

Matter and relativity 4: Measuring time

Components

	NAME	DESCRIPTION	AUDIENCE
	<i>Measuring time</i> teachers guide	This guide suggests how to use the video, <i>Measuring time</i> .	teachers
	<i>Measuring time</i> video	Professor Andre Luiten explains motivations for his research to create accurate clocks.	students
	<i>The physics behind 'Measuring time'</i> background sheet	This background sheet contains explanatory notes on physics concepts referenced in the video, <i>Measuring time</i> .	teachers

Purpose

To show how a physicist proposes to test laws of physics.

Outcomes

Students:

- explain how accurate measurement of time is used to test Einstein's theories.

Activity summary

ACTIVITY	POSSIBLE STRATEGY
Teachers review the background sheet, <i>The physics behind 'Measuring time'</i> , to familiarise themselves with physics concepts introduced in the video.	
Students view the video, <i>Measuring time</i> .	whole class
Teacher discusses issues raised by the video.	teacher-led discussion

Using the video, *Measuring time*

In the video, Professor Andre Luiten touches on a wide range of topics in 'new physics'. Many of these are expanded further in the background sheet, *The physics behind 'Measuring time'*. Discussions with students can explore any of these ideas to a depth appropriate for the class.

Technical requirements

The video, *Measuring time*, requires QuickTime version 7 or later. This is a free download from www.apple.com/quicktime. The guide and background sheet require Adobe Reader (version 5 or later), which is a free download from adobe.com.

Acknowledgements

Image credits:

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