STUDY GUIDE: SPACE TEST Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Due Date: \_\_\_\_\_\_\_\_\_ Per: \_\_\_

Write your answers to each question on a separate sheet of paper***!***

1. *Why do we have seasons?*
2. *Why is it summer in North Carolina in June? (Use hemisphere in your answer)*
3. *What is a satellite?*
4. *What celestial body orbits the EARTH? How long is this revolution?*
5. *What celestial bodies orbit the sun?*
6. *How long is Earth’s revolution?*
7. *What is an orbit?*
8. *What vocabulary term describes the shape of most orbits in space?*
9. *What holds the moon in orbit around our earth?*
10. *What is gravity?*
11. *What determines the amount of gravity in an object?*
12. *What is an equinox?*
13. *Where does sunlight hit more directly during March Equinox?*
14. *What is a solstice?*
15. *Where does sunlight hit more directly during December Solstice?*
16. *Why do we have tides?*
17. *How many tidal changes are there in 12 hours?*
18. *What is the difference between rotation and revolution?*
19. *How long does it take the moon to make one complete rotation on its axis?*
20. *How long does it take the Earth to make one complete rotation on its axis?*
21. *Why can we see the moon? Where does the moon’s light come from?*
22. *Why do we have moon phases?*
23. *What is an eclipse?*
24. *Why don’t we have an eclipse at least once per month?*
25. *How are the Earth, Moon, and Sun positioned during a Lunar Eclipse?*
26. *How are the Earth, Moon, and Sun positioned during a Solar Eclipse?*
27. *What are the major differences between the inner and outer planets?*
28. *List the inner and outer planets.*
29. *How does the sun’s energy reach the Earth?*



Moon A Moon C

Sun                    Moon B

1. What moon phase would you observe from Earth for moon position **A**? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
    moon position **B**? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and moon position **C**? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Moon C

Moon B

Sun                    Moon A





1. Which moon location would give you a neap tide?\_\_\_\_\_\_\_\_\_\_\_

Which moon location would give you a spring tide?\_\_\_\_\_\_\_\_\_\_

Which moon location would give you the highest high tides and lowest low tides?\_\_\_\_\_\_\_\_

**Constructive Response:**

32. ***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?

|  |  |  |
| --- | --- | --- |
| **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?** |
|  |  |  |

33. **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** | **Beneficial to Astronauts** | **Beneficial to us** |
| *Using technology in a way different from its original purpose.* |  | *Fire Fighter Suits* |

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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?** |
| **Manned Rockets**  **Manned Space Stations** (in orbit)  **Manned Bases** (Moon, Mars)  Telescopes  Space Telescopes  Landers / Rovers  Flybys  Orbiters  Probes |  |  |

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|  |  |  |
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| **Spinoff** | **Beneficial to Astronauts** | **Beneficial to us** |
| *Using technology in a way different from its original purpose.*  -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 |  | Fire Fighter Suits |