Using your graphs to think about avalanches

Collect all your results and graphs together. What do they tell you about avalanches? Try answering these questions to help you:

- Which substances had the most frequent avalanches?

- Which substances had the least frequent avalanches?

- Which substances had the most severe avalanches?

- Which substances had the least severe avalanches?

- Is there a maximum area covered, or height, or angle, for heaps of particular substances?

- Does the frequency or severity of an avalanche relate to the area of the existing heap, or its height, or the angle it makes with the paper?

- What difference do you think particle size makes?

- What difference does the amount of water make?

- How does it affect things if you mix two or more substances?

- Do the proportions in which they are mixed matter?

Now apply what you've discovered to snow avalanches:

1. What sort of snow is likely to have the most dangerous avalanches - snow with small or large particles?

2. Is wet snow likely to be more dangerous than dry snow, or vice versa?

3. Avalanches happen on snowy slopes. Are slopes with slight (say up to 20°), moderate (say 20° to 50°) or steep (more than 50°, say) likely to be most dangerous?

4. If snow melts then refreezes, making bigger icy particles, and then new, smaller snow crystals fall, what would be predict about the likelihood of an avalanche?

Which of these suggestions do you think would be sensible advice to people trying to prevent or at least control avalanches? Which wouldn't be sensible?

1. Chop down all the trees in case they are damaged by avalanches.

2. Trigger small, controlled avalanches very early in the morning to clear away accumulated snow.

3. Put fences, posts, windbreaks or dams on slopes to divert the avalanches.

4. Grow new trees on slopes to break up avalanches.

5. Build houses on snowy slopes to divert the avalanches.

6. Fire guns in the late afternoon to start an avalanche and clear away accumulated snow.

Can you suggest any ideas of your own?