Lesson plan

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| Topic 6 Drawing system diagrams |
| Learning Objectives:* Draw a diagram to show how an IT system works
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| Content |
| * This topics objective is not specifically listed in the specification for Learning Aim B (Transmitting data). However, it is a useful skill to be able to draw system diagrams and examinations often require this.

StarterPowerPoint Guide: Topic 6 Drawing system diagramsThe starter first asks students to consider a diagram that hasn’t been labelled. It is likely that they will be able to label the devices and explain the connection types. Remind them that these annotations on a diagram are important when they have to draw them.MainPurpose and tips for drawing a system diagramThese two slides explain the key features required when drawing system diagrams and some tips for when they create their own. It is worth showing them the previous diagram for the starter and asking what is missing. In this case there is no explanation of the flow of data through the system. Typically, if a scenario is given, this would also be needed as part of the annotation.Scenario: Mobile phone shopThis scenario will be used to show how a system diagram can be constructed step by step. It is a good idea at this stage to give students a sheet of blank paper so that they are able to construct their own diagrams.The devicesThe first key step for students is to identify the devices and hardware required for a scenario. These should be labelled. There is no need to draw graphics, however, where these are easy to draw or add to the diagram they are perfectly okay to add. Enough space should be left to add connections and annotations to the diagram.ConnectionsThe required connections should have appropriate details to match the scenario. This can be the type of cables used such as Ethernet, or the connection type to the Internet.It is also very important to add further annotation that is related to the scenario. This is likely to include annotation about the information and data that is moved around the IT system.Give out **Worksheet 6** and ask students to do **Task 1** and **Task 2**.Topic 6 Worksheet 6Topic 6 Worksheet 6 AnswersScenario: A journalistThe second scenario is regarding a journalist. This time ask students to create the diagram in three steps without the prompts of what should be included. Possible solutions are given over the following three slides.The suggested protocol to transfer the files from the file server to the PC is File Transfer Protocol (FTP). This has been listed as it is easy for students to understand and remember. On a Windows system it is far more likely that the Windows file sharing protocol called Server Message Block (SMB) would be used.Give out **Worksheet 6** and ask students to do **Task 3**.PlenaryAsk students to complete the plenary task and then go through the answers. Hand out **Homework 6**.Topic 6 Homework 6Topic 6 Homework 6 Answers |