

KS5 Subject: **Information Technology**

Objectives for Transition Tasks:

- To start to develop expected 6th form study skills, including independence
- To culture an interest and passion for your chosen subject through enquiry
- To learn core concepts of the subject to use in your studies

Watch:

What is the Internet?

https://www.youtube.com/watch?v=Dxcc6ycZ73M&ab_channel=Code.org

How does the Internet work?

https://www.youtube.com/watch?v=TNQsmPf24go&ab_channel=Vox

What is the Internet of Everything?

https://www.youtube.com/watch?v=6mBO2vqLv38&ab_channel=Simplilearn

Internet of Everything Devices

https://www.youtube.com/watch?v=1VhO4yGAjyo&ab_channel=ScienceTime



Read:

Potential development projects in city or neighbourhood

<https://econsultancy.com/six-internet-of-things-applications-in-big-new-government-trial/>

Potential development projects in body/health or home/garden

<https://www.libelium.com/libeliumworld/success-stories/precision-agriculture-and-automatic-irrigation-in-organic-crops-with-libeliums-iot-technology/#>

Potential development projects in industry or environment

https://www.softwareag.com/en_corporate/platform/iot.html



Independent Task (to be submitted):

Make a presentation with detailed speaker's notes to pitch an idea to the class on: 'My concept for a new Internet of Everything Device'

Watch Emerging Technologies:

https://www.youtube.com/watch?v=J1Kjm9X4V5w&ab_channel=ITreviews

Use your new knowledge about the Internet of Everything through the watch, read and research tasks.

Consider the following questions in your presentation pitch:

- What is the device?
- A drawn design/image for the device
- What are the demographics of your target market?
- Why would they want to buy your device?
- What technology/hardware would your device use?
- An estimate of how much your device would cost
- Would you have any competitors in the market?
- How will you market your device?



Aim Higher Task:

Explain the potential cyber security issues your device may have and how you would protect against these?

Watch:

https://www.youtube.com/watch?v=pGtnC1jKpMg&ab_channel=TEDxTalks

Read:

<https://www.comptia.org/content/articles/what-is-iot-cybersecurity>

Research:

<https://www.iodworldtoday.com/2021/09/17/iot-cyberattacks-escalate-in-2021-according-to-kaspersky/>



DEADLINE FOR TRANSITION TASK: Please bring to your first lesson in September.