

Activities carried out after NASE course

Location:

IES Torrevicens (Generalitat de Catalunya) / Lleida (SPAIN)

Contents of the activity:

Proportionality is one of the most widely used concepts in real life. To make a good consolidation, in mathematics of 2nd ESO (student are 13 year old) we have made a roll of toilet paper where the planets would be if, for example, two sections of paper are an astronomical unit (distance Erath - Sun)

We used workshop 3 of NASE.

Sequencing:

Day 1 – 1h – Exemple calculations and create an example model.

Day 2 – 1h - Students do their calculations with their proportions.

Day 3 – 1g - They draw, glue... the planets in the measurements found at school.

Taught at secondary students (2nd ESO)

Dates: April 2021

Professor in charge: Andreu Arbó Trabado

Video: <https://www.youtube.com/watch?v=0l-oxsHKWZI>

Images

Calculs:

Resum numèric

Planeta	Posició dels planetes des del Sol	Posició a un rotllo de paper de WC	
	Km	Si una tira de paper WC és la distància del Sol a la Terra	
		Trams de paper WC	amb centimetres
Mercuri	57910000	0,395	13,628
Venus	108200000	0,738	25,463
Terra	146600000	1,000	34,500
Mart	227940000	1,555	53,642
Júpiter	778330000	5,309	183,168
Saturn	1429400000	9,750	336,387
Urà	2870990000	19,584	675,642
Neptú	4504300000	30,725	1060,016

Results:





