Teacher Training
SWIFT

SWIFT TRAINEE

SUBJECT KNOWLEDGE HANDBOOK

CHEMISTRY

SWIFT

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Introduction

Welcome to the South West Institute for Teaching (SWIFT), a partnership dedicated to developing exceptional new teachers. We are excited to have you join our Initial Teacher Training Secondary course in chemistry. Our expert subject specialists have designed an enriching curriculum, carefully sequenced and aligned with the ITT core content framework. This course will prepare you to be an expert in evidence-based pedagogical practice; effectively manage the demands of the profession and exemplify the highest standards of professional conduct.

We know the first year in the profession is crucial, which is why we have created a tailored learning experience that will support you in building confidence in the classroom through a deep understanding of educational theory and practice.

As educational leaders, SWIFT takes pride in developing the next generation of outstanding teachers. Being a teacher is a real privilege that brings great rewards. On a daily basis, we are able to positively influence the lives of young people, helping them to grow and reach their true potential. Teaching allows us to positively impact young people's lives by helping them overcome obstacles to success and shape their futures, making secondary education the most rewarding profession.

We would like to wish you the very best as you embark on this rewarding teaching journey with us.

About our Courses

Aims

Our overall aim is to enable trainees to make the strongest possible start that leads to ever-deepening expertise across their career. Specifically, we want all trainees to:

Develop a high level of expertise in phase and subject(s)

Experience evidence-based training that brings together theory and practice.

Engage in critical analysis of research through our PGCE.

Belong to close-knit, supportive training communities.

Prioritise approaches to teaching that are inclusive of disadvantaged pupils and pupils with SEND and EAL.

Develop agency to bring about a fairer education for all pupils.

Be effectively prepared for the next phase of the trainee's career, including how to lead a good work life balance.

Strands

We use the five core areas of the Core Content Framework* (CCF) as our curriculum organisational rationale, referring to these as 'Core Curriculum Strands'. These strands are sequenced carefully across our curriculum, delivered through Provider- Led and Subject Knowledge sessions and explored further through observation and practice during school placements under the guidance of an expert mentor.

Strand 1: Behaviour Management and High Expectations (Standards 1 and 7)
Strand 2: Pedagogy (S2, 4 and 5)
Strand 3: Curriculum (S3)
Strand 4: Assessment (S6)
Strand 5: Professional Behaviours (S8)

*Initial teacher training (ITT): core content framework - GOV.UK (www.gov.uk) https://assets.publishing.service.gov.uk/media/62a1b73fd3bf7f0368efbe3f/iQTS_Core_Content_Framework_June_2022_update.pdf

Secondary Chemistry Course

Science is the pursuit of knowledge and understanding of the world around us. If you have a passion for science and want to share that with the next generation of scientists, this course will enable you to do so. We will look to secure your subject knowledge in all aspects of science to enable you to inspire and enthuse the young people you will teach. Alongside your subject knowledge you will build knowledge of pedagogical processes to help shape the minds of the future and to be the inspiring teacher students remember for the rest of their lives.

Chemistry Programme Modules

Phase 1: Principles and Fundamentals Autumn Term	1. The Chemistry Curriculum 2. Creating a Powerful Environment to Teach Chemistry 3. Effective Teaching of Chemistry
Phase 2: Consolidating and Developing Spring Term	4. Assessment and Feedback in Chemistry
Phase 3: Moving to Complex Practice Summer Term	5. Adapting Chemistry 6. Enriching Chemistry

SWIFT Teacher Training Key Contacts

Absence Line | Abby Spearing | 01548 852641 Ext 2592

A trainee must notify the provider of any absence from the course, whether the absence relates to school placement or provider-led/subject knowledge sessions. Trainees must phone the absence line by 0830 on the day of absence and also on any subsequent days. If SWIFT Teacher Training have not been contacted by the Trainee by 0830, they will contact the trainee's named representative to confirm the safety of the trainee and ascertain why they are not in attendance. Please see our full Absence Policy for more details on reporting and absence certification.

Absence Contact: Abby Spearing | info@swiftteachertraining.org.uk | 01548 852641 Ext 2592

SWIFT Teacher Training Central Team

Kingsbridge Community College | 01548 852641

Sarah Frame | Director | sarah.frame@sw-ift.org.uk

Kelly Armstrong | Deputy Director Secondary | Kelly.armstrong@sw-ift.org.uk

Martin Lewis | Secondary Lead | martin.lewis@sw-ift.org.uk

Nicky Sheppard | Programme Manager | nicky.sheppard@sw-ift.org.uk

Abby Spearing | Administrator | abby.spearing@sw-ift.org.uk

Subject Knowledge Facilitators

Science – Biology | Leticia Hooper | Leticia.hooper@sw-ift.org.uk

Science – Chemistry | Matt Hamilton | matthew.hamilton@sw-ift.org.uk

Science – Physics | Phil Atherton | phil.atherton@sw-ift.org.uk

Chemistry Curriculum Overview

Week Beginning	Week	Monday	Tuesday	Wednesday	Thursday	Friday	Twilight
26/08/2024	1						
02/09/2024	2						
09/09/2024	3						
16/09/2024	4						
23/09/2024	5						
30/09/2024	6						
07/10/2024	7						
14/10/2024	8						
21/10/2024	9						
28/10/2024	9a						
04/11/2024	10						
11/11/2024	11						
18/11/2024	12						
25/11/2024	13						
02/12/2024	14						
09/12/2024	15						
16/12/2024	16						
23/12/2024	16a						
30/12/2024	16b						
06/01/2025	17						
13/01/2025	18						
20/01/2025	19						
27/01/2025	20						
03/02/2025	21						
10/02/2025	22						
17/02/2025	22a						
24/02/2025	23						
03/03/2025	24						
10/03/2025	25						
17/03/2025	26						
24/03/2025	27						
31/03/2025	28						
07/04/2025	28a						
14/04/2025	28b						
21/04/2025	29						
28/04/2025	30						
05/05/2025	31						
12/05/2025	32						
19/05/2025	33						
26/05/2025	33a						
02/06/2025	34						
09/06/2025	35						
16/06/2025	36						
23/06/2025	37						
30/06/2025	38						
07/07/2025	39						

KEY		Elements	Location
	SWIFT Start Induction		In-person External Venue
	Provider-Led	Seminars and Workshops	Online / In-person External Venue
	PGCE	Seminars and Workshops	Online / in-person External Venue
	Subject Knowledge	Seminars and Workshops	Online / In-person External Venue
	Subject Knowledge Twilight (Friday)	Seminars and Workshops	Online
	Short Placement	Teaching Practice	School
	ITaP	Intensive Training and Practice Weeks	School
	Long Placement	Teaching Practice	School
	Enrichment Placement	Teaching Practice	School
	Holiday		

Subject to change and holiday dates may vary depending on school placement.

We will keep you up to date with any alterations to the timetable.

Professional Etiquette During Training Sessions Online

	Arrive on time to all training sessions, including after breaks and lunchtime. Be seated and ready to start.
	Devices should only be used for making notes on sessions. Work emails and lesson planning should be completed at another time.
	Microphones off when the host is talking.
	Please ask questions in the chat. These will be addressed in the question section of the session. If you have any questions which are specific to you, please ask your mentor directly.
	Engagement. Please have your camera on, answering questions and taking part in surveys and being an active part of group discussions, including in breakout rooms.

Training Day

	Arrive on time to all training sessions, including after breaks and lunchtime. Be seated and ready to start.
	Devices should only be used for making notes on sessions. Work emails and lesson planning should be completed at another time.
	No talking during sessions.
	Please save questions to the question section of the session. If you have any questions which are specific to you, please ask your mentor directly.
	Engagement. Make sure you take an active part in sessions when appropriate eg group discussions and answering questions.

SWIFT Teacher Training ICONs

We use the following icons through our training:

	Thinking		Retrieval Practice		Trainee Teachers to Complete
	Timer		Deliberate Practice		
	Writing		Checklist		
	Reading		Questions		
	Discussion		Pupil to Complete		

Required Key Reading List | Science (Chemistry)

This document contains the pre-course reading list for your SWIFT Initial Teacher Training Course in chemistry. Prior to the course starting in September 2024, you are required to engage with the following key reading.

Recommended Texts

Physics

- Ben Rogers (2018), The Big Ideas in Physics and How to Teach Them: Teaching Physics 11-18. Routledge. ISBN 978-1138235069

This text covers the key ideas in physics and how they can be taught. It will suggest practical investigation, analogies and models for many of the key physics ideas.

Chemistry

- The Association for Science Education (2022). Teaching Secondary Chemistry 3rd Edition. Hodder Education. ISBN-10: 1510462570

This text covers the key ideas in chemistry and how they can be taught. It will suggest practical investigation, analogies and models for many of the key chemistry ideas.

Biology

- The Association for Science Education (2021). Teaching Secondary Biology 3rd Edition. Hodder Education. ISBN-10: 1510462562

This text covers the key ideas in biology and how they can be taught. It will suggest practical investigation, analogies and models for many of the key biology ideas.

You might also wish to familiarise yourself with the National Curriculum for Science to give yourself an understanding of the content that you will teach in your initial teacher training year.

Additional Reading

- Department for Education (2015). Statutory guidance: National curriculum in England: science programmes of study.

This is the National Curriculum and while schools do not have to follow it by law, it is what most schools base their KS3 curriculum on.

- Ofsted (2023). Subject Report Series Science

This is a report by Ofsted on the subject of science. While some terminology will be unfamiliar it gives trainees an insight into what is being looked at in school.

- Score (2000-2009) Getting Practical: a Framework for Practical Work in Science

This resource from STEM (Science, Technology, Engineering and Maths) provides an idea of the importance of practical work in science lessons which will be a major part of the science training.

Useful Links

Education Endowment Foundation
Seneca Learning
BBC Bitesize – Science

Subject Associations

Institute of Physics
Associations of Science Education
Royal Society of Chemistry
STEM Learning
Royal Society of Biology

Social Media

Brian Cox - @ProfBrianCox
David Attenborough - @DavidALifeFilm
Chemistry World - @chemistryworld
Chemistry News - @ChemistryNews
Current Biology @CurrentBiology

National Curriculum Subject Content

Reference: National curriculum in England: Science programmes of study - GOV.UK (www.gov.uk)

Purpose of study

A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

Aims

The national curriculum for science aims to ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics;
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them;
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Chemistry Subject Knowledge Audit

Throughout this course, you must demonstrate continuous improvement in your subject knowledge to meet the required standards. Strong expertise in your subject is essential for effective teaching. You will show your knowledge partly through lesson observations, but also by completing the subject knowledge audit below at each assessment point during your training year. The audit's red-amber-green rating of course content will map your progress. This live document will serve as a professional tool that you can build on throughout the early stages of your teaching career.

	RAG Rating Key
S	Secure knowledge = I have good pedagogical content knowledge and would be able to teach it
D	Developing knowledge = I understand it, I need to study it further to be able to teach it
L	Limited Knowledge = I have little knowledge and have not seen it taught

Subject Knowledge	Pre-Course Knowledge	AP1 Autumn Term	AP2 Spring Term	AP3 Summer Term	Final Assessment Summer Term	Action Plan for Development
Dates		**18 November 24 to 2 December 24**	**3 March 25 to 24 March 25**	**28 April 25 to 12 May 25**		
To be confident in the knowledge of the KS3 National Curriculum including:						
Structure and function of living organisms						
Material cycles and energy						
Interactions and interdependencies						
Genetic and evolution						
Matter and atoms, elements and compounds						
Pure and impure substances						
Chemical reactions and energetics						
Periodic Table						
Materials						
Earth and the atmosphere						

	Pre-Course Knowledge	AP1 Autumn Term	AP2 Spring Term	AP3 Summer Term	Final Assessment Summer Term	Action Plan for Development
Energy						
Motion and forces						
Waves						
Electricity and electromagnetism						
Matter						
Space Physics						
To be confident in the knowledge of the KS4 National Curriculum including:						
Atomic structure and the periodic table						
Bonding, structure and the properties of matter						
Quantitative chemistry						
Chemical changes						
Energy Changes						
Rate and extent of chemical change						
Organic Chemistry						
Chemical Analysis						
Chemistry of the atmosphere						
Using resources						
To have an understanding of the required practicals for Chemistry						
Non-Specialist KS4 Knowledge						
Health and Safety						
Carry out risk assessment of lab activities						
Use of CLEAPSS to risk assess experiments						
Safely manage the classroom during science experiments						
Knowledge of procedures to deal with accidents and injuries that can occur in a science classroom						
Handling and safe use of equipment						

	Pre-Course Knowledge	AP1 Autumn Term	AP2 Spring Term	AP3 Summer Term	Final Assessment Summer Term	Action Plan for Development
Practical Skills						
Planning and ordering practical equipment for experiments						
Setting up a classroom for safe class experiments or demonstration Be confident in delivering demonstrations						
Experience using specialist science equipment for example data harvest, oscilloscope, quick fit glassware, potometers						
To have an understanding of the terms accuracy, precision, repeatability, reproducibility and error						
To ensure students understand the purpose of the experiment so that all practical work is meaningful						
To understand and teach students how to control variables to ensure a robust scientific method						
To ensure that all students are actively engaged in practical work						
Maths Skills						
To understand the use of prefixes (e.g. micro, nano, kilo) and units (e.g. cm, W, g)						
To understand the use of standard form and significant figures						
To be confident in the use of 3 part equations						
To be confident in drawing graph with a range of axes and be able to calculate gradients and tangents from line of best fit						
Science Literacy						
To understand the use of command different words in science exams. E.g. compare, describe, explain						

	Pre-Course Knowledge	AP1 Autumn Term	AP2 Spring Term	AP3 Summer Term	Final Assessment Summer Term	Action Plan for Development
To be able to introduce and confidently use specialist scientific language at an appropriate level						
To create the opportunity for extended reading in science lessons						
Cultural Capital						
To create the opportunity for students to experience science beyond the classroom. E.g. science clubs, trips, enrichment activities						
To create opportunities in the classroom to make students aware of possibilities of science-based careers						
To use your hinterland knowledge to enrich science lessons						
To develop students' science knowledge to enhance the life choice beyond school. E.g. understanding doctor's appointment, making better diet/exercise choices						

Chemistry Key Information

Facilitator: Matthew Hamilton

Email: matthew.hamilton@sw-ift.org.uk

Morning Sessions: 0930 – 1230

Afternoon Sessions: 1300 – 1600

Twilight Sessions: 1400 – 1530

Venue: Teign School

Address: Chudleigh Rd, Kingsteignton, Newton Abbot TQ12 3JG

Telephone: 01626 366969

Please check timetable and the weekly bulletin as several of these sessions are online.

Times may be subject to change.

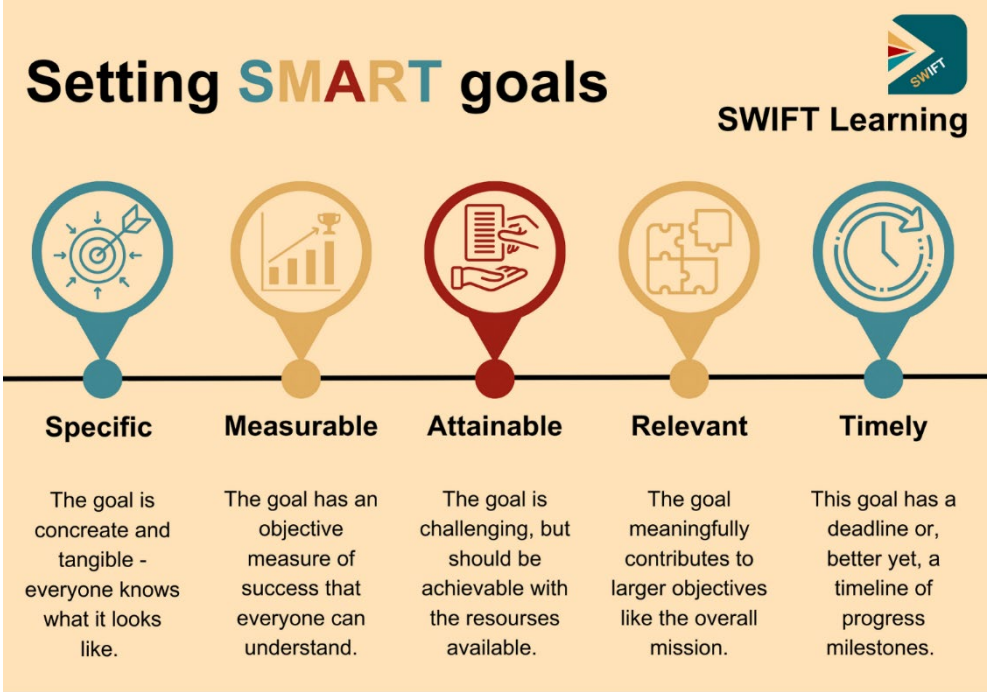
Chemistry Subject Knowledge Session Timetable

Week	Session Number	Theme 1 | The Chemistry Curriculum	Learn That	Learn How	Venue and Timings
1	1.1	Why study chemistry? The role of chemistry in the curriculum	3.5,3.6,3.8,3.10	3b,3e,3g,3h,3n	Friday 30 August 2024 Afternoon Online
2	1.2	The chemistry curriculum, 4-18	3.3,3.5,3.6	3b,3h,3n	Friday 6 September 2024 Morning Teign School
	1.3	Hard choices: What knowledge should be taught in a secondary chemistry curriculum?	3.3,3.5,3.7	3d,3c,3j	Friday 6 September 2024 Afternoon Teign School
3	1.4	Planning to develop chemistry skills within the secondary curriculum	3.3,3.5,3.6	3a,3c,3h,3j,3n	Thursday 12 September Afternoon Teign School
	1.5	Planning an effective sequence of learning in chemistry	3.3,3.7	3f,3h,3j,3k,3l,3n	Thursday 12 September Afternoon Teign School
	1.6	The role of chemistry in growing cultural capital and challenging disadvantage	3.1,3.10	3c,(3q,3r)	Friday 13 September 2024 Morning Teign School
	1.7	Additional session if required			
		Theme 2 | Creating a powerful environment to teach chemistry	**Learn That**	**Learn How**	
4	2.1	Establishing routines in a chemistry classroom	1.1,1.4,7.1,7.2	1e,7h	Wednesday 18 September 2024 Twilight | 1530 – 1700 Online
	2.2	Motivating pupils to love chemistry	1.1,1.2,1.6,7.6	1a,7o,7p	Friday 20 September 2024 Morning Teign School
	2.3	Addressing non-compliance in a chemistry classroom	1.5,7.6	1e,7a,7p	Friday 20 September 2024 Afternoon Teign School
5	2.4	Holding high expectations in chemistry	1.3,1.4	1a,1e	Friday 27 September 2024 0930 – 1600 Teign School

	2.5	Ensuring high levels of participation in chemistry	3.2,7.7 Consider Standard 3	1a,7f Consider Strandard 4	Friday 27 September 2024 Afternoon Teign School
Week	**Session Number**	**Theme 3 | The Effective Teaching of Chemistry**	**Learn That**	**Learn How**	**Venue and Timings**
6	3.1	The importance of cognitive load theory in the teaching of chemistry	2.4,2.9,4.2	2b,2c,4a	Friday 4 October 2024 Morning Teign School
	3.2 & 3.3	Direct instruction or enquiry led approach Introducing new knowledge	2.4,2.9,4.2 2.4,2.9,4.2	2b,2c,4a 2b,2c,4a	Friday 4 October 2024 Afternoon Teign School
7	3.4	Ensuring pupils remember chemistry	2.7,2.8,4.3,4.4 4.5	2h,4b,4j	Friday 11 October 2024 Morning Teign School
	3.5	Developing pupils' chemistry skills	3.2,3.5,4.3,4.4 4.5,4.8	3b,3d,4b,4c,4d 4e	Friday 11 October 2024 Afternoon Teign School
10	3.6	Additional session if required			
11	3.7	Strategies for effective talk in the chemistry classroom	4.6,4.7,4.8,4.9	4e,4l,4m,4n,4o	Friday 15 November 2024 Twilight | 1400 – 1530 Online
12	3.8	Guided and independent practice to support pupils to produce high quality chemistry writing	4.6,4.7,4.8,4.9	4e,4l,4m,4n,4o	Friday 22 November 2024 Twilight | 1400 – 1530 Online
13	3.9	Using metacognitive strategies to build increasingly complex mental models of chemistry	4.6,4.7,4.8,4.9	4e,4l,4m,4n,4o	Friday 29 November 2024 Twilight | 1400 – 1530 Online
		Theme 4 | Assessment and Feedback in Chemistry	**Learn That**	**Learn How**	
17	4.1	What do we assess in chemistry Planning for effective assessment in chemistry	6.1,6.2,6.3 6.3,6.4	6e 6a,6c	Friday 10 January 2025 Morning Teign School
	4.2	What do we assess in chemistry Planning for effective assessment in chemistry	6.1,6.2,6.3 6.3,6.4	6e 6a,6c	Friday 10 January 2025 Afternoon Teign School
18	4.3	The Art of Questioning: A chemistry teacher's most powerful tool	4.6,4.7.5.3	4o	Friday 17 January 2025 Morning Teign School
			2.6,3.4	2e,2f,3g,6d,6e	Friday 24 January 2025

19	4.4	Challenging common misconceptions in chemistry		6g	Morning Teign School
	4.5	Making high quality feedback in chemistry manageable	6.5,6.6,6.7	6i,6j,6k,6n,6p	Friday 24 January 2025 Afternoon Teign School
20	4.6	Summative Assessment in chemistry	6.3,6.4	6b,6c	Friday 31 January 2025 AM Teign School
Week	**Session Number**	**Theme 5 | Adapting Chemistry**	**Learn That**	**Learn How**	**Venue and Timings**
24	5.1 (i)	The role of chemistry in helping pupils overcome barriers to learning	5.1,5.2,5.6, (8.5)	5b,5c,5f, (5g)	Friday 7 March 2025 Twilight | 1400 – 1530 Online
27	5.1 (ii)	The role of chemistry in helping pupils overcome barriers to learning	5.1,5.2,5.6, (8.5)	5b,5c,5f, (5g)	Friday 28 March 2025 Twilight | 1400 – 1530 Online
30	5.2	Adaptive Teaching in chemistry	5.3,5.4, (8.5)	5a,(5g)	Friday 2 May 2025 Twilight | 1400 – 1530 Online
31	5.3	Providing effective scaffolds in chemistry	4.4, 5.5, (8.5)	4b,4d,5b,5l, (5g)	Friday 9 May 2025 Twilight | 1400 – 1530 Online
32	5.4	The SEND code of practice and the graduated response in the chemistry classroom	5.5,5.7,8.5	5a, (5g)	Friday 16 May 2025 Twilight | 1400 – 1530 Online
		Theme 6 | Enriching Chemistry	**Learn That**	**Learn How**	
34	6.1	Enriching Chemistry 1	Standard 3	Standard 3	Friday 6 June 2025 Twilight | 1400 – 1530 Online
36	6.2	Enriching Chemistry 2	Standard 3	Standard 3	Friday 20 June 2025 Twilight | 1400 – 1530 Online
39	6.3 & 6.4	Enriching Chemistry 3 and 4	Standard 3	Standard 3	Friday 11 July 2025 Morning Teign School
	6.5	Enriching Chemistry 5	Standard 3	Standard 3	Friday 11 July 2025 Afternoon Teign School

Setting SMART Goals



Part of becoming a teacher is seeking opportunities to practise, receive feedback and improve. The target setting system below is in place to help you effectively synthesize the knowledge taught in your subject sessions and identify areas for development in your own practice. This document will enable you and others to track your progress across the course.

The SMART targets also mirror the types of recordkeeping that many schools ask their teachers to keep in their early career teaching to collect evidence of their progress. These need to be kept up-to-date after each subject session throughout the course, as part of your professional practice.

In order to make effective use of content taught in subject sessions it is important to identify how new content will be implemented into your daily teaching practice. Your subject sessions are designed to be rich in professional discussion and analysis of live teaching tools, to support you in solidifying the learning you need to set comprehensive targets and explain a measurable way in which you will implement the evidence in lessons.

Here is a step-by-step guide on how to complete a SMART target:

1. Specific: Define what pedagogical research you have learnt and summarise key findings from the evidence.
2. Measurable: Using your subject lens, identify what this evidence informed research looks like in your subject.
3. Achievable: Think about how you will apply this knowledge to your teaching practice and set two targets that will improve your pedagogy.
4. Relevant: Note down some professional discussion questions that you will ask your colleagues in your placement school. These questions are to help further extend your understanding of how the research / strategies discussed in your subject session are applied in your subject.
5. Timely: List your key take away knowledge from the subject session. This could include answers to your questions or key information that has influenced your teaching practice

Swift Teacher Training | Lesson Observation of Expert Colleagues – Trainee Exemplar

Teacher		**Subject / Key Stage**	
Teaching group		**Lesson Topic Focus**	
Time		**Date**	
Focus of observation			
Lesson objective(s)			

Managing Behaviour and High Expectations	Pedagogy How Pupils Learn Classroom Practices Adaptive teaching	Curriculum	Assessment	Professional Behaviours

What does the teacher want the pupils to remember at the end of the lesson?	**Subject knowledge** required for teaching the lesson
Teaching: How is the teaching using effective pedagogical strategies to introduce and scaffold new concepts / meet the lesson objective.	**Learning:** What new knowledge or skills are the pupils developing during the lesson? How does the teacher know what progress is being made by all pupils?
Classroom management: What does the teacher do to manage behaviour positively?	
What theories of teaching and learning are evident in this lesson that you have been learning about in the Provider-Led and Subject Knowledge sessions?	

Swift Teacher Training | Lesson Observation of Expert Colleagues

Teacher		**Subject / Key Stage**	
Teaching group		**Lesson Topic Focus**	
Time		**Date**	
Focus of observation			
Lesson objective(s)			

Managing Behaviour and High Expectations	**Pedagogy How Pupils Learn Classroom Practices Adaptive teaching**	**Curriculum**	**Assessment**	**Professional Behaviours**

What does the teacher want the pupils to remember at the end of the lesson?	**Subject knowledge** required for teaching the lesson
Teaching:	**Learning:**
Classroom management:	
What theories of teaching and learning are evident in this lesson that you have been learning about in the Provider-Led and Subject Knowledge sessions?	

Short Placement | Suggested Areas for Observation (this list is not exhaustive)

Teacher Actions	Pupil Actions
Teaching: What tasks have been set, how are they set-up, how much time is provided?	**Learning:** What new knowledge or skills are the pupils developing during the lesson? How does the teacher know what progress is being made by all pupils?
Classroom management: What does the teacher do to manage behaviour positively? How are resources distributed and collected?	**Classroom management:** How are the students engaging with the task? Are they on or off-task? What is contributing to the engagement/lack of engagement? What knowledge are the students collecting? With what skills are the students engaging?
Teaching: What explicit and implicit instructions does the teacher use?	How do pupils respond to these Teacher Actions?
Classroom management: How does the teacher use praise and other positive language? How does the teacher use pupils' names? How does the teacher use sanctions?	
Classroom management: Sketch the layout of the room, noting where the pupils sit.	
Teaching: Make a note of any questions the teacher uses about subject knowledge.	
Classroom management: How does the teacher use questioning to manage behaviour?	
Teaching: How does the teacher introduce new concepts or knowledge?	
Teaching: Make a note of how the teacher gets the pupils into the classroom, how they move from one activity to another, and how they get the pupils to leave the lesson at the end.	
Classroom management: How does the teacher indicate that they are ready to move the learning on?	
How Pupils Learn: How does the teacher provide opportunities for retrieval practice?	

Long Placement | Suggested Areas for Observation (this list is not exhaustive)

Teacher Actions	Pupil Actions
How Pupils Learn: How does the teacher provide/use: - appropriate modelling, scaffolding and strategies to develop metacognition - lesson time effectively	How do pupils respond to these Teacher Actions? What is the impact on pupil learning / behaviour?
Classroom Management: How does the teacher demonstrate: - clear communication of high expectations - use of specific praise and visible behaviour cues - rewards and sanctions used in line with policies	
Subject Knowledge: How does the teacher demonstrate: - knowledge of national and wider curriculum. - inclusion of subject-specific pedagogical approaches - awareness of subject misconceptions and strategies to address them - development of students' literacy	
Assessment: How does the teacher provide opportunities for: - formative assessment strategies used to support learning - prior assessment factored into planning - feedback given to support children's progress - opportunities for children to reflect on progress	
Adaptive Teaching: How does the teacher demonstrate: - awareness of diverse learning and development needs, abilities, dispositions and backgrounds - adaption of learning to support children with additional needs - understanding of individual needs and responding accordingly in a supportive manner	
Professional Behaviours: How does the teacher: - promote positive values and attitudes, including scholarship and a love of learning - work professionally and collaboratively with colleagues during the lesson	

Assessment Point Timetable

c	SWIFT Teacher Training Focus	Date	Assessed by:
SWIFT Check-In	Attendance and time keeping Professional communication Organisation and initiative Professional Behaviours and Relationships	Week 10	Mentor
AP1	Positive Behaviour Management and High Expectations (Strand 1) Professional Behaviours (Strand 5) Subject Knowledge (Strand 3)	18/11/24 – 2/12/24 Autumn Term	Subject Knowledge or Phase Lead Mentor Trainee
AP2	How Pupils Learn (Strand 2) Classroom Practice (Strand 2) Positive Behaviour Management and High Expectations (Strand 1) Subject Knowledge (Strand 3) Professional Behaviours (Strand 5)	3/3/25 – 24/3/25 Spring Term	Subject Knowledge or Phase Lead Mentor Trainee
AP3	Adaptive Teaching (Strand 2) Assessment (Strand 4) Positive Behaviour Management and High Expectations (Strand 1) Subject Knowledge (Strand 3) Professional Behaviours (Strand 5)	28/4/25 – 12/5/25 Summer Term	Subject Knowledge or Phase Lead Mentor Trainee
AP4	Final decision for QTS This process draws all the evidence together to make a judgement about a recommendation for QTS	June 2025 Summer Term	SWIFT Teacher Training Central Leadership Team

What will be assessed	Evidence	Timings
StepLab | Our Professional Development Platform	Feedback on lesson observations Weekly targets have been set Observations of expert teachers are taking place Targets are being achieved Learning journal completed including next steps to improve practice Professional Behaviours are met	Ongoing development
Subject Audit	Use subject audit to track subject knowledge development	Ongoing development
Formal Observation of trainee	Full lesson focusing on the assessment points above	One full lesson up to the maximum of one hour's observation.
Expert Feedback	Trainee receives clear and effective feedback and mentoring from expert colleagues Trainee makes effective use of feedback and takes steps to improve practice The Subject Knowledge Lead and Mentor will work with the trainee to set 3 to 4 targets.	30 minutes
Professional Conversation	After the formal observation there is an opportunity for professional dialogue on the trainee's progress. During the conversation, the trainee will consider their progress against the curriculum strands and the impact of this on their practice.	30 minutes

StepLab and Instructional Coaching

We use a professional learning platform, Steplab, to support instructional coaching which is built by teachers, for teachers. This platform is used in your weekly mentor sessions during school placements.

Steplab allows us to:

- track and monitor progress on a weekly basis.
- show progress against the Training Programme Curriculum.
- understand areas of strength and development.
- use a common language to ensure that everyone is aligned on what the trainees' areas for development are.

Steplab is the online tool that all trainees use to track and monitor progress throughout the Training Programme. Steplab will provide evidence of trainees' development and therefore can be used to assess against the Teachers' Standards in the final assessment.

All trainee development, including development goals, observation feedback, support plans and instructional coaching will be recorded through Steplab.

Development goals and actions

Mentors will set development goals and actions throughout school placements. Development goals have a specific developmental focus, which will then be broken down into several key actions to help trainees achieve the goal. Mentors and trainees can add comments and upload files to their development goals. This will allow trainees to evidence key pieces of work.

Weekly action steps

The weekly action steps form an important part of the instructional coaching that mentors will carry out with trainees. Mentors will lead on the weekly action step cycle with their trainees. Mentors will set specific areas of practice for the trainees based on their areas of development, which will then be discussed in mentor meetings.

After the assessment point the trainee will complete their Learning Journal and upload it to Steplab.

PGCES with University of Nottingham

The modules (20 Masters credits each)

Module 1 | 'Understanding Contexts' | PGCE Days 1, 2, 3

This is about national and international contexts for education and considers ideas from the philosophy of education about the purposes of education in different settings. This introductory module introduces a philosophical, comparative and observational focus which runs throughout the course. Units within the module include 'Purposes of the School Curriculum', 'Understanding Educational Systems' and 'Understanding the Classroom'.

- **Assessment**

Trainees will carry out this assignment in the context of the subject or phase they hope to teach and select a key stage to focus on. Trainees' assignments should be approximately 4000 words in length.

Module 2 | 'Understanding Learning and Teaching' | PGCE Days 4, 5, 6, 7

This focuses on broad areas within the field of learning theory including constructivism, socio-constructivism and metacognition. Critical approaches are encouraged as well as a grasp of the practical importance for teachers in understanding how children learn. The module covers: questioning, collaborative learning, talk for learning, planning for learning, assessment, differentiation, special educational needs and inclusion, and English as an additional language.

- **Assessment (PGCE Day 7)**

Presenting a critical commentary informed by learning theory, trainees will present to their peers and the assessing tutor, keeping strictly to 15-minutes with a further 5 minutes for questions. Trainees will submit:

- a reflective summary of no more than two sides of A4, with annotated and cross-referenced appendices (planning and assessment documents);
- a copy of the slides including presentation notes;
- an annotated reference list.

Module 3 | In 'Inquiring into Educational Experience' | PGCE Days 8, 9

Trainees plan and undertake a small-scale inquiry in their own classroom which reports and reflects upon the execution and findings of the project. In preparation for the research and data-generation processes, the module considers methodological principles of practitioner research. Guidance will be offered on the planning, writing and presentation of the study, including recommendations for relevant academic and professional literature for background reading.

- **Assessment**

Trainees will need a precise subtitle that states their specific inquiry focus.

This assignment encourages trainees to conduct an inquiry into an educational issue in their chosen subject or phase. Trainees will engage with ideas of education for social justice and develop their own strategies to promote social justice in, and through, their teaching. The word count is approximately 4000 words.

PGCE Day 10 concludes the course by focusing on contemporary and emerging understandings of Learning Science and School Leadership.

Overall Assessment criteria

Your assignments will be assessed against the following generic criteria, used for all postgraduate taught courses:

- Organisation
- Structure
- Focus & relevance
- Knowledge and understanding
- Knowledge of topic
- Breadth of understanding
- Argumentation
- Depth of treatment
- Analysis
- Reflection
- Criticality
- Application
- Links to professional practice
- Well-grounded proposals
- Constraints considered
- Creativity & originality
- Presentation, language and referencing
- Presentation conventions
- Referencing style
- Clarity of expression

All assignments provide evidence that can contribute to their assessment against the Teachers' Standards.

Specifically, for the PGCES course, assignments will also be assessed against the following criteria:

- evidence of understanding of the field of inquiry
- evidence of a structured and coherent discussion
- attempts to synthesise arguments drawn from the literatures consulted
- appropriate use of professional and academic literature, including: evidence of relevant reading (well-integrated), referencing and use of quotations
- evidence of personal reflection, criticality and professional learning
- confident use of technical aspects of writing, including: clear, logical structure; fluent style in correct register; accurate presentation (grammar, spelling punctuation)

Roles and Responsibilities at a Glance

Schools should:

- provide effective school-based placements;
- ensure mentors are sufficiently well trained, have an excellent understanding of the provider's curriculum and the evidence base that underpins it and are given sufficient time to provide structured feedback designed to improve the trainee's knowledge, skills and practice;
- release mentors to attend all training and development opportunities provided by the ITT provider;
- provide access to other expert colleagues across the school and allow time for the trainees and expert colleagues to: observe and deconstruct; rehearse and refine; discuss and analyse teaching, strategies and pedagogy;
- guide and support trainees so that they have a positive impact on improving outcomes for the pupils they teach;
- contribute to the design of a coherent ITE curriculum and provide school-based training opportunities to trainees;
- identify and address trainees' needs, setting targets which support them to make sustained progress;
- adhere to the terms of the Partnership Agreement and the provider's code of conduct.

Trainees should:

- utilise all aspects of their education and training: school and intensive placements, centrally provided training, academic research and independent study, in order to secure their progress – both as reflective practitioners and as professional, high quality teachers;
- take lead responsibility for recording weekly discussions with their mentors;
- understand and take responsibility for the impact of their teaching on improving outcomes for the pupils they teach;
- uphold the standards expected of the teaching profession, as set out in the Teachers' Standards;
- adhere to the provider's code of conduct.

Roles and Responsibilities at a Glance 1: Schools, Trainees, Mentors

Mentors should:

- engage fully in all training and development opportunities provided by the partnership;
- ensure they dedicate sufficient time to the support and nature of their trainee teacher(s);
- design opportunities for trainees to practice skills, discuss and analyse with expert colleagues and observe expert colleagues and deconstruct their approaches;
- demonstrate a confident working knowledge of the provider's ITE curriculum and how it is built on the Core Content Framework and its underlying evidence base;
- provide clear, consistent and effective mentoring;
- provide feedback to the providers on the progress of their trainee;
- identify and support trainees who may be struggling;
- maintain open communication with lead mentors and provider's staff:
- adhere to the provider's code of conduct.

Providers, strategically, should:

- exercise a duty of care for all their trainees, their personalised training needs and their well-being, acknowledge the need to nurture the next generation of committed, resourceful, high-quality teachers;
- provide a safe and inclusive environment in which to train to teach;
- design and implement ethical and inclusive recruitment and selection processes;
- recruit, train and sustain a highly skilled mentor workforce to support the progress of trainee teachers;
- support trainees with respect, being mindful of the stage of their training and how this may impact on the challenges they might be facing;
- ensure their programmes adhere fully to the ITT criteria and supporting advice;
- ensure that trainees are equipped to enjoy the rewards and challenges of the teaching profession;
- develop, share and ensure all relevant parties have signed clear Partnership Agreements and a code of conduct;
- remain mindful of the workload their processes may create for trainees and those that support them, and design systems which are as streamlined as possible, whilst remaining 'robust'.

Providers, practically, should:

- design and implement high-quality evidence-based curricula, structured around phase and subject, which sequence trainees' learning appropriately for the content in which they are training to teach, and which include periods of intensive training and practice, as set out in the 2024 Quality Requirements;
- ensure the ITT Core Content Framework is delivered in full through their curricula;
- design and implement high-quality mentor curricula which meet the expectations set out in the 2024 Quality Requirements;
- ensure that staff contributing to curriculum design and facilitation have the necessary expertise in their subject, phase and/or broader area(s) of the responsibility (e.g. mentor training, trainee well-being, safeguarding, EDI, etc.)
- work with all members of the partnership to ensure that all trainees make sustained progress, providing additional, tailored support when necessary;
- monitor trainee progress through robust and accurate formative and summative assessment processes, which are subject to suitably rigorous internal and external moderation;
- when making a final judgement about the award of the QTS, recognise that the Teachers' Standards need to be applied as appropriate to the role and context within which a trainee or teacher is practising and in a way that is consistent with what could be reasonably be expected of a trainee teacher prior to the award of QTS;
- adhere to the provider's code of conduct.

Roles and Responsibilities at a Glance 2: Providers

Media – Privacy Settings

The digital age has ushered in an unprecedented era of connectivity and access to information for students of all ages. However, with the good comes the bad, and navigating the internet safely and responsibly is a crucial skill that all students must develop. Many schools have responded to this need by implementing a variety of policies and programmes focused on internet safety and digital citizenship. Web filters and internet audits allow schools to monitor what students are viewing online during school hours and block inappropriate or dangerous content. Pastoral programmes often include lessons on topics like cyberbullying, protecting personal information, avoiding online predators, and managing screen time.

Some schools actively leverage sites like Facebook to communicate with students and parents in real time, encouraging engagement through social media. The intent is to teach students how to use these platforms safely and productively. Still, other schools ban social media entirely on school grounds, aiming to limit distractions and risky behaviour. All of this highlights how critical it is for students and parents to understand and follow their school's unique internet use policies.

The digital world holds countless benefits for learning and growth, but also many dangers - by partnering effectively with students and parents, schools can strike the right balance.

Social media has become an inescapable part of modern life, and we ask that you navigate its pitfalls carefully. With a few clicks, students can easily access a teacher's online presence and personal information never meant for the classroom. This makes it crucial for teachers to audit their security settings and exercise judgment in what they share online. Too easily, content can be taken out of context, jeopardising a teacher's career. Many schools and colleges now routinely search social media profiles of potential hires, screening for any red flags.

Mobile Phone Use

All schools will have their own mobile phone policy for students and staff, please ensure when on school placements you follow this carefully.

Generally, a policy will follow these guidelines:

SWIFT Trainees may bring mobile phones onto the school site on the understanding that the personal mobile phone:

- is used only in the staffroom, outside of the school gate, or in office spaces when no students are present;
- only used during break times and at either end of the school day;
- must not be used to take photos of students;
- should never be used to contact or exchange information with parents.

Glossary of Terms

- **AB - Appropriate Body -** An organisation responsible for the quality assurance and verification process of statutory teacher induction. An Appropriate Body makes the final decision, based on a Headteacher's recommendation, as to whether an ECT has satisfactorily met the Teachers' Standards.
- **Adaptive Teaching -** Adaptive teaching is an approach a teacher will use to continually assess the strengths and needs of learners and adapt their teaching accordingly to ensure all learners can meet expectations.
- **BEd - Bachelor of Education -** A Bachelor of Education (BEd) is an Undergraduate professional teacher training degree with Qualified Teacher Status (QTS). BEd courses are mainly taken by primary school teachers, although it is possible to teach another Key Stage.
- **CCF - Core Content Framework -** ITT Core Content Framework, designed by the DfE, sets out the minimum entitlement for all trainee teachers and the content that ITT providers must include in their programmes.
- **CPD - Continuing Professional Development -** Effective continuing professional development for teachers is essential to becoming confident and competent as a teacher and ultimately providing high-quality teaching. It allows teachers (and other teaching staff) to stay up to date with their specialism and develop professionally.
- **DBS - Disclosure and Barring Service -** DBS checks in education are an essential safeguarding tool to ensure the safety and well-being of children and young people. If a person is to work in a nursery, school or college, they will require an Enhanced DBS and a child barred list check no matter what their role is.
- **DfE - Department for Education -** The Department for Education is responsible for children's services and education, including early years, schools, higher and further education policy, apprenticeships and wider skills in England.
- **EAL - English as an Additional Language -** A learner of English as an additional language (EAL) is a pupil whose first language is other than English.
- **ECF - Early Career Framework -** The Early Career Framework (ECF) is a statutory two-year package of high-quality professional development (training, support, and resources) for schools. It sets out what Early Career teachers (ECTs) are entitled to learn when they start their careers.
- **ECT | Year 1 or Year 2 - Early Career Teachers -** The term early career teacher replaced the term NQT (newly qualified teacher) in 2021. An ECT will have completed their initial teacher training and can then begin their ECT induction period of two years. They are known as ECT Year 1 or Year 2.
- **Enrichment Week -** A week on our SWIFT teacher training programme where you can explore a particular theme more in depth, e.g. SEND.
- **EYFS - Early Years Foundation Stage -** The early years foundation stage sets the framework for education for children from birth up to 5 years.

- **GDPR - General Data Protection Regulations -** Everyone responsible for using personal data has to follow strict rules called 'data protection principles' and must ensure personal information is used fairly, lawfully and transparently. The Data Protection Act 2018 is the UK's implementation of the General Data Protection Regulation (GDPR). (include link to GDPR policies)
- **HEI - Higher Education Institution -** A Higher Education Institution is third level (tertiary) education at a university and further education college. As an ITT provider an HEI offers undergraduate and postgraduate teacher training courses.
- **IEP - Individual Education Plan -** An IEP is a detailed plan that sets out targets and strategies to help a child with special educational needs learn.
- **ITaP - Intensive Training and Practice -** Distinguished from school placements, Intensive training and practice focuses on a single or small number of areas, very intensely, to ensure that trainees make rapid progress in understanding and application. Intensive training and practice should also build powerfully the link between evidence-based theory and practice.
- **ITT - Initial Teacher Training -** Initial Teacher Training is a university-led or school-based teacher training route.
- **KS1-5 - Key Stage 1-5 -** The National Curriculum is organised in to blocks of years called Key Stages: Key Stage 1 | Years 1 - 2; Key Stage 2 | Years 3 - 6; Key Stage 3 | Years 7 - 9; Key Stage 4 | Years 10 - 11; Key Stage 5 | Years 12 - 13 or Post 16.
- **LA - Local Authority -** A Local Authority is an organisation officially responsible for all the public services and facilities in a particular area. State schools receive funding through their Local Authority or directly from the Government depending on the type of school.
- **Lead Mentor -** Lead Mentors train and deploy mentors in school to undertake their important roles in the training of teachers. They will receive intensive training so that they have a deep knowledge of the curriculum, the evidence base which underpins it, and the organisation and delivery of the curriculum across the accredited provider's network.
- **MAT - Multi Academy Trust -** A group of primary/secondary state schools in England funded by Central Government but run as independent schools in partnership with each other.
- **MFL - Modern Foreign Languages -** Languages that are spoken at the present time, such as Spanish, French or German, studied by someone when they are not their own language.
- **NPQ - National Professional Qualification -** NPQs are a range of professional qualifications for teachers and leaders in school to develop their knowledge, skills and behaviours.
- **OFSTED - Office for Standards in Education -** Ofsted inspect schools and other services providing education services to learners of all ages.
- **Pedagogy -** Pedagogy is a term that refers to the way teachers teach, both in practice and in theory.
- **PGCE - Postgraduate Certificate of Education -** The PGCE is an academic award which universities award alongside QTS. In England, this can be either on a traditional university-led teacher training course or school-led teacher training. Only a university can offer this award, as they have degree awarding powers. On our programme we will be working with the University of Nottingham so that our trainees can gain the professional award of PGCE alongside their QTS award.

- **Phase -** Across the UK there are five phases of education: Early Years, Primary, Secondary, Further Education and Higher Education.
- **PPA - Planning, Preparation and Assessment -** PPA time was introduced in 2005 to help ease teachers' workload to plan and prepare lessons and work on assessments for the children they teach. The aim of PPA time is to reduce the number of hours that teachers need to put into planning lessons and marking during evenings and at the weekend. Teachers are entitled to 10% of regular teaching time during the normal working week as PPA.
- **PSHE - Personal, Social and Health Education -** As a subject, PSHE aims to provide children with the knowledge and skills to keep themselves happy, healthy and safe, as well as to prepare them for life and work.
- **QTS - Qualified Teacher Status -** Qualified Teacher Status (QTS) is the qualification legally required to teach in a maintained school or non-maintained special school in England.
- **Safeguarding and Welfare** are the terms that are used in the UK that mean to ensure the safety and wellbeing of all individual people - especially including children and vulnerable adults. All trainee teachers and school staff receive regular training in this area.
- **SCITT - School-Centred Initial Teacher Training -** School-Centred Initial Teacher Training (SCITT) programmes are led by schools or groups of schools that work in close partnership. SWIFT Teacher Training is a SCITT and this means that we are able to confer the award of Qualified Teacher Status (QTS) and that we can train teachers in our schools. We work closely with the University of Nottingham for trainees to also gain a PGCE. A SCITT means that the trainee teacher spends the vast majority of their time within a school setting to be immersed in the environment as they train and learn the profession.
- **SEND - Special Educational Needs and Disabilities -** Children and young people who have special educational needs or disabilities require special educational provision either in mainstream or specialist schools.
- **SENCO - Special Educational Needs Coordinator -** SENCos are members of teaching staff who are responsible for special educational needs within a school.
- **SKE - Subject Knowledge Enhancement -** SKE courses make teaching an accessible and viable career path to a range of graduates. They are designed to bring a candidate's knowledge of a subject up to teaching level.
- **SLT - Senior Leadership Team -** The Senior Leadership Team (SLT) is responsible to the Governing Body for the leadership and management of the school. Each member of the team has specific responsibilities and depending on the size of the school usually includes a Headteacher/Head of School, Deputy Headteacher (s), Assistant Headteachers and a Business Manager/Bursar.
- **STEM - Science, Technology, Engineering and Maths -** STEM refers to any subjects which fall under these four disciplines.
- **TA - Teaching Assistant -** Teaching Assistants support teachers and help children with reading, writing and learning activities.
- **TLR - Teaching and Learning Responsibility -** Classroom teachers who take on additional leadership and management responsibilities could be awarded a TLR payment.