

Using the Grades 4 – 8 Science Skills Tracking Excel File

I am hoping the Excel file will be helpful in your assessment, both formative and summative, of science skill and knowledge outcomes. So this works for you as efficiently as possible, please refer to this user guide. The use of this Excel file is not a requirement (like the tracking in math in K-3), use it as you please. As always, email me, peter.macdonald3@nbed.nb.ca, with any questions or feedback.

- Important: Each tab (see below) is set to print for letter sized paper should you want blank copies to use about the classroom. It is highly recommended to backup these, and similar files, regularly to more than one location.

Tabs: The tracking file is broken down into tabs for each outcome and knowledge unit. There is also a tab to summarize a student’s overall progress (Student Summary) and a tab that contains all the skills assessment rubrics for reporting purposes (Skill Rubric Summaries).



To start, refer to the PP1 tab.

Student Names: Each skills outcome tab looks like this. The “Student01, etc.” are place holders for your students. Enter your student names over these. There are a total of 29 students possible.

- Important: Every other tab will populate the student list from what you type here.
- Important: The auto-population of Excel tabs is problematic if you make changes to the student roster on PP1 after you have entered scores in any tab. Refer to the two options below.

- If you input data and have kept the auto-population feature, do not sort students by name if there are roster changes. Add new students to the bottom of PP1 and keep that order. Delete *the information* in the cells of students no longer in your class (do not delete rows, columns, or cells).

- Or, enter your class roster in PP1 and then copy and paste that in to every other tab, this will remove the auto-population feature. Delete *(the information only)* or add students as necessary but you need to do this carefully to every tab, however, the roster and data within each tab can now be selected and sorted alphabetically.

Scores: Using the rubric as a guide, score your student on the skills, from left to right, as the year progresses. You may only enter a score of 1, 2, 3, 3+, 4, or 4+ (each cell is a dropdown list of those numbers if you find that easier).

School, Year		Formative Assessment of Science Skills Grade 3				Teacher			
PP1: Propose scientific questions									
4 = Excelling		3 = Got It		2 = Almost		1 = Need Help			
Testable question that includes what is measured/observed as well as tested		Scientific question that includes the variable to test		Question has a yes/no answer; does not indicate what should be tested		Any other answer			
Student Name	Scores				Final	Observation Dates			
Student01					#N/A				
Student02					#N/A				
Student03					#N/A				
Student04					#N/A				
Student05					#N/A				
Student06					#N/A				
Student07					#N/A				
Student08					#N/A				
Student09					#N/A				
Student10					#N/A				

- Important: The rubric models that of report card assessments, but if you wanted to change that you would need to change the data validation of the cells (found under the Data tab on the top of the excel file).

Final: This column contains a formula to display the last number in the row. This assumes a progression of learning the skill, but that certainly is not always the case. If you don’t agree with the value that displays in the “Final” column simply make the last entry in the “Score” cell the value you want or type the value in the “Final” cell and overwrite the formula. Do not worry if/when you see “#N/A”, the formula in the cell is looking for a numerical value and can’t find one. That will change once you’ve entered a score (even if you don’t, it will not effect the workings of the Excel file).

Observation Dates: A space for your own use should you want to keep a record of formative assessment or activity dates. Excel will likely auto format the cell to represent the dates you enter.

Knowledge Outcome Tabs: A similar idea to the skills tabs, however, there is not an Excel tab for each outcome. Every time you add data for a student, for a particular outcome, you add the number to what you entered before. Each number in a cell (screen shot below) is a separate assessment of an outcome. The cell's colour is determined by the last digit entered within the cell to help guide you to problem areas. The description of the outcome is not here, so please refer to the curriculum guide. There is not a formula to determine an overall score, as it is just an option for you to use.

School, Year Formative Assessment of Science Teacher
Knowledge Outcomes - Grade 4

Knowledge: Habitats								
By grade 4, students should be familiar with the basic needs of living things and can explore how various organisms satisfy their needs in the habitat in which they are typically found. Students can begin to look for ways in which organisms in one habitat differ from those in others, and consider how some of those differences are helpful for survival. The concept of interrelatedness can be expanded upon by looking at the variety of populations that exist in a habitat and the impact of the loss of one population on a community.								
Knowledge Outcome Tracking								
Student Name	302-1	302-2	300-1	300-2	302-3	301-1	301-2	Overall
Student01	434	3	232	123	34	3423	121	3
Student02								
Student03								
Student04								

Student Summary Tab: In this tab you can select a specific student and view their overall progress. I'm hoping this would be helpful for reporting periods or conferences with parents, teachers, principals, etc.

School, Year Grade 4 Science Outcome Teacher
Assessment Summary

Student01	4 = Excelling, 3 = Meeting Outcomes, 2 = Approaching Outcomes, 1 = Working Below, 0 = No Data								
Formative Assessment Summary of All Skill Outcomes									
Skill	Scores					Final	Skill Assessment Strands		
PP1	0	0	0	0	0	#N/A	Plan & Perform (PP) - Ask questions, make predictions about objects and events and develop fair tests to investigate those questions. Observe and investigate their environment and record the results		
PP2	0	0	0	0	0	#N/A			
PP3	0	0	0	0	0	#N/A			
PP4	0	0	0	0	0	#N/A			
PP5	0	0	0	0	0	#N/A			
AE1	0	0	0	0	0	#N/A	Analyze & Explain (AE) - Interpret findings from investigations using appropriate methods. Work collaboratively to carry out science-related activities, and communicate ideas, procedures and results.		
AE2	0	0	0	0	0	#N/A			
AE3	0	0	0	0	0	#N/A			
AE4	0	0	0	0	0	#N/A			
Formative Assessment Summary of All Knowledge Outcomes									
Habitats	302-1	302-2	300-1	300-2	302-3	301-1	301-2	Overall	
	0	0	0	0	0	0	0	0	
Rocks, Minerals, & Erosion	300-6	300-5	300-8	301-6	301-5	301-4	300-7	301-7	Overall
	0	0	0	0	0	0	0	0	0

Where it says "Student01" above is a dropdown list of all the students you placed in the PP1 tab. The formula in each cell searches each tab for information pertaining to that specific student. For your reference, this tab also displays (not shown above, but it is in the Excel file) a description of each skill outcome. Everything here will fall apart if you change the structure within the tabs, so again, avoid deleting rows, columns and cells (deleting information within a cell will not cause any problems).

- Important: If a score of "0" appears, that just means the reference cell contains no data, it is not an actual score of zero. The cells in the "Final" column may show an error message and "#N/A", that is because it is searching for a number and there has been nothing entered yet. This will not effect how the Excel sheet works.