

Lesson 6

Interpreting and Visualising Weather Station Data

| |
|---|
| Content descriptors: |
| Knowledge and understanding: |
| Acquire, store and validate different types of data, and use a range of software to interpret and visualise data to create information (ACTDIP016). |
| Relevant elaborations: |
| <ul style="list-style-type: none"> Selecting and using peripheral devices suitable to the data, for example using a data probe to collect data about changing soil temperature for plants, interpreting the data and sharing the results as a digital graph Using data visualisation software to help in interpreting trends, for example uploading data to a web application and building a visualisation of the dataset |

Learning intention:

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

- Acquire, and store their weather station's data, using dashboard software for visualisation
- Interpret and validate the information provided by their data.

Summative assessment suggestion:

- Students develop their own graph and data visualisation using worksheet resource
- Students write a paragraph summary report to describe their experience, knowledge and understanding of weather stations.

Equipment list:

- Projection screen
- Prezi lesson 5
- Printed photos of students with their weather stations (one for each student)
- Class set of computers/laptops
- Student access to printing
- Class sets of lesson worksheets
- Scissors and glue.

Lesson outline: (60min lesson)

| | |
|--------------------------------|--|
| Introduction (10min) | <ul style="list-style-type: none"> Thank you video explaining the importance of the students' contribution to the Townsville temperature map – TCC Video explaining how to access the data |
| Body (20min) | <ul style="list-style-type: none"> Hand out step-by-step instructions on getting access to the network and how to develop a graph from the data Students open the network and investigate the platform Students use the real time data of their weather station to develop a visualisation graph of the data |
| Conclusion (30min) | <ul style="list-style-type: none"> Students print their temperature graph and paste onto worksheet. Students answer prompt questions to write a paragraph outlining their experience with their weather stations, building, the different components, how their weather stations connect together to build a network of data, how they can access, interpret and visualise that data and how other businesses/scientists across Townsville are going to use their weather stations. |

