
Views on Chemistry Practicals

This questionnaire has been developed so that I can find out what you think about Chemistry practicals. Please fill it in as honestly as possible, so that I can use the information to improve our Chemistry practicals. I want to know what you think the benefits and problems of Chemistry practicals are.

<p>Please tell me whether you agree or disagree with the statements, by putting a circle around numbers 1 to 5 FOR EACH STATEMENT</p>	strongly agree	agree	neutral	disagree	strongly disagree
<p>5 g. If you strongly disagree with this statement, then put a circle around 5</p>	1	2	3	4	
1. A benefit (good thing) of Chemistry practicals is to develop skills.	1	2	3	4	5
2. A benefit of Chemistry practicals is to gain more knowledge.	1	2	3	4	5
3. A benefit (good thing) of Chemistry practicals is to Prove a Theory.	1	2	3	4	5
4. A benefit of Chemistry practicals is to learn to handle apparatus.	1	2	3	4	5
5. A benefit of Chemistry practicals is to know how chemicals react.	1	2	3	4	5
6. Chemistry practicals are good when I can investigate a question I'm curious about.	1	2	3	4	5
7. Chemistry practicals help me to know what is meant by Chemistry.	1	2	3	4	5
8. Chemistry practicals benefit me when I follow the instructions.	1	2	3	4	5
9. A benefit (good thing) of Chemistry practicals is to work as a group.	1	2	3	4	5
10. Chemistry practicals benefit me when I interpret results (work out the meaning of the results).	1	2	3	4	5
11. Chemistry practicals are good when I can apply Chemistry to things I know.	1	2	3	4	5
12. I benefit when I learn to avoid accidents during Chemistry practicals.	1	2	3	4	5
13. I benefit from recording and reporting the Chemistry practicals we do.	1	2	3	4	5
14. Chemistry practicals benefit me because they give me ideas related to Chemistry.	1	2	3	4	5
15. Chemistry practicals motivate me.	1	2	3	4	5
16. A problem of Chemistry practicals is we do not have much time to do practical work.	1	2	3	4	5
17. A problem of Chemistry practicals is we don't have enough equipment and chemicals for all the experiments that we need to do.	1	2	3	4	5
18. A problem of Chemistry practicals is sometimes the practicals do not go well, or as planned.	1	2	3	4	5
19. A problem with Chemistry practicals is the lack of main content. (Content = syllabus theory for exams)	1	2	3	4	5
20. A learner who is not co-operative is a problem in Chemistry practicals.	1	2	3	4	5
21. Chemistry practicals help me understand Chemistry.	1	2	3	4	5
22. A problem for learners is not being able to understand what's happening during the Chemistry practical.	1	2	3	4	5
23. A problem is doing Chemistry practicals in an environment not suitable for practicals.	1	2	3	4	5
24. A problem of Chemistry practicals is teachers expect learners to do things themselves while the learners don't understand.	1	2	3	4	5

The rest of the questionnaire is a multiple choice 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.		
<input type="checkbox"/>	➤ You don't think this	17
<input type="checkbox"/>	➤ You think this	18
<input type="checkbox"/>	➤ You think this	19
<input type="checkbox"/>	➤ 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.		
<input type="checkbox"/>	➤ You don't think this	21
<input type="checkbox"/>	➤ You don't think this	22
<input type="checkbox"/>	➤ You don't think this	23
<input type="checkbox"/>	➤ None of these show what I think about Chemistry practicals.	24

1. A benefit (good thing) of Chemistry practicals is to develop skills.		
<input type="checkbox"/>	➤ Yes, because I need a variety of practical skills.	25
<input type="checkbox"/>	➤ Yes, because I learn to measure.	26
<input type="checkbox"/>	➤ Yes, because I learn to observe.	27
<input type="checkbox"/>	➤ Yes, because I must learn how to classify chemicals.	28
<input type="checkbox"/>	➤ Yes, so I know how to survive in life.	29
<input type="checkbox"/>	➤ Yes, as I want to become a scientist or something related to science.	30
<input type="checkbox"/>	➤ Yes, but some learners don't know how to develop skills.	31
<input type="checkbox"/>	➤ None of these show what I think about Chemistry practicals.	32
2. A benefit of Chemistry practicals is to gain more knowledge.		
<input type="checkbox"/>	➤ Yes, I gain knowledge which I could use in many different ways.	33
<input type="checkbox"/>	➤ Yes, I gain specific Chemistry knowledge when we do Chemistry practicals.	34
<input type="checkbox"/>	➤ Yes, because in everyday life I notice things similar to the practicals.	35
<input type="checkbox"/>	➤ Yes, because when I do practicals, I remember the concept for much longer.	36
<input type="checkbox"/>	➤ Yes, because I can avoid serious injuries or death by having knowledge of dangerous reactions.	37
<input type="checkbox"/>	➤ No, I don't think chemistry practicals help me gain more knowledge.	38
<input type="checkbox"/>	➤ 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. Chemistry practicals benefit me when I interpret results. (<i>interpret = work out the meaning of the results</i>).	
➤ Yes, if I interpret the results before I am given the explanation.	89
➤ Yes, because interpreting results help to broaden my thought patterns.	90
➤ Yes, because I learn to think logically.	91
➤ Yes, because interpreting results makes me find out a lot of things for myself.	92
➤ Yes, because interpreting results makes me understand the practical better.	93
➤ None of these show what I think about Chemistry practicals.	94
11. Chemistry practicals are good when I can apply Chemistry to things I know. (<i>e.g. cold drink, unleaded chemicals, Chemistry in the kitchen, clean water, etc.</i>)	
➤ Yes, because applying Chemistry can be a good survival tactic.	95
➤ Yes, because by using things that people see every day, I can go home and show others.	96
➤ Yes, but it depends on my individual interests.	97
➤ Yes, because applying Chemistry to things I know is a lot more useful than learning about useless information.	98
➤ Yes, because it helps me when we do practicals using things that I am familiar with.	99
➤ None of these show what I think about Chemistry practicals.	100

12. I benefit when I learn to avoid accidents during Chemistry practicals.		
➤	Yes, because I learn how to handle different dangerous substances.	101
➤	Yes, <u>but</u> small accidents help me remember how it should be done.	102
➤	Yes, because learning to avoid accidents teaches me to be more careful about what I am doing.	103
➤	None of these show what I think about Chemistry practicals.	104
13. I benefit from recording and reporting the Chemistry practicals we do.		
➤	Yes, because I learn to present the practical in the right way.	105
➤	Yes, recording and reporting the practical benefit me, but make the practical boring.	106
➤	Yes, I benefit from recording and reporting practicals because I learn what worked and what did not work.	107
➤	Yes, I benefit because when I want to remember something, I check my record.	108
➤	Yes, recording and reporting the practical benefit me, but some practicals are just to see (not to record).	109
➤	None of these show what I think about Chemistry practicals.	110
14. Chemistry practicals benefit me because they give me ideas related to Chemistry.		
➤	No, because being taught gives me more ideas related to Chemistry.	111
➤	Yes, because during practicals I think of different experiments that I can do.	112
➤	Yes, because Chemistry practicals give me ideas about new apparatus, procedures, formulas or chemicals.	113
➤	None of these show what I think about Chemistry practicals.	114
15. Chemistry practicals motivate me.		
➤	Yes, because practicals make the subject more interesting.	115
➤	Yes, because by doing practicals I can develop my skills.	116
➤	Yes, because a practical opens my mind to a clear picture of what is happening.	117
➤	Yes, because of the visual stimulation during Chemistry practicals.	118
➤	Yes, because actually doing a practical is better than sitting behind a desk listening to the teacher talking.	119
➤	Yes, because it is easier to remember if I see it or do it than if it is explained by a book or teacher.	120
➤	Yes, because Chemistry practicals help me enjoy Chemistry as a subject.	121
➤	Yes, because without practicals, Chemistry would be boring.	122
➤	Yes, because practicals bring a bit more excitement for teachers and pupils.	123
➤	Yes, and I benefit because with Chemistry practicals I want to learn so I get better marks.	124
➤	Yes, because I learn things I would not learn if we were just doing theory.	125
➤	Yes, especially because later in life I may not have the chance to do Chemistry practicals.	126
➤	None of these show what I think about Chemistry practicals.	127

16. A problem of Chemistry practicals is we do not have much time to do practical work.	
➤ No, we do a lot of Chemistry practicals.	128
➤ No, we have more than enough time to get through each practical we do.	129
➤ Yes, time is a problem because by the time we get all the equipment ready, the period is already half over.	130
➤ Yes, time is a problem because practicals don't always work so it may need to be done over again.	131
➤ Yes, and some learners take longer to complete a practical than other learners.	132
➤ Yes, and lack of time makes me rush through the practical.	133
➤ None of these show what I think about Chemistry practicals.	134
17. 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.	135
➤ Yes, and because of this problem sometimes we can only use a little bit of the chemicals.	136
➤ No, we have all the equipment we need.	137
➤ Yes, and because of this problem sometimes some chemicals are not available and we cannot see certain reactions.	138
➤ Yes, and doing practicals is pointless when we don't have enough chemicals and equipment for a practical.	139
➤ Yes, but the teachers should use what we have.	140
➤ Yes, it's a problem so we need to find out which are important experiments and get the right equipment for them.	141
➤ None of these show what I think about Chemistry practicals.	142
18. 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.	143
➤ Yes, but I must do the practical properly so that it goes according to plan.	144
➤ Yes, but it depends on the resources of the laboratory.	145
➤ No, because if the practical does not go well I learn what went wrong, so it's not a problem.	146
➤ No, because doing practical helps me think of all the factors affecting the practical so that I can make the practical work.	147
➤ Yes, this is a problem so difficult practicals should be done by my teacher.	148
➤ Yes, and when the practical does not work I am disappointed.	149
➤ None of these show what I think about Chemistry practicals.	150

19. A problem with Chemistry practicals is the lack of main content. (Content = syllabus theory for exams)	
➤ No, because the teacher gives us worksheets with the practicals.	151
➤ No, I think we have enough content in the practicals.	152
➤ Yes, because some things that we might find interesting are cut out of the practical.	153
➤ No, because I personally get enough information from my teacher during the practical.	154
➤ No, because the basics have been learnt and on that the rest can be built during the practical.	155
➤ Yes, because I am not always sure what is going on, so I cannot learn the content during the practical.	156
➤ Yes, because practicals tend to concentrate on specific content and they don't always link up with the main content.	157
➤ Yes, sometimes I can learn a lot of content <u>but</u> other times the practical is pointless.	158
➤ No, because we always keep to the main point of the content during a practical.	159
➤ None of these show what I think about Chemistry practicals.	160
20. A learner who is not co-operative is a problem in Chemistry practicals.	
➤ Yes, because the learner could cause an accident.	161
➤ Yes, because I can't work when someone is fooling around.	162
➤ Yes, because the teacher usually has to stop whatever she is doing and this wastes a lot of time.	163
➤ Yes, and this learner won't know what happened in the practical.	164
➤ None of these show what I think about Chemistry practicals.	165
21. Chemistry practicals help me understand Chemistry.	
➤ No, because practicals do not help me understand the Chemistry content we do in school.	166
➤ No, because the practical does not help me if the Chemistry itself is difficult.	167
➤ Yes, I understand because the practicals show us the work in a fun atmosphere.	168
➤ Yes, I understand because I actually work with the materials.	169
➤ Yes, but I understand more clearly if I learn about the Chemistry and <u>then</u> do a practical.	170
➤ None of these show what I think about Chemistry practicals.	171
22. A problem for learners is not being able to understand what's happening during the Chemistry practical.	
➤ Yes, because I find Chemistry practicals difficult to do.	172
➤ Yes, especially if I don't know what to expect while performing the practical.	173
➤ Yes, especially if the practical doesn't go exactly the way we've been told its going to go.	174
➤ Yes, so if we know about the reaction, there is no need to do Chemistry practicals.	175
➤ No, because what happens in a Chemistry practical is relatively easy to understand.	176
➤ No, if learners pay attention there would be no problem understanding what's happening in the practical.	177
➤ None of these show what I think about Chemistry practicals.	178

23. A problem is doing Chemistry practicals in an environment not suitable for practicals.		
➤	Yes, because it is dangerous to learners and teachers to do practicals in an unsuitable environment.	179
➤	Yes, so teachers should decide which practicals <u>can</u> be done in the available room. Teachers should make sure there is a fire extinguisher and sand to put out fires.	180
➤	Yes, because practicals done in an unsuitable environment can be inaccurate or may not work.	181
➤	None of these show what I think about Chemistry practicals.	182
24. A problem of Chemistry practicals is teachers expect learners to do things themselves while the learners don't understand.		
➤	Yes, but sometimes my teacher wants to <u>see</u> what we learners do and think, instead of <u>telling us</u> what to do and think.	183
➤	Yes, but if the teacher did explain and the learner wasn't listening then the learner should suffer the consequences.	184
➤	Yes, but it is the learner's job to solve this problem by asking people or going to the library and trying to understand.	185
➤	Yes, it is a problem and that's why my teacher should explain before the practical.	186
➤	None of these show what I think about Chemistry practicals.	187

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!