**Graphical user interface

Description automatically generated with medium confidenceForces and Motion** (Phys)

RAG your understanding.

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|  | **Start of Topic** | **End of Topic** | **Revised** |
| P.5.6.1.1. - I can identify displacement as a vector quantity, and express displacement in terms of both its magnitude and direction |  |  |  |
| P.5.6.1.2.a.- I can describe speed as a scalar quantity and estimate the average speed of a person walking, running and cycling as well as the speed of sound in air. |  |  |  |
| P.5.6.1.2.b. - I can make measurements of distance and time and calculate speed for a moving object by recalling and applying the equation: s=vt. |  |  |  |
| P.5.6.1.3. - I can describe velocity as speed in a given direction and identify it as a vector quantity. I can explain, with examples, that motion in a circle involves constant speed but changing velocity. |  |  |  |
| P.5.6.1.4.a. - I can draw and interpret distance-time graphs including calculating the gradient of a straight line to find the speed of a moving object. |  |  |  |
| ***P.5.6.1.4.b. (HT only) - I can find the speed at a particular time of an accelerating object by calculating the gradient of a tangent of a curve on a distance-time graph***. |  |  |  |
| P.5.6.1.5 - I can calculate the average acceleration of an object by recalling and applying the equation: |  |  |  |
| P.5.6.1.5.b. - I can draw and interpret velocity time graphs, including calculating the gradient to find the acceleration of an object. |  |  |  |
| ***P.5.6.1.5.c. (HT only) - I can calculate the total distance travelled by an object by calculating the area under a velocity-time graph.*** |  |  |  |
| P.5.6.1.5.d. - I can apply the equation: v2 - u2 = 2as |  |  |  |
| P.5.6.1.5.e. - I can state that near the Earth’s surface, any object falling freely under gravity has an acceleration of about 9.8 m/s2. |  |  |  |
| P.5.6.1.5.f. - I know that falling objects initially accelerate due to gravity but reach terminal velocity when the resultant force reaches zero. |  |  |  |
| ***P.5.6.1.5.g. (Physics only) - I can draw and interpret velocity-time graphs for objects that reach terminal velocity*** |  |  |  |
| ***P.5.6.1.l (Physics only) - I can interpret and explain the changing motion of an object in terms of the forces acting on it*** |  |  |  |