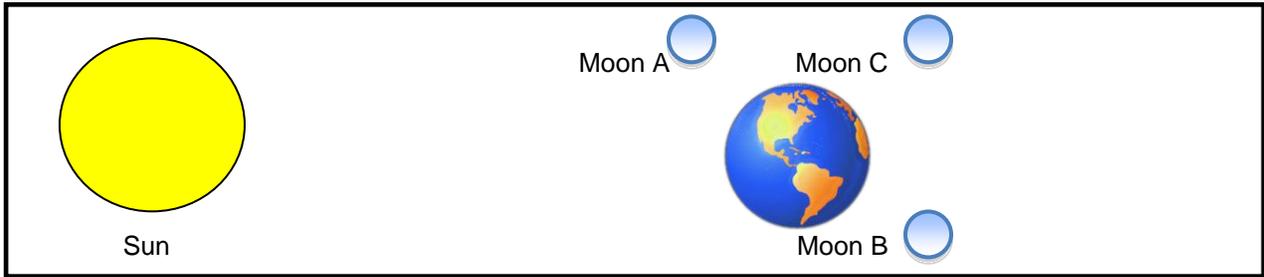


STUDY GUIDE: SPACE TEST

Name: _____ Date: _____ Per: _____

Respond to the following!

1. Why do we have seasons?
We have seasons because the Earth has a 23.5 degree axis tilt.
2. Why is it summer in North Carolina in June? (Use hemisphere in your answer)
During June, the northern hemisphere is tilted towards the sun (North Carolina is in the northern hemisphere)
3. What is a satellite?
A satellite orbits a larger object in space
4. Know what celestial body orbits another (for example the moon orbits the Earth).
Example: A comet orbits the sun!
5. Know how long these revolutions take.
Example: Earth revolves around the sun in one year (365 days)
6. What is an orbit?
An orbit is a elliptical pathway around a larger object in space
7. What vocabulary term describes the shape of this orbit?
Ellipse, it is like a bicycle tire
8. What holds the moon in orbit around our earth?
gravity
9. What is gravity?
Gravity is a force that attracts objects.
10. What determines the amount of gravity in an object?
The greater the mass the stronger the gravity
11. What is an equinox?
An equinox is when the sun shines equally on both the northern and southern hemispheres
12. Where does sunlight hit more directly during March Equinox?
It hits both hemispheres the same
13. What is a solstice?
A solstice occurs when a hemisphere has the greatest amount of daylight, or least amount of daylight
14. Where does sunlight hit more directly during December Solstice?
In the southern hemisphere
15. Why do we have tides?
We have tides because the sun and moon's gravitational pull
16. Know how many tidal changes there are in 12 hours.
Our tides change every 6 hours.
17. What is the difference between rotation and revolution?
Rotation = spin, Example, the Earth rotates on its axis once every 24 hours.
Revolution = going around, Example, the earth revolves around the sun
18. Know how long it takes specific celestial bodies to make one complete rotation on the axis.
Earth = 24 hours
19. Why can we see the moon? Where does the moon's light come from?
We can see the moon because the sun's light reflects off of it.
20. Why do we have moon phases?
We have moon phases because of the changing angles of the moon, sun, and earth.
21. What is an eclipse?
Solar eclipse = The moon's shadow falls upon the Earth (Sun, Moon, Earth)
Lunar Eclipse = The Earth's shadow falls upon the moon (Sun, Earth, Moon)
22. Why don't we have an eclipse at least once per month?
The moon's orbit around the Earth is on a 5 degree different plane than the Earth's orbit around the sun
23. Know the order of the Earth, Moon, and Sun for both Lunar and Solar Eclipses.
Solar eclipse = (Sun, Moon, Earth)
Lunar Eclipse =(Sun, Earth, Moon)
24. Know the differences between the inner and outer planets.
Inner (terrestrial or land) Mercury, Venus, Earth, Mars
Outer (Gas Giants) Jupiter, Saturn, Uranus,
25. Be able to identify the inner and outer planets.
26. Inner (terrestrial or land) Mercury, Venus, Earth, Mars
Outer (Gas Giants) Jupiter, Saturn, Uranus,
27. How does the sun's energy reach the Earth?
Electromagnetic Rays (radiation)



28. What moon phase would you observe for moon **A**, moon **B**, and moon **C**?

A = Waning Crescent

B = Waning Gibbous

C = Waxing Gibbous

Constructive Response:

29. **Scientists study space in a variety of ways including telescopes, manned, and unmanned spacecraft.**

- In your opinion, which one method of space exploration is the most likely to make new discoveries in space?
- Provide specific examples of how this method of space exploration has been used in the past, and predictions of how it may be used in the future.

30. **Name and explain one spin-off that was developed by N.A.S.A. for the space program.**

- How was this spin-off beneficial to astronauts or the space program?
- In what ways has this spin-off benefited people in their daily lives?

Constructive Response:

29. **Scientists study space in a variety of ways including telescopes, manned, and unmanned spacecraft.**

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Method of Space Exploration + Definition	How has method of space exploration been used in the past?	How can this method of space exploration be used in the future?
<p><i>Manned Rockets</i> <i>Manned Space Stations (in orbit)</i> <i>Manned Bases (Moon, Mars)</i> <i>Telescopes</i> <i>Space Telescopes</i> <i>Landers / Rovers</i> <i>Flybys</i> <i>Orbiters</i> <i>Probes</i></p>		

30. Name and explain one spin-off that was developed by N.A.S.A. for the space program.

- How was this spin-off beneficial to astronauts or the space program?
- In what ways has this spin-off benefited people in their daily lives?

Spinoff <i>Using technology in a way different from its original purpose.</i>	Beneficial to Astronauts	Beneficial to us
<ul style="list-style-type: none"> -Fire Retardant space suits. -technology to overcome disabilities (eye communication) -air purification and oxygen masks -food purification -water purification -fire resistant building materials -materials that withstand heat and cold -tools for diagnosing diseases 	<ul style="list-style-type: none"> -Keeps astronauts safe from accidental fires - 	<p>Fire Fighter Suits</p>