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A Level Mechanics Topic Checklist

Year 1 Year 2

Mechanics Topics Kinematics Displacement, velocity and time graphs SUVAT – constant acceleration Differentiating and Integrating to get displacement, velocity, acceleration – non constant accel **Basic Forces** Basic horizontal and vertical forces - finding the resultant and magnitude Basic diagonal forces resolving - finding the resultant, magnitude and angles Using f=ma to solve basic problems such as boxes on tables etc Finding missing angles and forces in force diagrams **Connected Particles** Lifts Cars and Trailers Pulleys - Vertical Pulleys – Inclined planes **Moments** Flat plane – vertical forces Flat plane – diagonal forces Inclined plane – ladders **Vectors** Basic resolving on forces given in vector form - resultant and magnitude and finding angles

Differentiating and Integrating to get displacement, velocity, acceleration – non constant accel