Sequencing practical work

This resource accompanies the article **Sequencing for success** in *Education in Chemistry* where you will find more support, examples and tips for using these tools: [rsc.li/3qXcNdf](https://rsc.li/3qXcNdf).

Step one: purpose

The first step in sequencing disciplinary knowledge is to determine the purpose of a practical activity. Consider the following questions:

|  |
| --- |
| **Practical activity:**  |
| **What prior knowledge, both substantive and disciplinary, is needed?** |
|  |
| **What knowledge will learners develop during the activity? This is its purpose.** |
|  |
| **How will you know the practical was successful? This is the assessment.** |
|  |
| **What comes next to build on this learning?** |
|  |

Pupil-centric sequencing

Use this approach to determine what is expected of the typical learner by the end of the academic year.

|  |
| --- |
| **What equipment should learners be confident using?**  |
|  |       |
| **What practical skills and disciplinary knowledge should they have mastered?**  |
|  |
| **What practical activities are in your scheme of learning and how will these activities develop learners’ knowledge and understanding?**  |
|  |
| **What opportunities are there to deepen and revisit learners’ disciplinary knowledge? What activities could be used to fill learning gaps?** |
|  |
| **How does this link to future learning?** |
|  |

Practical-centric sequencing

Use this approach to deconstruct practical activities to evaluate what prior knowledge and understanding learners need to be successful.

|  |
| --- |
| **What is the purpose of the practical activity? (Refer to page one)** |
|  |
| **What procedural and disciplinary knowledge do learners need to undertake the activity?**  | **What equipment do learners know, perhaps with lower levels of precision?** |
|  |
| **What equipment and techniques are new?** |
|  |
| **Where has your scheme of learning covered prior knowledge and has it been revisited or deepened?**  | **Are there any gaps? What activities could you use to fill them?** |
|  |
| **What knowledge or understanding is being developed, deepened or consolidated?** |
|  |
| **How does this activity link to future learning?** |
|  |