



# ENGLISH

**Chapter 21**  
**Session A**

**5th**  
SECONDARY

**VIRTUAL WORLD**  
**The Remote Control**

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## The Remote Control

### Infrared (IR) Remote Controls

If you want to turn up the volume on your TV, you press a button on the remote control. It then sends a series of light signals to the receiver on the TV. Each series of light signals contains a unique message: firstly the equipment which the signal is intended for (the TV), secondly what to do (turn up the volume), and finally how much (just a little). The receiver interprets the signals and passes the message on to the TV's microprocessor, which responds by turning up the volume. The IR remote control can only work at short distances (often no more than 10 meters) and it can only transmit signals in straight lines. It cannot transmit signals through walls.



## Radio Frequency (RF) Remote Controls

The remote control for opening a garage door is a radio remote control. Instead of sending light signals, the RF remote control sends radio waves to the receiver, which then interprets the message. The RF remote control can work at distances of 30 meters and it can transmit through walls. However, many devices, including cell phones, laptops and cordless phones, use radio waves, so each RF remote control needs to have its own unique radio frequency.

## House Apps

The technology for remote controls has developed enormously in the past years. Instead of using several different devices for different equipment, nowadays it is possible to use the internet and an app which is downloaded on your phone. With an app, it is possible to turn lights on and off, control their brightness, open, close, lock and unlock doors, and control the temperature in rooms, among other things. You can even be notified of what is happening in the house.



Read and listen. Answer the question.

What kind of things would you like remote controls to do?

Personal answers

**2** Complete the sentences with the words in the box.

distance	laptop	walls
light	waves	app

- a** The Infrared (IR) remote control can only work within a short distance – no more than 10 meters.
- b** Radio (RF) remote controls can work through doors and walls.
- c** It's possible to download an app and use your cell phone as a remote control.
- d** The Infrared (IR) remote control sends a series of light signals.
- e** The Radio (RF) remote control works by sending radio waves.
- f** Laptop computers and cell phones use radio waves.

/indo

## Developing a Product



analyze the results



design a prototype



develop a concept



develop the product





do market research



give a demonstration



improve the design



invent characters



manufacture a product



research an idea



solve any problems



test out the product

## Reporting Verbs



announce



admit



agree



complain





explain



invite



offer



promise



refuse



suggest



tell



warn



### Reported Speech

- we use reported speech to report what someone else has said from our point of view
- when we use direct speech, we write the exact words the person said inside quotation marks  
'I saw her at the gym last night,' he said.
- when we use reported speech, we do not use quotation marks  
He said that he had seen her at the gym the previous night.
- the tense changes from the one that the speaker originally used



direct speech	reported speech
simple present	simple past
'I <b>go</b> to school every day.'	She said that she <b>went</b> to school every day.
present progressive	past progressive
'I'm <b>not feeling</b> well.'	He said that he <b>wasn't feeling</b> well.
simple past	past perfect
'I <b>read</b> that book last year.'	He said that he'd <b>read</b> that book the previous year.



present perfect	past perfect
'I've never been to Bristol.'	She said that she'd never been to Bristol.
<i>will</i>	<i>would</i>
'I'll be late.'	She said that she'd be late.
<i>am / is / are going to</i>	<i>was / were going to</i>
'I'm going to walk home.'	He said that he was going to walk home.



<i>can</i>	<i>could</i>
'I <b>can buy</b> the drinks later.'	She said that she <b>could buy</b> the drinks later.
<i>have to</i>	<i>had to</i>
'I <b>have to finish</b> my homework first.'	He said that he <b>had to finish</b> his homework first.



# Time Expressions

- when we use reported speech, we often need to change (or omit) time expressions  
'I want to go shopping **next week**,' said Amy.  
Amy said that she wanted to go shopping **the following week**.  
'I want to go shopping **now**,' said Sarah.  
Sarah said that she wanted to go shopping.





direct speech	reported speech
today	that day
tomorrow	the day after / the following day
yesterday	the day before / the previous day
next week	the week after / the following week
last week	the week before / the previous week
ten years ago	ten years before
this year	that year



### Pronouns and Possessives

- when we report what someone else says, we generally need to change the pronouns  
'I watched a movie with **my sister** yesterday,' said Lucy.  
Lucy said that **she** had watched a movie with **her sister** the day before.



### Information Questions

- we report information questions by changing the word order: the subject comes before the verb. We don't use the auxiliary verb *do*  
'Where **do** you **live**, Kevin?' asked Julia.  
Julia asked Kevin where he **lived**.



### ***yes / no* Questions**

- we report *yes / no* questions with *if* or *whether*  
'Can you lend me that book?' he asked me.  
He asked me **if** / **whether** I could lend him that book.



### Reported Questions

- 1** Complete the reported questions with the correct verb forms.

**c** Do you like science?

I asked him if he liked science.

**a** What grade did they give you on the science exam?

I asked her what grade they had given her on the science exam.

**b** Are you good at physics?

She asked me if I was good at physics.

**c** When can you help me?

I asked him when he could help me.

**d** Have you heard of Silicon Valley?

I asked him if he had heard of Silicon Valley.

**e** Who discovered DNA?

I asked her who had discovered DNA.

**f** When did they discover DNA?

I asked him when they had discovered DNA.

**g** Why don't you like physics?

He asked me why I didn't like physics.

## 2 Complete the reported questions.

'What's your favorite gadget?'

She asked him what his favorite gadget was.

**a** 'Can I borrow your laptop?'

She asked him if she could borrow his laptop.

**b** 'How long do you spend on your computer every day?'

He asked her how long she spent on her computer every day.

**c** 'What did you do in your IT class yesterday?'

I asked them what they had done in their IT class the day before/the previous day.

**d** 'What are you doing today?'

She asked him what he was doing that day.

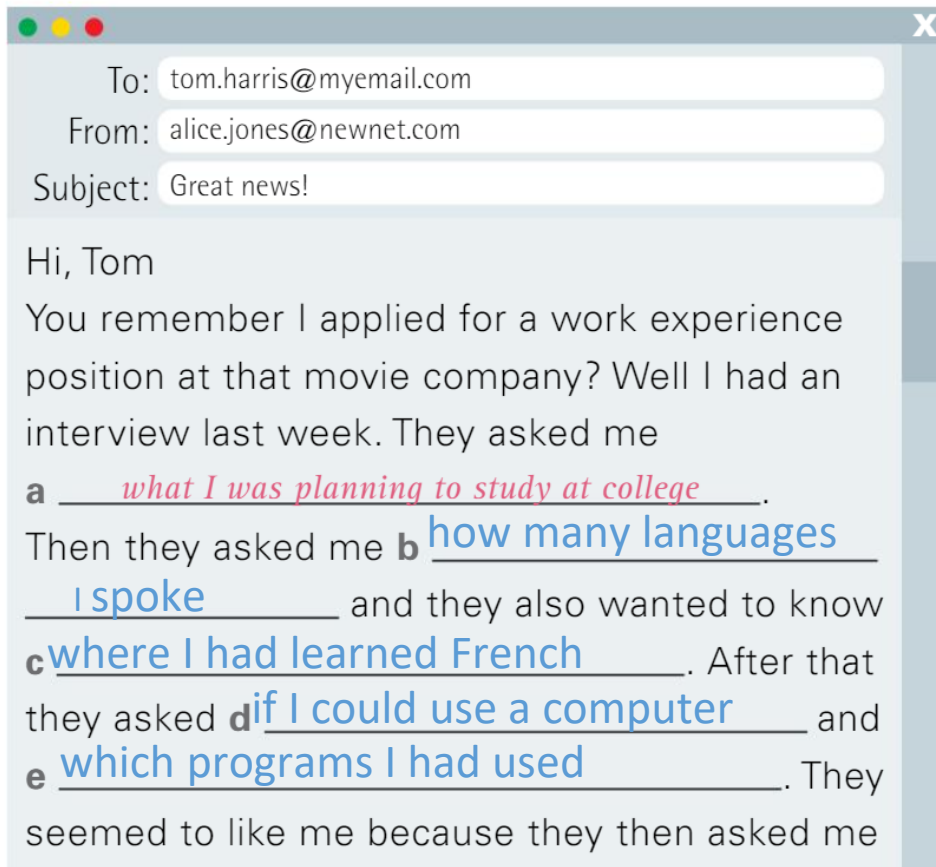
**e** 'Will you install this new program for me?'

He asked her if she would install the new program for him.



**3** Read the direct questions. Then complete the email with reported questions.

- a** What are you planning to study at college?
- b** How many languages do you speak?
- c** Where did you learn French?
- d** Can you use a computer?
- e** Which programs have you used?
- f** When will you be able to start?
- g** Do you have any questions?
- h** Will I be able to see your new movies for free?



To: tom.harris@myemail.com  
From: alice.jones@newnet.com  
Subject: Great news!

Hi, Tom

You remember I applied for a work experience position at that movie company? Well I had an interview last week. They asked me

**a** what I was planning to study at college.

Then they asked me **b** how many languages I spoke and they also wanted to know

**c** where I had learned French. After that they asked **d** if I could use a computer and

**e** which programs I had used. They seemed to like me because they then asked me

seemed to like me because they then asked me  
**f** when I would be able to start. I said  
 next week and they said OK. So I'm starting  
 on Monday!!!! Just before I left they asked  
**g** if I had any questions and I asked  
**h** if I would be able to see their new movies for free

The answer was YES! Great! So I'm going to see  
 loads of their movies in their little movie theater.  
 Maybe I'll get two tickets and be able to invite  
 you!

Bye for now,  
 Alice xxx

**3** Read the direct questions. Then complete  
 the email with reported questions.

- f** When will you be able to start?
- g** Do you have any questions?
- h** Will I be able to see your new movies for free?



## GRAMMAR CHECK



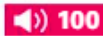
- 1 Read the text and circle the correct answers.

Parents told the principal of Northbridge School that computers **a** \_\_\_\_\_ destroying family life. Principal Caroline Stobart asked them **b** \_\_\_\_\_ and one mother said that she **c** \_\_\_\_\_ get her family to eat a meal together. She said that her daughter **d** \_\_\_\_\_ stop chatting online at mealtimes. Another parent said that her 13-year-old son **e** \_\_\_\_\_ six hours at his computer **f** \_\_\_\_\_ Saturday. One parent then asked the principal **g** \_\_\_\_\_ suggest ways of dealing with the problem. Ms. Stobart asked parents what steps **h** \_\_\_\_\_ so far. One worried father said that **i** \_\_\_\_\_ keep his son's laptop locked in a drawer starting the next day. He said he **j** \_\_\_\_\_ it back to him for specific homework projects. There weren't many parents who felt that their children had a balanced approach to computer use.



1	2	3
a are	were	mustn't
b what do you mean	what did they mean	what they meant
c couldn't	can't	won't
d won't	wouldn't	never
e has spent	spends had	spent
f the previous	last	before
g can she	could she	if she could
h had they taken	have they taken	they had taken
i he will	he was going to	he would
j will only give	would only give	only gave

2



100

Listen and check your answers.

THANK YOU