

PGCE Secondary Sciences**Phase 1 Mentor Curriculum Guide**

This guide provides essential information for mentors supporting student teachers during Phase 1 of their placement. It outlines your role, key responsibilities, and the structures in place to ensure student teachers receive comprehensive training and support.

As a mentor, you play a crucial role in bridging theoretical learning with practical classroom experience. This guide will help you provide structured support while ensuring student teachers meet the required standards and competencies.

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Phase 1 Expectations and Timetable

All aspects of education and training for student teachers must align with the Secondary Phased Expectations.

These expectations are structured around ten curriculum questions, each containing three components with clearly defined expectations for each phase. Rather than serving as a checklist, these expectations provide a comprehensive picture of expected student teacher progress by the end of each phase.

You can find the full phased expectations here: <https://itt-placement.com/pgce-secondary/course-overview.php>

Purpose of Phase 1

Phase 1 primarily focuses on providing student teachers with opportunities to observe, develop awareness, and begin practicing teaching skills in a supportive, low-stakes environment.

Required Experiences

By the end of Phase 1, student teachers should have completed:

- Observations of multiple teachers with varied teaching styles
- One-to-one work with individual pupils
- Small group instruction
- Planning components of lessons
- Delivering specific lesson segments (such as starters and activities)
- Teaching one or two complete lessons

Timetabling Requirements

Student teachers require a timetable that supports these experiences, including a minimum of 15 hours of mentor-directed activity.

While there is no prescribed number of lessons that student teachers must teach by the end of Phase 1, it is essential that they gain experience leading various activities within lessons and deliver at least one or two complete lessons independently.

Induction into Home School

A comprehensive induction is essential for all student teachers, regardless of their prior experience in school settings.

Week One Requirements

By the end of the first week on placement, please ensure student teachers have completed:

- An initial meeting with both Subject Mentor and Professional Mentor to discuss expectations for student teachers within the school
- Introductions to key departmental staff
- A tour of school facilities
- Introduction to the SENDCo
- Introduction to the Designated Safeguarding Lead and completion of school-specific safeguarding briefing/training*
- Health and Safety briefing
- Overview of the school's behaviour management systems and procedures
- Briefing on absence reporting procedures and expectations

*Note: All student teachers will have completed the Hayes Level 2 Safeguarding Certificate prior to placement.

Phase 1 Professional Studies

Professional Studies introduces student teachers to key aspects of professional practice through a combination of lectures and mixed-subject workshops.

Below is a summary of the Phase 1 Professional Studies curriculum.

Week One: 8th–11th September All student teachers attend the following sessions at LJMU:

- Introduction to Professional Standards
- How Pupils Learn
- Reflective Practice
- Planning for Learning
- Introduction to SEND
- Trauma-Informed Practice
- Teaching for Educational Advantage
- Safeguarding Level 2 (online certificate)

Week Two: Variable Delivery

University-Led (Core) Route: Sessions at LJMU, 15th–18th September

School-Led Route: Sessions delivered within Lead Schools between September and December. For queries about School-Led professional studies, please contact your School-Led Lead.

Sessions include:

- Key Stage 2 Transition
- Early Reading and Phonics
- Anti-racism and Teaching
- Pastoral Care and the Form Tutor
- AI and the Classroom
- Principles of Oracy and Dialogic Teaching
- Inclusive Classroom and Adaptive Teaching
- Student Teacher Wellbeing

Phase 1 Subject Studies

All student teachers will have attended the following subject studies sessions during Phase 1. The full subject curriculum map can be found <https://itt-placement.com/pgce-secondary/course-overview.php>.

Date	Learning Outcomes	Mentor follow-up
8 th Sept	Science Education and the National Curriculum. An inclusive LJMU Science Teacher.	N/A (Induction Period)
12 th Sept	H&S in the Science Laboratory – creating and maintaining a safe classroom environment. Recognising legal aspects of practical work & assessing risk. Learning, not just busy. Substantive vs disciplinary knowledge development. Promoting a ‘minds on’ culture.	N/A (Induction Period)
19 th Sept	Narrative and Oracy in Science. Science story telling. Using narrative as a teaching and learning strategy. Approximations of practice. Practising delivery.	w/c 22.9 Discuss with your mentee: - What makes a good science teacher? - How does the department communicate the departmental vision for science as part of the wider curriculum (source: school website) to pupils and parents? - Does the school H&S policy refer to practical subjects or science lessons? - What is the Science Department’s H&S policy? Activity for mentee: Read the school and departmental H&S policies.
26 th Sept	Behaviour management ITAP See ITAP Guide	w/c 29. 9. Refer to ITAP guide on Behaviour Management
3 rd Oct	ITAP reflection Carrying out a literature review. Identifying, analysing and writing critically using different types of literature. Exploring how a literature review is structured and considering what makes a literature review critical. Practical work in science and alternatives, such as modelling. Exploring the purpose & pitfalls of practical work.	w/c 6.10 Discuss with your mentee how teachers in the department: - Manage practical work: - Organise pupils into groups for practical activities. - Ensure equipment is efficiently distributed to pupils and collected in after the practical. - Manage the time pupils spend working on the practical. - Use practical work, modelling and demonstration to develop pupils’ <u>substantive</u> and <u>disciplinary</u> knowledge.

	Reviewing different types of science models and identifying features of good models.	Discuss with your mentee: • The ways in which your school and science department engage with science education research and literature. • Discuss the routine cycle of planning, delivery, assessment and evaluation of teaching and learning as embedded opportunities for practitioner research in classrooms.
10 th Oct	Physics SKD – Simulations. IOP - supporting physics teaching. Reviewing IOP specialist resources. Planning 1 (structuring and tracking learning). Applying Rosenshine’s Principles of Instruction. Supporting pupil cognition.	w/c 13.10. With your mentee: • Discuss the departmental approach to planning. • Share departmental curriculum overviews/ maps and identify how content is sequenced, to ensure pupils know more and remember more of key knowledge. Activity for mentee: When observing, identify progression in essential concepts, knowledge and skills. Retrofit 2 observed lessons with different age groups to the LJMU lesson planning proforma.
17 th Oct	ITAP 2 – Formative Assessment in Science. Planning 2 (formative assessment). Implementing the why and how of formative assessment.	w/c 20.10. See ITAP Guide on Assessment Also confirm timetabled teaching and curriculum content to be covered for your solo teaching in phase 2.
24 th Oct	ITAP 2 – Reflection on assessment. Literacy in science. Developing vocabulary and reading skills. Planning 3 (writing learning outcomes). Physics SKD – Forces, energy and graphs	w/c 3.11. Discuss with your mentee: • What are the whole school literacy initiatives? • How are these initiatives being addressed in the department? Activity for mentee: Read the school’s literacy policy. Focus observation on how teachers develop pupils’ literacy during lessons. Trial a couple of literacy strategies to in your own lessons/part-lessons. Required Activity Presentation (12.12.25): Select 3 GCSE Required Practicals from your subject specialism and 2 from your non-specialisms. Carry out the Required Practicals using the resources provided for pupils in your placement school. Take photos to evidence your work.

Phase 1 Intensive Training and Practice (ITAP)

ITAP is a compulsory component of teacher education that introduces student teachers to foundational aspects of teaching practice. Through lectures and seminars, student teachers explore the relationship between theory and practice and deconstruct examples of practice.

Placement Expectations During ITAP

Student teachers will attend their placement as usual during ITAP periods. However, they must **not** follow their regular placement timetable. Instead, they will complete a structured series of activities focused on the specific aspect of practice being studied.

Mentor Responsibilities

As a mentor, you must ensure student teachers can complete all ITAP activities, which include:

- Focused observations of practice
- Planning specific aspects of practice
- Implementing their planning in classroom settings

Phase 1 ITAP Schedule

The following ITAPs occur during Phase 1:

- ITAP 1: Behaviour Management
- ITAP 2: Introduction to Assessment

Detailed guidance for supporting student teachers during each ITAP is available at:

<https://itt-placement.com/pgce-secondary/course-overview.php>

Mentor Meetings

Weekly Mentor Meetings

Student teachers must meet with their mentor once per week throughout the programme. These meetings are essential for monitoring progress and maintaining consistent support.

Purpose of Weekly Meetings

Weekly meetings provide structured opportunities to:

- Review progress against Phase 1 expectations
- Discuss observations and teaching experiences from the previous week
- Set specific, achievable targets for the coming week
- Address any concerns or challenges
- Plan upcoming teaching opportunities

Meeting Structure

Each meeting should:

- Last approximately 45-60 minutes
- Take place at a consistent time each week where possible
- Be documented with brief notes on progress and agreed targets
- Focus on developmental feedback linked to the Phase 1 expectations

Setting Effective Targets

Targets are one of the primary mechanisms for ensuring student teachers make progress against the phased expectations and subject studies curriculum. Effective target-setting drives development and provides clear direction for improvement.

SHARP Target Framework

All targets must follow the SHARP framework:

- **Specific** – What exactly needs to be achieved? Is the target clearly defined? Does it use the language of the phase expectations?
- **How** – How will the target be achieved? What actions will need to be taken?
- **Achievable** – Is the target achievable within the timescale? Is there an opportunity to complete the target?
- **Related** – Is the target related to the LJMU ITE Curriculum questions and associated phase expectations so that progress can be tracked?
- **Progressive** – Is the target pitched in a progressive manner and appropriate for the current phase of training?

Target Requirements

Set a maximum of three targets each week, using the language of the phase expectations. Each phase has a distinct focus that should shape your targets:

- **Phase 1 – Observation and awareness:** Targets focus on watching, noticing, understanding
- **Phase 2 – Practice and collaboration:** Targets focus on trying strategies with support, working with others
- **Phase 3 – Confident application and evaluation:** Targets focus on independent implementation and assessing impact

Student teachers should review their targets before each weekly meeting and complete a self-evaluation on the weekly meeting form. Following discussion and review of the week's experiences, establish new targets with associated actions.

Drafting SHARP Targets: Four-Step Process

Step 1: Identify the area for improvement from recent lesson observations or discussions with the student teacher.

Step 2: Ensure the proposed target aligns with the appropriate phased expectation. All education and training (University and School-based) must align with phased expectations to ensure sustained, consistent progress.

Step 3: Check the Mentor Curriculum Guide to confirm what the student teacher has covered at University. For example, before setting a target about supporting EAL pupils, verify the student teacher has encountered EAL content at University.

Step 4: Ensure the 'actions' section includes specific tasks the student teacher will complete related to the target.

Example Target

Area identified: Improve questioning

Phase Expectation link (Secondary Q5, Phase 2): "I can implement questioning techniques that prompt deepening understanding."

Target: In classes 7b and 8a this week, use the 'Think-Pair-Share' questioning technique to deepen understanding at least twice per lesson.

Actions:

- Plan key questions for TPS and highlight them on plan
- Reflect on potential responses and prepare follow-up questions to deepen responses
- Reflect on effectiveness and be ready to discuss in next meeting

Phase 1 Subject Example Targets

Example 1

Area identified: Modelling and explaining in science

Phase Expectation link (Secondary Q5, Phase 1): "I have observed and can begin to articulate modelling and explanations of experienced teachers. I have practised clear step-by-step explanations [...]."

Target: Observe 2 or 3 lessons where you focus on how teachers model instructions for completing practical activities (including health and safety instructions).

Actions:

- Identify lessons you will observe where this will be the focus
- Take detailed notes and discuss these with my mentor in my weekly meeting
- Identify a lesson where I will teach an episode involving modelling or a description of an experimental procedure. Put this into practice and discuss its impact with your mentor.

Example 2

Area identified: Identifying gaps in my subject knowledge

Phase Expectation link (Secondary Q3, Phase 1): "I have identified gaps in my own subject knowledge and planned to address them."

Target: Complete audit of subject knowledge documents for Phase 1 as directed by university tutors. Share these documents with your mentor in a weekly meeting and discuss subject knowledge priorities for Phase 1/ Phase 2a considering the timetable you will teach.

Actions:

- Based on the discussion about the audit with your mentor, identify three subject knowledge targets for Phase 1.
- Write a timeline for these three specific targets
- Keep a log of activities you undertake to meet these subject knowledge targets (saved in your QTS file) and review with your mentor prior to Phase 1 review.

Example 3

Area identified: Diverse needs of pupils

Phase Expectation link (Secondary Q6, Phase 1): "I have observed and can begin to articulate how experienced teachers adapt their lessons for different pupils"

Target: Develop understanding of inclusive strategies in science education

Actions:

- Undertake focussed observations of 2-3 lessons where the needs of students require the teacher to adopt inclusive strategies in science.
- Make focused related notes and discuss these with the class teacher.
- Discuss reflections on your observations in your weekly mentor meeting and consider implications for your own practice in Phase 1/ 2a.

Phase 1 Subject Observation Guidance

These questions can be used as foci or prompt for lesson observations and mentor/student teacher discourse. Not all elements are required in every lesson and may be phase dependent, i.e., expectations that more elements would be present in phase three of teaching as pedagogical knowledge, confidence, and highly effective practice are deepened and embedded.

	Question	Additional Information
1	Is a demonstration or interesting scenario used at the start of the lesson to stimulate learners' interest in science?	<i>This may be to excite interest, or to link the lesson content to a real-world context.</i>
2.	Are learners carrying out relevant practical work (disciplinary knowledge) for which a specific risk assessment been carried out? If practical work is undertaken were learners fully informed about the steps they needed to take to ensure they were working safely. Were those steps emphasised and enforced by the teacher?	<i>Disciplinary knowledge is the knowledge of the practices of science (working scientifically). A risk assessment for the practical activity must be included with the lesson plan. This should identify measures to be taken to minimise risk to students e.g., wearing safety goggles.</i>
3	Are learners challenged to predict outcomes, and are conclusions made by the end of the lesson?	<i>Learners should be being challenged to think critically as scientists and demonstrate evidence of working scientifically.</i>
4	Is there evidence that substantive knowledge (scientific theory) has been carefully sequenced? Are links made between the science content in this lesson and science content in other lessons?	<i>Substantive knowledge is a knowledge of the products of science. i.e. science content. Content should be sequenced to allow students to develop complex structures in their long-term memory (schemas) that link knowledge and hence create meaning.</i>
5.	Are learners challenged to construct explanations and arguments, and to make connections by synthesising and summarising key science ideas?	<i>Learners should be being challenged to think critically as scientists and demonstrate evidence of working scientifically.</i>
6.	Are learners using and applying new science ideas in a variety of ways and contexts?	<i>Exploring how science ideas apply in different contexts challenges learners' misconceptions and helps to develop schemas.</i>

Student Teacher Progress, Wellbeing and Support

Phase 1 represents a significant adjustment period for student teachers. For some, this marks their first professional experience, while others may find it intellectually and emotionally challenging.

Providing comprehensive support for student teachers' wellbeing is essential during this transition period, and mentors should maintain heightened awareness of their needs.

Available Support Resources

All student teachers have access to the 'I Need Help' page on Canvas (our virtual learning environment), which directs them to appropriate support services.

Raising Concerns

If you have concerns about a student teacher's wellbeing or welfare, please:

1. Contact your Lead Mentor in the first instance
2. Where appropriate, direct the student teacher to the LJMU student advice page:

[Student advice and wellbeing | Discover | Liverpool John Moores University](#)