Date **T: plan and carry out an investigation**

Copy the headings in bold into your book.
DO NOT copy the questions; they are to help you complete the sections.

Aim *What are you trying to find out?*

Prediction *What do you think your results will be?:*

- *think about what you are changing and what you are measuring*
- *explain your prediction (say why) using scientific language and reasoning*

Method

Fair test *(what would you keep the same? What one thing will you change?)*

Equipment *(what would you need to use?)*

Instructions *(what steps would you need to take to do the investigation? Include detail e.g. times, measurements of amounts)*

Risk assessment *(what hazards might there be? How could you reduce the risk from them?)*

Results (table)

Results (graph) – draw this on the graph paper

Remember to (tick these off when you have done them):

- *Think about how long your axis need to be before you draw them*
- *use a ruler*
- *If needed remember to include units of measurement (cm, g, ml, seconds) when labeling axis.*
- *give your graph a title*
- *start the y axis at 0, not 1*
- *write the numbers on the lines, not between the lines*
- *label the x axis and the y axis*
- *draw the dot straight above the label it goes with*
- *leave the same number of squares width between each dot*

Conclusions

Was your prediction right? Why / why not?
What did you find out? (write about your results, what you changed and what you measured)
Explain your results using scientific language and reasoning.
Use your results (table and graph) to estimate what would happen if the teeth were brushed for 3.5 minutes and for 4 minutes.
Do you think the experiment would have the same results if the teeth were stained with something different e.g. chocolate, wine? Why / why not?
Do you think the experiment would have the same results if different brands of toothpaste were used e.g. Colgate, Sainsbury's? Why / why not?
How easy or difficult would it be to make this experiment a fair test in real life? Why?