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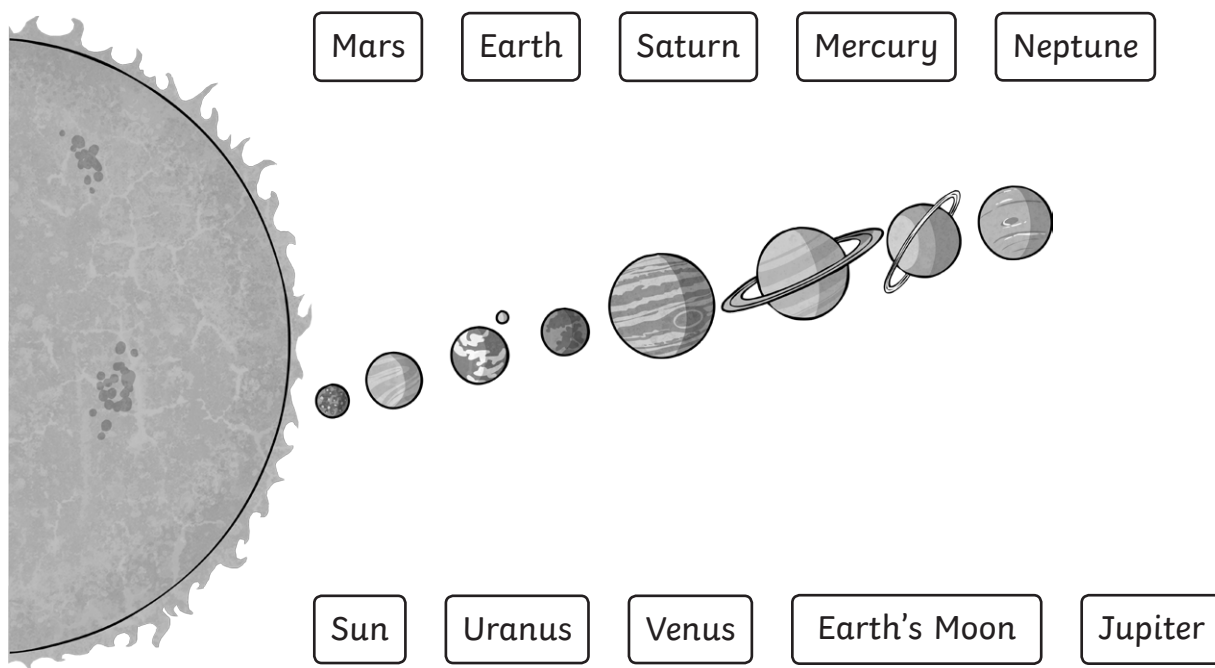
Date:

## Science Assessment Year 5: Earth and Space



### The Solar System

1. Join up these labels to the correct planet, star or satellite:



5 marks

### Movements, Shape and Size

2. Roughly what shape are the Earth, Sun and Moon?

1 mark

3. Why does the Sun look like it is moving across the sky during the day?

1 mark

4. How long does it take for:

a) The Earth to spin once on its axis?

1 mark

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b) The Moon to go around the Earth once?

.....

1 mark

c) The Earth to go round the Sun once?

.....

1 mark

5. Describe how Earth and the other planets in our Solar System move around:

.....

.....

1 mark

6. Describe where your country is in relation to the Sun when it is night time.

.....

.....

.....

1 mark

.....

## Eclipses

7. What happens in a solar eclipse?

.....

.....

2 marks

8. How is it that the Moon looks about the same size as the Sun during a solar eclipse, when in reality, the Sun is many, many times bigger than the Moon?

.....

.....

1 mark

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9. What is a solar eclipse?

1 mark

10. What safety issues should you think about when wanting to watch a solar eclipse?

1 mark

Seasons and Times

11. What causes the seasons in our part of the Earth?

1 mark

12. What is the name for the time of year when day and night are the same length? (This happens twice a year.)

1 mark

13. All about leap years...

a) What is a leap year?

1 mark

b) How often do we have a leap year?

1 mark

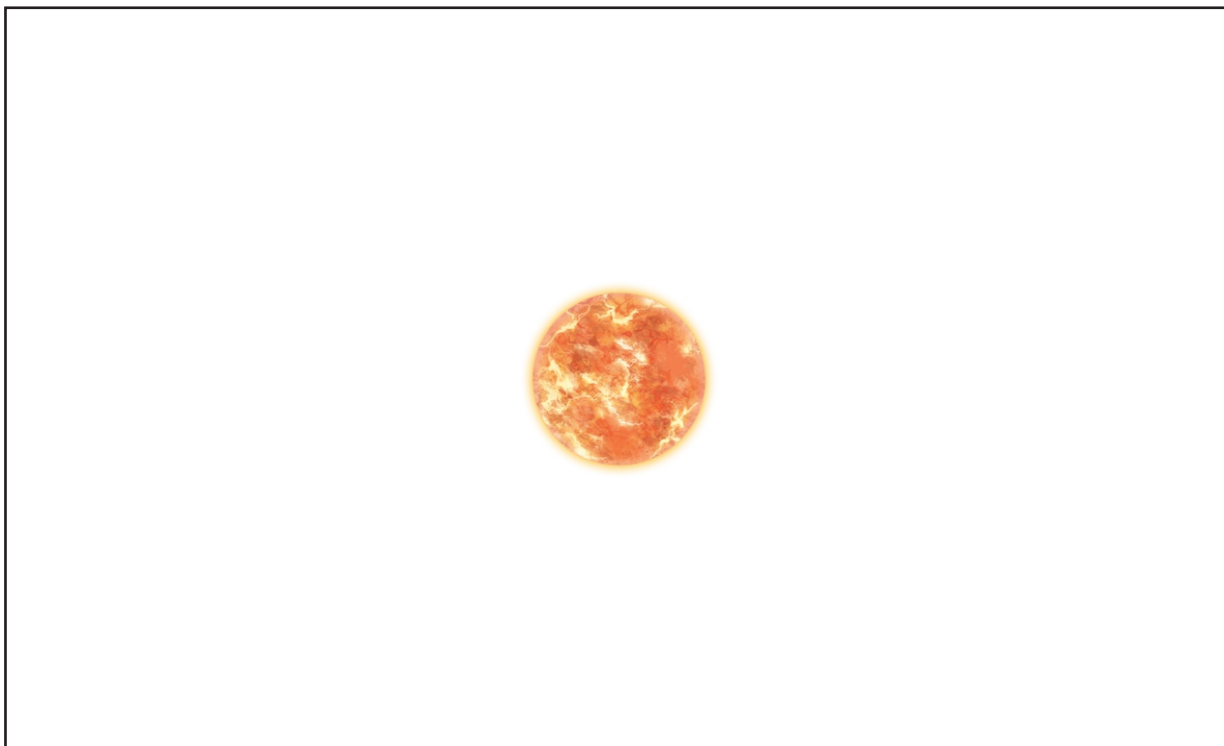
c) Why do we have to have leap years?

1 mark

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## Orbits and the Moon

14. Draw the Earth and Moon on this diagram and draw their orbits.



2 marks

15. Shade these circles to show these phases of the Moon:

New Moon	Waxing Crescent	Waning Gibbous	Third/Last Quarter

2 marks

16. Who was the first man on the Moon in 1969?

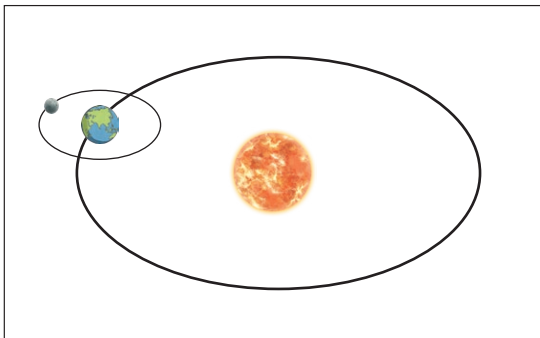












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1 mark

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question	answer	marks	notes
<b>1. Join up these labels to the correct planet, star or satellite.</b>			
		5	5 marks available: <ul style="list-style-type: none"> <li>• 0 marks for 1 correct</li> <li>• 1 mark for 2 or 3 correct</li> <li>• 2 marks for 4 or 5 correct</li> <li>• 3 marks for 6 or 7 correct</li> <li>• 4 marks for 8 or 9 correct</li> <li>• 5 marks for all 10 correct</li> </ul>
<b>2. Roughly what shape are the Earth, Sun and Moon?</b>			
	<ul style="list-style-type: none"> <li>• Spherical</li> </ul>	1	
<b>3. Why does the Sun look like it is moving across the sky during the day?</b>			
	Example: <ul style="list-style-type: none"> <li>• The Earth spins on its axis so we move, not the Sun</li> <li>• As the Earth turns, it turns away and towards the Sun</li> </ul>	1	1 mark for answers that mention the Earth spinning.
<b>4. How long does it take for:</b>			
a	1 mark for either of: <ul style="list-style-type: none"> <li>• 1 day</li> <li>• 24 hours</li> </ul>	1	
b	1 mark for of: <ul style="list-style-type: none"> <li>• 28 days</li> </ul>	1	
c	1 mark for either of: <ul style="list-style-type: none"> <li>• 1 year</li> <li>• 365 days</li> <li>• 365 <math>\frac{1}{4}</math> days</li> </ul>	1	
<b>5. Describe how Earth and the other planets in our Solar System move around.</b>			
	1 mark for answers that mention the word <b>orbit</b> : <ul style="list-style-type: none"> <li>• All the planets orbit the Sun at different distances. Mercury is the nearest and Pluto/Neptune is the furthest away.</li> <li>• Earth orbits the Sun and so do the other planets.</li> </ul>	1	Accept answers that mention a heliocentric model/system, even if the word 'orbit' is not there. Do not accept answers that say 'go round' the Sun as the scientific word 'orbit' should be used.

question	answer	marks	notes
<b>6. Describe where your country is in relation to the Sun when it is night time.</b>			
	1 mark for facing away from the Sun (the Earth has spun on its axis and the country is on the side that is not facing the Sun).	1	
<b>7. What happens in a solar eclipse?</b>			
	1 mark for: <ul style="list-style-type: none"> <li>The Moon moves in front of the Sun</li> </ul> 2nd mark for either of: <ul style="list-style-type: none"> <li>The Moon blocks the Sun's rays/light</li> <li>This makes it dark</li> <li>The Sun's light can't get through</li> </ul>	2	
<b>8. How is it that the Moon looks about the same size as the Sun during a solar eclipse, when in reality, the Sun is many, many times bigger than the Moon?</b>			
	<ul style="list-style-type: none"> <li>The Moon is nearer than the Sun</li> <li>The Sun is much further away than the Moon</li> </ul>	1	
<b>9. What is a solar eclipse?</b>			
	<ul style="list-style-type: none"> <li>A solar eclipse where the Moon doesn't completely block out all of the Sun.</li> <li>A solar eclipse where there is a ring of light around the Moon when the eclipse is full.</li> </ul>	1	1 mark for either option
<b>10. What safety issues should you think about when wanting to watch a solar eclipse?</b>			
	<ul style="list-style-type: none"> <li>Example:</li> <li>The Sun is too bright to look straight at</li> <li>You need to look through a dark filter because you can't look straight at the Sun.</li> </ul>	1	1 mark for answers that include the Sun being too bright to look directly at.
<b>11. What causes the seasons in our part of the Earth?</b>			
	Example: <ul style="list-style-type: none"> <li>Because the Earth is tilted on its axis</li> <li>The Earth is tilted at 23.5° on its axis</li> <li>The fact that the Earth is sometimes pointing away from the Sun and sometimes point towards the Sun.</li> </ul>	1	1 mark for answers that mention the tilt of the Earth on its axis.

question	answer	marks	notes								
<b>12. What is the name for the time of year when day and night are the same length? (This happens twice a year.)</b>											
	1 mark for: • Equinox Also accept: • Spring Equinox and Autumn Equinox	1	Accept spelling errors where the intention is obvious.  Don't accept Spring Equinox or Autumn Equinox on their own.								
<b>13. All about leap years...</b>											
a	1 mark for answers that mention the <b>extra day</b> we have in February. For example: • A year when we have one extra day in February • A year with one extra day in it • When we have 366 days rather than 365 days in our year	1	February need not be mentioned for this answer.								
b	1 mark for: • Every 4 years	1									
c	1 mark for answers which refer to the Earth taking 365 $\frac{1}{4}$ days to orbit the Sun.	1									
<b>14. Draw the Earth and Moon on this diagram and draw their orbits.</b>											
		2	1 mark for the Earth on an orbit around the Sun (the Earth can be marked anywhere on that orbit) 1 mark for the Moon on an orbit around the Earth (the Moon can be marked anywhere on that orbit) The Moon must appear smaller than Earth.								
<b>15. Shade these circles to show these phases of the Moon.</b>											
	<table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>New Moon</td> <td>Waxing Crescent</td> <td>Waning Gibbous</td> <td>Third/Last Quarter</td> </tr> </table>					New Moon	Waxing Crescent	Waning Gibbous	Third/Last Quarter	2	0 marks for 1 correct 1 mark for 2 or 3 correct 2 marks for 4 correct Accept rough shading and answers where the shape is near enough to these without creeping into the next stage. New Moon should be just about fully black.
											
New Moon	Waxing Crescent	Waning Gibbous	Third/Last Quarter								
<b>16. Who was the first man on the Moon in 1969?</b>											
	• Neil Armstrong • Armstrong	1	1 mark for either option								
		total 27									