



Planet: Guess My Age

Using your current age here on Earth and the planets orbital period (how long it takes to go around the sun once), find out how old you would be on all of the other planets.

Instructions: Table 1, Inner Terrestrial Planets

1. First, calculate your age in Earth days rather than years.

a. Your current age multiplied by 365.

Age x 365 days = _____ Earth days.
(Example: 12 years old. $12 \times 365 = 4380$ days old)

2. Determine how old you are on the four terrestrial planets provided in Table 1 below.

a. Divide your age on Earth (days) by the planet orbital period provided in the chart.

b. Your answer is your “new” age.

i. For example, a 20 year old on Earth would be 83 years old on Mercury!
($20 \times 365 = 7,300$ Earth days; $7,300/88 = 83$).

c. Fill in your new age on the age chart as you calculate it for each planet.

Table 1: Inner Terrestrial Planets

Planet	Age on Earth (Earth days)	Planet Orbital Period	Age on Planet
Mercury		88 Earth days	
Venus		225 Earth days	
Mars		687 Earth days	

Instructions: Table 2, Outer Planets

1. To find your age on the outer planets you will keep your age in years. This is due to the outer planets' orbital period compared to the inner planets. It takes more time (years) for these planets to orbit around the sun.
2. Divide your age on Earth (years) by the planet orbital period provided in the chart. This is your "new" age.
 - a. For example, a 20 year old on Earth would only be 1.7 years old on Jupiter, $20 / 12 = 1.7$. Again, record your new age for each planet on the chart.

Table 2: Outer Planets

Planet	Age on Earth (Earth years)	Planet Orbital Period	Age on Planet
Jupiter		12 years	
Saturn		29.5 years	
Uranus		84 years	
Neptune		165 years	
Pluto		248 years	

After you find your own age, see if you can find someone else's age as well and compare them. This can be a friend or family member!

This activity will help Juniors to complete Step 2 of their Space Science Investigator Badge.