

Welcome to the MASTERCLASSES QUIZ!

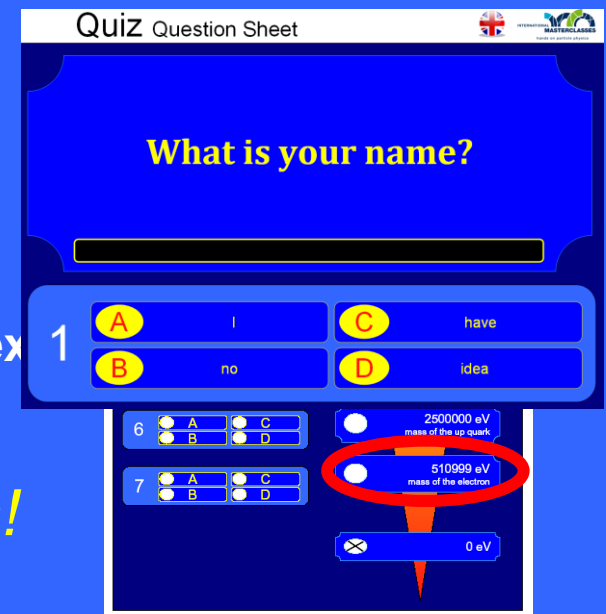
Rules of the Game

- 7 questions, 4 answers to choose (A,B,C,D)
- **mark your answer on your answer sheet before the timer ends!**
- moderators will then reveal the correct answer
- if you have answered correctly, you may **tick off the next energy level**

Let's check which energy level you can reach!

Please note:

- *this quiz is for fun, not for competition!*
- *we won't compare results*



The screenshot shows a digital quiz interface titled "Quiz Question Sheet". At the top right, there are logos for the UK flag and "INTERNATIONAL MASTERCLASSES hands on particle physics". The main question is "What is your name?" with a text input field below it. Below the question are four multiple-choice options: A: I, B: no, C: have, and D: idea. Below this, there are three question cards for questions 6, 7, and 8. Question 6 asks for the "mass of the up quark" with options A (2500000 eV), B, C, and D. Question 7 asks for the "mass of the electron" with options A (510999 eV), B, C, and D. Question 8 asks for "0 eV" with options A, B, C, and D. A red circle highlights the "510999 eV" option for question 7, and a red arrow points to the "0 eV" option for question 8.



**Welcome to the
MASTERCLASSES QUIZ!**

Ready?

Quiz Question Sheet





Which particle is the mediator of the Strong Force?



1

A

Neutralino

C

Gluon

B

Snail

D

Pigsino

Quiz Question Sheet





**What percentage
of all the matter and energy
in our Universe do we know
almost nothing about?**



2

A

13%

C

100%

B

96%

D

32.8%

Quiz Question Sheet





Which of the following is an experiment at the LHC?



3

A

ALICE

C

OPAL

B

KATE

D

FLUFFY

Quiz Question Sheet





Which two people won the Nobel Prize for Physics in 2013?



4

A

Stephen Hawking & Marie Curie

C

Francois Englert & Albert Einstein

B

Peter Higgs & Stephen Hawking

D

Peter Higgs & Francois Englert

Quiz Question Sheet





Which of the following technological innovations was invented at CERN?



5

A

The Teleporter

C

4G mobile phones

B

The World Wide Web

D

Sharks with lasers on their heads

Quiz Question Sheet



**During a long run, where the proton beams might circulate for up to 10 hours, how far will these protons have travelled?
(if they have not interacted of course)**



6

A

The distance from CERN to the sun and back

C

The distance from CERN to Neptune and back

B

The distance from CERN to the center of Geneva

D

The distance around the circumference of the Earth

Quiz Question Sheet





FINAL QUESTION:

Which elementary particle is most common in your body?



7

A

Up Quark

C

Electron

B

Down Quark

D

Bottom Quark

End of Quiz

What's your energy level?

We hope you had fun!