UNIT 8: Radio Frequencies (I)

GET READY!

1. **Discuss in pairs and write a small answer:**

   - How do mobile phones communicate over long distances?

     _____

   - What is a cell in a mobile network?

     _____

   - Why don't all phones use the same frequency?

     _____

READING

1. What is the main idea of the text?
a) How to repair a mobile phone
b) How mobile networks use radio frequencies
c) How to install antennas

2. Read the sentences. Are they true or false? Correct the false ones.:

a) Each base station covers a particular cell.

_____

b) A roaming partner is a device indicating that a phone is outside its coverage area.

_____

c) A full-duplex system uses two separate frequencies at the same time.

_____

VOCABULARY

1. **Match the words or phrases with the definitions (A–H).**

antenna · adjacent · full-duplex · cell · frequency reuse · bandwidth · radio · MHz

A beside something: _____

B the transmission of electromagnetic waves: _____

C a division within a city or región: _____

D the range of frequencies that a tower can transmit: _____

E a physical device used to transmit or receive signal: _____

F a system by which different cells can share the same frequencies: _____

G the unit of measurement for frequencies: _____

H a system that uses two frequencies for call transmisión: _____

4. Read the sentence pairs. Choose which word or phrase best fits each blank.

range · cell site

A) At the _____, there is a large antenna on top of the building.
B) The caller was outside the _____ of the antenna, so his call would not connect.

channel · roaming partner

A) The students learned that a _____ is made up of two frequencies.
B) Connecting to a _____ usually costs extra money.

antenna · cell

A) A(n) _____ can be measured using megahertz.
B) When the _____ broke, the man went to the cell site to fix it.

SPEAKING – Say it Right: 🔥 Tech Challenge 🔥

You will work in two teams. The objective is to speak like a technician using precise technical vocabulary.

How it works

- One student from Team A comes to the front.
- A team member takes a card.
- The student has 30 seconds to produce 1–2 sentences per card.
- Try to produce as many correct sentences as possible.

Your sentences must:

- Use the verb on the card
- Include at least one of the nouns
- Include a connector: because / so / therefore
- ⚠️ Forbidden verbs ⚠️ You cannot use: make · do · have

The other team must:

- Listen carefully
- Decide if the sentence(s) are accurate. If not, explain why
- Improve the sentence(s) using more precise vocabulary
- Ask one follow-up question

Scoring

Speaking team:

- Correct sentence → +1
- Clear technical explanation → +1

🔥 Challenge: use the passive voice → +1

Other team (evaluation team):

- Detect a mistake → +1
- Improve the sentence → +1 point
- Ask a relevant question → +1

Important

- Speak clearly and use technical vocabulary
- Avoid simple or vague sentences
- Try to explain how the system works
- Corrections must be justified