## National Numeracy Day

Royal Astronomical Society

## How old would you be if you lived on Jupiter?

Time passes in different ways when you're in space. Calculate what your age would be if you lived on a different planet!

Would you be older or younger?

## Activity length: 25 minutes

## What you'll need:

Paper, pen/pencil, calculator, and this worksheet.
It takes the Earth 365 days to orbit around the Sun once. We call this a 'year' or an 'earth year', and all of us use this to measure our age.

The other planets in our solar system take different lengths of time to orbit around the Sun.

So, if you lived on Mercury and society in Mercury also measured age by living through a year, a journey once around the Sun, then you would be a different age right now!

## To work out your age on Mercury:

1. Mercury takes 88 earth days to travel once around the Sun. Multiply your age in years by 365 to turn your age into days. (e.g. if you are 12 years old, multiply 12 by $365=4,380$ )
2. Divide this amount by 88 to give you your age in years on Mercury. (e.g. $4,380 / 88=49$ years old)

| Planet | Earth days to travel <br> once around the sun | Your age on this <br> planet |
| :--- | :--- | :--- |
| Mercury | 88 |  |
| Venus | 225 |  |
| Earth | 365 |  |
| Mars | 687 |  |
| Jupiter | 4,333 |  |
| Saturn | 10,756 |  |
| Uranus | 30,687 |  |
| Neptune | 60,190 |  |

## Which planet do you want to live on?

## Why do the years get longer from Mercury to Neptune?

## Extra learning:

See if you can find out which object in space is the furthest away from us, and what that tells us about the age (and fate) of the Universe.

## Career options:

If you study astrophysics at university you could be a researcher, astronomer, astrobiologist or astronaut amongst other things. The sky isn't the limit in the space industry! For more information about careers in space have a look at www.ras.ac.uk and www.spacecareers.uk


