Quotes for gallery gossip
‘..practical work is too heavily directed by teachers.....too much reliance on worksheets...practical activities used to illustrate points...’

...my heart always sinks when the equipment comes out in one of our science lessons. Either the experiment will work, and show what we already know or it won't and we'll have to spend ages explaining why it didn't....”

Year 11 pupil
“Much practical work is ineffective, unscientific and a positive deterrent for many students to continue with their science.”

Woolnough, 1995
“I begged my teachers to stop doing practicals and teach on the syllabus. I wish they would stop trying to make it fun and just teach it because in the end all that matters is my grade. My grade depends on my exams. My exams depend on the syllabus. Anything else in my opinion is a complete waste of everyone’s time”

Student response to the online e-consultation for the House of commons Science and Technology select committee report on “Practical experiments in school science lessons and science field trips” 2011
“A key question emerged in these meetings: If this is what is most appropriately taught and experienced at Key Stage 2, how would the same topic and similar practical work be taught at Key Stage 3 so that tasks are challenging enough and not merely seen as repetition by pupils?”

Progression and continuity in learning science at transfer from primary to secondary school.
“Science teaching must take place in a laboratory; about that at least there is no controversy”

Joan Solomon, 1980.
“Science is a practical subject.....You know, end of story, I think”

“Science without practical is like swimming without water”

Head of Science quoted in SCORE report, 2008.
“One of the key determinants of decline in pupils’ motivation is pupils feeling that the science they did in primary schools was somehow of a lower grade, unimportant and now a poor basis for further study. One way to reduce pupils’ impressions that secondary science is a boring series of repeats of what they think they have already covered before is to encourage teachers to make explicit links both forwards and backwards as suggested by Jarman (1997) and Braund (2008)”

Progression and continuity in learning science at transfer from primary to secondary school.
“The de-motivating effect that repetition can have is shown starkly by the comment, from Morrison’s email study,

‘I used to like science, but here we started everything from scratch....’

- sent from a year 7 pupil to a year 6 pupil in her old primary school”

Progression and continuity in learning science at transfer from primary to secondary school.
“...there was little evidence to show that primary or secondary teachers recognised the need to plan explicitly how they wanted to get their students to learn about ideas. This was in marked contrast to the way in which their lesson plans, and recipe style tasks, typically made explicit what they wanted their students to do with objects”

Getting Practical- the evaluation. Abrahams, Reiss and Sharpe. SSR 2011, 93 (342)