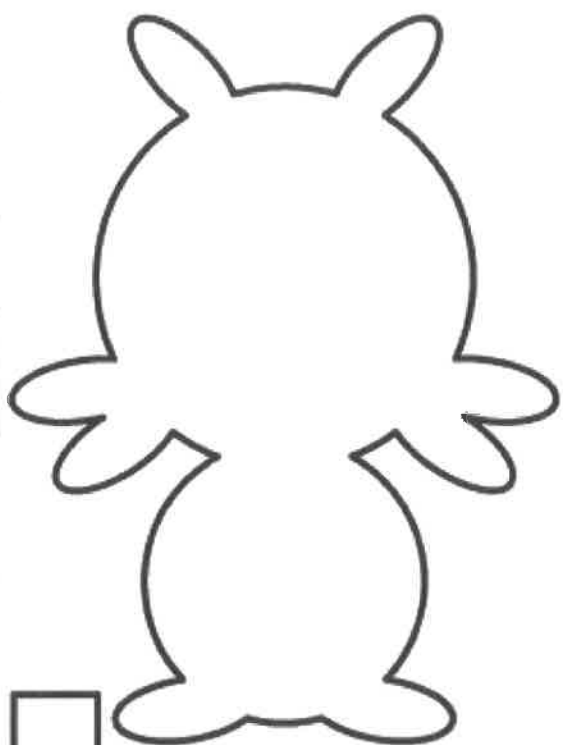
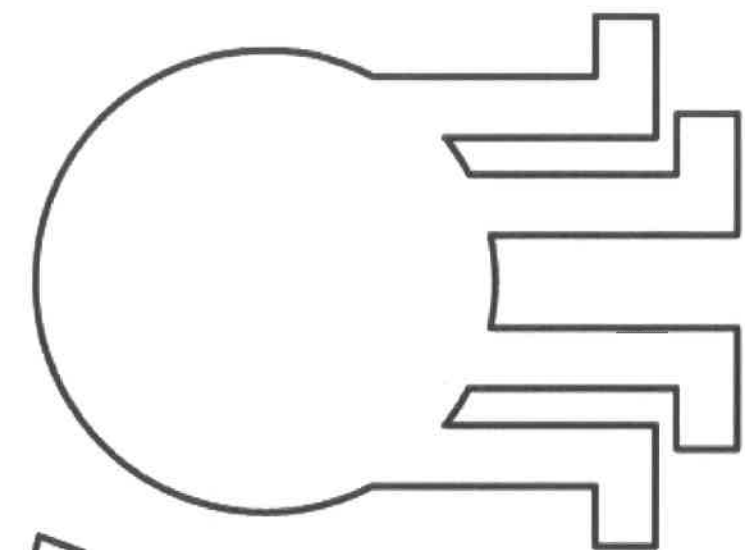
https://www.nasa.gov/centers/johnson/about/resources/jscfacts/activity_coloring_sheets.html

<https://spaceplace.nasa.gov/posters/en/>

10. Design an Alien



See PDF.



A-MAZE-ING WOMEN OF STEM: SCIENCE

NASA Scientist Jie Gong studies Earth's atmosphere. She uses data from satellites to understand where and when snow might fall. She also studies ice clouds and hail.



STEM stands for Science, Technology, Engineering and Mathematics.

Did you know?
NASA hires about 15 different types of scientists.



Help Jie navigate through the maze to reach the snowflake.

Want to learn about women doing amazing things in science?
Visit <https://www.nasa.gov/education/womenstem/women-in-science>.

11. Salt Dough Earth ('Here We Are' by Oliver Jeffers)



<https://booksandgiggles.com/2017/11/peace-on-earth-ornaments.html/>

Mix up some salt dough and work blue food coloring into it to get a bright shade of blue.

Form a 1-inch ball of dough, and set it on parchment paper. With your fingers, flatten the ball into a 2-inch circle.

Pull out some blue dough and work in yellow food coloring to turn it green.

Shape the green dough into bumpy continents and gently press it onto the blue dough.

Press beads and "jewels" onto the green dough. Pretend they're mountains!

SEND HOME WITH BAKING INSTRUCTIONS

Bake at 200 degrees Fahrenheit for 2-3 hours, until hard and dry on both sides. Make sure your parchment paper doesn't curl up into the ornaments. Let cool, then paint with sparkle glaze or another sealer. Let dry.

12. Color by Code Printables

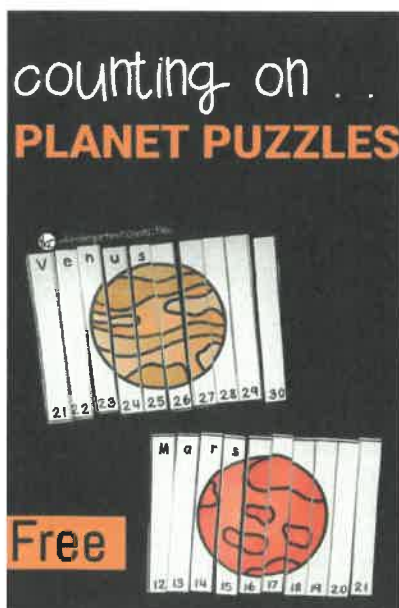
<https://viewsfromastepstool.com/space-coloring-pages/>

<http://www.homemade-preschool.com/color-by-number-space.html>

<https://www.kittybabylove.com/27-helpful-subtraction-colors-by-number/>



13. Planet Puzzles



FREE Download

<https://thekindergartenconnection.com/counting-on-planet-puzzles/>

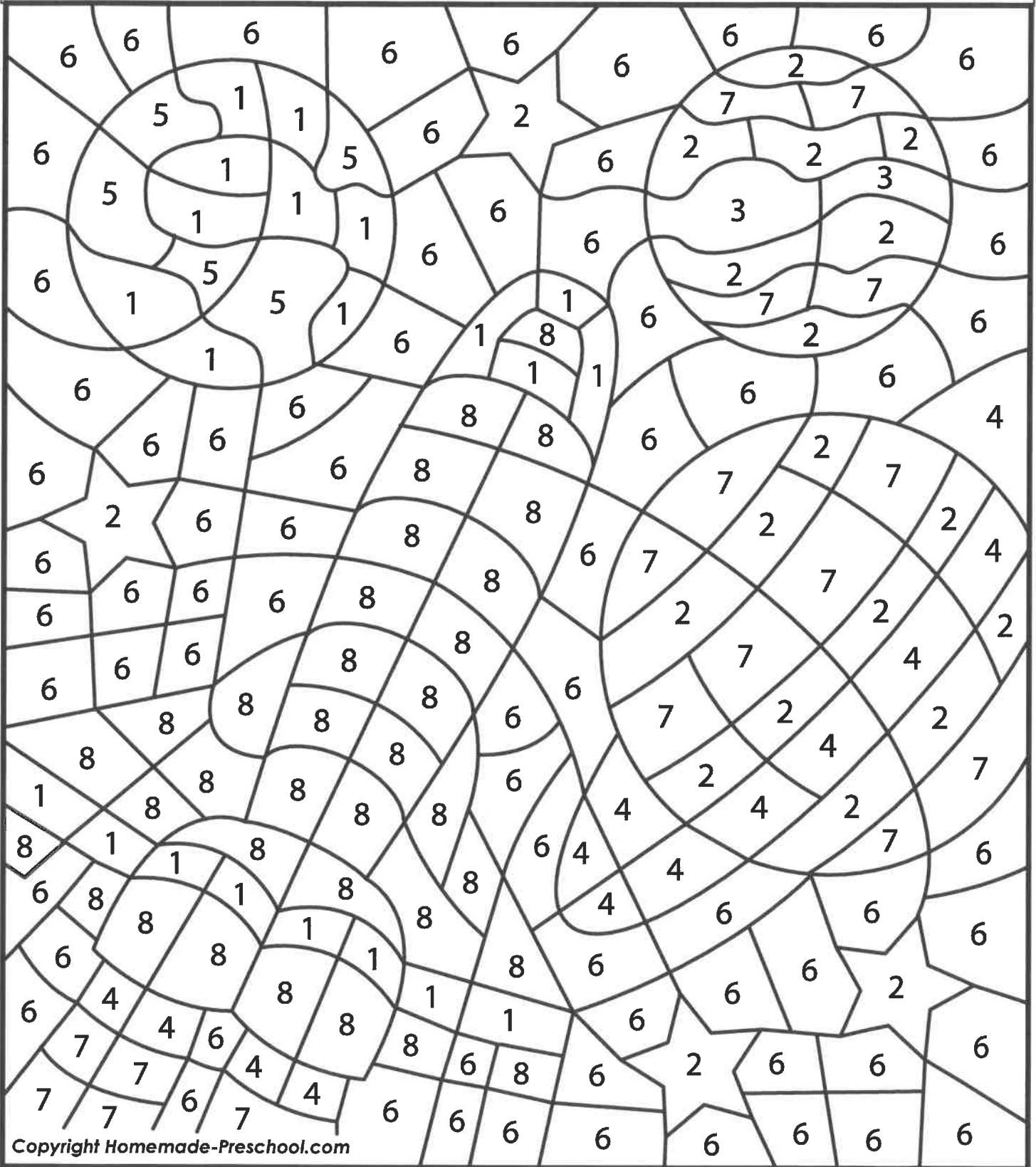
Use solar system pictures to create your own jigsaws.

MORE PUZZLES

<https://www.craftionary.net/solar-system-activities-free-printables/>

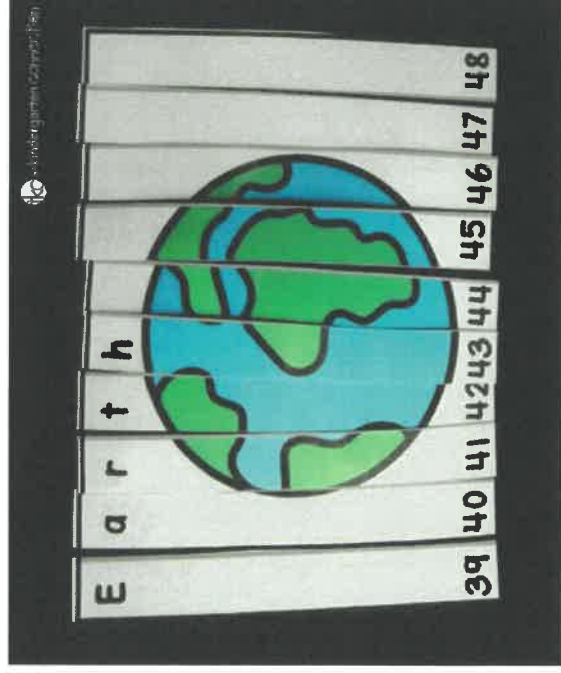
Color By Number: Space

- 1 Blue 2 Yellow 3 Brown 4 Red 5 Green 6 Black 7 Orange 8 Gray



Thank you for Downloading!

Counting On Planet Puzzles



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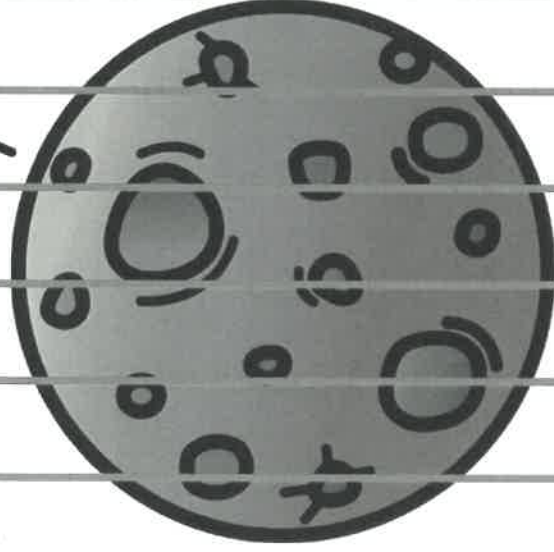


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(Click for info)

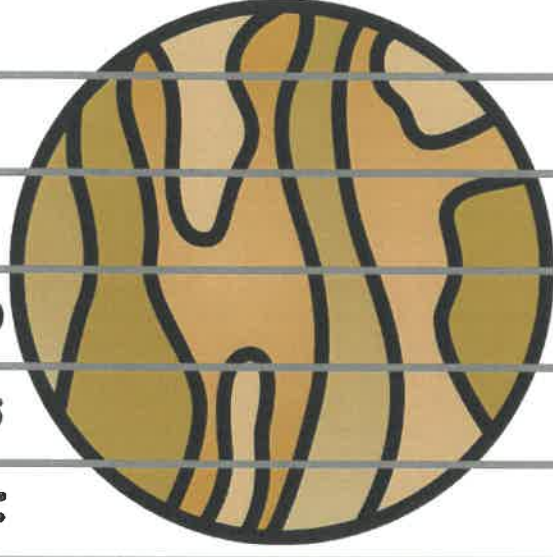


Mercury



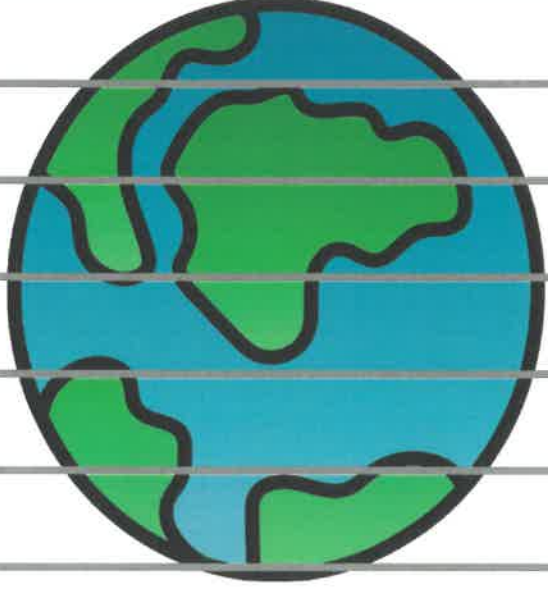
7 8 9 10 11 12 13 14 15 16

venus



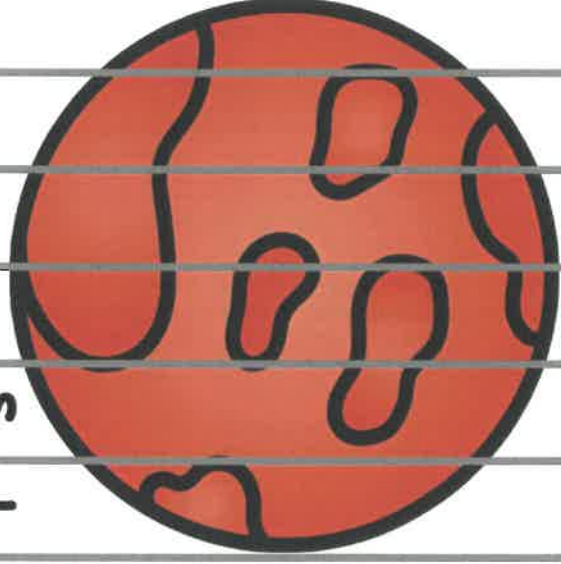
21 22 23 24 25 26 27 28 29 30

Earth



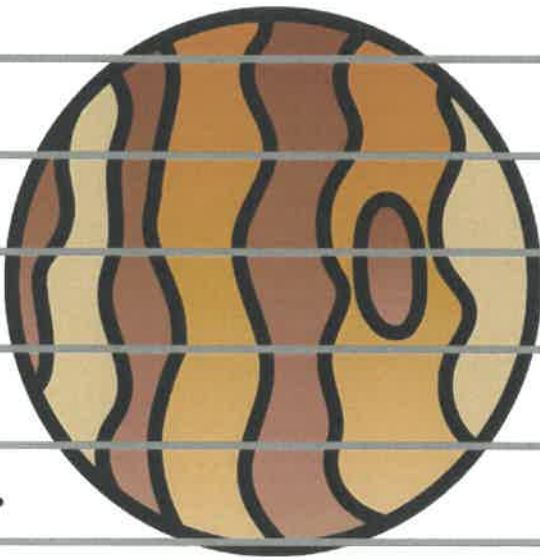
39 40 41 42 43 44 45 46 47 48

Mars

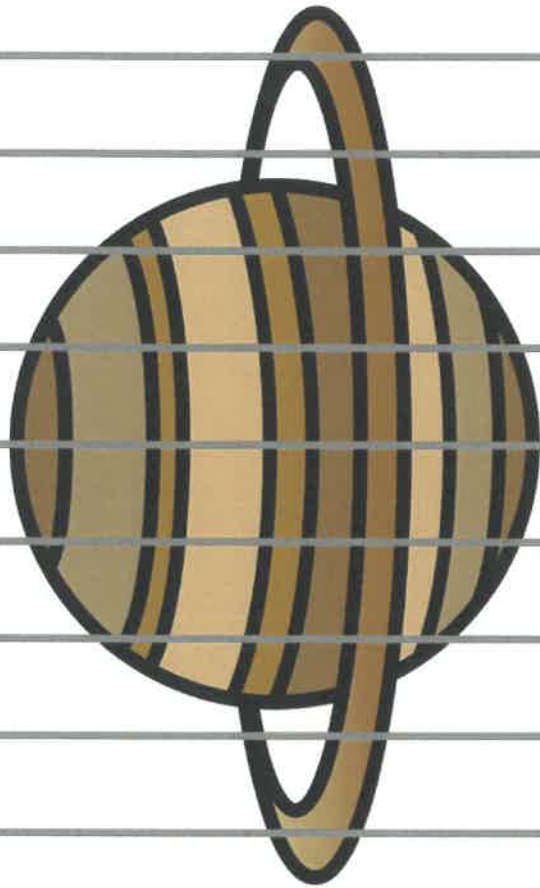


	12	13	14	15	16	17	18	19	20	21
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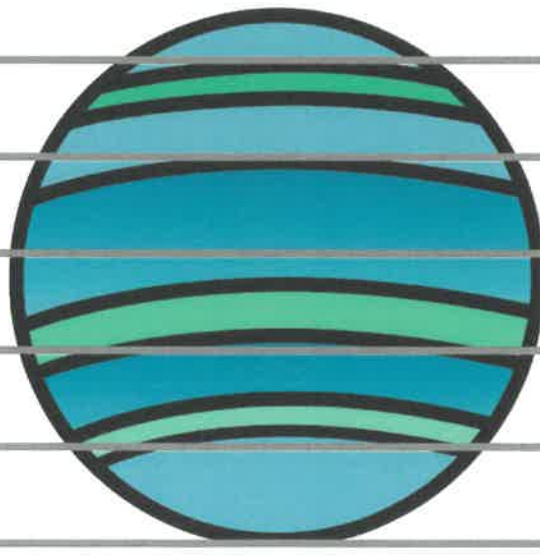
J	u	p	i	t	e	r			
32	33	34	35	36	37	38	39	40	41



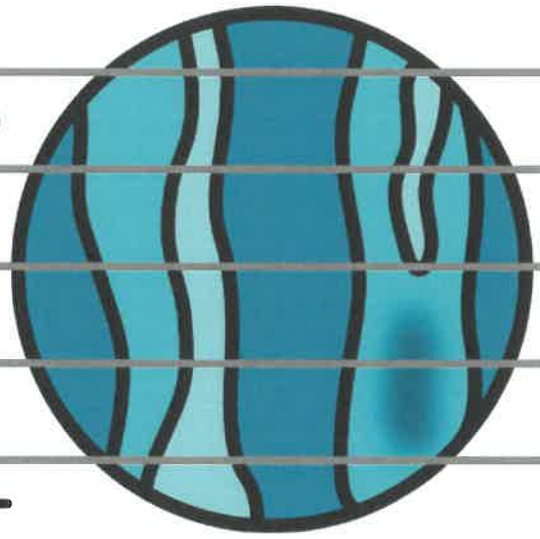
S	a	t	u	r	n				
2	3	4	5	6	7	8	9	10	11



U	r	a	n	u	s				
25	26	27	28	29	30	31	32	33	34



N	e	p	t	u	n	e			
16	17	18	19	20	21	22	23	24	25



14. Activities based on 'Whatever Next' by Jill Murphy



Sequencing Activity

<https://www.tes.com/teaching-resource/whatever-next-picture-sequencing-activity-6293186>

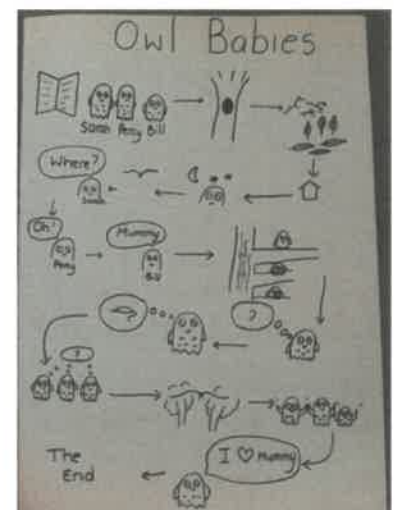
<http://www.teachingideas.co.uk/library/books/whatever-next>

<https://www.youtube.com/watch?v=Nn73STXrPP0>

15. Draw a Story Map

http://www.readingrockets.org/strategies/story_maps

See Examples



16. Pipe Cleaner Constellations



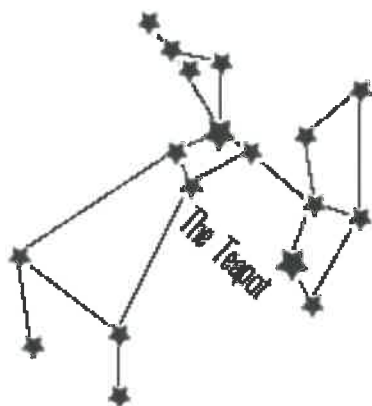
https://www.123homeschool4me.com/pipe-cleaner-constellations_61/
http://www.science-teachers.com/constellation_flashcards.htm

See Constellation Cards.



CONSTELLATION CARDS

Summer Constellation



Sagittarius the Archer



WWW.SCIENCE-TEACHERS.COM



CONSTELLATION CARDS

Circumpolar Constellation



Ursa Minor (the Little Bear)



WWW.SCIENCE-TEACHERS.COM



CONSTELLATION CARDS

Circumpolar Constellation



Draco the Dragon

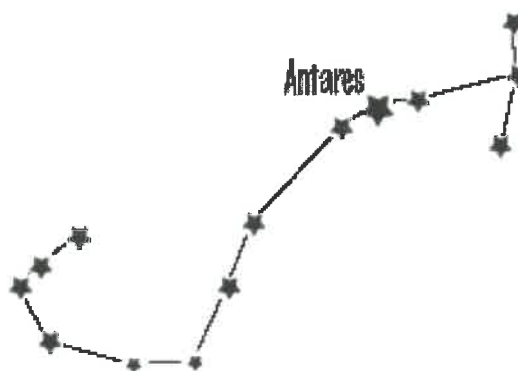


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CONSTELLATION CARDS

Summer Constellation



Scorpius

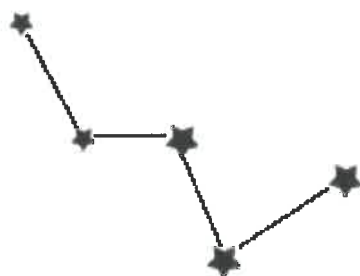


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CONSTELLATION CARDS

Circumpolar Constellation



Cassiopeia the Queen

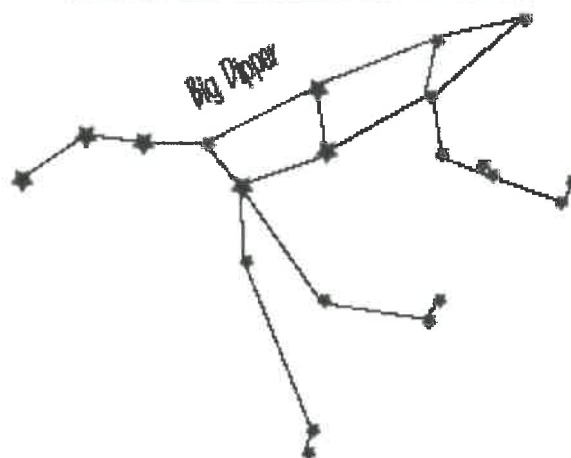


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CONSTELLATION CARDS

Circumpolar Constellation



Ursa Major (The Great Bear)

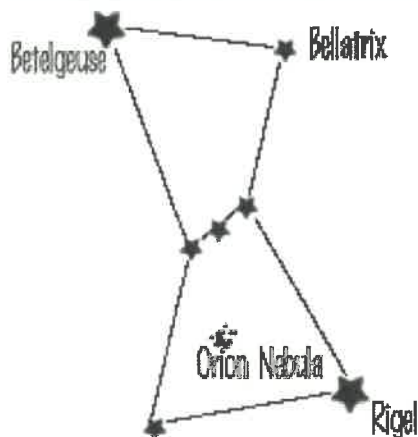


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CONSTELLATION CARDS

Winter Constellation



Orion the Hunter

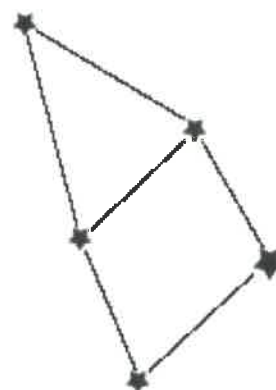


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CONSTELLATION CARDS

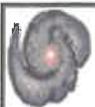
Circumpolar Constellation



Cepheus the King



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CONSTELLATION CARDS

Spring Constellation



Boötes the Herdsman

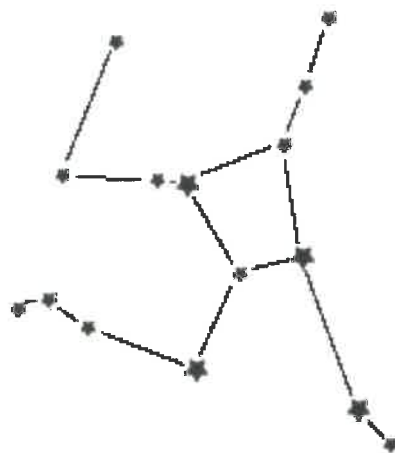


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CONSTELLATION CARDS

Summer Constellation



Hercules

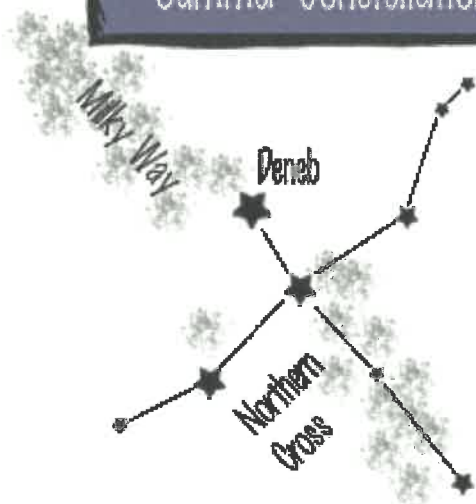


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CONSTELLATION CARDS

Summer Constellation



Cygnus the Swan

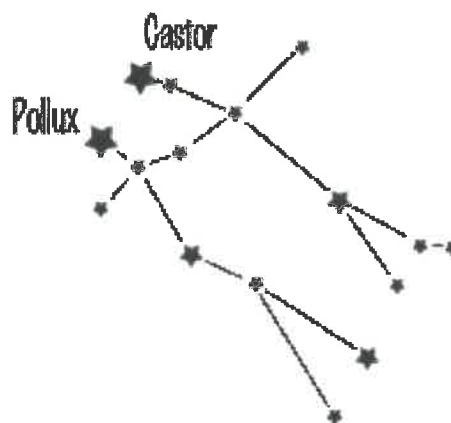


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CONSTELLATION CARDS

Winter Constellation



Gemini the Twins

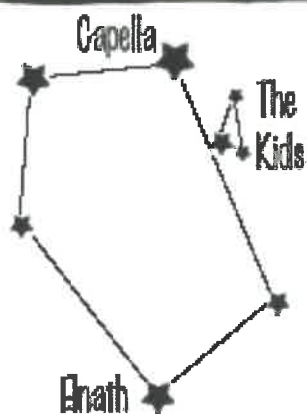


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CONSTELLATION CARDS

Winter Constellation



Auriga the Charioteer

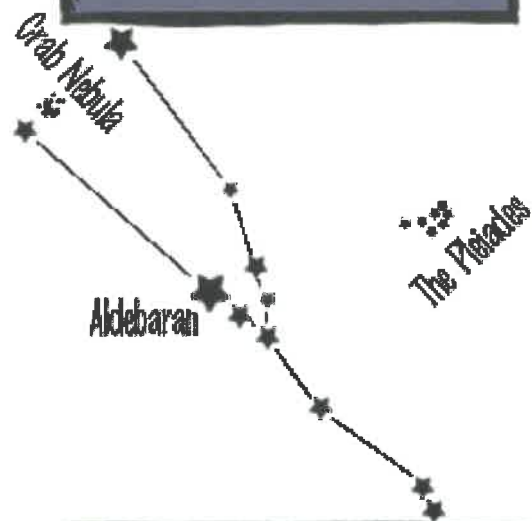


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CONSTELLATION CARDS

Winter Constellation



Taurus the Bull



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CONSTELLATION CARDS

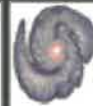
Winter Constellation



Cetus the Whale

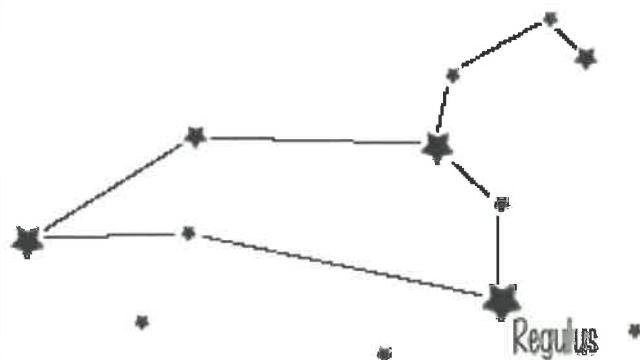


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CONSTELLATION CARDS

Spring Constellation



Leo the Lion



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CONSTELLATION CARDS

Winter Constellation



Canis Major the Great Dog

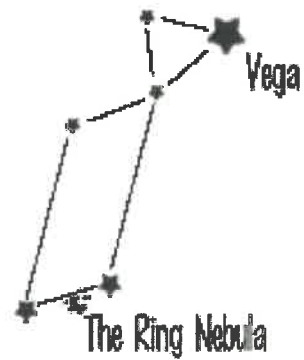


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CONSTELLATION CARDS

Summer Constellation



Lyra the Harp



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CONSTELLATION CARDS

Spring Constellation



Libra the Scales



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CONSTELLATION CARDS

Winter Constellation



Perseus

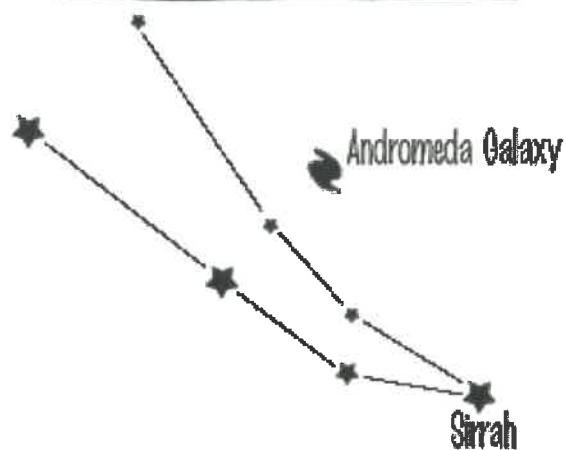


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CONSTELLATION CARDS

Autumn Constellation



Andromeda the Chained Princess

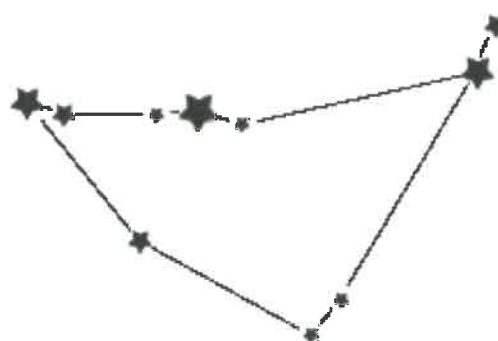


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CONSTELLATION CARDS

Autumn Constellation



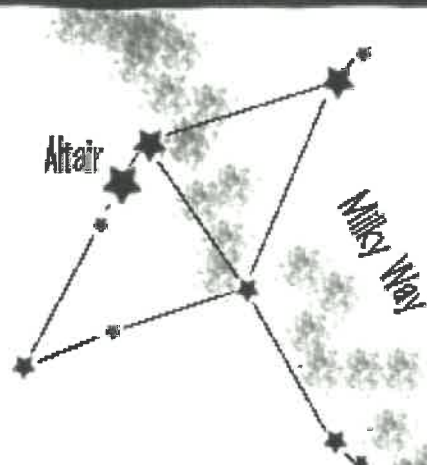
Capricornus the Sea Goat



WWW.SCIENCE-TEACHERS.COM



Summer Constellation

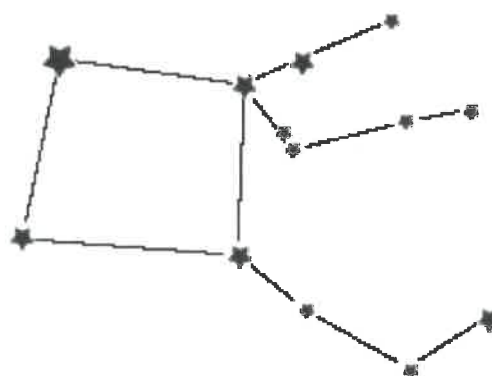


Aquila the Eagle



CONSTELLATION CARDS

Autumn Constellation



Pegasus the Winged Horse



WWW.SCIENCE-TEACHERS.COM

17. Space Mandalas and Zentangles



18. Rocket sight words or names

<https://mrsplemonskindergarten.com/2017/02/tot-school-space.html>



Tot School
**ROCKET NAME
BUILDING**



19. Constellation art with rocks and sidewalk chalk.

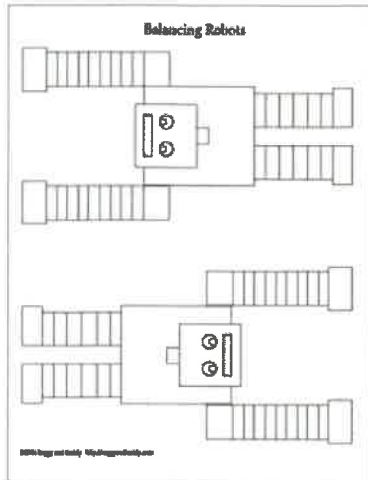


<http://creeksidelearning.com/constellation-art-with-rocks-and-sidewalk-chalk/>

See Constellation Cards.



20. Balancing Robot

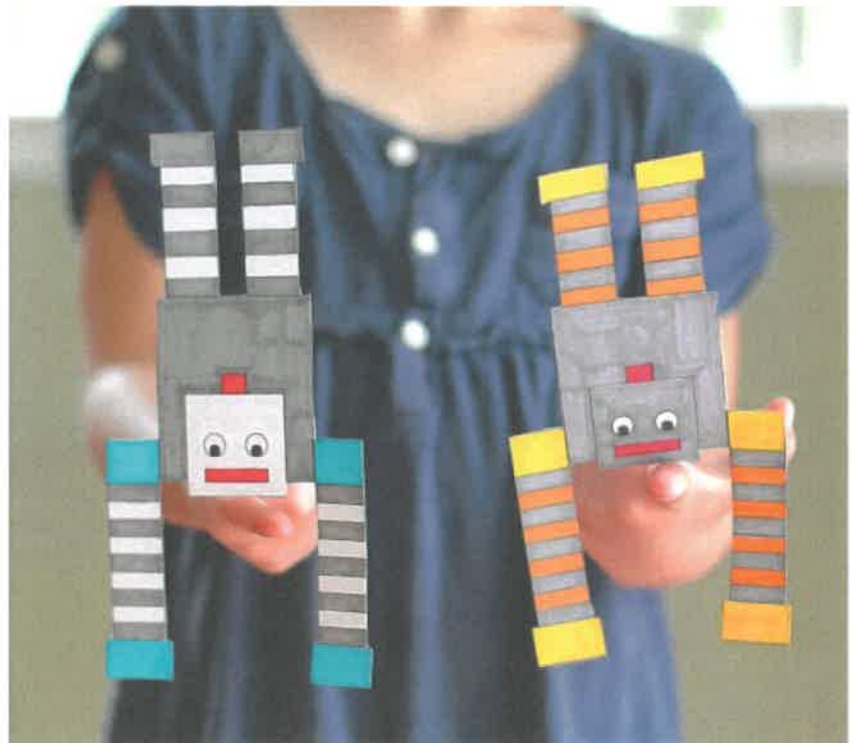
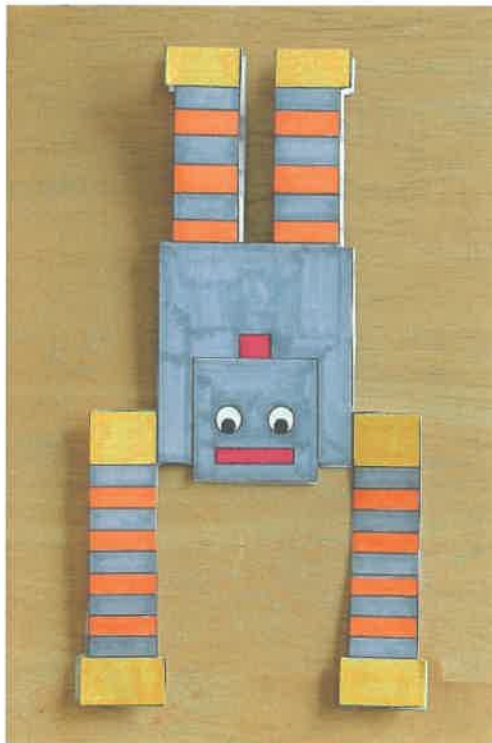


<https://buggyandbuddy.com/science-kids-balancing-robot-free-printable/>
Print robots on white cardstock. (see PDF.)

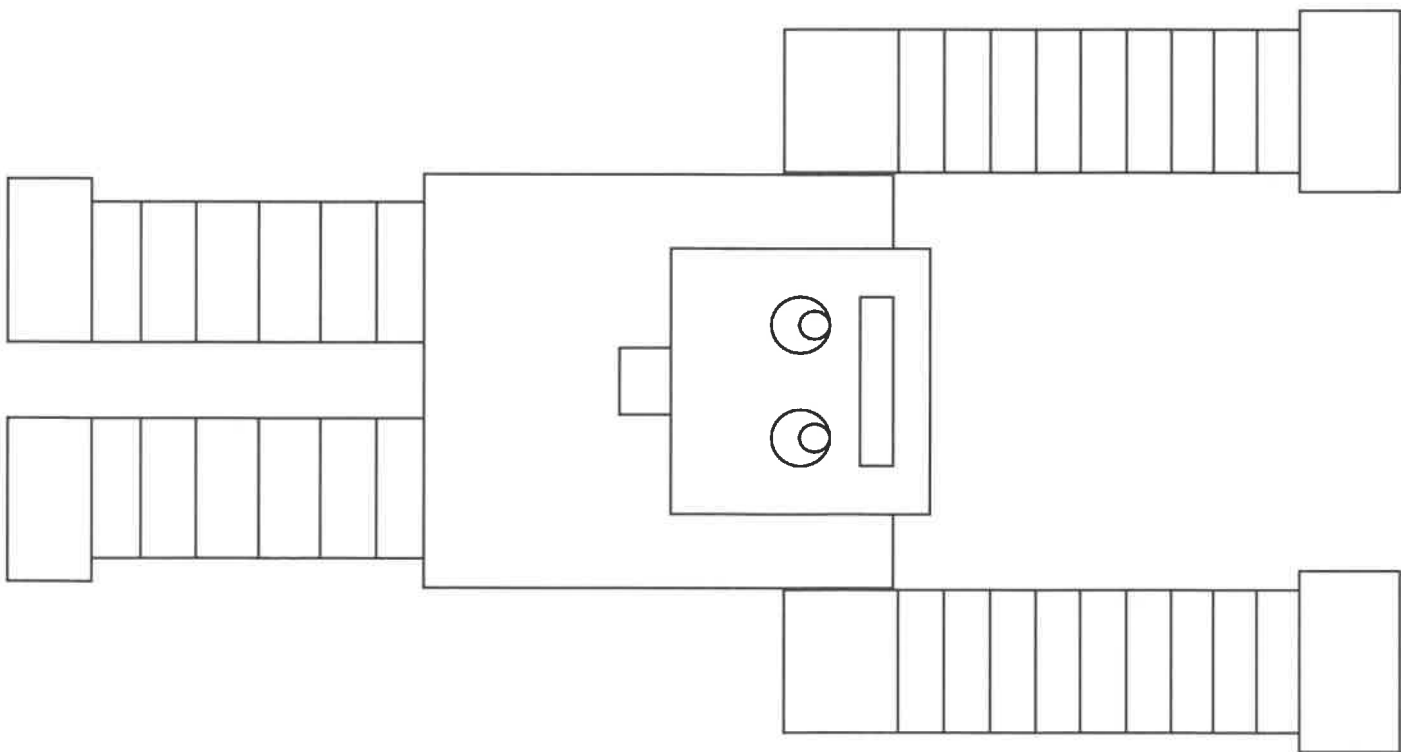
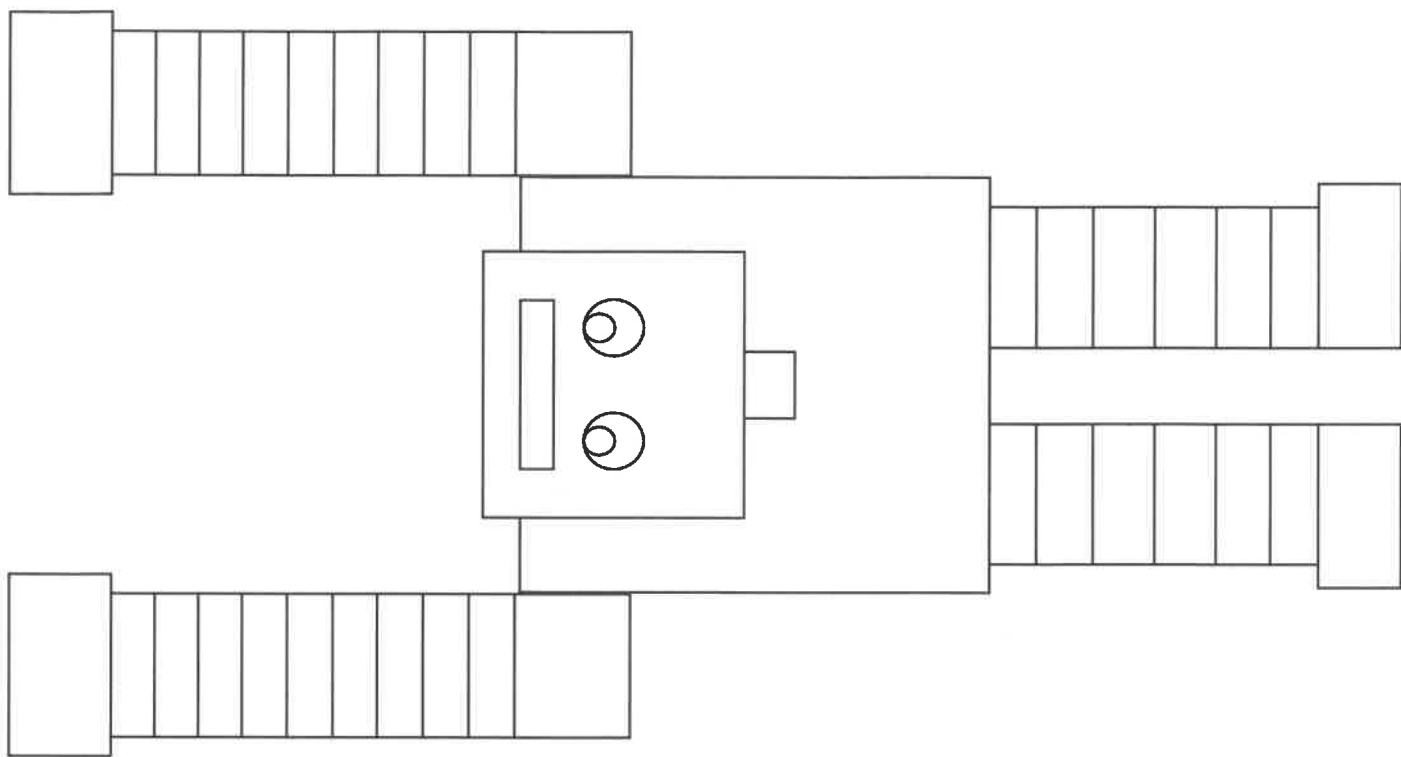
Cut out the robots.

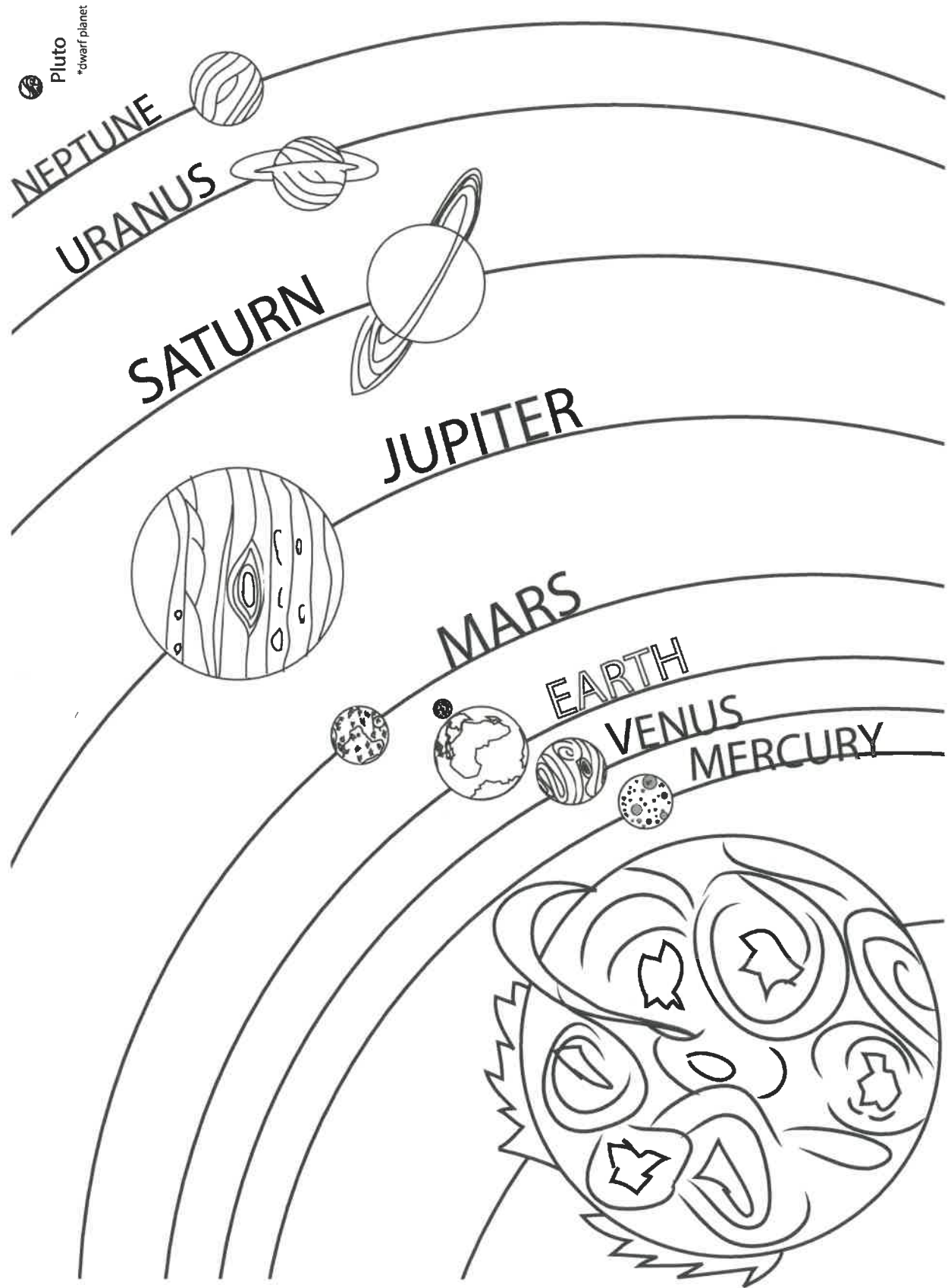
To make the robot balance you'll want to stick two pennies onto the hands of the robot. (You can use tape to do this, but removable poster putty gives kids a chance to explore balance by moving the pennies to various locations on the robot.)

Flip your robot over to the back. Place a small piece of poster putty on the hands of the robot. Press a penny onto each hand. Stick some more poster putty on the pennies. Press the second robot onto the back.



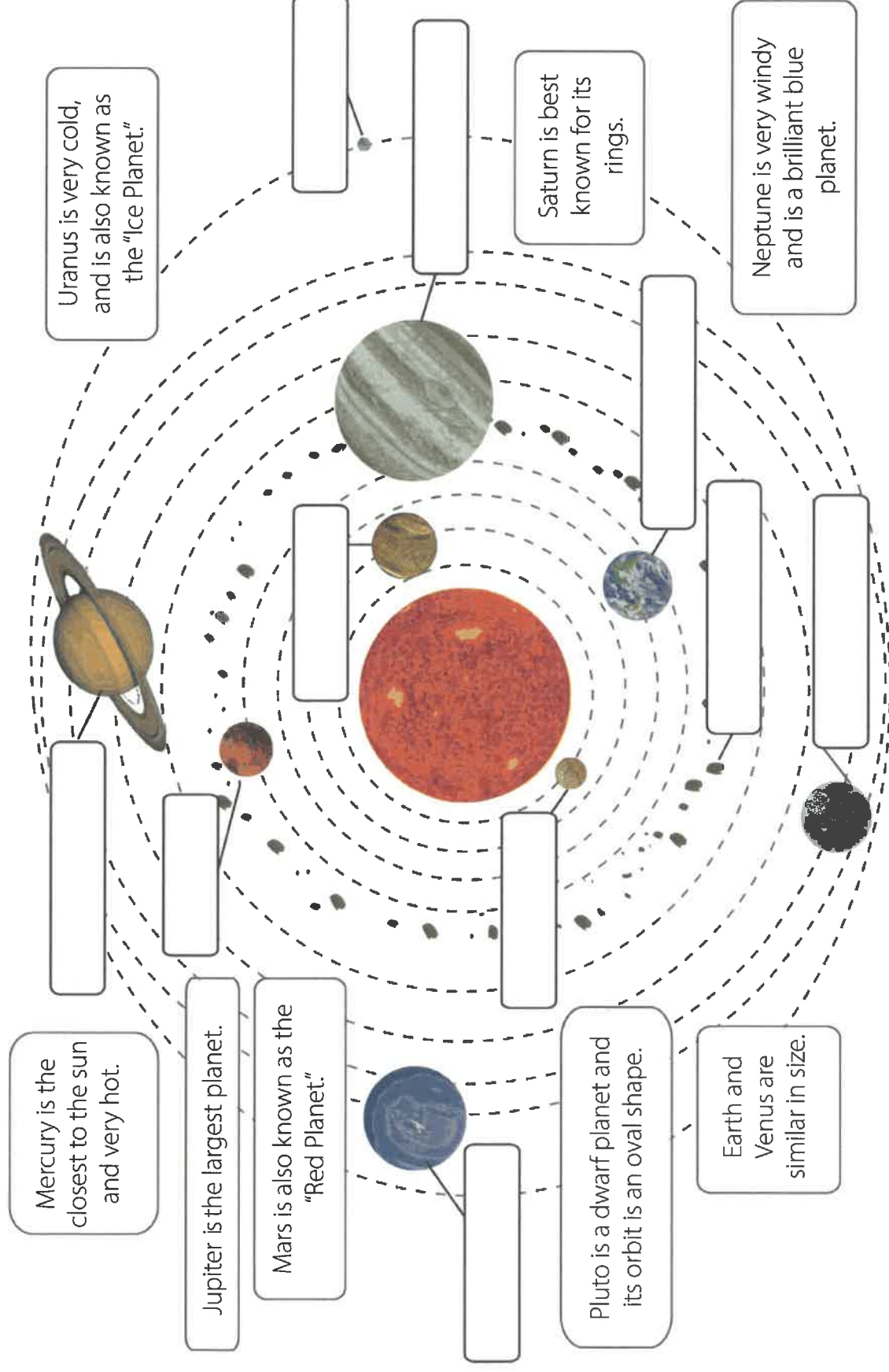
Balancing Robots





EXPLORE OUR SOLAR SYSTEM

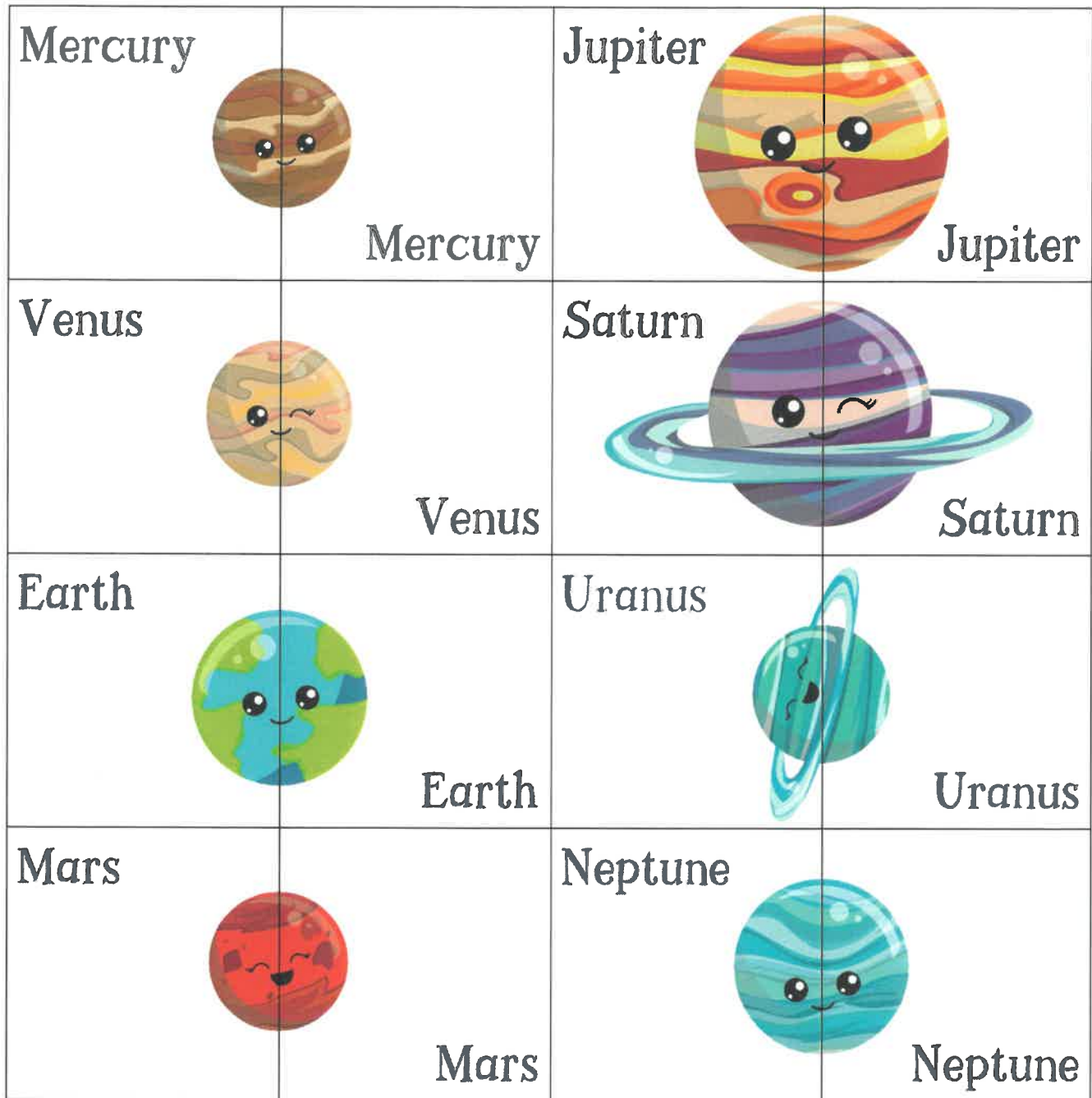
Our solar system contains nine planets. The asteroid belt separates the inner and outer planets. **Directions:** Label the 9 planets. Use the hints to help!



Planet Matching Game

Check out more fun:

www.etsy.com/shop/twitchetts



Cut along the solid lines.

Two ways to play:

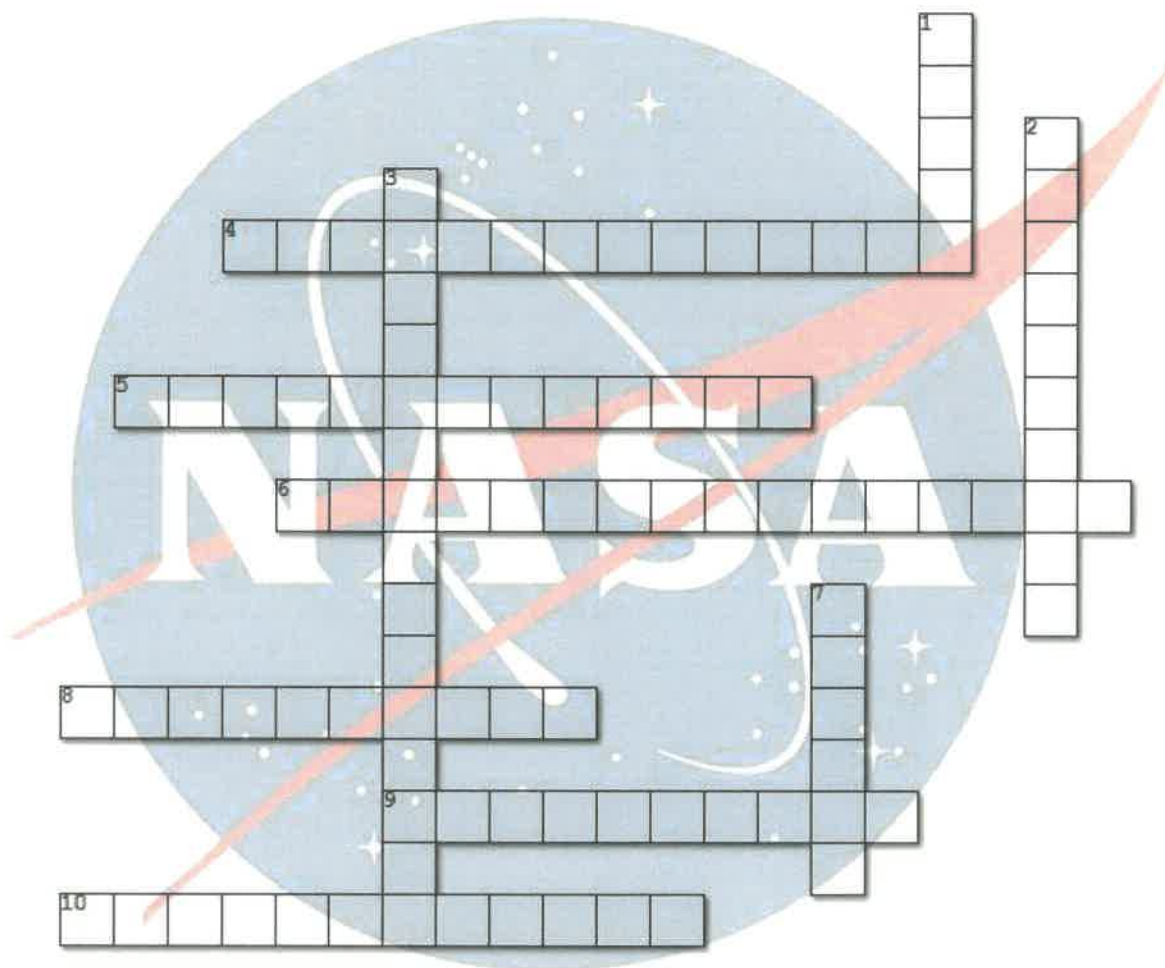
Puzzle – Match the planet halves together.

Memory – Flip all the pieces over and mix them up. Flip 2 pieces over at a time until you make a match.

Black History Month 2019

From astronauts to scientists to leaders, African-Americans have played a vital role in NASA's achievements. Learn more about their contributions by visiting the image gallery at the link below to fill in the crossword puzzle.

Black History Month—NASA Images <https://www.nasa.gov/image-gallery/black-history-month>



Across

4. First African-American astronaut
5. African-American astronaut who became NASA administrator
6. Presidential Medal of Freedom-winning "human computer"
8. First African-American woman to fly in space
9. Dorothy Vaughan, the NACA's first African-American _____
10. Former astronaut and NASA education chief

Down

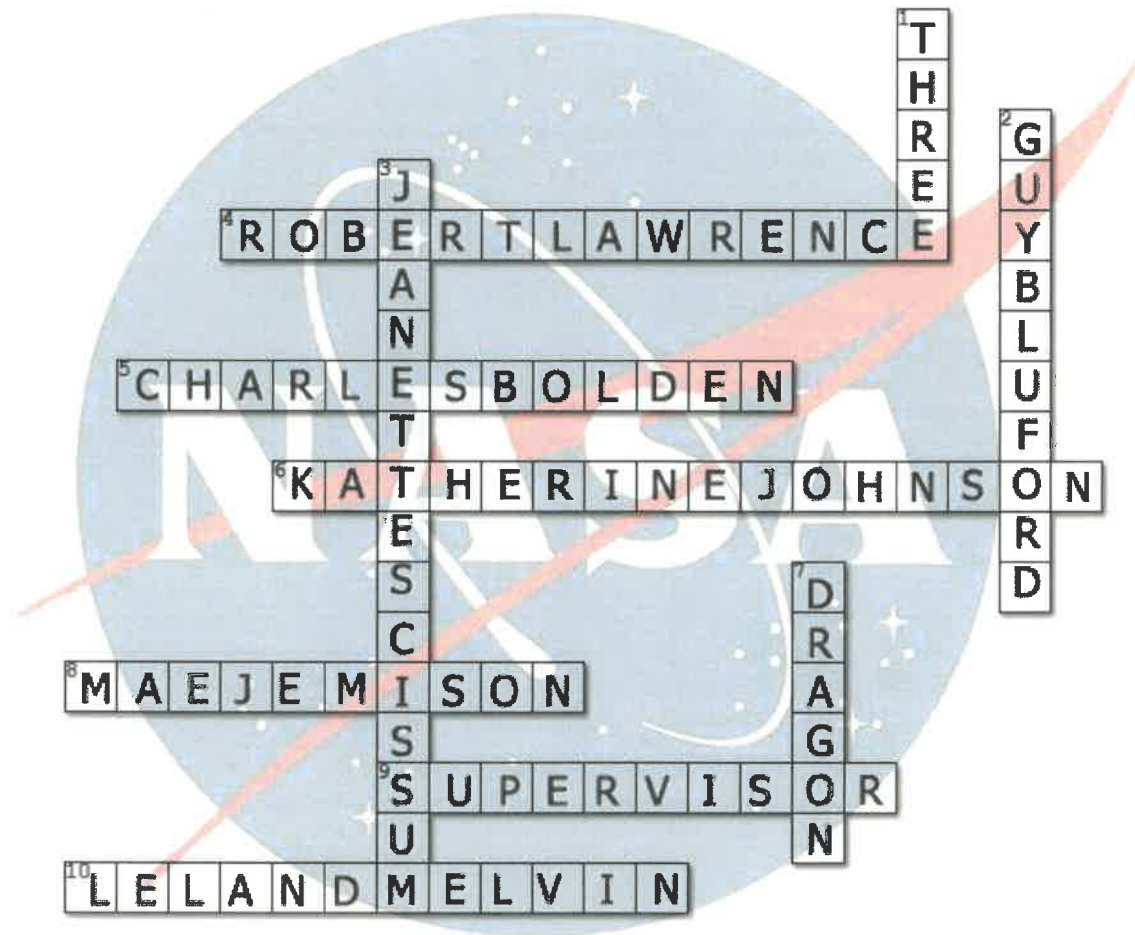
1. Number of African-Americans in the 1978 Astronaut Class
2. First African-American in space
3. Scientist who improved sunspot cycle predictions
7. Astronaut Victor Glover will fly on the SpaceX _____

ANSWER KEY

Black History Month 2019

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Black History Month—NASA Images <https://www.nasa.gov/image-gallery/black-history-month>



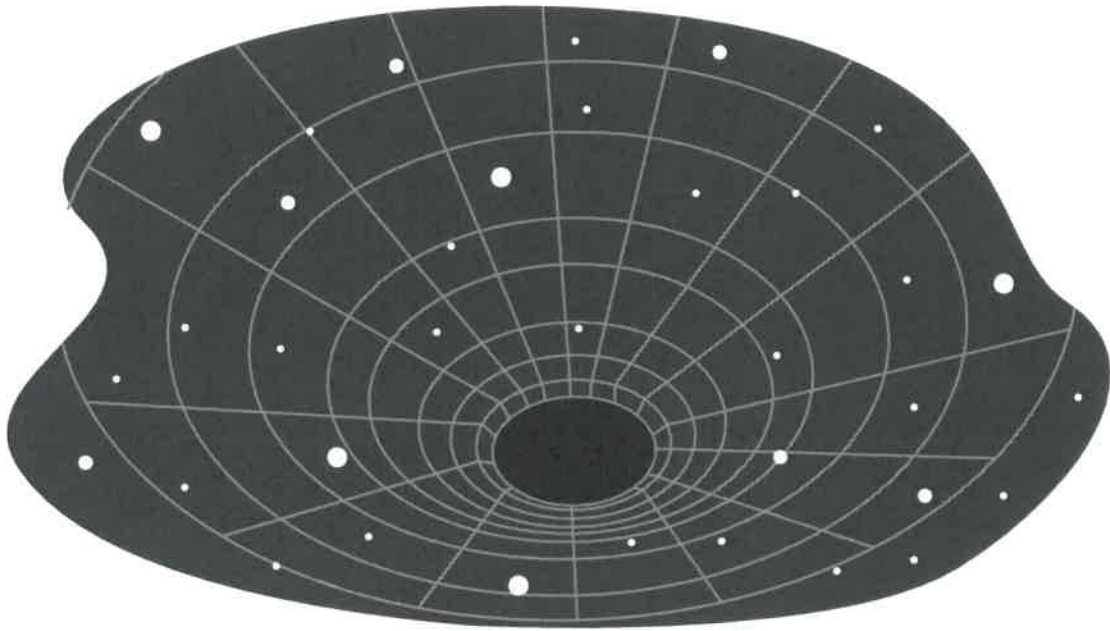
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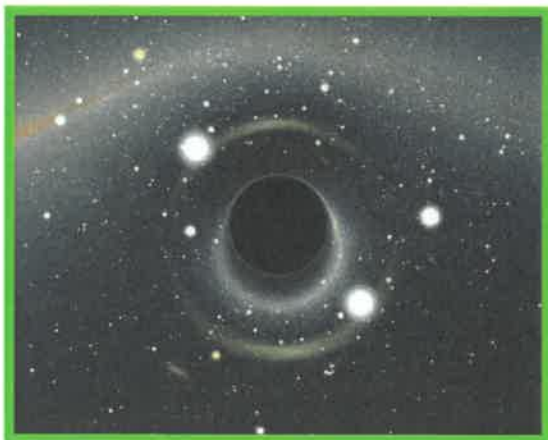
Black Holes



A black hole is a region of space with an extremely strong *gravitational pull*. Gravitational pull is the attraction one object has for another object based on the natural force of gravity. No matter, radiation or light can escape the pull of a black hole.

Black holes are often considered invisible because the lack of light makes them nearly impossible to see without a special telescope (hence the name black hole).

Scientists estimate that black holes can be as tiny as a single atom and as big as 20 of our suns put together. Stellar black holes, the largest of the observed black holes are created when a star collapses.



Computer simulated images of black holes

Reading Comprehension

Into a Black Hole

You are an outer space explorer lost off course. Suddenly your radar shows that you are coming up fast on a black hole! There's nothing to be done, so you brace yourself for the impact. Amazingly, you are still alive! What happened? What did you find in the black hole? What will happen next?

[illegible]

SOLAR SYSTEM

sorting out the

3RD
GRADE

Use the following clues to determine the order of the planets in the solar system. The complete list of planets is given below.

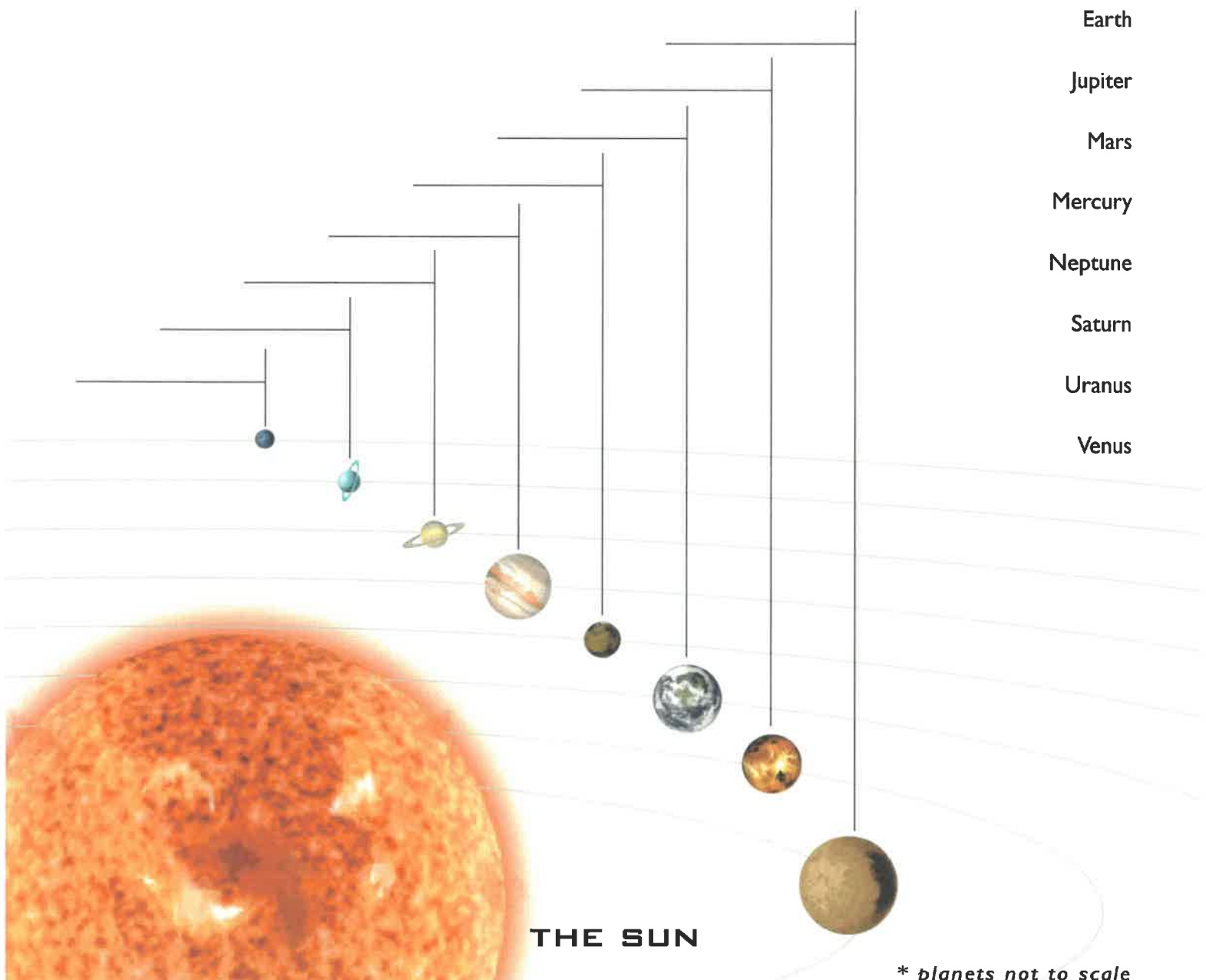
There is exactly one planet between Earth and Jupiter ☉

Jupiter is between Mars and Saturn ☉

Mercury is the closest planet to the Sun ☉

Venus is next to Mercury ☉

Saturn and Uranus have rings ☉



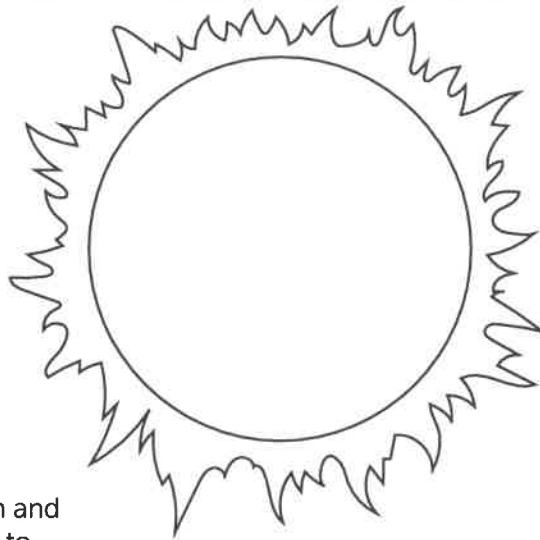
Name: _____

Date: _____

Learning the Moon's Phases

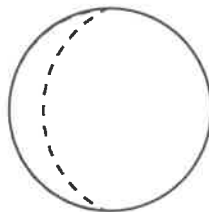
Did you know?

The moon looks different every night. It grows from a thin crescent to a full moon. Then it shrinks back to a crescent every month! That's because the moon rotates around the Earth, and the sun's light reflects off of the moon at different angles.

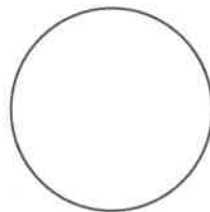


As the moon orbits the Earth, we can only see a portion of the lit up side. When we can see all of the moon lit up, it is called a full moon. When we can't see any of the moon lit up, this is called a new moon. Which moon phase do you like best?

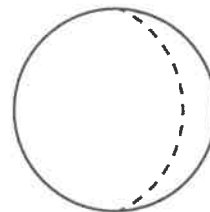
Directions: Read each caption and follow the instructions of how to illustrate that moon phase.



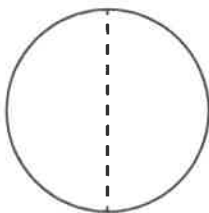
8. Waning Crescent



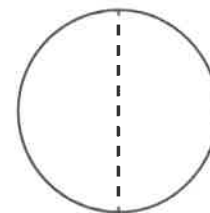
1. New Moon



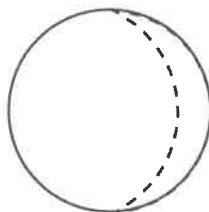
2. Waxing Crescent



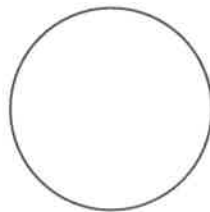
7. Last Quarter



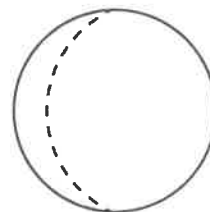
3. First Quarter



6. Waning Gibbous



5. Full Moon



4. Waxing Gibbous