



# ST. ANNE'S CATHOLIC HIGH SCHOOL FOR GIRLS

*"Act Justly, Love Tenderly, Walk Humbly With Your God"*

## BTEC IT

### Yr 12 Transition Work

#### Unit 1: Information Technology Systems

##### *Transmitting Data*

Computers process and transmit data either internally through the operating system or externally between digital devices. You need to learn about the concepts, processes and implications of transferring data within and between IT systems.

**Research the following key terms and answer the questions:**

Wi-Fi	HTTP
Bluetooth	HTTPS
Broadband	Encryption
Fibre optic	Digital certificates
3G, 4G, 4G LTE	Bandwidth
POP3	Latency
STMP	Lossy Compression
IMAP	Lossless compression

1. Explain how Wi-Fi and Bluetooth technologies work.
2. What are the benefits of using broadband?
3. Explain ways in which people can connect to the internet.
4. What is fibre optic?
5. What are the benefits of using fibre optic?
6. Explain what 3G is.
7. Explain what 4G is.
8. What are the benefits of using 4G?
9. Explain what 4G LTE technology is.
10. Explain what POP3 is.
11. Explain what STMP is.
12. Explain what IMAP is.
13. What is HTTP?
14. What HTTPS is used for?
15. Explain what encryption and digital certificates are used for.
16. What is bandwidth?
17. What is latency?
18. Explain the difference between lossy and Lossless compression.