

## Learning Activity: *Concept Mapping*

**Learning Behaviours:** *Checking for understanding, Retrieving prior knowledge, Cooperation/learning from others*

**Teacher:** MWJ **DATE:** 24/5/05

**Class:** 7D science

### **Tabletop Concept Mapping**

After completing part of a unit on heat I printed out 15 words on slips of paper and put them into an envelope – one for each table group.

Students were instructed to choose any 6 words to start with and use the tabletop and masking tape to construct a concept map, writing their connections between words along the tape.

If requested, students could add more words to their concept map.

A prize would be awarded to the group that came up with the most number of valid connections.

### Discussion Tool

Journal writing

### Student Comments

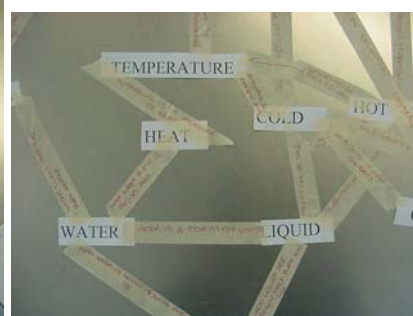
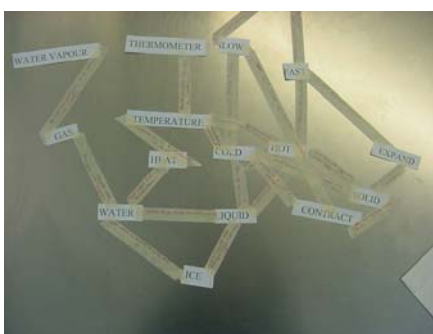
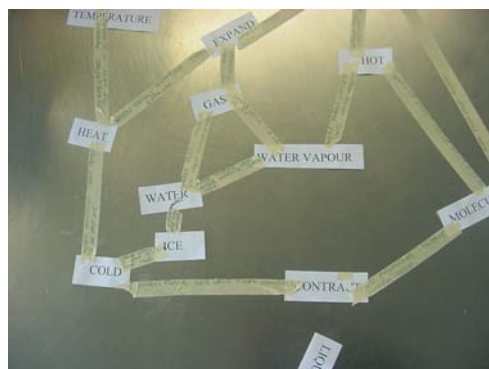
Many students commented that this was “a lot more fun” than doing concept maps on paper.

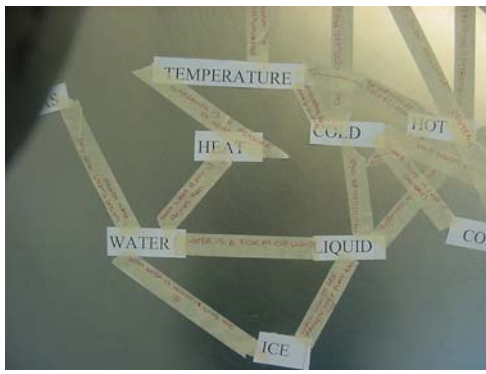
Amy – “the activity was hands on and it made you think more about what you had to do.”

Shannon – “I learnt that every thing is joined somehow.”

Britta – “this activity really made me think and helped me with understanding”

Most students’ comments were along these lines. I did not hear the “boring” comment that was flying around the first time I attempted a Concept Map.





## Teacher Journal

### Concept Mapping

#### What did I want to achieve?

My first attempt at Concept Mapping with this class was at the end of their last unit : Separation Techniques. I gave them 20 words that we had covered in the unit and asked them, in pairs, to use a large sheet of paper and make links between the words. This was their first attempt at Concept Mapping and they found it very difficult, “boring”! I think I used too many words and it was clear to me that they didn’t know the meaning of them all, as I had thought even though we had been doing this unit for 6 weeks!

I wanted to try the idea again but this time in a different form, half way through the unit and with fewer words.

#### What I did

We have been studying HEAT for 3 weeks and have covered

- What is heat?
- Particle theory / states of matter
- Effect of heat on Solids, Liquids and Gases

I decided to make the task of Concept Mapping a little more interesting, hands on.(an idea from JSD)

I made up a list of 16 words and cut up the words on small pieces of paper and placed them in envelopes.

In table groups, I asked the students to choose any 6 words from the envelope that they believed they could make links between in a concept map.

They were to construct their concept map on the tabletop, using masking tape to connect the words and then write their concept on the tape.

Prizes would be awarded for the group that made the most valid connections.

#### What happened?

Presenting the Concept Map in this format was much more successful in terms of student enthusiasm, engagement and outcomes.

In all groups, all 4 students appeared to be involved in the task. Many groups asked if they could use more than the 6 words and this was agreed. Most groups used between 10 and 16 words. I had much less input and was asked fewer questions than last time we attempted this activity. Groups only had 20 minutes to complete the activity and came up with, on average, 20 meaningful connections.

Connections the students made showed understanding of the concepts covered so far in the unit.

Introducing the idea of competition also added to their enthusiasm, and as it was stressed that they had to make valid connections, I believe their thinking was on a deeper level and discussion and cooperation were evident, tossing ideas around to improve their presentation.

Attempting this activity halfway through the unit also allowed the students to concentrate on fewer concepts with deeper understanding.

Although I thought limiting the word number would improve the ability of students to handle the task, choice allowed to students to include as many words as they felt comfortable with, and competition encouraged them to think a bit more to stretch that word limit.