

University of Northampton

Initial Teacher Training

**Subject Knowledge and
Pedagogy Tracker**

***Supporting the development of
creative, dynamic and innovative
teachers***



Developing your subject and pedagogical knowledge and understanding

This document acts as a self-assessment tool to enable you to consider your strengths and areas for development against essential knowledge, skills and understanding which underpin the Early Years Foundation Stage and Primary National Curriculum Programmes of Study. At the start of a programme, all trainees will complete an initial self-assessment that is built upon during training and continues as a live document* during the training year(s).

Developing expertise builds over time and, with the support of University tutors and School-based training Mentors, you will monitor your own needs and progress towards becoming a resilient and reflective learner with growing confidence and competence. The Subject Knowledge and Pedagogy Tracker is a means to enhance your academic and professional practice where some of its expectations focuses on subject knowledge specifically and others have integrated pedagogical knowledge.

EXTRACURRICULAR

English:

	Self-assessment		
	Not secure	Working towards	Secure
Curriculum knowledge			
<p>I am familiar with the work of at least 25 children’s authors and poets.</p> <p>The work of these authors and poets reflects a range of cultures, backgrounds and perspectives.</p>			
<p>I know the key features of fiction genres</p> <p>a. I know the purpose, structure and language features of a range of genres including traditional tales, adventure stories, play scripts etc.</p> <p>b. I can identify good quality fiction texts for use with children.</p>			
<p>I know the key features of poetry:</p> <p>a. I understand the role of language in poetry to entertain, recreate or create an experience.</p> <p>b. I can identify and explain a range of poetic devices such as rhyme, rhythm, onomatopoeia and figurative language such as metaphor and simile.</p>			
Reading including SSP			
<p>I understand the importance of developing a community of readers and encouraging children to read for pleasure.</p>			
<p>I know how schools engage and communicate children’s progress in reading with parents.</p>			
<p>I understand and can explain the two dimensions of the simple view of reading (SVR).</p>			

I understand and correctly use the terminology associated with the teaching of phonics.			
I understand and use the alphabetic code to inform my teaching.			
I understand that grapheme-phoneme correspondences are taught in a clearly defined, incremental sequence.			
I can model decoding (blending phonemes in order, all through a word, to read it).			
I am familiar with the purpose and structure of the Year 1 Phonics Screening Check.			
I recognise the role that decodable texts have in providing opportunities for children to apply and experience success in using their phonic knowledge in reading.			
Writing			
I can create a writing environment in the classroom that takes account of relevance, engagement, motivation and individual children's interests.			
I understand the importance of teaching writing as a process and use appropriate metalanguage within my teaching.			
I know that automaticity in handwriting and confidence/competence in spelling improves compositional skills and demonstrate this in my planning and teaching.			
My personal subject knowledge in grammar and punctuation enables me to plan and teach lessons that explore grammar and punctuation through purposeful reading and writing.			

Geography:

	Self-assessment		
	Not secure	Working towards	Secure
Curriculum Knowledge			
I understand the disciplinary nature of geography and the importance of place, space and scale.			
I understand the difference between human and physical geography, and how they are connected.			
I can locate places using the points of a compass and grid references.			
I understand key features of mountains, volcanoes, earthquakes, rivers and coasts.			
Pedagogical Knowledge			
I understand how geographical understanding is developed through an enquiry-based approach.			
I can use a range of mapping tools to support children's learning.			
I understand how geography can be enhanced by fieldwork and learning outside the classroom.			
I understand how images, books and artefacts can be used as a geographical resource.			
I can explain how children progress and get better at geography.			
I know how to assess geographical skills and understanding.			

Mathematics:

	Self-assessment		
	Not Secure	Working towards	Secure
I understand key concepts relating to numbers and the number system, the principles of counting and place value, and how to use these to support children's development of 'fluency' in mathematics.			
I understand the links between pattern and algebra in the primary phase including the use of algebraic formulae e.g. to describe a number pattern or find solutions to number sentences involving unknowns.			
I understand and can model mental and written calculation methods for addition . This will include the use of key models and images, mental mathematics skills and mathematical vocabulary, leading to formal, columnar methods.			
I understand and can model mental and written calculation methods for subtraction . This will include key models and images, mental mathematics skills and mathematical vocabulary, leading to formal, columnar methods.			
I understand and can model mental and written calculation methods for multiplication . This will include key models and images, mental mathematics skills and mathematical vocabulary, leading to formal, columnar methods.			
I understand and can model mental and written calculation methods for division . This will include key models and images, mental mathematics skills and mathematical vocabulary, leading to formal, columnar methods.			

I understand and can model how to interpret and write fractions and locate them within the number system.			
I understand the concept of equivalence in fractions. I understand and can model calculating fractions of numbers, shapes, objects or sets and carrying out addition, subtraction, multiplication and division of fractions.			
I understand and can model how to solve problems involving ratio and proportion.			
I understand and can model key concepts in geometry such as the naming and properties of 2D and 3D shapes, concepts of angle, symmetry, translation, rotation, nets, area, perimeter and volume.			
I understand and can model key concepts associated with a range of measures (e.g. weight, volume, length, time, temperature) such as non-standard and standard units, analogue and digital time, comparing, ordering and conversion of measures.			
I understand, can model and use key aspects relating to statistics and representation of data: block graphs, bar charts, line graphs, pie charts, Carroll and Venn diagrams, range, mean, median, mode, discrete/continuous data, interpretation of data.			

Science: Chemistry

	Self-assessment		
	Not secure	Working towards	Secure
Key Stage 1			
Uses of everyday materials			
I can support children to compare and group together a variety of everyday materials based on their simple physical properties.			
I can explain how the shapes of solid objects made from some materials can be changed.			
Key Stage 2			
Rocks			
I can compare, and group together different kinds of rocks based on their appearance and physical properties.			
States of matter			
I can compare and group together materials according to whether they are solids, liquids or gases.			
Properties and changes of materials			
I use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.			
Vocabulary			
I can use specific vocabulary and appropriate terminology with precision such as condensation, evaporation, filtering, freezing, insoluble, melting, mixture, non-reversible, properties, reversible, solidifying, soluble and solution.			

Science: Physics

	Self-assessment		
	Not secure	Working towards	Secure
Key Stage 1			
I can explain scientifically the weather associated with the seasons and explain how day length varies.			
Key Stage 2			
Light			
I can explain that shadows are formed when the light from a light source is blocked by an opaque object.			
Forces and Magnetism			
I can support the children to understand the importance of gravity on Earth.			
I can explain how magnets attract or repel each other and attract some materials and not others.			
Earth and space			
I can explain the movement of the Earth, and other planets, relative to the Sun in the solar system.			
I can explain the movement of the Moon relative to the Earth and how this gives the phases of the Moon.			
Vocabulary			
I use specific vocabulary and appropriate terminology with precision such as air resistance, attraction, conductor, friction, gravity, insulator, Newtons (N), opaque, orbit, pitch, repulsion, sphere, translucent, transparent, vibration, voltage, volume and water resistance.			

Science: Biology

	Self-assessment		
	Not secure	Working towards	Secure
I can analyse a variety of common wild and garden plants, including deciduous and evergreen trees.			
I understand the basic structure of a variety of common flowering plants, including trees.			
I can explain why plants need water, light and a suitable temperature to grow and stay healthy.			
I understand that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.			
I can explain how animals obtain their food from plants and other animals.			
I can classify with reasons a variety of animals including fish, amphibians, reptiles, birds and mammals.			
I understand the significance of carnivores, herbivores and omnivores.			
I can explain the importance of exercise, healthy diet and hygiene for humans.			
I can explain the functions of different parts of flowering plants.			
I can explain the requirements of plants for life and growth (air, light, water, nutrients from soil and room to grow) and how they vary from plant to plant.			