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## Inner Planets

Teacher Notes

As space explorers you need to know EVERYTHING about the solar system. Filling in this table will help you get up to speed. The information is in your textbook on pages 450-470.

To calculate your weight on the other planets, multiply your weight on earth by the surface gravity. The formula is:

Weight on planet = Weight on earth x earth's surface gravity (in the form of a fraction)
For example, if you weigh 100 pounds on earth and the surface gravity of the moon is $17 \%$ of earth's then:

Weight on the moon $=100$ pounds $\times 0.17=17$ pounds.

|  | Mercury | Venus | Earth | Mars |
| :--- | :---: | :---: | :---: | :---: |
| Distance from sun, <br> light minutes | 3.2 | 6.0 | 8.3 | 12.7 |
| Period of rotation, <br> days, hours, and minutes | 58 Days. 16 hrs. | 243 days | 23 hrs 56 min | 24 hours 27 minutes |
| Period of revolution, <br> days and hours | 88 days | 224 days, 17 hours | 365 days 6 hours | 1 yr, 322 days |
| Diameter, km | $4,878 \mathrm{~km}$ | $12,104 \mathrm{~km}$ | $12,756 \mathrm{~km}$ | $6,794 \mathrm{~km}$ |
| Density, $\mathbf{g} / \mathbf{c m}^{\mathbf{3}}$ | $5.43 \mathrm{~g} / \mathrm{cm}^{3}$ | $5.24 \mathrm{~g} / \mathrm{cm}^{3}$ | $5.52 \mathrm{~g} / \mathrm{cm}^{3}$ | $3.93 \mathrm{~g} / \mathrm{cm}^{3}$ |
| Surface temperature, ${ }^{\circ} \mathbf{C}$ | $-173^{\circ} \mathrm{C}$ to $427^{\circ} \mathrm{C}$ | $464^{\circ} \mathrm{C}$ | $-13^{\circ} \mathrm{C}$ to $37^{\circ} \mathrm{C}$ | $-123^{\circ} \mathrm{C}$ to-37 $7^{\circ} \mathrm{C}$ |
| Surface gravity, $\%$ of earth | $38 \%$ | $91 \%$ | $100 \%$ | $38 \%$ |
| Your weight |  |  |  |  |
|  |  |  |  |  |
| Picture of planet |  |  |  |  |
| Name of Moons |  |  |  | Luna |

