

Lesson 3

How Digital Systems Connect to form Networks and Transmit Data

Content descriptors:
Knowledge and understanding:
Examine the main component of common digital systems and how they may connect together to form networks to transmit data. (ACTDIK014)
Relevant elaborations:
<ul style="list-style-type: none"> Investigating how emergent digital systems work Explaining how data may be transmitted between digital systems in different ways Describing digital systems as having internal and external components that perform different functions

Learning intention:

By the end of the lesson, students will be able to:

- Examine the main components of a network and how networks interact by completing a network component quiz.

Formative assessment suggestion:

- Multiple choice quiz – understanding the main components of the network.

Equipment list:

- Projection screen
- Prezi lesson 2
- Network google classroom quiz

Lesson outline (50-60 min lesson)

Introduction (20min)	Revision activity <ul style="list-style-type: none"> Interactive prezis revising content discussed in previous lesson PowerPoint then revises the key points from the previous lesson <ul style="list-style-type: none"> “What can you remember from last lesson?” “What is a weather station?” “Can you remember any of the main components of a weather station?” 	Students can do a think, pair, share <ul style="list-style-type: none"> Class question, students think about their answer, pair up and discuss their answers and then one pair at a time share their thoughts with the rest of the class. The job of a weather station is to accurately measure the temperature of an environment. Solar panel, power board, location board, sensor board, communication board,
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	<ul style="list-style-type: none"> ○ “How will a weather station assist the local environmental scientists to prepare for the future?” 	<p>antenna, and nylon screws.</p> <ul style="list-style-type: none"> • The data collected can be used to understand and make predictions about the health of the environment. It will help environmental scientists to monitor the natural environment and the effects temperature is having on our plants and animals.
Body (15-20min)	<ul style="list-style-type: none"> • Interactive prezi • Discussing the network used in the weather station data map, how it works, its components, why we use it (this information is in the prezi) • Animation video from TCC explaining the network 	
Conclusion (15-20min)	<p>Check for understanding (formative assessment quiz)</p> <ul style="list-style-type: none"> • interactive quiz with questions about the network and the digital systems in the weather station program 	<ul style="list-style-type: none"> • Interactive quiz is found in the google classroom