

## Year 13 Biomechanics checklist

Topic	Details			
<b>1. Linear Motion</b>	<ol style="list-style-type: none"> <li>1. I understand the characteristics of linear motion</li> <li>2. I can recall the key definitions of and work out: <ul style="list-style-type: none"> <li>• Distance</li> <li>• Displacement</li> <li>• Speed</li> <li>• Velocity</li> <li>• Acceleration</li> <li>• Deceleration</li> </ul> </li> <li>3. I understand and can draw the following graphs of linear motion: <ul style="list-style-type: none"> <li>• Distance/time</li> <li>• Speed/time</li> <li>• Velocity/time</li> </ul> </li> </ol>			
<b>2. Angular Motion</b>	<ol style="list-style-type: none"> <li>1. I understand the characteristics and creation of angular motion</li> <li>2. I understand the concept of axes of rotation</li> <li>3. I can recall the key definitions <ul style="list-style-type: none"> <li>• Moment of inertia</li> <li>• Angular velocity</li> <li>• Angular Momentum</li> </ul> </li> <li>4. I can draw graphs relating to: <ul style="list-style-type: none"> <li>• Moment of inertia</li> <li>• Angular velocity</li> <li>• Angular Momentum</li> </ul> </li> <li>5. I understand the concept of conservation of angular momentum and how it is associated with Newtons first law</li> </ol>			
<b>3. Fluid mechanics and projectile motion</b>	<ol style="list-style-type: none"> <li>1. I understand the factors that affect air resistance and drag</li> <li>2. I understand the factors that affect horizontal distance travelled by a projectile</li> <li>3. I can draw and understand free body diagrams and the resolution of forces acting on a projectile flight</li> <li>4. I understand the difference between parabolic and non-parabolic flight paths</li> <li>5. I understand: <ul style="list-style-type: none"> <li>• Lift force</li> <li>• Angle of attack</li> <li>• Bernoulli principle</li> </ul> </li> <li>6. I understand the spin and magnus effect</li> </ol>			