# Lesson 4 – The Internet of Things

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| The Big Picture – Why Is This Relevant? | Learning Objectives |
| * The Internet of Things (IoT) is changing the way that we interact with everyday objects * The traditional idea that only computers and smartphones can connect to the internet is no longer true. Many devices from washing machines and fridge through to vacuum cleaners and light bulbs can now be connected to the internet | * Understand what the internet is and how it differs from the World Wide Web * Understand what the IoT is * Understand what an embedded system is |
| Engagement – How Can I Engage Learners? | Assessment for Learning |
| * Adding further technical detail concerning how IoT devices actually work, which will build on the previous lesson * Leaners will be amazed at the possibilities that the internet offers. Many may not have realised that is possible to connect a wide range of objects to the internet * Learners will have the opportunity to be creative and come up with their own ideas over where the IoT could take us in the future | **Expected Progress:**   * Learners shall to use the internet to independently answer the IoT questions. They should understand the benefits that the IoT offers   **Good Progress:**   * Learners will understand the benefits and potential drawbacks of the IoT. They will understand that the internet is a global network of connected devices   **Exceptional Progress:**   * Learners will understand the meaning of the term IoT and how devices need to use embedded systems to be able to connect to the internet. |
| Key Concepts | Key Words |
| * The internet is a globally connected network of devices * The IoT allows everyday objects to the connected to the internet using an embedded system | * Internet * Internet of Things (IoT) * Embedded system |
| Differentiation | Resources |
| Learners should be able to independently answer the questions using the internet as a reference. If necessary, provide students with prompts and suggest which sites that could use to help them. More capable students may wish to explore the purpose of protocols and which specific protocols IoT devices will use to communicate. | * Lesson 4 ppt * Lesson 4 IoT ideation worksheet |
| Lesson Flow | |
| * Introduce the IoT through discussing the ppt. This will show learners some of the technology involved in IoT devices. It will build on the knowledge from the previous lesson * Discuss students answers with the class and highlight the need for an embedded system to be included within the device to be able to connect to the internet * Learners should then use the ideation worksheet to identify which devices may be connected to the internet in the future and the benefits that this will offer | |
| Making | |
| There are no making activities in this lesson. | |