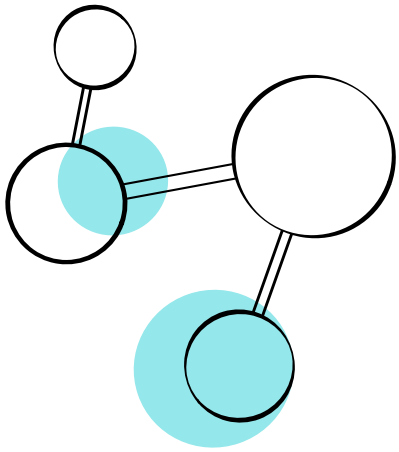
Scientific discoveries...

A ‘zeptosecond’ measured for the first time!



German scientists announced they had measured the smallest unit of time ever recorded – a zeptosecond.

- A zeptosecond is one trillionth, of a billionth, of a second.
- This is the time it takes a light particle to cross a hydrogen molecule.
- ‘This is the shortest timespan that has been successfully measured to date’ the team said in a statement.
- The method used to measure in zeptoseconds involves what is known as the photoelectric effect. The method was originally discovered by Albert Einstein who was awarded the 1921 Nobel Prize in Physics for his discovery.
- The scientific law of the photoelectric effect explains how and why some metals give off electrons after light falls on their surfaces.
- Previous experiments have only ever observed particle interactions as short as attoseconds (which are 1,000 times longer than zeptoseconds).
- This experiment represents major progress in ‘the global race’ to measure shorter and shorter units of time

Why not expand on this discovery topic and take a look at our ‘CP1 Motion’ free sample, in Pearson Edexcel GCSE (9-1) Combined Physics? In this unit, we learn about quantities that have directions (such as forces). You will find out how to calculate speeds and accelerations, and how to represent changes in distance moved and speed on graphs. You can explore this free sample and many more in our ***Pearson Edexcel GCSE Science page here:***