

Physics

Summer Tasks



TOOT HILL
SCIENCE

Q1	There are four fundamental forces in Physics, which force would have the greatest effect on two electrons in a vacuum?	A Strong B Weak C Electrostatic D Gravitation	The correct answer is...
Q2	Fundamental particles cannot be split into smaller constituents. Which of the following is considered to be a fundamental particle?	A Muon B Proton C Neutron D Kaon	The correct answer is...
Q3	Unstable nuclei may decay, releasing radiation. Which of the following decay mechanisms will cause the number of neutrons in a nucleus to increase?	A Beta minus B Alpha C Beta plus D Gamma	The correct answer is...
Q4	Which of these waves cannot be polarised?	A Ultrasound B Infrared C Seismic "S" waves D Ultraviolet	The correct answer is...
Q5	Physicists sometimes calculate the charge per unit mass of a charged particle. They use the equation: $\text{Charge per unit mass} = \frac{\text{Charge}}{\text{Mass}}$ What will be the units of the charge per unit mass?	A CKg B V/m C CKg ⁻¹ D KgA	The correct answer is...
Q6	Which of the following quarks might be found in a proton?	A Strange B Top C Up D Charm	The correct answer is...
Q7	Which of the following will produce a coherent source of light?	A Candles B L.E.Ds C LASERs D The Sun	The correct answer is...
Q8	Which of the following is a definition of stress?	A Summer homework B Length / Change in length C Force / Area D Force / Extension	The correct answer is...
Q9	Which of the following answers is most likely to be the approximate mass of air in your bedroom?	A 1000 kg B 0.1 kg C 20 kg D 1x10 ⁻⁸ kg	The correct answer is...
Q10	Which of the following will reduce in resistance as it increases in temperature?	A Iron B Titanium doped Ferric Oxide C Barium Titanate D Aluminium	The correct answer is...

Research essay (Handwritten on one side of A4): **Read around the development of our modern understanding of the atom. Describe what you think were the most significant experiments from the past two hundred years and explain how you feel they have shaped our understanding of the atomic model and of the nature of subatomic particles.**