Switching from Face-to-Face to Online Teaching

Case Study from UCL Chemistry

Dr Stephen E. Potts

✉ s.potts@ucl.ac.uk

@StephenEPotts

Restructuring modules for online learning at UCL Chemistry

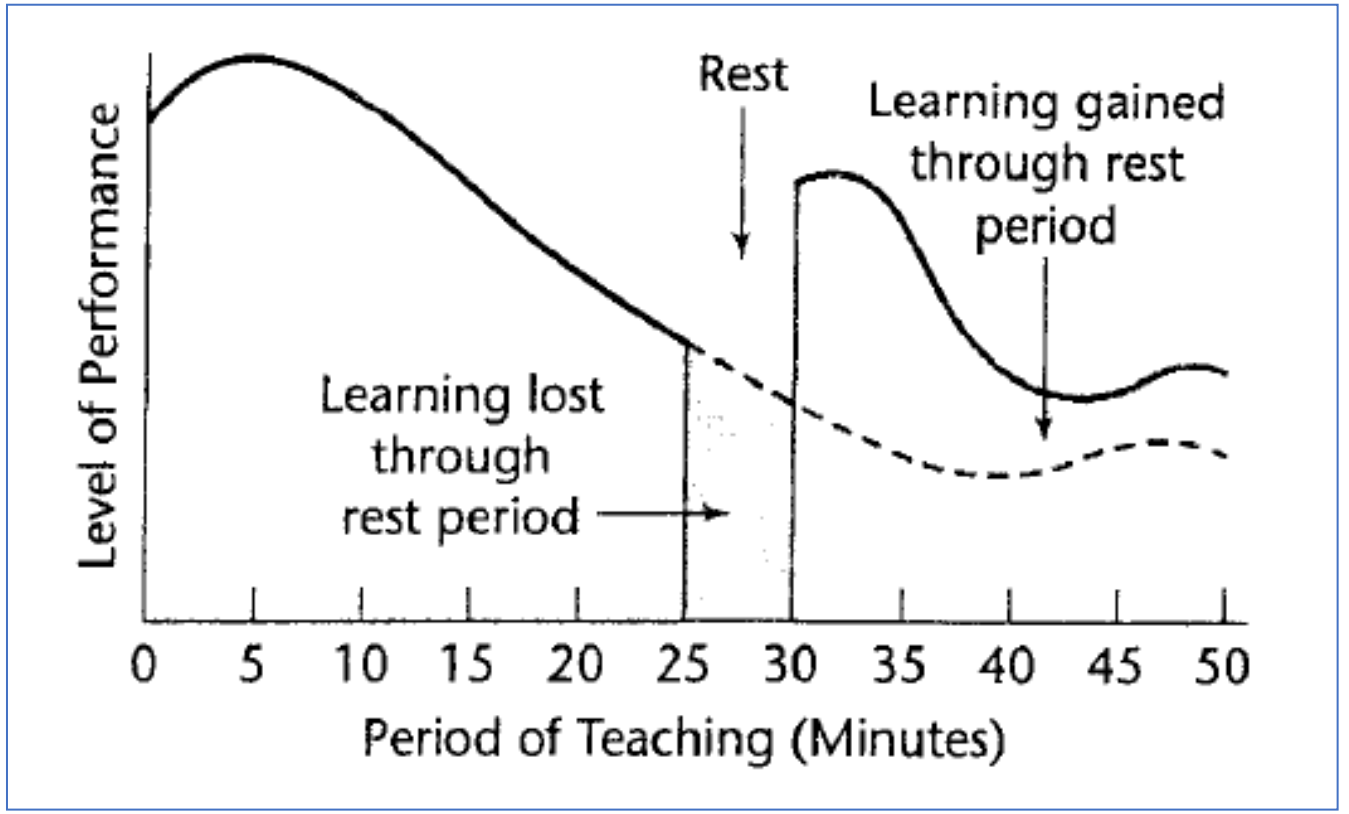
With the current pandemic and restrictions on room capacity, all lectures have been moved online for 2020/21.

Advice we have been given:

- Redesign Moodle pages to take a distance learning approach.
- Break down 50-minute lectures into bite-sized chunks.
- Use completion tracking to facilitate engagement monitoring.

How long should online lectures be?

- Bligh (2000) discussed the importance of rest periods during lectures.
- At UCL, we are being advised that:
  - Lecture videos should be 5–15 min long. No longer.
  - Should be broken up with activities to increase student engagement
  - Keep evaluation frequent.



Bligh, D. A. (2000), "Factors Affecting Students' Attention" in *What's the Use of Lectures?*, Jossey-Bass, pp. 44–56.

CHEM0027 Chemical Literature

A third-year module where students complete a literature review.

Pre-COVID

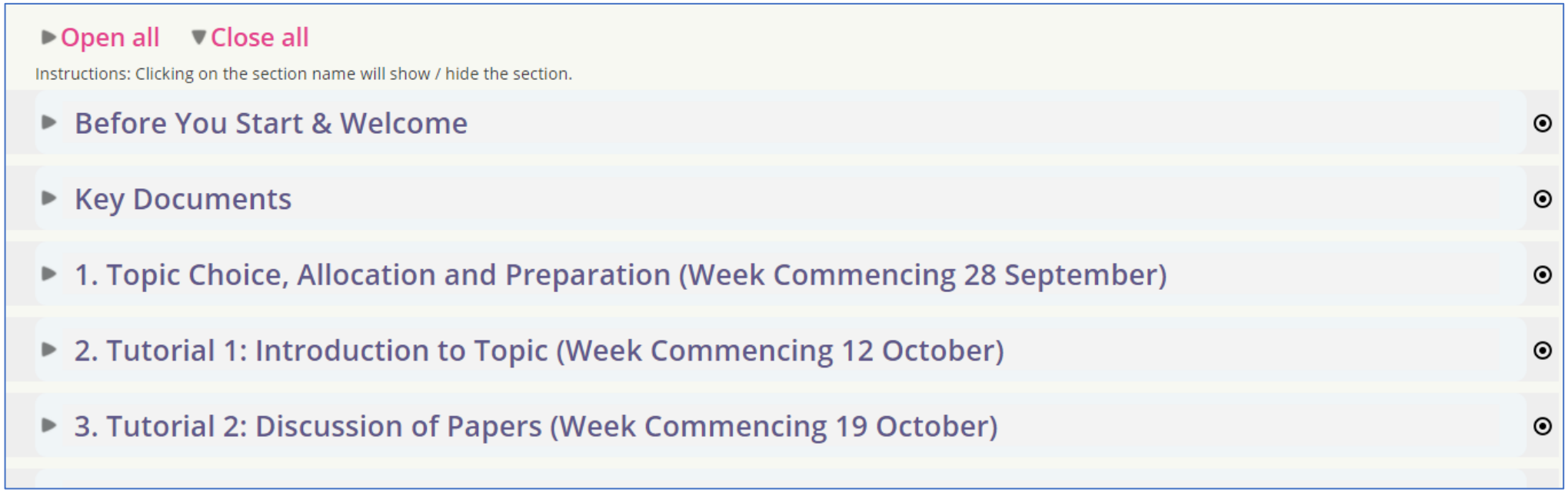
- Students were given periodic lectures/Q&A sessions throughout the module to keep them on track.

Mid-COVID

- The Moodle page needs to be structured as a timeline with clear activities and guidance on navigation and expectations (UCL Connected Learning Essentials Course; Seery 2012).

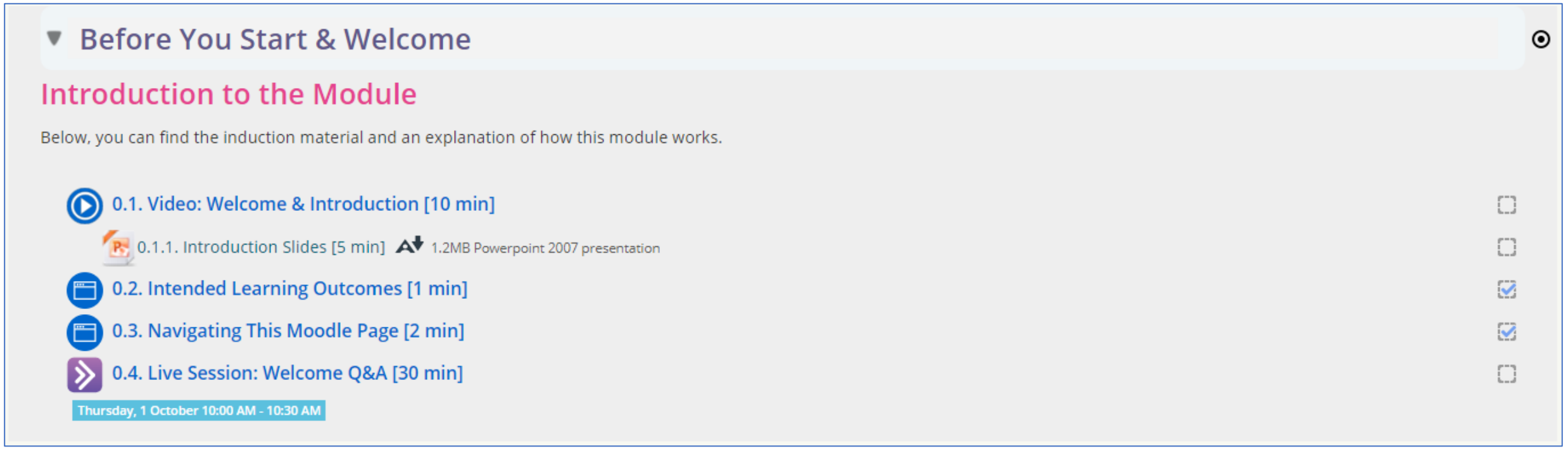
UCL Connected Learning Essentials, https://www.ucl.ac.uk/teaching-learning/education-planning-2020-21/staff-development-prepare-teaching-and-assessment-2020-21/ucl-connected
Seery, M. K. (2012), “Moving an in-class module online: a case study for chemistry” *Chem. Educ. Res. Pract.*, **13**, 39.

From “Tabs” to “Timeline”



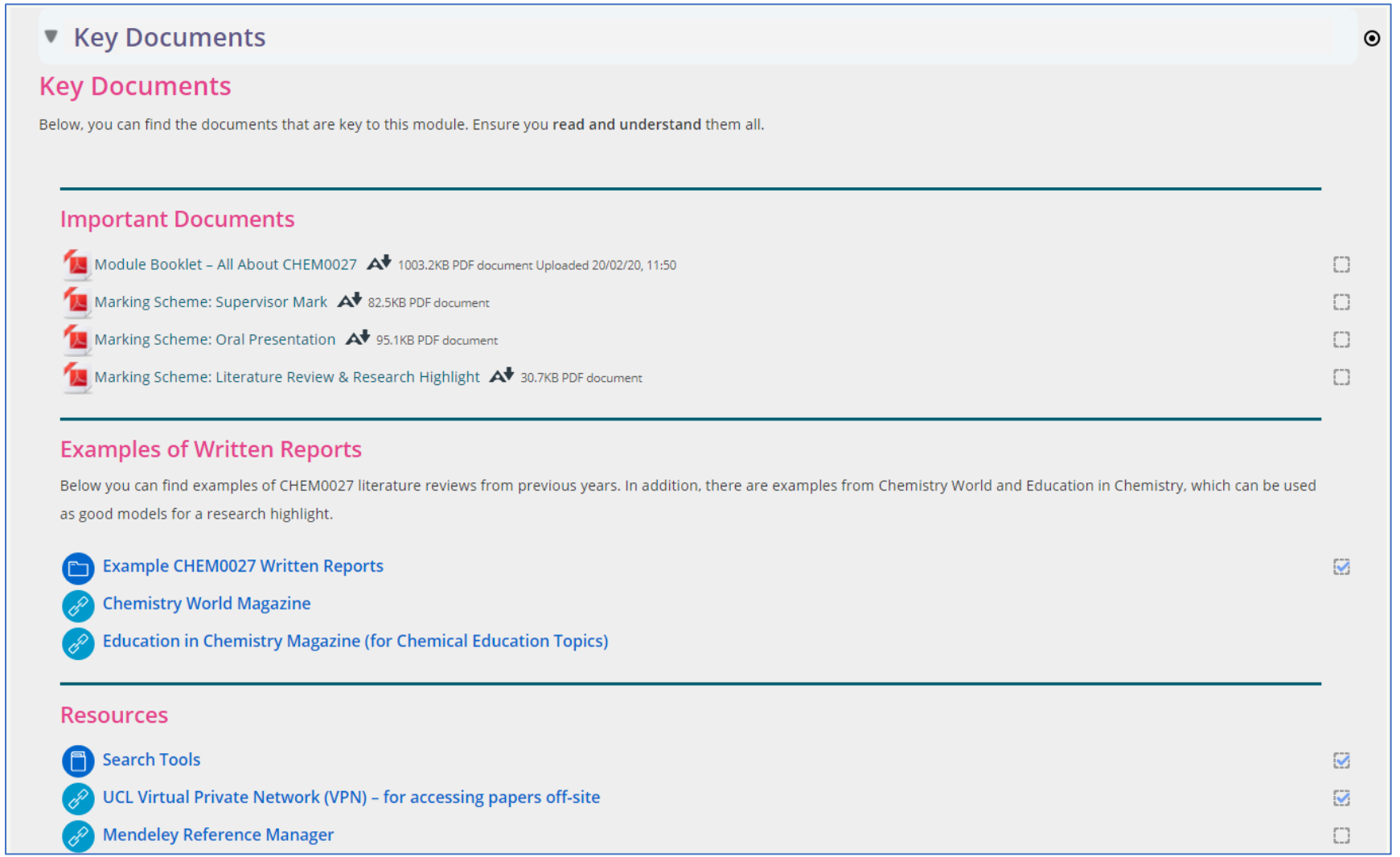
Making the Navigation Clear – Synchronous & Asynchronous

- Numbering key items.
- Completion tracking.
- Giving expected time spent.

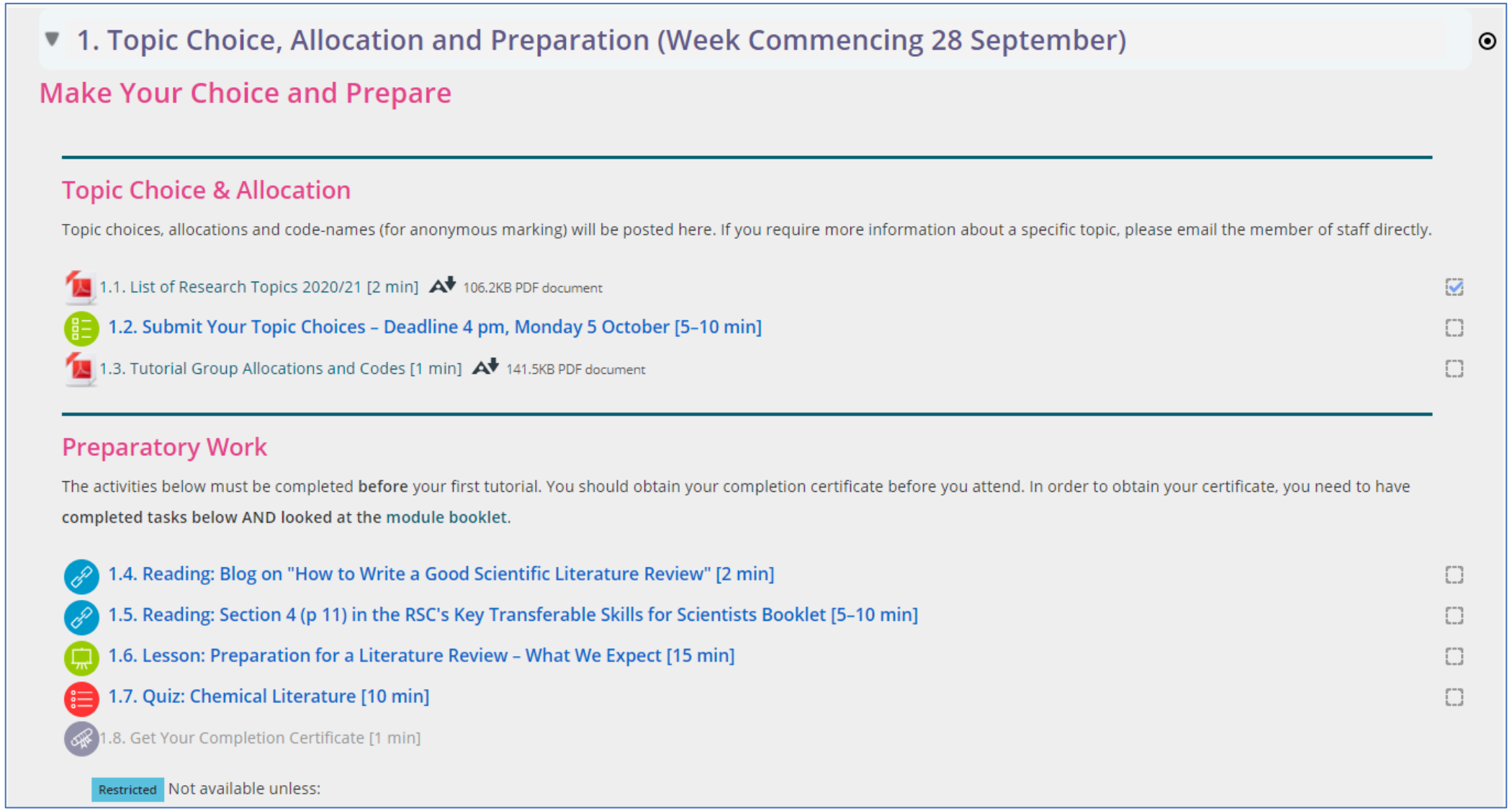


Making the Navigation Clear – Resources Area

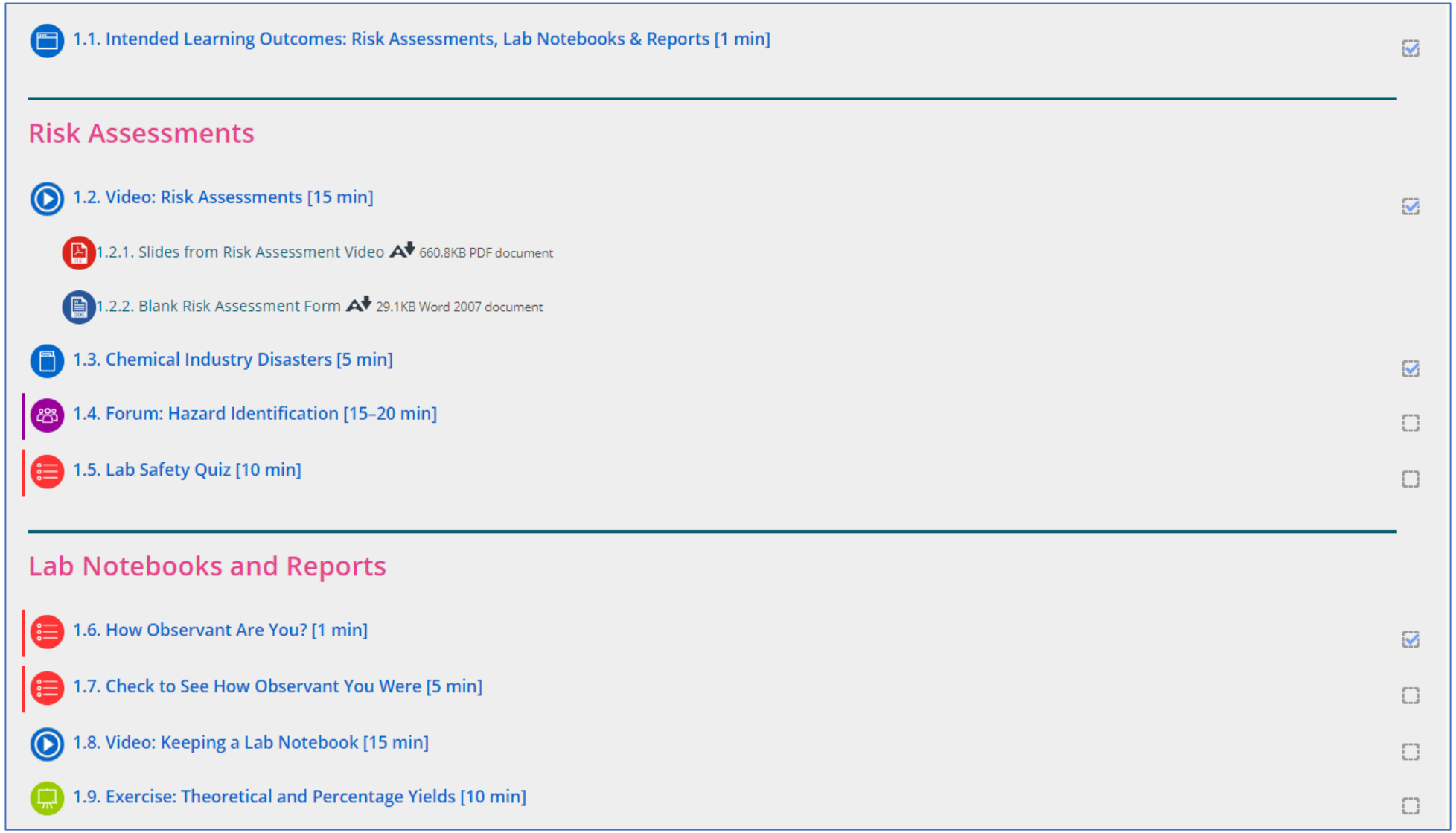
- Recommend placing this early so students always know where to find resources.
- Keep “clutter” to a minimum – key information is within the resources.



Making the Navigation Clear – Asynchronous Activities



Making the Navigation Clear – Year 1 Chemical Skills



In breakout rooms, discuss the following:

- Have you run a distance-learning or online-only module?
  - What worked well?
  - What would you change?

- What are you doing this year?
  - What types of activity are you using?
  - What activities would you recommend as a “quick win”?
  - How would you make sure students are engaged?
  - Any general tips?

Please fill out the Microsoft Form for the summary session.