

First level - Where does matter come from?

n°1 Introduction

The investigation begins on Earth...

- n°2 Volcanic rocks
- n°3 Sedimentary rocks
- n°4 Methods for dating rocks
- n°5 What do meteorites tell us?

The investigation continues in space...

- n°6 Stars: appearances can be deceiving
- n°7 The art of star arranging
- n° 8A Starlight; 8B Light from matter;
- 8c Star matter
- n°9 Infrared light
- n° 10A Runaway galaxies; 10B One effect
- n°11 Watch out for excessive speeding
- n° 12 Beyond the galaxies?

What if the answer were in the vacuum? n° 13 The vacuum: appearances can be deceiving n° 14 What if the answer were in the vacuum?

n°15 Summary: Matter is born



of the Universe



Second level - What physical laws for the Universe?

n°16 Presentation of the second level

Classical physics

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- n°18A Measuring the metre;
- 18B Time is absolute
- n°19 Points of view on movement
- n°20 Newton and gravity
- n°21 Younger in a mirror

Relativistic physics

- n°22 Introduction The speed of light
- n°23 The time of muons
- n°24 Electromagnetism in question
- n° 25 Your body is energy
- n°26 Falling bodies
- n°27 Einstein and gravity
- n°28 Gravity mirages
- $n\,{}^\circ \mbox{29}$ Relativistic effects in everyday life

Quantum physics n° 30 Introduction - Your body is full of "empty spaces" n° 31A Rutherford's experiment; 31B Inside the atom n° 32 A strange quantum world n° 33 Matter and antimatter

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Epilogue

n° 37A The Course of Things; 37B Northwest Area (Felice Varini)