



Sample activity to promote communication skills

This resource was developed as part of an Applied Technology 2020/2021 CPD webinar on CBA 1 “Exploring the application of controlled systems in a local context” which took place on the 15th October 2020. All materials used during this webinar can be viewed in the Technologies section of www.jct.ie within the Elective Workshops tile.

Website Link:

https://www.jct.ie/technologies/cpd_supports_applied_technology_elective_workshops

The learning experiences below showcases an Applied Technology teachers’ approach to developing communication skills using the strategy PMI (Plus, Minus, Interesting) through a student activity. This suggested strategy communicates to students a range of methods which they can use to demonstrate their learning. Students are also encouraged to justify their chosen method of communication.

Classroom strategy to develop communication skills

PMI: Plus, Minus, Interesting

This involves asking the students to think about communicating a circuit diagram from the point of view of what is Plus? (reasons why something is a good idea), Minus (why something will not work or is unwise) and Interesting (usually refers to the implications and possible outcomes – whether positive or negative). ‘Interesting’ might encourage a student to explore new knowledge, for example, in drawing the circuit by hand, a student could refer to their log table to find out the symbols for components.

What is included in this PDF?

- Sample student activity

This PDF contains an activity which was engaged with and discussed in the context that is outlined in the Applied Technology 2020/2021 CPD webinar and developed by the teacher for their students in their school context.

A big thank you to the teacher involved for making this resource available to the JCT4 Applied Technology team.

Note: It is recommended that you watch the webinar in conjunction with using this resource to contextualise the resource and develop a better understanding of how the resource was developed.

Communication of electrical circuits in Applied Technology



A **Torch** uses a very simple circuit in its design, with a few components: **Battery, Switch, LED, Resistor, Wires.** The components are connected in series. The battery stores energy as electric potential energy, which is converted to light and heat by the LED, when the switch is closed to connect the circuit. For current to flow and the torch to work there needs to be a complete circuit.

Task: Communicate a circuit diagram for your torch using different methods.

Scan or Click



Introduction to Simple Circuits



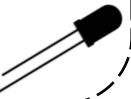
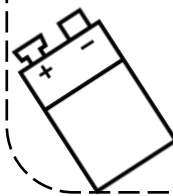
Hand drawn circuit diagram



Visual circuit diagram



Can you name each electrical symbol and place them correctly in your circuit diagram?



Audio description of a circuit diagram



You can submit your work in several different methods:

- Link to audio file
- Submit to google classroom/MS Teams
- Create QR code and stick here
- Correct terminology/understanding



Digital modelling a circuit diagram



You can submit your work in several different methods:

- Link to audio file
- Submit to google classroom
- Create QR code and stick here
- Tinkercad suggested or other software available in your school context



Your opinion: What are your initial thoughts on the different ways to communicate the torch circuit?



Communication of electrical circuits in Applied Technology



Plus

Minus

Interesting



Hand drawn circuit diagram



Visual circuit diagram



Audio description of a circuit diagram



Digital modelling a circuit diagram



Conclusions: What did you find out from this activity? Is there a better way for you to communicate your understanding of the torch electric circuit?