## SUVAT rubric

|   | I do it well  | I usually get it right   | I often get it wrong   | Throw me a buoy  |
|---|---|--|--|--|
| Identifying known variables                                   | I always recognize all of the correct known variables from the text, and I summarize them in a list.                                    | Most of the time I can recognize all of the correct known variables and I summarize them on a list with the correct values.                    | I usually can't recognize one or more of the known variables and/or I don't summarize them on a list, or if I do list them, I often assign the wrong value to variables. |  |
| Identifying<br>unknown<br>variables                           | I always know which variables are undetermined and which ones I will need to calculate.   | I usually know what variable the problem wants me to calculate.  | Most of the time I have difficulty identifying which variable I should be calculating.   | I can't figure out which variable is unknown and what I should be calculating.                         |
| Selecting the correct equations to use                        | I always choose the correct equation from the given known and unknown variables.  | Sometimes I'm insecure about the equation I selected from the given known and unknown variables.   | Even if I have the correct known and unknown variables I often don't know which equation to use.   | I choose an equation randomly.   |
| Solving the selected equation for the unknown variable        | I can isolate the unknown variable with the minimum algebraic steps.  | I can isolate the unknown variable after a lot of effort.  | I often have problems isolating the unknown variable but I can do it with some help to overcome the algebraic steps.   | Should I eat this alphabet soup?   |
| Substituting the known variables in the equation              | I always substitute the known variables by their correct value.   | Sometimes I assign to wrong values to some of the known variables.   | I'm often confused about what number goes where.   | I guess what numbers should replace what letters.  |
| Calculating the unknown variable                              | I rarely make arithmetic mistakes and I'm proficient in the use of my calculator.   | I usually don't make<br>arithmetic mistakes and/or<br>sometimes I make a<br>mistake when typing in my<br>calculator.                           | I make a significant amount of arithmetic mistakes and/or I often mess up typing in my calculator.   | I make a lot of<br>arithmetic errors and<br>I'm usually confused<br>about how to use my<br>calculator. |
| Verifying my result   | I plug in my result in<br>the original equation<br>and/or I used a<br>different equation to<br>calculate one of the<br>known variables. | I don't always verify my results, when I do I plug in the value I calculated in the original equation to calculate one of the known variables. | I usually don't verify my<br>results and/or I'm not sure<br>how to do it.  | I never confirm my<br>result and/or I don't<br>know how to do it.                                      |
| Including proper units and significant digits with the result | I always round the final result to the proper number of significant figures and I report the result with the correct unit.              | Most of the time, I round the final result to the proper number of significant figures and I report the result with the correct unit.          | I often forget to round the final result to the correct number of significant figures, and I do not remember the unit.   | I do not know how to<br>determine the number<br>of significant figures in<br>a measured value.         |