# Motion in a circle

A-Level Physics · Vocabulary in context

| Word | Example |
|---|---|
| **radian** /'reɪdɪən/ | One full turn is an angle of $2\pi$ **radians**. $2\pi$ |
| **velocity** /və'lɒsɪti/ | The ball's **velocity** is 5 m/s to the left. 5 m/s |
| **acceleration** /ək,selə'reɪʃn/ | The car speeds up quickly, so its **acceleration** is large. |
| **arc** /ɑ:k/ | The **arc** is part of the edge of a circle. |
| **angular speed** /'æŋgjələ spi:d/ | The wheel turns with an **angular speed** of 2 radians per second. 2 |
| **angular displacement** /'æŋgjələ dɪ'spleɪsmənt/ | After a quarter turn, the **angular displacement** is 90°. 90° |
| **period** /'pɪərɪəd/ | The **period** of the wave is 0.02 s. 0.02 s |
| **frequency** /'fri:kwənsi/ | A **frequency** of 50 Hz means 50 waves every second. 50 Hz 50 |
| **revolution** /ˌrevə'lu:ʃn/ | The wheel makes one **revolution** every second. |
| **circumference** /sɜ:'kʌmfrəns/ | The **circumference** of the wheel is 2 m. 2 m |
| **tangential** /tæn'dʒenʃl/ | The stone flies off in a **tangential** direction. |
| **centripetal acceleration** /sen'trɪpɪtl ək,selə'reɪʃn/ | A car turning a corner has a **centripetal acceleration**. |
| **perpendicular** /ˌpɜ:pən'dɪkjələ/ | The wall is **perpendicular** to the floor. |
| **force** /fɔ:s/ | You use a **force** to push a door open. |



exercises.lol exercises.com.cn

| Word | Example |
|---|---|
| **centripetal force** /sen'trɪpɪtl fɔ:s/ | The string gives the **centripetal force** to the spinning ball. |
| **latitude** /'lætɪtju:d/ | Beijing has a **latitude** of 40° north. 40° |
| **weight** /weɪt/ | Your **weight** is the pull of the Earth on you. |
| **tension** /'tenʃn/ | The **tension** in the rope holds up the lamp. |
| **friction** /'frɪkʃn/ | **Friction** between the tyres and the road stops the car sliding. |
| **normal contact force** /'nɔ:ml 'kɒntækt fɔ:s/ | The table pushes up on the book with a **normal contact force**. |
| **Banked corner** /bæŋkt 'kɔ:nə/ | A **Banked corner** helps cars turn at speed. |
| **banked** /bæŋkt/ | The race track is **banked** at the corners. |
| **satellite** /'sætəlaɪt/ | The **satellite** goes round the Earth. |
| **orbit** /'ɔ:bɪt/ | The Moon's **orbit** takes about 27 days. 27 |
| **gravitational attraction** /ˌgrævɪ'teɪʃənl ə'trækʃn/ | **Gravitational attraction** keeps the Moon near the Earth. |
| **electron** /ɪ'lektrɒn/ | An **electron** has a negative charge. |
| **electrostatic** /ɪˌlektrəʊ'stætɪk/ | Two charged balls push apart with an **electrostatic** force. |
| **nucleus** /'nju:klɪəs/ | The **nucleus** is at the centre of an atom. |

| Word | Example |
| --- | --- |
| **conical pendulum** /ˈkɒnɪkl ˈpendjʊləm/ | A ball on a string swinging in a circle is a **conical pendulum**. |
| **magnetic field** /mægˈnetɪk fiːld/ | A magnet has a **magnetic field** around it. |
| **radial** /ˈreɪdɪəl/ | The field lines are **radial**: they point straight out from the centre. |



exercises.lol exercises.com.cn