

This is a multiple-choice questionnaire showing me what **you** think about chemistry practicals:

- There is no right and wrong answer.
- You can have more than one answer for each question.
- For each question, please circle any answer which shows what **you** think about chemistry practicals.
- **PLEASE circle at least one answer for each question. Circle the last answer of each question if none of the other answers show what you think about Chemistry practicals.**

	e.g. If the middle two answers show what you think about Chemistry practicals, then put circles around the middle two numbers.	
	➤ You don't think this	17
<input type="radio"/>	➤ You think this	18
<input type="radio"/>	➤ You think this	19
	➤ You don't think this	20
	e.g. If none of the answers show what you think about Chemistry practicals, then put a circle around the last number for this question.	
	➤ You don't think this	21
	➤ You don't think this	22
	➤ You don't think this	23
<input type="radio"/>	➤ None of these show what I think about Chemistry practicals.	24

1. A benefit (good thing) of Chemistry practicals is to develop skills.	
➤ Yes, because I need a variety of practical skills.	25
➤ Yes, because I learn to measure.	26
➤ Yes, because I learn to observe.	27
➤ Yes, because I must learn how to classify chemicals.	28
➤ Yes, so I know how to survive in life.	29
➤ Yes, as I want to become a scientist or something related to science.	30
➤ Yes, but some learners don't know how to develop skills.	31
➤ None of these show what I think about Chemistry practicals.	32
2. A benefit of Chemistry practicals is to gain more knowledge.	
➤ Yes, I gain knowledge which I could use in many different ways.	33
➤ Yes, I gain specific Chemistry knowledge when we do Chemistry practicals.	34
➤ Yes, because in everyday life I notice things similar to the practicals.	35
➤ Yes, because when I do practicals, I remember the concept for much longer.	36
➤ Yes, because I can avoid serious injuries or death by having knowledge of dangerous reactions.	37
➤ No, I don't think chemistry practicals help me gain more knowledge.	38
➤ None of these show what I think about Chemistry practicals.	39

3. A benefit (good thing) of Chemistry practicals is to Prove a Theory.	
➤ Yes, because a practical makes me put the theory into my own words, which is easier than textbook language.	40
➤ Yes, proving a theory is good but most of the time the practicals don't work.	41
➤ Yes, because proving theories makes theories easier to believe.	42
➤ No, most theories have already been proved by qualified scientists over and over again. It is not necessary to prove them once again.	43
➤ Yes, because by actually proving it I understand the theory.	44
➤ None of these show what I think about Chemistry practicals.	45
4. A benefit of Chemistry practicals is to learn to handle apparatus.	
➤ No, because I might never use the apparatus again in my life.	46
➤ Yes, because learning to handle apparatus will help me prepare for the world.	47
➤ Yes, because if I never handle apparatus, I am nervous when using the apparatus by myself.	48
➤ Yes, I must learn to handle apparatus because of unknown dangers in Chemistry practicals.	49
➤ Yes, as all apparatus is important and should be handled with care.	50
➤ Yes, I benefit from learning to handle apparatus because practice makes perfect.	51
➤ None of these show what I think about Chemistry practicals.	52
5. A benefit of Chemistry practicals is to know how chemicals react.	
➤ Yes, as long as the practicals don't use dangerous chemicals.	53
➤ No, because knowing how chemicals react will never affect me.	54
➤ Yes, a practical helps me understand that specific reaction.	55
➤ Yes, so when I am older I will know the basic reactions and I will know what to do.	56
➤ None of these show what I think about Chemistry practicals.	57
6. Chemistry practicals are good when I can investigate a question I'm curious about.	
➤ Yes, because I learn more about Chemistry when I'm curious.	58
➤ Yes, because investigating is the most fun part of science.	59
➤ Yes, because investigating lets me find out why something has happened.	60
➤ Yes, because doing investigations show me how to investigate.	61
➤ No, because we are not given time and equipment for investigations, although I would like to find out things for myself.	62
➤ No, because I do not have the knowledge to investigate.	63
➤ None of these show what I think about Chemistry practicals.	64
7. Chemistry practicals help me to know what is meant by Chemistry.	
➤ Yes, because Chemistry practicals help me to know chemicals and how they work.	65
➤ Yes, but I need theory before practicals for Chemistry practicals to help me know what is meant by Chemistry.	66
➤ Yes, because Chemistry practicals help me identify characteristics and properties of certain substances.	67
➤ Yes, because the practicals help me understand what my teacher is trying to tell us.	68
➤ Yes, because by doing practicals I can familiarize myself with the work in Chemistry.	69
➤ Yes, because doing practicals allows me to get the feeling of Chemistry.	70
➤ None of these show what I think about Chemistry practicals.	71

8. Chemistry practicals benefit me when I follow the instructions.	
➤ Yes, but only if the practical goes well.	72
➤ Yes, because then I get better marks.	73
➤ Yes, because I actually learn something if I follow instructions.	74
➤ Yes, because then everyone has a good time.	75
➤ No, because instructions limit my ability to think freely.	76
➤ Yes, because instructions are there for me to get a result correctly if I follow them correctly.	77
➤ Yes, following instructions is better for understanding what's happening in the practical.	78
➤ Yes, because I will not hurt myself if I follow the instructions.	79
➤ None of these show what I think about Chemistry practicals.	80
9. A benefit (good thing) of Chemistry practicals is to work as a group.	
➤ No, because some people don't work. They get the same marks but don't do any work.	81
➤ Yes, because working in groups at school helps me to know how to get along with other people.	82
➤ Yes, because working as a group is an opportunity for learners to help learners.	83
➤ No, because the clever learners take over and the others don't reach their full potential.	84
➤ Yes, because working together is fun!	85
➤ No, because groups make it difficult for me to benefit from the practical.	86
➤ Yes, but I benefit only if I do some of the practical work myself.	87
➤ None of these show what I think about Chemistry practicals.	88
10. I benefit when I learn to avoid accidents during Chemistry practicals.	
➤ Yes, because I learn how to handle different dangerous substances.	89
➤ Yes, <u>but</u> small accidents help me remember how it should be done.	90
➤ Yes, because learning to avoid accidents teaches me to be more careful about what I am doing.	91
➤ None of these show what I think about Chemistry practicals.	92
11. I benefit from recording and reporting the Chemistry practicals we do.	
➤ Yes, because I learn to present the practical in the right way.	93
➤ Yes, recording and reporting the practical benefit me, but make the practical boring.	94
➤ Yes, I benefit from recording and reporting practicals because I learn what worked and what did not work.	95
➤ Yes, I benefit because when I want to remember something, I check my record.	96
➤ Yes, recording and reporting the practical benefit me, but some practicals are just to see (not to record).	97
➤ None of these show what I think about Chemistry practicals.	98
12. Chemistry practicals benefit me because they give me ideas related to Chemistry.	
➤ No, because being taught gives me more ideas related to Chemistry.	99
➤ Yes, because during practicals I think of different experiments that I can do.	100
➤ Yes, because Chemistry practicals give me ideas about new apparatus, procedures, formulas or chemicals.	101
➤ None of these show what I think about Chemistry practicals.	102

13. Chemistry practicals motivate me.	
➤ Yes, because practicals make the subject more interesting.	103
➤ Yes, because by doing practicals I can develop my skills.	104
➤ Yes, because a practical opens my mind to a clear picture of what is happening.	105
➤ Yes, because of the visual stimulation during Chemistry practicals.	106
➤ Yes, because actually doing a practical is better than sitting behind a desk listening to the teacher talking.	107
➤ Yes, because it is easier to remember if I see it or do it than if it is explained by a book or teacher.	108
➤ Yes, because Chemistry practicals help me enjoy Chemistry as a subject.	109
➤ Yes, because without practicals, Chemistry would be boring.	110
➤ Yes, because practicals bring a bit more excitement for teachers and pupils.	111
➤ Yes, and I benefit because with Chemistry practicals I want to learn so I get better marks.	112
➤ Yes, because I learn things I would not learn if we were just doing theory.	113
➤ Yes, especially because later in life I may not have the chance to do Chemistry practicals.	114
➤ None of these show what I think about Chemistry practicals.	115
14. A problem of Chemistry practicals is we don't have enough equipment and chemicals for all the experiments that we need to do.	
➤ Yes, we have this problem because it is expensive to buy these chemicals and equipment.	116
➤ Yes, and because of this problem sometimes we can only use a little bit of the chemicals.	117
➤ No, we have all the equipment we need.	118
➤ Yes, and because of this problem sometimes some chemicals are not available and we cannot see certain reactions.	119
➤ Yes, and doing practicals is pointless when we don't have enough chemicals and equipment for a practical.	120
➤ Yes, but the teachers should use what we have.	121
➤ Yes, it's a problem so we need to find out which are important experiments and get the right equipment for them.	122
➤ None of these show what I think about Chemistry practicals.	123
15. A problem of Chemistry practicals is sometimes the practicals do not go well, or as planned.	
➤ Yes, but it is still fun and exciting when the practicals do not go well.	124
➤ Yes, but I must do the practical properly so that it goes according to plan.	125
➤ Yes, but it depends on the resources of the laboratory.	126
➤ No, because if the practical does not go well I learn what went wrong, so it's not a problem.	127
➤ No, because doing practical helps me think of all the factors affecting the practical so that I can make the practical work.	128
➤ Yes, this is a problem so difficult practicals should be done by my teacher.	129
➤ Yes, and when the practical does not work I am disappointed.	130
➤ None of these show what I think about Chemistry practicals.	131

16. A learner who is not co-operative is a problem in Chemistry practicals.		
➤	Yes, because the learner could cause an accident.	132
➤	Yes, because I can't work when someone is fooling around.	133
➤	Yes, because the teacher usually has to stop whatever she is doing and this wastes a lot of time.	134
➤	Yes, and this learner won't know what happened in the practical.	135
➤	None of these show what I think about Chemistry practicals.	136
17. Chemistry practicals help me understand Chemistry.		
➤	No, because practicals do not help me understand the Chemistry content we do in school.	137
➤	No, because the practical does not help me if the Chemistry itself is difficult.	138
➤	Yes, I understand because the practicals show us the work in a fun atmosphere.	139
➤	Yes, I understand because I actually work with the materials.	140
➤	Yes, but I understand more clearly if I learn about the Chemistry and <u>then</u> do a practical.	141
➤	None of these show what I think about Chemistry practicals.	142

*PLEASE go back and check that you have circled **at least one** number for each multiple choice question.*

*Thank you for your co-operation.
Enjoy your Chemistry practicals!*