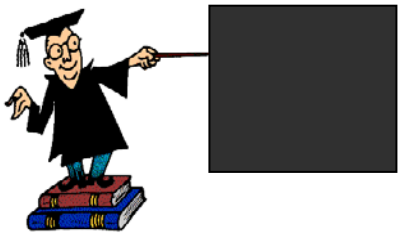
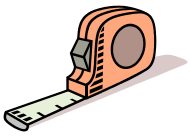
Looking at Shadows

PoS - use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them, and to predict the size of shadows when the position of the light source changes
NaG - pupils should explore the way that light behaves
WS – pupils should take measurements, using a range of scientific equipment, with increasing accuracy and precision; report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations

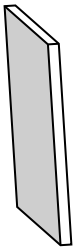


Look at the objects below. What question could Professor Scaffold be writing on the board for the children to investigate?

Glove Puppet



Tape Measure



White Screen

Torch

Professor Scaffold could be asking these questions:

a._____

b._____

c._____

This is what I think is the most likely question/problem being set by Professor Scaffold:

_____

_____

This is what I think the children should do if they are to investigate Professor Scaffold's question/problem:

_____

_____

_____

_____

_____

This is how I think the children should record their investigations:

_____

_____

_____

_____

I am now going to investigate the question/problem I think Professor Scaffold has set. I will use these headings to help me record my work. (This work can be recorded in your book).

Title (What are you going to call your investigation?)

Problem (Write down Professor Scaffold's question/problem.)

Method (What will you do to investigate Professor Scaffold's question/problem?)

Equipment (What does Professor Scaffold need to carry out his investigation?)

Diagram (Draw and label a diagram to help you explain what you are going to do.)

Now carry out your investigation

Results (How will you record your results? Charts, tables, graphs or lists?)

Fair Test (Was your test fair? Explain why.)

Conclusion (Write down what you have found out. Did you manage to answer Professor Scaffold's question? How has this learning helped you? Could you improve what you did?)

Extension

While eating his ice-cream, Peter notices his shadow on the ground. He wonders if his shadow will stay the same or change during the course of the day. What could he do to find out?