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**Handout 32: Establishing ‘what = good’ for instruction text (Science)**

**Example 1: To find out how water affects the growth of cress seeds**

*Instructions*

Get 4 petri dishes and put some cotton wool and cress seeds into each of them. Then you have to put no water into one of the petri dishes. Using a measuring cylinder you have to measure 10 mL of water and put this into the next petri dish. Again, using a measuring cylinder you have to measure 15 mL of water and put this into the last petri dish. All these petri dishes have to be left in the light for one week and then using a ruler we can measure how much the cress grew.

**Example 2: To find out how water affects the growth of cress seeds**

*Equipment*: *Diagram*:

4 petri dishes
cress seeds
measuring cylinder
water
cotton wool **cotton wool**
ruler **seed**

 lid

 **petri dish**

1. Put the same amount of cotton wool into 4 petri dishes.
2. Press the same amount of cress seed into each dish.
3. Do not put any water in the first petri dish.
4. Put 5 mL of water into the 2nd dish, using a measuring cylinder.
5. Put 10 mL of water into the 3rd and 15 mL into the 4th petri dish.
6. Leave the dishes for one week in the light.
7. After one week, measure the length of the cress seeds using a ruler.

**Example 3: Cress seed experiment**

Smiling smugly, I had pictured myself growing the best cress seeds in the class – mine all tall, green and healthy looking while all the others were wilted, thin and mangy. Sadly, this turned out not exactly to be the case. Apparently, we were supposed to set up four different dishes and treat the little blighters differently to illustrate some point or other. As usual, I wasn’t really listening and just set up one dish. Enthusiastically, I overwatered this and somewhat drowned the seeds. Perhaps I should cross ‘Follow in Einstein’s footsteps’ off my career list.

**Example 4:** **To find out how water affects the growth of cress seeds**

*Equipment*:

4 petri dishes; water; measuring cylinder; cotton wool; cress seeds

*Diagram*: **cotton wool**

 **seed**

 lid

 **petri dish**

I will set up four sets of the equipment as shown in the diagram, placing cotton wool and cress seeds in each of the petri dishes. I'll leave one dry, put 5 mL of water in another, 10 mL in a third one and finally 15 mL in the fourth. Then I will put the petri dishes in the sun for one week. I'll measure the length on the plants at the end of that week.