Activity Ideas *TTS Bluetooth Data logger SC01000*

Dan Bunker from United Learning Ed Tech team explores the TTS Bluetooth Data Logger and shares ideas of ways to use the data logger to show progression across the age ranges.

Many thanks to Dan Bunker.

Activity Suggestion Year 1- Hot and Cold in the Classroom

-Place different objects around the classroom (e.g., a cup of sand, a cup of warm water, a cup of cold water, a cup containing ice cubes).

- Use the data logger's temperature probe to measure the temperature of each cup.

- Share the iPad screen showing the data logging app and select the thermometer graphic. Ask the children to predict and then discuss the results.

- Encourage students to touch and feel the cups to understand the concept of temperature.

- Later the same day, retake the temperatures of the 4 cups and discuss. What happened to the ice?

Activity Suggestion Year 2- Sound Detectives

Which instrument makes the loudest noise?

-Create different sounds using a variety of instruments and classroom objects.

-Measure the sound levels using the data logger each time.

-Share the app on the iPad screen and note the results.

-Encourage students to predict the sound level in advance of each instrument being played.

-Was our test fair? What do we need to do to ensure a fair comparison?

Activity Suggestion Year 3- Light Detectives

Where are the lightest areas in school?

-Identify a range of different areas in the school where you might grow some plants.

-Take light meter readings at different times of the day at each of the identified areas.

-Share the app on the iPad screen and compare the results.

- Encourage students to predict the light levels in advance of the reading being shared.

-Ask the children how this information might be useful in determining the best spots to grow the plants.

Activity Suggestion Year 4- Keep My Coffee Warm!

-Identify a range of different insulation materials that we could use to keep a cup of coffee warmer for longer.

-Use the temperature probe and a range of insulation materials to test which one is best to reduce the cooling rate of the coffee in the cup.

-If you have multiple probes, then you can test several cups at the same time or repeat the test several times if using a single probe and change the insulation material each time.

-You could also test a range of coffee cups from leading coffee shops.

-Encourage students to predict which insulation materials will be best at preventing heat loss from the cup.

-Ask the children how this information might be useful in determining the best materials to insulate against heat loss.

Activity Suggestion Year 5- Sound safari

Understand sound levels in different environments.

-Students explore various areas (classroom, gym, library, playground).

-Use data loggers to measure sound levels.

-Create a “Sound Map” of the school, marking noisy and quiet spots.

-Discuss how noise affects concentration and the use of space.

-Repeat the exercise when the school is not being used using the remote configuration tools.

-Analyse and compare results. Were there any surprises?

Activity Suggestion Year 6- Heat Detectives

Investigate temperature variations in different areas of the school and understand how infrared technology works.

-Using the data logger's IR sensor, pupils measure the surface temperature of walls, doors, windows, and other objects.

- Record the temperature readings and the location on investigation sheets.

-Discuss why some areas might be colder (e.g., drafts, insulation, sunlight exposure).

-Back in the classroom, pupils discuss possible explanations (e.g., air leaks, insulation quality, materials used).

-Can they solve the mystery of the coldest spot in the school?

-Create a class chart or graph showing the temperature variations in different zones.