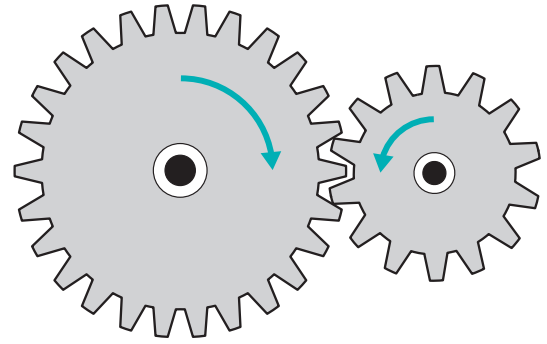


Gears

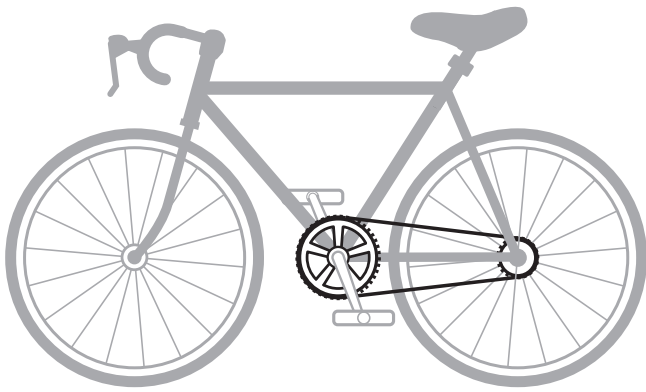


Gears are wheels with teeth on the outside. Combinations of gear wheels can be connected with chains or they can touch directly.



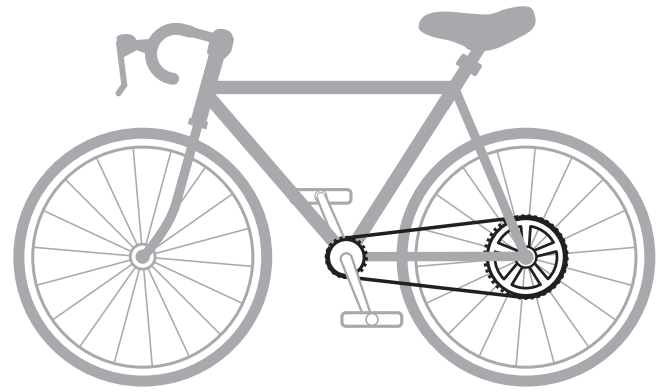
Gears can give a small **force** a greater effect.

A bicycle has gears to transfer the force on the pedals to the back wheel. The sizes of the gear wheels can make it easier or harder to pedal the bike.



A

You need a lot of force to pedal the bike when the pedals turn a large gear wheel and there is a small one on the back wheel. Cyclists use this when they want to go fast.



B

If there is a smaller gear wheel attached to the pedals and a large one at the back wheel, then it is easier to push the pedals round but the bike will not go as fast.



1. **a)** Which kind of gears (A or B) would a cyclist need when they were cycling up a hill? _____

b) Explain why these gears would be best.
