

1. aether	a hypothetical non-material formally hypothesised to permeate all space, having the property of propagating electromagnetic waves	19. length contraction	where the length of a moving rod appears to contract in the direction of motion relative to a stationary observer
2. aether wind	this was predicted as the result if the Earth moved through the aether	20. low-Earth orbits	orbits with an altitude that ranges from 250 km to 1000 km above the surface of the Earth
3. centripetal acceleration	directed towards the centre of a circle about which an object is moving	21. mass dilation	the idea that the mass of a moving object increases in relation to a stationary observer
4. centripetal force	directed towards the centre of a circle required for an object to travel in a circular path	22. mass-energy	the idea that mass and energy are different forms of the same entity
5. circular motion	the movement of an object in a circular path	23. measurement	the process of comparing some quantity such as length, mass or time to a selected standard
6. Einstein, Albert	German-born physicist best known for his work on relativity	24. metre	the distance travelled by light in $1/299\,792\,458$ of a second
7. electromagnetic waves (radiation)	transverse waves composed of alternating electric and magnetic fields, the components of which are perpendicular to each other and to the direction of the energy flow	25. Michelson-Morley experiment	an experiment conducted to measure the speed of the Earth through the aether
8. escape velocity	the velocity needed for an object to escape from the Earth		
9. frames of reference	objects or coordinate systems with respect to which we take measurements		
10. geostationary orbits	orbits in which the satellite has a period of 24 hours and orbits in the equatorial plane about the Earth		
11. geosynchronous orbits	orbits in which the satellite has a period of 24 hours, but does not orbit in the equatorial plane about the Earth		
12. g-forces	measurements in units of the Earth's gravitational acceleration		
13. gravitational acceleration	the acceleration due to gravity on Earth		
14. gravitational constant	the constant in Newton's Law of Universal Gravitation		
15. gravitational field	that region of space in which a mass experiences a force of attraction from other masses		
16. gravitational potential energy	the work done to move an object a very large distance away to a point in a gravitational field		
17. gravity	the force of attraction between two or more masses		
18. inertial frame of reference	a frame of reference which is at rest or moving with constant velocity; a frame in which Newton's Laws of Motion are valid		