

Knowledge Organiser Questions

KQ.1. What is the equation for speed?	Speed = distance \div time
KQ.2. What are the units we normally use for speed?	m/s
KQ.3. What is displacement?	Distance in a direction
KQ.4. What is a vector	A value with direction
KQ.5. What is a scalar	A value without direction
KQ.6. What do you call speed in a direction?	Velocity
KQ.7. The total distance \div total time?	Average speed
KQ.8. What do we call the speed at one instant of time?	Instantaneous speed
KQ.9. What do we call the variable we change in an investigation?	Independent variable
KQ.10. What do we call the variable we measure in an investigation?	Dependent variable
KQ.11. What do we call the variables we keep the same to make an investigation a fair test?	Control variables
KQ.12. Why do we share results/use peer review in science?	Confidence (in our results)
KQ.13. What is the slope of a graph called?	Gradient
KQ.14. What sort of lines on graphs do we use the word constant to describe?	Straight lines
KQ.15. What two things might change when something accelerates?	Speed or direction
KQ.16. What are the normal units we use for acceleration?	m/s/s or m/s ²
KQ.17. What do we call a change in velocity	Acceleration
KQ.18. What device do we use to measure force?	Forcemeter
KQ.19. What are the units of force?	Newtons (N)
KQ.20. What have magnetic, electrostatic and gravitation forces all got in common?	Non-contact (forces)
KQ.21. In a force field what does it mean if the lines are closer?	Stronger force
KQ.22. Name the four common magnetic materials?	Iron, steel, cobalt and nickel
KQ.23. What does repel mean?	Push apart
KQ.24. What type of electrical charges attract each other?	+ and –

KQ.25. What is another name for the gravitational force?	Weight
KQ.26. What is the equation relating mass, gravity and weight?	Weight = mass x gravity
KQ.27. What angle to the surface does the normal contact force always act?	Right angle
KQ.28. What do we call the upward force that acts on an aeroplane wing	Lift
KQ.29. What do we call the upward force that helps things float?	Upthrust
KQ.30. What do we call the push force from an engine or shove?	Thrust
KQ.31. Which direction do friction and air resistance always act on an object moving forwards?	Backwards
KQ.32. What type of surfaces have low friction?	Smooth
KQ.33. What happens to air resistance as an object moves faster?	Increases
KQ.34. What do we call results that do not fit the pattern?	Anomalies (Anomalous results)
KQ.35. What sort of errors cause anomalies?	Random errors
KQ.36. What do we call the single force we can use to show the result of lots of forces acting on an object?	Resultant
KQ.37. How big is the resultant if forces are balanced?	0N
KQ.38. What do we call a situation where the forces acting on an object do not cancel each other out?	Balanced forces
KQ.39. What do we call a situation where the forces acting on an object cancel each other out?	Unbalanced forces
KQ.40. If the forces acting on a moving object are balanced, what will happen to its velocity?	No change (in velocity)
KQ.41. If the forces acting on a moving object are unbalanced, what will happen to its velocity?	Velocity will change
KQ.42. What happens to the velocity of an object if the resultant force acting on it is 0N?	No change (in velocity)
KQ.43. What happens to the velocity of an object if the resultant force acting on it is 10N?	Velocity will change
KQ.44. What three things can change when forces are unbalanced?	Speed, direction, shape
KQ.45. What is the science word describing how much something has stretched?	Extension
KQ.46. The science word for objects that return to their original shape after being stretched or squashed?	Elastic
KQ.47. The name of the error when a device does not start at 0?	Zero error