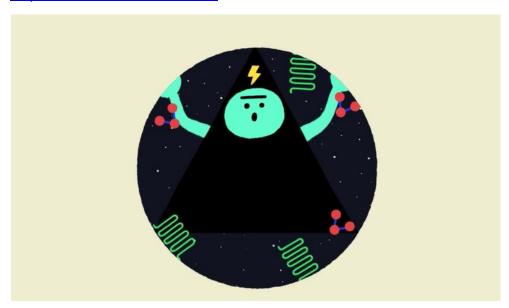


What's the Universe made of?

Key Stage 3

Topics covered: Cosmology, dark matter, dark energy, pie charts, percentages

Watch the video "How will the Universe end?", https://vimeo.com/122515139



Cosmologists study the nature of the Universe. The Universe is made up of three things:

- Matter + energy = **4.9%**
- Dark matter = **26.8%**
- Dark energy = **68.3%**
- 1. The matter in the Universe is used to form various structures. What kinds of things would you find in space?
- 2. Dark matter has a gravitational pull. Dark energy behaves like antigravity it pushes things away. How do you think these two components affect the growing Universe?
- 3. Draw a pie chart using a compass and protractor to show the composition of the Universe. Convert the percentages into degrees, 360° = 100%. Colour in the different sections and label them.



What's the Universe made of?: ANSWERS

Key Stage 3

- 1. Galaxies, stars, black holes, planets, moons, comets, asteroids, quasars, nebulae, galaxy clusters
- 2. Dark matter slows the expansion of the Universe; dark energy speeds up the expansion
- 3. Pie chart:

