Avalanche!



Graphing your data:

- Draw a bar graph to show the height of the heap at each stage of your experiment, putting the number of tablespoonfuls or 20g measured amounts of the substance on the horizontal axis and the height of the heap on the vertical axis.
- Then draw a separate bar graph for the angle between the paper and the slope of the heap.
- Estimate the area covered by the heap at each stage, by counting squares or by measuring three or four 'radii' to find an average radius, then calculating the area. Then draw a bar graph of area (vertical axis) against the number of amounts of the substance added (horizontal axis).
- On your graphs, label the points at which avalanches occurred.

Look carefully at your graphs, and answer these questions:

- Do the three graphs have much the same shape, or not? How are they similar, how are they different?
- Can you see any patterns in when avalanches occurred, or does it seem to be quite random?

Now look at the descriptions you have made of the avalanches. See if you can classify them as small, medium or large events.

• Can you see any patterns in your graphs for the severity of the avalanches?

Give a short report on what you have discovered about avalanches so far. You should use:

- your graphs
- your observations about when avalanches occur
- and your observations how severe they are.