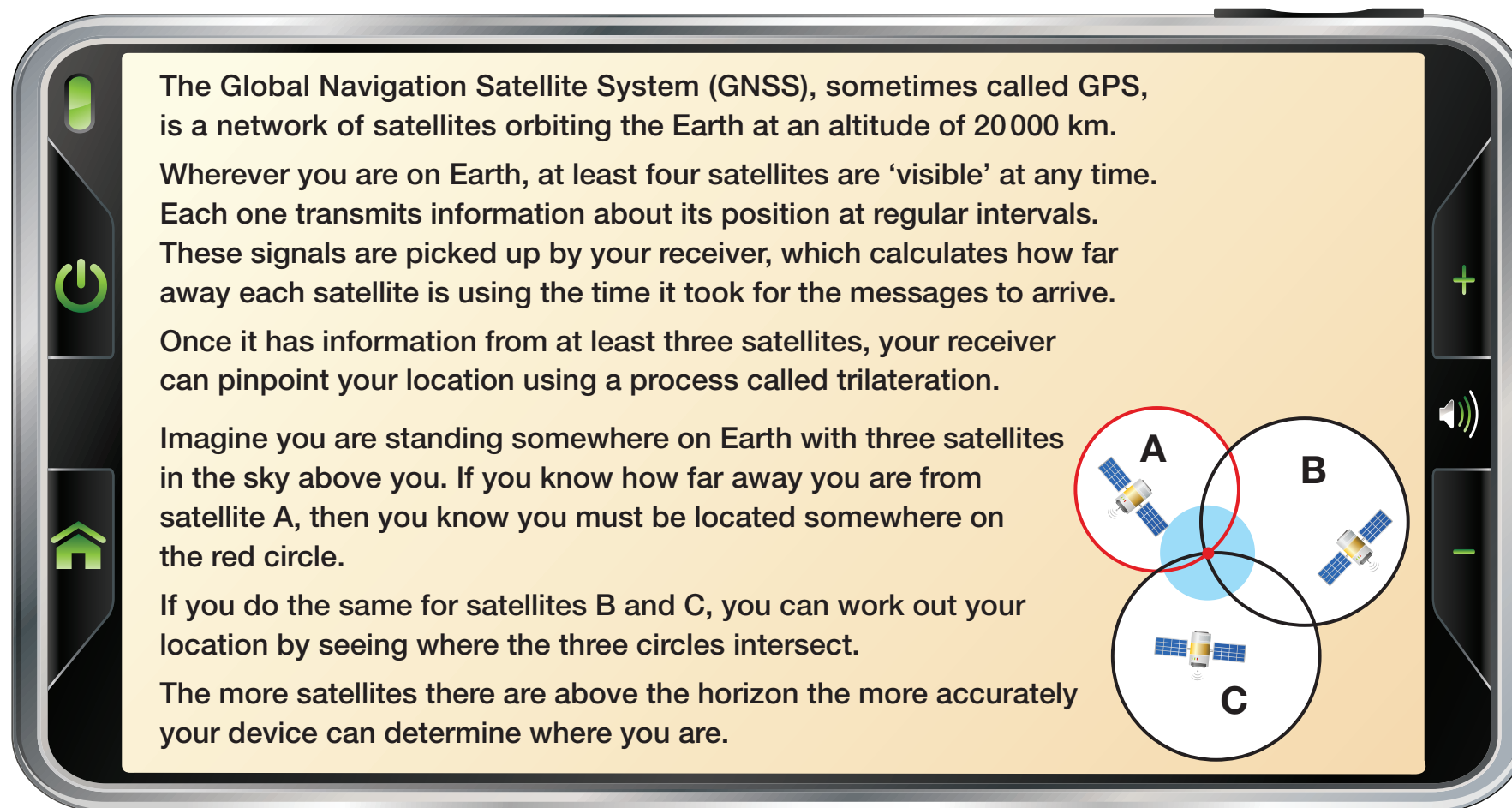


- Read the information on this screen and then explain/present it to a partner. You could make up a quiz for your partner.



The Global Navigation Satellite System (GNSS), sometimes called GPS, is a network of satellites orbiting the Earth at an altitude of 20 000 km.

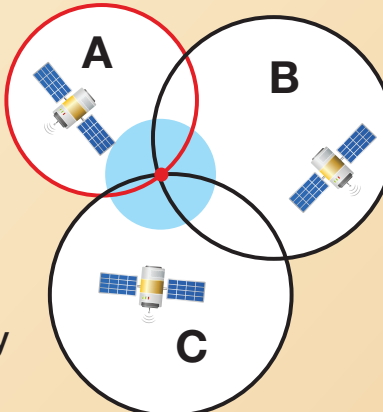
Wherever you are on Earth, at least four satellites are 'visible' at any time. Each one transmits information about its position at regular intervals. These signals are picked up by your receiver, which calculates how far away each satellite is using the time it took for the messages to arrive.

Once it has information from at least three satellites, your receiver can pinpoint your location using a process called trilateration.

Imagine you are standing somewhere on Earth with three satellites in the sky above you. If you know how far away you are from satellite A, then you know you must be located somewhere on the red circle.

If you do the same for satellites B and C, you can work out your location by seeing where the three circles intersect.

The more satellites there are above the horizon the more accurately your device can determine where you are.



- Divide into two groups. Discuss in what ways GNSS (Global Navigation Satellite System) devices are used. Explain one of the ways to another group.