

1. Teacher's Comments

- [00:00:00](#) General Comments: Within year eight, we have mini-schools that contain three year-eight classes each. In the mini-school containing the videoed class, we were running a Gifted and Talented Program where individual students may miss a lesson so that they can take part in an activity aimed at gifted students in science. If these students miss an important practical due to this, they are able to join another class within the mini-school in order to complete the practical lesson. Therefore it is not unusual to have students from another class join us in the laboratory.
- [00:01:12](#) Students normally have a sitting plan in the laboratory, but due to the camera being in the room, they panicked and did not sit in their regular seats. We teach in two different rooms: the laboratory, when the lesson involves a practical, and a regular classroom, when the lesson just involves theory. If a student is away one day they may not realise that they have to go to the laboratory, thus explaining why some students are late. This does not happen very often as most students do check before the lesson.
- [00:02:55](#) As there is now a big push to incorporate literacy in all subject areas, I would probably introduce this topic in a very different way. I would probably ask the students to first contribute their own definitions for transfer and transformation through class discussion, and then we would establish through discussion what would be meant by energy transfer and energy transformation. I would then follow with the demonstrations and discussion of what each one represents. I carried out these demonstrations to illustrate the thought processes I wanted the students to use during the practical.
- [00:04:34](#) I began with this example as it is something that is familiar to all the students, something they all would have experienced. I believe that if students can relate science concepts back to a familiar experience of their own, then they can better understand that concept and remember it.
- [00:05:52](#) If I had introduced this topic by first establishing the definitions for energy transfer and energy transformation, I would then at this point ask the students which of those terms applied to these two situations and to justify their answer.
- [00:09:41](#) I do two demonstrations at this point rather than just discuss them because some of the students are visual learners, and if I did not demonstrate these to them they may not have been able to follow the discussion that related to them. I try to cater to all learning styles within the one lesson. Some students learn by listening, some by writing, others by seeing, and others by doing.
- [00:10:56](#) After showing that example I would now ask the students to explain why this demonstrates energy transformation.
- [00:17:10](#) At this point I am checking their understanding by seeing if they can write an energy chain to represent the battery and light bulb situation on their own before they begin the practical part of the lesson.
- [00:18:54](#) The introduction went a little too long. I think I would have the students define transformation and transfer, and suggest definitions for energy transfer and energy transformation for homework the night before.
- [00:19:08](#) I decided to set up workstations for three reasons:
1. Lack of equipment, therefore not enough to set up each activity eight times.

2. Restriction of room on benches. To have nine activities set up on each bench creates too much clutter, therefore increasing the risk of an accident.

3. Student control. Limit the number of students using Bunsen burners and the number of students going outside at one time. I am also able to hover around the more complicated activities so that I can help students when required.

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I get students to work in set groups. I group them by mixed ability to allow for peer tutoring within each group. I also group behaviour problem students so I am able to keep a closer eye on them.

[00:33:24](#)

I would make sure I had spare cotton reel wheels made up in case the rubber band broke, rather than waste valuable time trying to fix one.

[01:13:02](#)

I discuss the results and student observations to consolidate the lesson and clear up any confusion about the expected conclusions for the practical.

[01:13:07](#)

The homework sheet consolidates the lesson and allows me to check their understanding of the work covered by seeing their responses the next lesson. It basically required them to complete energy chains similar to those they investigated during the lesson.

[01:13:25](#)

I would have liked more time to go over what was required for homework by going over the homework sheet in case any of the students had any questions. Unfortunately this was the last lesson of the day and students could not be late to buses, therefore I could not keep them past the bell.