

8.19 Electromagnetic Waves

Reading Science

1. How radio waves propagate depends on—
 - A. their frequency.
 - B. the antenna used to receive the signal.
 - C. their amplitude.
 - D. the gravitational force present at the receiving location.
2. Line-of-sight propagation means that—
 - A. both transmitter and receiver have to be outdoors.
 - B. both antennas have to be within sight of each other.
 - C. the Sun is visible, and the ionosphere is charged.
 - D. radio waves skim along the ground between buildings.
3. Radio communications are frequently used in emergencies because—
 - A. most people carry radios with them at all times.
 - B. relay equipment is readily available.
 - C. towers are not required for relay.
 - D. it is cheaper than other modes of communication.
4. Amateur radio operators—
 - A. number about two million worldwide.
 - B. are mostly retired engineers.
 - C. don't require a license in most countries.
 - D. can only use frequencies above 30 MHz.
5. Amateur radio communication with the International Space Station—
 - A. is only possible during nighttime hours.
 - B. requires that the ISS is in line-of-sight with the radio on Earth.
 - C. can only be used to talk to astronauts on the station.
 - D. is blocked when sunspots are numerous.
6. What conclusion can you draw from paragraph 6?
 - A. Ham operators like to set up their equipment in parking lots.
 - B. Many car owners forget to change the batteries in their remote locking devices.
 - C. Radio signals cannot penetrate glass doors.
 - D. Malfunctioning equipment can emit stray radio wave