

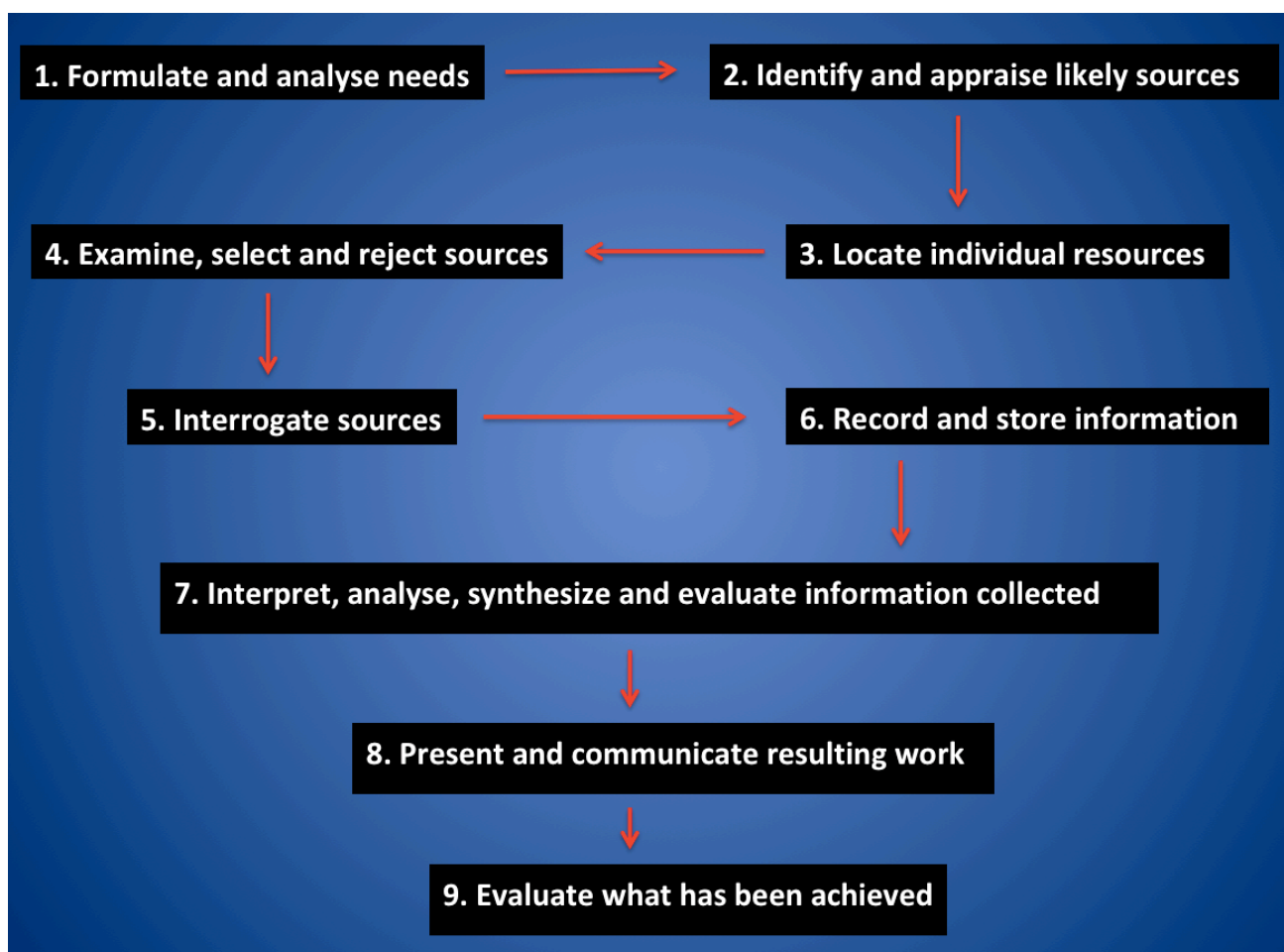
The importance of research skills

All Diploma students will be undertaking an extended essay so research skills should be covered by your teacher(s) (and maybe also the librarian?) thoroughly during your two year course. In addition you will be doing your ten hour Individual Scientific Investigation (IA) in chemistry so you will need to ensure that you understand and can implement the skills required. The earlier you start this, the better. Look at examples of good practice and build up your skills as you research small projects before putting it all together for your IA and EE.



The research process

The research process has been broken down by Marland^[1] into nine separate stages:



It is worth perusing this flowchart to help you navigate your way through the process. There are several pages on this website detailing the specific skills needed for successful research in chemistry. They can be accessed through [Extended Essays - Research](#). They give advice and provide examples. It seems unnecessary to go over them again here but they are obviously equally relevant and applicable to any type of research in chemistry.

The value of IB research

On a personal level many of my ex-students that I have spoken with say how the research training they received from the IB programme and the extended essay in particular gave them a head-start over non-IB students when it came to their university studies. This appears to be backed up by a [report by Robin Julian](#) published in 2018 which summarises the feedback from almost 400 IB Diploma graduates. Robin Julian is the IB curriculum manager for extended essays so is not completely impartial. ‘Almost 400’ IB graduates is also quite a small sample considering how many IB graduates there now are. What he found was that 72% of the respondents (but how many of the ‘almost 400’ responded is not given) either ‘agreed’ or ‘strongly agreed’ that the extended essay was ‘an academically significant part’ of their DP experience. The article then goes on to quote selectively some of the benefits that the respondents commented on, such as “Transferability of skills” when it came to writing research papers at university and “The ability to formulate arguments in a coherent manner and to be disciplined in writing” in the workplace.

Footnotes

1. ^ Marland, M. (Ed.) (1981) *Information Skills in the Secondary Curriculum*. Schools Council Curriculum Bulletin No. 9. London: Methuen Educational.