

Digital content: Streaming digital content

Name: _____

Type				
Content				
Server/ Service providers				

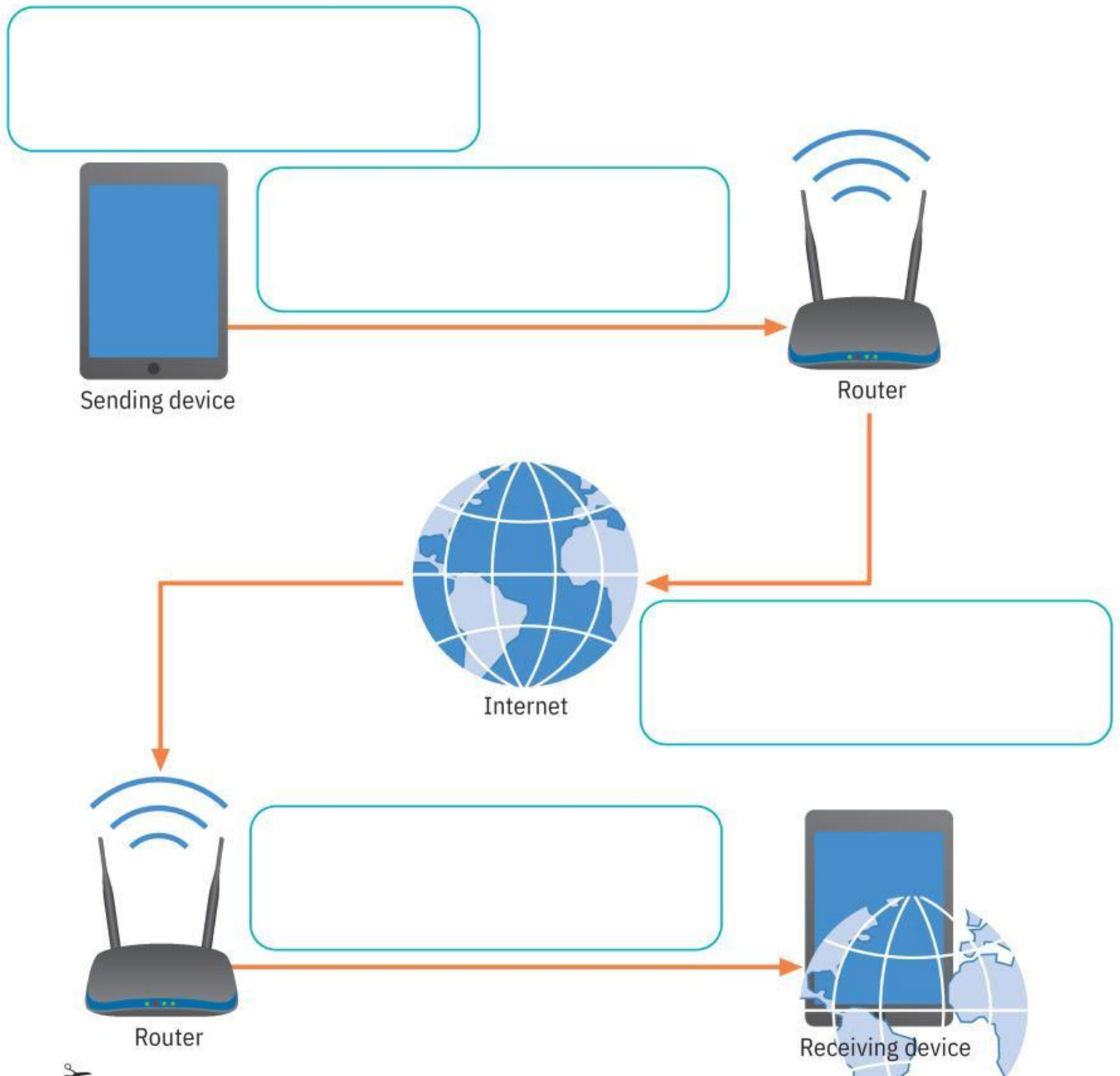
Photo	Audio	Text	Video
music, podcasts and audio books	movies, TV shows and music videos	text messages	self-created pictures or their photo albums
			

Data transfer: Radio waves and cellular networks

Name: _____

Look at the diagram depicting sending an image from one wireless device to another wireless device, over the internet.

Complete the diagram below using the cut-outs provided.



The Wi-Fi® adapter of the receiving router transmits the data packets as radio waves, and the receiving device reassembles them into the original image.

The packets of data travel from this router, through the internet, to the router of the receiving device.

On the sending device, the image is broken down into packets of data.

The packets of data are transmitted as radio waves until they reach the Wi-Fi adapter that is part of the router.

Bandwidth and Network Performance

Name: _____

Read the 'Bandwidth and Network Performance' content in the Learner's Book to complete the following:

1 Sort the following transmission medium in ascending order of their bandwidth:

- Twisted copper wire
- Wi-Fi
- Fibre-optic cable

2 Sort the following activities according to their bandwidth requirements to complete the table:

- streaming HD videos
- downloading text files
- streaming movies
- video calls
- sending emails
- live streaming an audio webinar
- VoIP (Voice over Internet Protocol)

Requires a lot of bandwidth **Requires little bandwidth**

Requires a lot of bandwidth	Requires little bandwidth

Bandwidth and Network Performance

Name: _____

Read the 'Bandwidth and Network Performance' content in the Learner's Book. Match the cut-outs to complete the table below.

Bandwidth factors is affected	How the network performance	Example

Fibre-optic cable has the highest bandwidth. Twisted copper wire has the second-highest bandwidth. Wi-Fi has the lowest bandwidth.	If a second device connects to a network, the bandwidth is shared between the two. Number of devices If a third device connects to a network, the bandwidth is shared between the three, and so on.	
Online activities	Different activities require The higher the bandwidth of the different amounts of bandwidth. transmission medium, the more A high bandwidth activity data can flow through it per will reduce bandwidth and second.performance for other users on the network.	
The more users or devices on a network means that bandwidth is shared, reducing performance.	Lots of people can normally check their emails over the same network at the same time. Type of wire or Wi-Fi Only a few people would be able to stream HD movies at the same time on a normal home network.	

Unit 5 Word search

Name: _____

Can you find all the hidden words?

O	O	W	N	O	B	Y	V	Y	G	T	A	U	T
P	B	G	E	K	R	D	H	K	X	C	X	W	H
O	M	G	U	E	K	A	I	E	R	I	Y	E	R
E	X	S	H	S	T	R	E	A	M	I	N	G	P
M	O	V	J	E	U	M	E	X	G	Y	Q	B	X
I	I	L	B	M	B	K	Z	C	P	E	Z	M	W
D	K	J	A	W	F	Z	F	L	M	X	M	X	I
T	S	Y	N	H	D	P	A	H	A	K	X	I	F
I	R	A	D	I	O	W	A	V	E	T	Z	R	I
T	M	C	W	R	H	H	O	R	X	Q	S	H	H
V	W	Y	I	A	A	V	S	E	R	V	E	R	J
W	Q	E	D	I	G	I	T	A	L	L	I	C	T
J	L	H	T	A	M	Y	D	S	I	G	K	I	U
Z	I	E	H	U	U	M	C	B	F	R	K	N	Y

Hidden words

streaming

bandwidth

server

digital

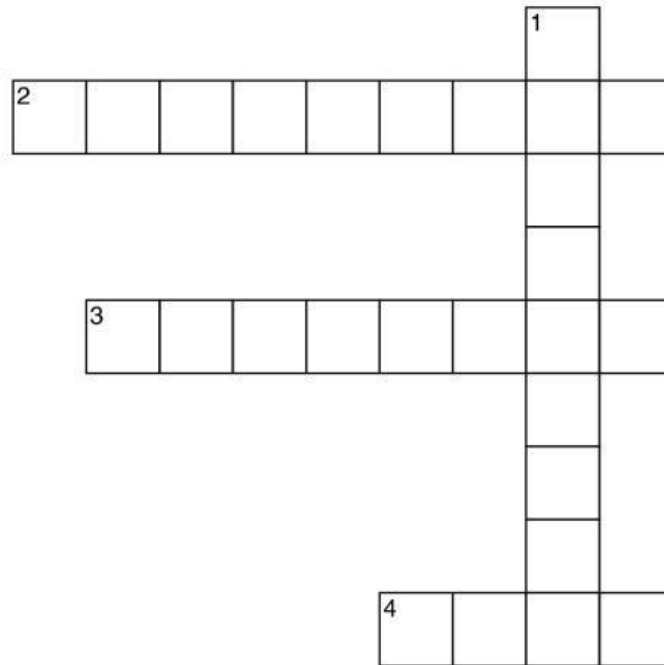
radio wave

Wi Fi

Unit 5 Crossword

Name: _____

Solve the following puzzle based on the clues given!



Across

[2] The amount of data sent over a network every second is called what?

[3] Radio waves are used to send data in Wi-Fi and what other type of network?

[4] Making a video call is a _____ bandwidth activity

Down

[1] When a video can be watched whilst it is still being sent from a server