A close up of a sign

Description automatically generated

PGCE Secondary School Direct

Mathematics Handbook 2022-23

In partnership with:

|  |  |  |  |
| --- | --- | --- | --- |
| **C:\Users\k.parker\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\F10A68AF.tmp** |  |  | **C:\Users\k.parker\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\B643DA85.tmp** |
|  | | | |

***YSJ ITE Partnership: Children and young people at the centre of our learning community since 1841***

# Contents

[Contents 2](#_Toc109651810)

[1. York St John University Partnership Mission, Vision and Values 3](#_Toc109651811)

[2. PGCE Secondary Mathematics: Vision and Intent 4](#_Toc109651812)

[3. PGCE Secondary School Direct - Rationale, Aims and Overview 5](#_Toc109651813)

[4. Overview of Maths Provision 8](https://yorksj-my.sharepoint.com/personal/r_matthewson_yorksj_ac_uk/Documents/YSJ%20work/PGCE%20assist/Planning%202022%2023/Final%20documentation/Subject%20handbooks/PGCE-Secondary-School-Direct-Mathematics-Handbook-2022%2023.docx#_Toc109651814)

[5. PGCE Secondary Mathematics - Programme Overview 2022-23 - Introduction 9](#_Toc109651815)

[5.1 Useful information 10](#_Toc109651816)

[6. Core Programme Outline 11](#_Toc109651817)

[7. 7.1 Subject knowledge development - SKA 51](#_Toc109651818)

[7.1 Subject knowledge days 53](#_Toc109651819)

[8. Mathematics Subject Specific School Based Tasks 65](#_Toc109651820)

[9. Physical Education Subject Specific School Based Tasks 66](#_Toc109651821)

[10. School Based Tasks for School Experiences - compulsory 69](#_Toc109651822)

[(supporting SE formative assessment continuum) 69](#_Toc109651823)

[10.1 Behaviour and High Expectations 69](#_Toc109651824)

[10.2 Pedagogy 70](#_Toc109651825)

[10.3 Curriculum 71](#_Toc109651826)

[10.4 Assessment 72](#_Toc109651827)

[10.5 Professional Behaviours 73](#_Toc109651828)

[11. Mathematics Reading & Resource List 74](#_Toc109651829)

[12. Professional Studies/General Reading and Resources 78](#_Toc109651830)

[13. Mathematics subject specialist staff at YSJ 81](#_Toc109651831)

# York St John University Partnership Mission, Vision and Values

Mission Statement:

York St John University’s heritage is anchored in teacher training and education. YSJ established in 1841, developing as a teacher training college and later a university and has a successful history of working in partnership with schools to educate and train outstanding student teachers for the benefit of children and young people in our schools. Hence our mission statement is as follows:

***YSJ ITE Partnership: Children and young people at the centre of our learning community since 1841***

Vision and Values:

Partnership is at the heart of our provision with a strong commitment from the university and schools to work together to educate and train future teachers. The YSJ ITE partnership is driven by a strong belief that teaching is a challenging, complex, intellectual and ethical endeavour. The partnership recognises the civic duty involved in developing teachers to fulfil a fundamental need in society for our children and young people to have access to high quality education. The profession requires teachers who are committed to the education of children and young people to ensure they acquire the knowledge, understanding and skills needed to develop and achieve their ambitions and improve their life chances. We believe that the lives can be transformed through education. Hence, it is crucial that student teachers receive high quality initial teacher education that is underpinned by quality research and evidence. The partnership is committed to developing student teachers who are:

* competent and confident professionals who learn that intellectual endeavour, criticality, and personal reflection are key to developing outstanding teaching practice.
* epistemic agents who act as independent thinkers, searching and critiquing a wide range of theories and research that can underpin, challenge or illuminate their practice.
* able to engage in enquiry-rich practice and are intellectually curious about their work in order to be innovative, creative and receptive to new ideas.
* responsible professionals who embody high standards of professional ethics, acting with integrity and recognising the social responsibilities of education to create a more social just world

# PGCE Secondary Mathematics: Vision and Intent

**Vision**

At YSJU we aim to inspire student and early career teachers to have the confidence and competence to excel at teaching mathematical concepts, skills, and processes; to be champions for the subject; and to become future STEM ambassadors and leaders. Within strong partnerships, we develop reflective practitioners, who understand the principles and theory underpinning a mastery mathematics curriculum and can apply this in practice across a range of settings and age groups, achieving progression for ***all*** pupils in subject content and broader mathematical thinking skills.

Our commitment is to provide empowering and safe learning communities and environments in which student teachers can challenge themselves to reconnect with the subject of mathematics, irrespective of previous learned attitudes and beliefs about the subject. We aim to develop teachers of mathematics who are committed to providing consistently high-quality mathematics education for all pupils.

**Intent**

We intend that our secondary student and early career teachers are able to inspire learners, develop their curiosity in mathematics, promote independent thinking and be problem-solvers, finding solutions to real-world challenges. The mathematics curriculum at YSJU aims to support our students to excite children, promote a love of learning whilst encouraging responsibility and creativity. Our students develop as reflective practitioners, working with children on dynamic activities in placement schools and beyond. Through their research-informed practice, with children from a range of groups and settings, our students enable all to make progress in maths and develop.

Secondary mathematics student teachers learn the elements of the curricula content, across key stages 3, 4 and 5. They are encouraged to join mathematics subject associations for their continued professional development, make links with other maths teachers and have access to a wide variety of resources.

The mathematics training programmes are designed to ensure that all student teachers:

* have a secure knowledge of effective age-appropriate pedagogy (including topic-specific pedagogy) and strategies for the teaching and assessment of mathematics and can apply these in the classroom;
* can plan independently;
* can understand published schemes/resources and how these could support the core principles of mastery in mathematics;
* are able to foster a culture of curiosity in the classroom and show belief that all children can achieve highly, impacting on progress for all children through adaptive teaching and questioning;
* can provide a rationale for their choice of manipulative or representation and can demonstrate how they have impacted on progress in lessons, leading to increased independence;
* can develop children’s conceptual and procedural understanding in their class setting using intelligent practice as the basis of promoting depth and breadth of understanding;
* become an informed teacher of mathematical thinking skills, promoting metacognition, perseverance/growth mindset and self-regulation though their teaching;
* have secure subject, curriculum and pedagogical knowledge across all subject domains and continually strive to further this knowledge.

|  |  |
| --- | --- |
| PGCE Secondary School Direct - Rationale, Aims and Overview | |
| Rationale for Programme | The PGCE secondary school direct programme has been written in collaboration with school partners to reflect the attributes, skills and knowledge needed to be an effective teacher in today’s schools. The programme not only considers the current national priorities within education but is enriched to ensure that our student teachers meet the educational needs of pupils within the social context and geographical area in which they are trained.  The PGCE secondary school direct programme is a truly collaborative model and is strategically driven and delivered by dedicated members of York St John University and our partnership schools. Collectively we plan, monitor and review the programme for each subject area to ensure our student teachers are responsible and committed professionals who recognise the social responsibilities of education.  Our student teachers begin the programme with differing levels of experience, some previously working as teaching assistants, other are less experienced. However, the partnership model offered on the school direct programme provides targeted support and challenge, regardless of starting point and through the support of a range of staff - academic tutors, link tutors, subject specific mentors, professional mentors, alliance leads and programme lead - our student teachers develop into competent, confident and critically reflective professionals who are both classroom ready and able to meet the rigour of the secondary school subject they are trained in, and beyond. |
| Aims of the Programme | The key aim of the PGCE secondary programme is to deliver a high quality current and relevant programme of education and training that equips student teachers with the professional knowledge, understanding, skills and attributes that they need to become outstanding teachers and leaders in our local and national secondary schools.  Working in partnership with schools, the programme aims to:   * Provide a broad and enriching curriculum that incorporates the Core Content Framework and the YSJ Themes and enables students to meet statutory requirements by the end of their programme * Develop high academic and professional standards for new teachers entering the profession underpinned by the development of ‘principle-based’ values * Support student teachers in developing their own personal teaching philosophy and identity as a teacher with a commitment to critical reflective practice * Integrate theory and practice throughout the programme to support professional learning, subject knowledge and pedagogy * Promote the intellectual and professional development of student teachers through engagement with current research and policy in teaching and wider education * Develop student teachers as independent researchers who are able to critically engage and influence their professional community * Enable student teachers to become skilled, creative, reflective and transformative professionals equipped to take responsibility for the progress of all children and young people * Provide a high-quality experience of Initial Teacher Education within the partnership that fosters retention and a commitment to on-going professional development |
| Induction | Student teachers receive a structured and detailed induction period which begins before the programme commences. Student teachers are offered opportunities through remote and face-to-face training to audit and develop subject knowledge, engage in critical reading and writing activities and begin to understand the importance of safeguarding. They complete a piece of academic writing prior to the start of the course to support their academic writing needs if required. Further targeted induction support is offered once the programme has begun and all student teachers engage in induction tasks that support their understanding of key priorities, for example, behaviour management and assessment. From the very beginning of the programme, our student teachers are offered opportunities to obverse experienced colleagues and reflect on the practice they see. Student teachers also undertake a comprehensive induction within schools through their Alliance leads and professional mentors alongside their mentors. |
| Design of the Programme | The PGCE secondary school direct programme has been carefully designed in partnership with all Alliances to provide a sequenced and progressive model of training that draws upon expertise in both university and school staff. Our secondary curriculum goes beyond statutory requirements and provides training opportunities that are both driven by up-to-date research, school policy and our unique YSJ themes. Student teachers undertake both subject specific sessions and professional sessions throughout the year to develop their knowledge and understanding. Our aim is to develop secure subject knowledge and subject specific pedagogy throughout the programme to support the confidence and competence of our student teachers. Our programme has been designed to facilitate the development of personal teaching philosophy. Many key concepts are returned to throughout the training to support confidence and deepen understanding. Due to the school-based structure of the programme student teachers then have the opportunity to apply and receive feedback on that new knowledge instantly before reflecting on their own practice. |
| Design of School Experience | School experience and assessed placements are designed to ensure our student teachers have opportunities to apply training in a progressive and sequenced manner. University and school-based training has been designed to support early development and confidence is built through the expectation of reflective observation and use of formative mentor feedback. Student teachers are encouraged to share with mentors their university session content to ensure this training can be applied within the student teacher’s practice and mentors are able to offer feedback that is relevant and appropriate to the student teacher’s developmental stage.  The school experience model ensures compliance and offers our student teachers the opportunity to capitalise on early success within the final school placement. A progressive model of expectations is communicated to both mentors and student teachers through the use of the School Experience Formative Assessment Continuum and this is used as a diagnostic tool to support self-reflection and target setting. As additional support in meeting the expectations of the School Experience Formative Assessment Continuum student teachers have a number of school-based tasks and subject specific based tasks to complete during their time in school. |
| Key Assessment Points | Review points are placed at the midpoint and final week of all assessed placements. However, formative assessment is ongoing throughout the programme through the use of weekly progress meetings, target setting and use of the School Experience Formative Assessment Continuum. Progress towards the Teachers’ Standards is evaluated during the final placement and these are used as a summative assessment mechanism at the end of the programme. Academic assessments underpin school experience and offer student teachers the opportunity to critically reflect on their own practice and also engage in research. Review points are scrutinized by alliance leads and the programme lead, and with input from the school mentor support is tailored to those students who require additional input via the use of intervention logs and action plans. |
| Formative and Summative Student Teacher Assessment | Our student teachers are assessed against curriculum expectations and using the School Experience Formative Assessment Continuum as guidance to inform assessment and target setting. Targets are reviewed on a weekly basis to ensure that progression is maintained and needs can be identified. This process also ensures that intervention can be swiftly implemented and the impact monitored. All placements are quality assured by alliance leads and university link tutors to ensure that mentor judgements are secure. This process enables programme staff to identify mentor training needs and supports summative end of programme judgements. |
| Support | Student teachers are supported throughout the programme by university and school staff. Each student is supported by a personal academic tutor who offers pastoral as well as robust academic support. An additional research tutor, whose role is to support the research assessment, is also available for regular support. Our student teachers are supported in school by trained subject mentors as well as the school professional mentor. Each student also has access to an alliance lead whose role is to oversee school-based training and offer pastoral support. The alliance leads work closely with university tutors and the programme lead to ensure the support offered is cohesive. The student teacher also has access to all of the other support systems in place from the University such as academic support and wellbeing. As an additional measure of support our student teachers receive a weekly ‘keeping in touch’ email from the programme lead to reinforce key programme information and support effective communication about the programme expectations. Alliance leads are copied into these emails to further enhance communication and consistency. |
| Transition to ECT | Student teachers are fully prepared for the rigorous expectations of the Early Career Framework and transition training is delivered towards the end of the programme. The transition between ITE and Early Career Teacher (ECT) is communicated through the use of the Career Entry Development Profile where ECT targets are identified and end of programme reflections set expectations for the beginning of the ECT period. Student teachers are provided with ongoing ECT support via our ECT lead with a calendar of events and remote resources. |



# 4. Overview of Maths Provision

# PGCE Secondary Mathematics - Programme Overview 2022-23 - Introduction

**Programme Design** The programme is jointly designed by the partnership and is reviewed and developed each year in response to feedback from a variety of groups. This includes student feedback and is in many forms: within sessions, informal and formal surveys and student representative meetings. Annually, external examiners critically engage with all aspects of the programme and suggest areas for improvement. As a partnership team we analyse outcomes and consider areas for developing linked to national priorities.

Core principles and values underpin the design of the programme and the curriculum reflects the YSJ key themes and ITT Core Content Framework (DfE:2020) as indicated in the diagram below. The programme reflects the ‘Learn that…..’ and ‘Learn how to……’ statements outlined in the Core Content Framework (CCF) and draws on research -led evidence and statements from the framework. This mirrors what you will encounter in your first year as a teacher in the Early Career Framework and will support your transition.

**Expectations**

This is a professional programme and the expectation is that you will engage with all elements of the sessions, including the prior reading and preparation tasks. The curriculum supports the integration of analysis and critique of theory; research and expert practice within programmes is key to high quality training and education. Great teaching is underpinned by evidence and it is crucial that you view the programme in a holistic way rather than as two separate experiences of university and school.

![Chart

Description automatically generated]()

## 5.1 Useful information

**A reminder of key induction communication (sent pre-programme)**

This communication and any tasks set will be built upon through the programme. You will need to make sure that all the tasks are completed as we will be referring to them in sessions.

|  |  |
| --- | --- |
| * Introduction to KIT emails and calendars * Reading lists and staff introductions * Subject knowledge audits made available * Online introductory session * Critical reading | * Online research workshop * Critical writing workshop * Handbooks made available * Online training sent out * Live group session |

**Glossary of key terminology used throughout the programme:**

|  |  |
| --- | --- |
| **Programme Lead –** YSJ contact who has overall responsibility for the programme  **Alliance Lead** – Key contact for your alliance.  **Subject mentor** – Expert colleague in school who will mentor you on your school placement.  **Link tutor** – Expert staff in university who quality assures and liaises with the school mentor.  **Subject tutor** – Expert staff in university who lead the subject knowledge days etc.  **SKA** – Subject knowledge audit | **PP** – Pupil premium  **MH** – Mental health  **SEND** – Special educational needs and disability. Also referred to as additional needs.  **EAL** – English as an additional language  **KS** – Key stage  **TS** – Teachers’ standards  **CCF** – Core Content Framework |

**Primary school experience:** During the programme you will undertake a primary school experience organised by your alliance.

The purpose of a primary school experience is to:

1. Critically analyse and synthesise theory and practice relating to transition

2. Demonstrate an understanding of the influences which may impact upon pupils in your subject as they transition from KS2 to KS3

3. Critically evaluate and reflect on the primary experience in order to understand the foundations for teaching and learning that is provided by KS2

It will also help you understand:

Progression and transition within subject area

Phonics and strategies for early reading/literacy

## 6. Core Programme Outline

You will engage in a range of learning opportunities during your time on the programme. This will include direct teaching from expert colleagues. Attendance to all workshops, sessions and training is compulsory but this is only part of how you will learn to become a teacher. There will be focussed readings, tasks to carry out in school when you aren’t teaching, independent writing and reflections on your experiences. These will help you build upon your learning and consolidate your understanding. You will then be expected to demonstrate how you are applying this theory to your practice in the classroom and the wider school. To support this, additional follow-up activities have been identified.

The schedule below is the overview of the taught curriculum so you can note what will be included each week. Additional sessions may be added/adapted as necessity arises so that your programme is as current as possible and reflects the changing landscape of secondary education. Your alliance will provide you with details about their curriculum.

Some sessions are likely to change because your programme needs to be flexible enough to respond to educational initiatives.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date/**  **Room** | **Staff** | **Focus for Session** | **Student teachers will learn that…** | **Links to CCF and YSJ curriculum** | **Theoretical Perspective**  Reading, Preparation & SOL | **Student teachers will learn how to…**  How you can learn from sessions and work with expert colleagues to apply in the classroom |
| Mon  5/9  10-11  SK128 | RM  JC | PGC7008M  Welcome  Introduction to programme documentation | Effective professional development is likely to be sustained over time, involve expert support or coaching and opportunities for collaboration.  Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement. | **Professional behaviours**  Being a professional  Relationships and partnership | Ensure tasks detailed on the YSJ Blog have been completed <https://blog.yorksj.ac.uk/ite/induction/> | Consider how placement can support you in receiving clear, consistent and effective mentoring in how to engage in professional development with clear intentions for impact on pupil outcomes, sustained over time with built-in opportunities for practice.  Receive clear, consistent and effective mentoring on the duties relating to Part 2 of the Teachers’ Standards. |
| 11-12  FT | RM  JC | PGC7007/8M  Benefits of Union membership  The Chartered College | There is a wider support network  Additional resources and courses available to you. | **Professional behaviours**  Being a professional | Read more about the unions here:  [https://neu.org.uk](https://neu.org.uk/)    [https://www.nasuwt.org.uk](https://www.nasuwt.org.uk/)  https://chartered.college/ | Access wider support if needed.  Access additional courses |
| 1-2  SK128 | RM | PGC7007/8M  Members of the team  Moodle, modules and assessment | A culture of mutual trust and respect supports effective relationships.  High-quality teaching has a long-term positive effect on pupils’ life chances, particularly for children from disadvantaged backgrounds. | **High Expectations**  Being a professional  Research engaged | Ensure you have logged on to Moodle and have begun to familiarise yourselves with the course pages. | Critically reflect on your own academic development through engaging with academic reading and responding to feedback.  Create a positive environment where making mistakes and learning from them and the need for effort and perseverance are part of the daily routine. |
| 2-3  SK128 | BR | PGC7007/8M  The role of the mentee  Expectations and building relationships | Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement.  Engaging in high-quality professional development can help teachers improve. | **Behaviour and expectations**  **High Expectations**  Being a professional  Relationships and partnership | List any questions that you have about expectations of you on placement and bring to this session.  Chapter 1  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_302) | Engage in professional development with clear intentions for impact on pupil outcomes, sustained over time with built-in opportunities for practice.  Receive clear, consistent and effective mentoring on the duties relating to Part 2 of the Teachers’ Standards. |
| 3-4  SK128 | RM | Team building | YSJ campus facilities both effective learning and social opportunities | Relationships and partnership | Get to know other trainees in your subject area and Alliance. | Navigate round the campus and to access key student services. |
| 4-5  SK128 | ES | Widening participation and independent study | There are additional opportunities to support students | Relationships and partnership | Consider before the session whether you have any particular questions about the support, facilities and opportunities we can offer. | Manage time effectively and access student services. |
| Tue  6/9  9-10.30  SK128 | RM | Aims and purpose of Education | The purpose of education has evolved over time  Education is influenced by social, historical, political and cultural factors that change over time | **Curriculum**  Personal teaching philosophy | Read chapter 7.1 and 7.2  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site) | Evaluate the wider significance of influence on education and policy. |
| 10.30-12  SK128 | JC | Our evolving education system | A school’s curriculum enables it to set out its vision for the knowledge, skills and values that its pupils will learn, encompassing the national curriculum within a coherent wider vision for successful learning. | **Curriculum**  Critical reflection | As above. | Consider how the current National Curriculum will impact on your practice. |
| 1-2.30  SK128 | RM | Personal values impact on your educational rationale | Individual experiences, backgrounds and beliefs will influence your personal and professional values. | **Professional behaviours**  Personal teaching philosophy | Read:  [Brooks, V, Abbott, I, & Huddleston, P 2012, Preparing To Teach In Secondary Schools : A Student Teacher's Guide To Professional Issues In Secondary Education, McGraw-Hill Education, Maidenhead.](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=990488&ppg=31) | Observe and respect other people's values and to consider how your own are reflected in practice. |
| 2.30-3.30  SK128 | RM | Handbooks and documentation | Walk through of all key documentation and where to access it. | **Professional behaviours**  Being a professional | https://blog.yorksj.ac.uk/ite/pgce-secondary-education/ | Access documentation and read through to ensure understanding. |
| 3.30-5  TBC | BR  Digital Team  IT room | PGC7008M  Introduction to online systems – E.g. Moodle, Pebblepad, | Pebble pad is useful online platform used to reflect, record and monitor progress.  Reflection is a key part of development. | Being a professional  Personal teaching philosophy | Read about the key reflective practice theorists:  <http://edshare.soton.ac.uk/11124/1/index.htm> | Use pebble pad effectively to submit weekly mandatory documentation. |
| Wed  7/9 |  | School based  Induction day |  |  |  |  |
| Thurs  8/9  9-11  SK128 | JC | PGC7008M  Critical Writing - Introduction to Masters level writing. | Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement.  Engaging with high-quality professional reading can help teachers improve. | **Assessment**  Professional behaviour  Research engaged | Make notes on critical thinking: Fisher, A. (2011) Critical Thinking – second edition – [You can access this text here](https://books.google.co.uk/books?hl=en&lr=&id=wMhBQ0WdjF4C&oi=fnd&pg=PR1&dq=critical+thinking&ots=q2auvzTQLS&sig=PRtDd7YmMIPLVU_t1Tu53cUB-H0&redir_esc=y) | Evaluate the impact of research on practice. |
| 11-12  SK128 | CMD | PGC7007M  Library | The library is a valuable resource to support your academic writing  There is a wide range of books, articles and policies available to support subject knowledge and professional development. | **Curriculum**  Research engaged | Look at the library website and familiarise yourself with key areas.  <https://www.yorksj.ac.uk/students/library/>  Look through your reading lists and identify essential texts to read. | Access s a wide range of books, articles and policies to support subject knowledge and professional development. |
| 1-5pm  SK  128  (last hr. IT room TBC) | RM | Understanding the importance of safeguarding within schools  Complete online safeguarding modules | SENCOs, pastoral leaders, careers advisors and other specialist colleagues also have valuable expertise and can ensure that appropriate support is in place for pupils.  Building effective relationships with parents, carers and families can improve pupils’ motivation, behaviour and academic success | **Professional behaviours**  Being a professional  Relationships and partnership | Read the 2022 DfE document  [‘Keeping Children Safe in Education’](https://www.gov.uk/government/publications/keeping-children-safe-in-education--2)  Access ‘Preventing and Tackling Bullying’  [Access ‘Preventing and Tackling Bullying’](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1069688/Preventing_and_tackling_bullying_advice.pdf)  Here you can read about FGM  [FGM information](https://www.who.int/news-room/fact-sheets/detail/female-genital-mutilation) | Know who to contact with any safeguarding concerns and have a clear understanding of what sorts of behaviour, disclosures and incidents to report. |
| Fri  9/9  9-10.30  SK128 | JC | Effective observations in school | Reflecting practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement.  Engaging in high-quality professional development can help teachers improve. | **Professional behaviours**  Relationships and partnership  Being a professional | Read Chapter 1 and 2  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_302) | Discuss and analyse with expert colleagues how experienced colleagues seek ways to support classes and individual pupils.  . |
| 10.30-12  SK128 | BR | Managing workload | Personal systems and routines can support highly efficient time and task management.  Working with colleagues to identify efficient approaches to assessment is important; assessment can become onerous and have a disproportionate impact on workload. | **Professional behaviours**  Being a professional | Gibson, S., Oliver, L. and Dennison, M. (2015) *Workload Challenge: Analysis of teacher consultation responses*. Department for Education. Accessible from: <https://www.gov.uk/government/publications/workload-challenge-analysis-of-teacher-responses>  Chapter 1.3  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_302) | Observe how expert colleagues manage time effectively.  Make marking manageable and effective by recording data only when it is useful for improving pupil outcomes; recognise that written marking is only one form of feedback; and identifying efficient approaches to marking and alternative approaches to providing feedback. |
| 1-3  SK128 | BR | PGC7008M  E-safety | Cyber bullying awareness and e safety in school are crucial safeguarding elements | Being a professional  Relationships and partnership | Engage with the following links  <https://nationalonlinesafety.com/guides>  [Teaching online safety](https://www.gov.uk/government/publications/teaching-online-safety-in-schools)  <https://learning.nspcc.org.uk/research-resources/schools/e-safety-for-schools> | Know who to contact with any safeguarding concerns and have a clear understanding of what sorts of behaviour, disclosures and incidents to report. |
| 3-5pm  SK128 | ST  HB | Pupils and staff mental health awareness | Teachers have the ability to affect and improve the wellbeing, motivation and behaviour of their pupils.  Adapting teaching in a responsive way, including by providing targeted support to pupils who are struggling, is likely to increase pupil success. | **Professional behaviours**  Being a professional  Relationships and partnership | Access guide to CAMHS and understand how this service supports pupils, parents and carers.  <https://youngminds.org.uk/find-help/your-guide-to-support/guide-to-camhs/>  Chapter 4  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_302) | Develop an understanding of different pupil needs, by receiving clear, consistent and effective mentoring in supporting pupils with a range of additional needs.  Work closely with the Special Educational Needs Co-ordinator (SENCO) and special education professionals and the Designated Safeguarding Lead (DSL) under supervision of expert colleagues.  Review wellbeing servicers offered by York St John and understand how these services can support your own mental health.  <https://www.yorksj.ac.uk/student-services/health-and-wellbeing-/> |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Staff** | **Focus for Session** | **Student teachers will learn that…** | **Links to CCF and YSJ curriculum** | **Theoretical Perspective**  Reading, Preparation & SOL | **Student teachers will learn how to…**  How you can learn from sessions and work with expert colleagues to apply in the classroom |
| Mon  12/9  9-10  SK128 | JC | Critical writing – An introduction to assignment 1 | Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement.  Engaging in high-quality professional research and reading can help teachers improve. | **Assessment**  Professional behaviour  Research engaged | McPeck, J. (2016) Critical Thinking and Education – [you can preview the first three chapters of this text here](https://books.google.co.uk/books?hl=en&lr=&id=E1IPDQAAQBAJ&oi=fnd&pg=PT8&dq=critical+thinking&ots=87m-s9z_Jz&sig=D3Wn8ZUhI-ab5t6dh_I2Ke3YJqk&redir_esc=y)  Chapter 5  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_302)  Read though the assessment handbook | Evaluate the impact of research on practice. |
| 10-12  SK128 | KB | Learning theories – traditional | Learning involves a lasting change in pupils’ capabilities or understanding.  Prior knowledge plays an important role in how pupils learn; committing some key facts to their long-term memory is likely to help pupils learn more complex ideas.  An important factor in learning is memory, which can be thought of as comprising two elements: working memory and long-term memory. | **Pedagogy**  Research engaged | Reading list focus  Brooks et al chapter 2.4  Capel et al chapter 5.1  Ellis chapter 4  Hoult chapter 2  Pollard chapter 7  Aubey and Riley  Deans for Impact (2015) The Science of Learning [Online] Accessible from:  <https://deansforimpact.org/resources/the-science-of-learning/> | Avoid overloading working memory, by considering pupils’ prior knowledge when planning how much new information to introduce.  Build on pupils’ prior knowledge, by sequencing lessons so that pupils secure foundational knowledge before encountering more complex content. |
| 1-3  SK128 | KB | Learning theories – contemporary | As above | **As above** | As above | As above |
| 3-5  SK128 | DS | Phonics | To access the curriculum, early literacy provides fundamental knowledge; reading comprises two elements: word reading and language comprehension; systematic synthetic phonics is the most effective approach for teaching pupils to decode.  Every teacher can improve pupils’ literacy, including by explicitly teaching reading, writing and oral language skills specific to individual disciplines. | **Pedagogy**  **Curriculum**  Research engaged | <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/190599/Letters_and_Sounds_-_DFES-00281-2007.pdf> | Demonstrate a clear understanding of systematic synthetic phonics, particularly if teaching early reading and spelling, and deconstructing this approach.  Support pupils to become fluent readers and to write fluently and legibly. |
| Tues  13/9  9-11  SK128 | RM | Principles of instruction | Effective teachers introduce new material in steps, explicitly linking new ideas to what has been previously studied and learned.  Modelling helps pupils understand new processes and ideas; good models make abstract ideas concrete and accessible. | **Pedagogy**  Research engaged  Being a professional | Rosenshine, B. (2012) Principles of Instruction: Research-based strategies that all teachers should know. American Educator, 12–20. <https://www.aft.org//sites/default/files/periodicals/Rosenshine.pdf> | Break tasks down into constituent components when first setting up independent practice.  Use modelling, explanations and scaffolds, acknowledging that novices need more structure early in a domain. |
| 11-12  SK128 | JC | Introduction to subject knowledge audits | Secure subject knowledge helps teachers to motivate pupils and teach effectively. | **Curriculum**  Being a professional | Ensure you have accessed and completed your SKA on Moodle before this session. | Identify own areas for development and how to address these. |
| 1-2  SK128 | BR | Introduction to planning – long, medium and short term | Effective teaching can transform pupils’ knowledge, capabilities and beliefs about learning.  Guides, scaffolds and worked examples can help pupils apply new ideas, but should be gradually removed as pupil expertise increases  Pupils are likely to learn at different rates and to require different levels and types of support from teachers to succeed  Regular purposeful practice of what has previously been taught can help consolidate material and help pupils remember what they have learned. | **Curriculum**  **Assessment**  **Pedagogy**  Being a professional | Read Ch 10  [Pollard, A, Black-Hawkins, K, Cliff, HG, Dudley, P, James, M, Linklater, H, Swaffield, S, Swann, M, Turner, F, & Warwick, P 2014, Reflective Teaching in Schools, Bloomsbury Publishing, New York.](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=1630373&ppg=312)  Muijs, D., & Reynolds, D. (2017) Effective teaching: Evidence and practice. Thousand Oaks, CA: Sage    Watch the video on Moodle from a previous student about how to approach lesson planning as a student teacher. | Plan effective lessons, by breaking tasks down into constituent components when first setting up independent practice (e.g. using tasks that scaffold pupils through meta-cognitive and procedural processes) and deconstructing this approach. |
| 2-4  SK128 | BR | Lesson objectives and success criteria | Ensuring pupils master foundational concepts and knowledge before moving on is likely to build pupils’ confidence and help them succeed.  Explicitly teaching pupils the knowledge and skills they need to succeed within particular subject areas is beneficial. | **Curriculum**  **Assessment**  **Pedagogy**  Being a professional | Watch the following clip. How does it add to the debate about the efficacy of lesson objectives?  <http://joe-bower.blogspot.com/2011/10/stop-writing-objectives-on-board.html> | Identify essential concepts, knowledge, skills and principles of the subject.  Ensure pupils’ thinking is focused on key ideas within the subject.  Articulate the process for arriving at current curriculum choices and how the school’s curriculum materials inform lesson preparation. |
| 4-5  SK128 | KB | Introduction to motivation - intrinsic and extrinsic | Teachers have the ability to affect and improve the wellbeing, motivation and behaviour of their pupils.  Pupils are motivated by intrinsic factors (related to their identity and values) and extrinsic factors (related to reward).  Pupils’ investment in learning is also driven by their prior experiences and perceptions of success and failure. | **Behaviour and expectations**  Relationships and partnerships | [Ursache, A., Blair, C., & Raver, C. C. (2012) The promotion of self‐regulation as a means of enhancing school readiness and early achievement in children at risk for school failure. Child Development Perspectives, 6(2), 122-128.](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2012-13095-003&site=eds-live&scope=site) | Support pupils to master challenging content, which builds towards long-term goals and deconstructing this approach.  Provide opportunities for pupils to articulate their long-term goals and help them to see how these are related to their success in school. |
| Wed  14/9  9-4  See Room Info | YSJ staff | Subject session 1-4 |  | **Assessment**  **Curriculum**  **Pedagogy**  Research engaged  Creative and critical thinking |  |  |
| 4-5 |  | Independent study |  |  |  | Subject based tasks to complete and reflect upon through the weekly reflection page on pebblepad. Discuss these tasks with your school mentor and how they will support your subject knowledge. |
| Thur  15/9 |  | School based induction day |  |  |  |  |
| Fri  16/9  9-12  SK128 | JC | PGC7008M  Behaviour management and the learning environment | Establishing and reinforcing routines, including through positive reinforcement, can help create an effective learning environment.  A predictable and secure environment benefits all pupils but is particularly valuable for pupils with special educational needs.  Building effective relationships is easier when pupils believe that their feelings will be considered and understood.  Setting clear expectations can help communicate shared values that improve classroom and school culture.  A culture of mutual trust and respect supports effective relationships. | **Behaviour and expectations**  **Pedagogy**  Research engaged  Personal teaching philosophy | Read Ch 1:  [Porter, L. (2014) Behaviour in Schools: Theory and Practice for Teachers. McGraw-Hill Education, Maidenhead.](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=6212071&ppg=8)  Chapter 3  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledg](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_141) | Respond quickly to any behaviour or bullying that threatens emotional safety.  Establish a supportive and inclusive environment with a predictable system of reward and sanction in the classroom.  Work alongside colleagues as part of a wider system of behaviour management (e.g. recognising responsibilities and understanding the right to assistance and training from senior colleagues).  Give manageable, specific and sequential instructions; check pupils’ understanding of instructions before a task begins; use consistent language and non-verbal signals for common classroom directions.  Use early and least-intrusive interventions as an initial response to low level disruption.  Establish routines, both in classrooms and around the school. |
| 1-3  SK128 | BR | Self-efficacy & resilience models | Teachers can influence pupils’ resilience and beliefs about their ability to succeed, by ensuring all pupils have the opportunity to experience meaningful success.  Building effective relationships is easier when pupils believe that their feelings will be considered and understood.  The ability to self-regulate one’s emotions affects pupils’ ability to learn, success in school and future lives. | **Pedagogy**  **Professional behaviours**  Research engaged  Relationships and partnerships | [Watch this Ted Talk](https://youtu.be/agwsjYg9hJ8) on self-efficacy.  https://www.simplypsychology.org/self-efficacy.html | Use early and least-intrusive interventions as an initial response.  Respond quickly to any behaviour or bullying that threatens emotional safety. |
| 3-5  SK128 | JC | Climate for learning – creating classroom presence | Teachers are key role models, who can influence the attitudes, values and behaviours of their pupils.  Teacher expectations can affect pupil outcomes; setting goals that challenge and stretch pupils is essential. | **Pedagogy**  Research engaged  Being a professional | Read 3.1, 3.2 and 3.3:  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_141) | Use intentional and consistent language that promotes challenge and aspiration.  Create a positive environment, where making mistakes and learning from them and the need for effort and perseverance are part of the daily routine. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Staff** | **Focus for Session** | **Student teachers will learn that…** | **Links to CCF and YSJ curriculum** | **Theoretical Perspective**  Reading, Preparation & SOL | **Student teachers will learn how to…**  How you can learn from sessions and work with expert colleagues to apply in the classroom |
| Wed  21/9  1-2  SK128 | JC | Revisiting and reflecting on observations in schools | Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement.  Engaging in high-quality professional development can help teachers improve. | **Professional behaviours**  Relationships and partnership  Being a professional | Revisit your notes on Unit 1:  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_302) | Seek ways to support classes and individual pupils. |
| 2-4  DG124 | KB | PGC7007M  Introduction to memory and cognitive load | Working memory is where information that is being actively processed is held, but its capacity is limited and can be overloaded.  Long-term memory can be considered as a store of knowledge that changes as pupils learn by integrating new ideas with existing knowledge.  Requiring pupils to retrieve information from memory, and spacing practice so that pupils revisit ideas after a gap are also likely to strengthen recall. | **Pedagogy**  **Curriculum**  Research engaged | [Kirschner, P., Sweller, J., Kirschner, F. & Zambrano, J. (2018) From cognitive load theory to collaborative cognitive load theory. In International Journal of Computer-Supported Collaborative Learning, 13(2), 213-233.](https://www.researchgate.net/publication/324757820_From_Cognitive_Load_Theory_to_Collaborative_Cognitive_Load_Theory)  Agarwal, P. K., Finley, J. R., Rose, N. S., & Roediger, H. L. (2017) Benefits from retrieval practice are greater for students with lower working memory capacity. Memory, 25(6), 764–771. <https://doi.org/10.1080/09658211.2016.1220579>. | Avoid overloading working memory, by taking into account pupils’ prior knowledge when planning how much new information to introduce and by reducing distractions that take attention away from what is being taught. |
| 4-5  DG124 | RM | SE1 Briefing |  |  |  | Read student/mentor handbook  Become familiar with the SE formative assessment continuum |
| Wed 28/9  1-2  SK128 | JC | PGC7007M  Critical Writing - Revisiting assignment 1 | Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement.  Engaging in high-quality professional development can help teachers improve. | **Assessment**  Professional behaviour  Research engaged | Read Chapter 7 of:  Fisher, A. (2011) Critical Thinking – second edition – [You can access this text here](https://books.google.co.uk/books?hl=en&lr=&id=wMhBQ0WdjF4C&oi=fnd&pg=PR1&dq=critical+thinking&ots=q2auvzTQLS&sig=PRtDd7YmMIPLVU_t1Tu53cUB-H0&redir_esc=y) | Evaluate the impact of research on practice. |
| 2-4  DG124 | White Rose | PGC7007M  Introduction to inclusive and adaptive practice | Adapting teaching in a responsive way, including by providing targeted support to pupils who are struggling, is likely to increase pupil success  Adaptive teaching is less likely to be valuable if it causes the teacher to artificially create distinct tasks for different groups of pupils or to set lower expectations for particular pupils. | **Pedagogy**  **Curriculum**  Being a professional  Research engaged | <https://www.tandfonline.com/doi/full/10.1080/02671522.2018.1452962>  [https://royalsociety.org/news/2021/03/stem-ethnicity-report/](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Froyalsociety.org%2Fnews%2F2021%2F03%2Fstem-ethnicity-report%2F&data=04%7C01%7Ce.thraves-ferguson%40yorksj.ac.uk%7C7f055e7effab4465bc4708d95a651be0%7C5c8ae38ef85b4309b7ec862815a37aee%7C0%7C0%7C637640215067923239%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=3rl4BkEqy5XW7fczXhO%2Fv9rgq8QMC53FTFuMNICj7IA%3D&reserved=0)  [https://journals.sagepub.com/doi/full/10.3102/0013189X20972718](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fjournals.sagepub.com%2Fdoi%2Ffull%2F10.3102%2F0013189X20972718&data=04%7C01%7Ce.thraves-ferguson%40yorksj.ac.uk%7C7f055e7effab4465bc4708d95a651be0%7C5c8ae38ef85b4309b7ec862815a37aee%7C0%7C0%7C637640215067923239%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=tgXbLRIfdbWE%2BLhHmVFG1MAWOcYM5LtByxfK6zuSvLo%3D&reserved=0)  [https://www.hamiltoncommission.org/](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.hamiltoncommission.org%2F&data=04%7C01%7Ce.thraves-ferguson%40yorksj.ac.uk%7C7f055e7effab4465bc4708d95a651be0%7C5c8ae38ef85b4309b7ec862815a37aee%7C0%7C0%7C637640215067923239%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=tSMH%2BJx1HTGjEV5s983FifofzKz59d9dd%2BwnnFfb2Qo%3D&reserved=0)  [https://www.lifescied.org/doi/full/10.1187/cbe.20-12-0291](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.lifescied.org%2Fdoi%2Ffull%2F10.1187%2Fcbe.20-12-0291&data=04%7C01%7Ce.thraves-ferguson%40yorksj.ac.uk%7C7f055e7effab4465bc4708d95a651be0%7C5c8ae38ef85b4309b7ec862815a37aee%7C0%7C0%7C637640215067933196%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=sTUa%2BS%2B7X5gBkvEePS8jObVAErHvHfgJUEIkGTHD8t4%3D&reserved=0) | Provide opportunity for all pupils to experience success.  Meet individual needs without creating unnecessary workload. |
| 4-5  DG124 | BR | Subject Associations and Chartered College of Teaching | Effective professional development is likely to be sustained over time, involve expert support or coaching and opportunities for collaboration.  Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement. | **Professional behaviours**  Relationships and partnerships  Creative, critical reflection | Make sure you’re a member of your subject association. Take some time to look at the latest resources and research updates.    <https://www.subjectassociations.org.uk/about-us/> | Strengthen pedagogical and subject knowledge by participating in wider networks.  Extend subject and pedagogic knowledge as part of the lesson preparation process.  Seek challenge, feedback and critique from mentors and other colleagues in an open and trusting working environment  Reflect on progress made, recognising strengths and weaknesses and identifying next steps for further improvement  Engage critically with research and using evidence to critique practice. |
| Wed  5/10  1-3  SK128 | BR | PGC7007M  Modelling abstract concepts and misconceptions | Modelling helps pupils understand new processes and ideas; good models make abstract ideas concrete and accessible.  Anticipating common misconceptions within particular subjects is also an important aspect of curricular knowledge; working closely with colleagues to develop an understanding of likely misconceptions is valuable  Where prior knowledge is weak, pupils are more likely to develop misconceptions, particularly if new ideas are introduced too quickly. | **Pedagogy**  **Curriculum**  Research engaged | Rich, P. R., Van Loon, M. H., Dunlosky, J., & Zaragoza, M. S. (2017) Belief in corrective feedback for common misconceptions: Implications for knowledge revision. Journal of Experimental Psychology: Learning, Memory, and Cognition, 43(3), 492-501. <http://dx.doi.org/10.1037/xlm0000322>. | Encourage pupils to share emerging understanding.  Model effectively, by making the steps in a process memorable and ensuring pupils can recall them (e.g. naming them, developing mnemonics, or linking to memorable stories). |
| 3-4  4-5  DG124 | KB  RM | PGC7007M  Introduction to assessment- formative and feedback | Effective assessment is critical to teaching because it provides teachers with information about pupils’ understanding and needs.  Good assessment helps teachers avoid being over-influenced by potentially misleading factors, such as how busy pupils appear.  Before using any assessment, teachers should be clear about the decision it will be used to support and be able to justify its use.  To be of value, teachers use information from assessments to inform the decisions they make; in turn, pupils must be able to act on feedback for it to have an effect. | **Assessment**  **Curriculum**  Research engaged | Read through:  <https://www.shirleyclarke-education.org/what-is-formative-assessment/>    Critically read through this [blog](https://www.nwea.org/blog/2020/how-formative-assessment-boosts-metacognition-and-learning/) on metacognition and formative assessment. What are your thoughts? Have you seen this in the classroom?    Read chapter 2 from page 39  [Wiliam, D (2017). Embedded Formative Assessment : (Strategies for Classroom Assessment That Drives Student Engagement and Learning). Solution Tree, Bloomington, Indiana](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=5105912&ppg=49) | Plan formative assessment tasks linked to lesson objectives and think ahead about what would indicate understanding (e.g. by using hinge questions to pinpoint knowledge gaps)  Choose, where possible, externally validated materials, used in controlled conditions when required to make summative assessments.  Draw conclusions about what pupils have learned by looking at patterns of performance over a number of assessments. |
| Wed 12/10  1-2  SK128 | JC | PGC7008M  The teacher voice | The voice is an important part of the teaching persona  The voice can be trained and protected | **Professional behaviours**  Being a professional | What is your teacher voice?[Blog link](https://www.theconfidentteacher.com/2016/09/what-is-your-teacher-voice/) | Project your voice without damage.  Use your voice to support behaviour. |
| 2-4  DG124 | KB | PGC7007M Using SOLO Taxonomy for planning, adaptive teaching and assessment | In order for pupils to think critically, they must have a secure understanding of knowledge within the subject area they are being asked to think critically about.  Research provides insight into the efficacies of taxonomies in supporting learning. | **Pedagogy**  **Assessment**  **Curriculum**  Research engaged  Critical thinking | TBC | Ensure pupils have relevant domain-specific knowledge, especially when being asked to think critically within a subject.  Balance input of new content so that pupils master important concepts.  Connect new content with pupils' existing knowledge or provide additional pre-teaching if pupils lack critical knowledge. |
| 4-5  DG124 | HSLT | PGC7008M  Intro to engaging with parents | Building effective relationships with parents, carers and families can improve pupils’ motivation, behaviour and academic success | **Professional behaviours**  Relationships and partnerships  Being a professional | Parental Engagement - EEF  <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/parental-engagement/>    <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/634733/Practice_example-Engaging_parents_and_families.pdf> | Communicate with parents and carers proactively and make effective use of parents’ evenings to engage parents and carers in their children’s schooling. |
| Wed 19/10  9-4  See room info | Subj staff | PGC7008M | Sessions 5-8 |  |  |  |
| 4-5 |  | Independent study |  |  |  | Subject based tasks to complete and reflect upon through the weekly reflection page on pebblepad. Discuss these tasks with your school mentor and how they will support your subject knowledge. |
| **Half Tern Break**  **Monday 24th – 28th October 2022** | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Staff** | **Focus for Session** | **Student teachers will learn that…** | **Links to CCF and YSJ curriculum** | **Theoretical Perspective**  Reading, Preparation & SOL | **Student teachers will learn how to…**  How you can learn from sessions and work with expert colleagues to apply in the classroom |
| Wed 02/11  1-2  SK128 | Macmillan | PGC7008M  The role of the form tutor and pastoral leaders | Teachers can make valuable contributions to the wider life of the school in a broad range of ways, including by supporting and developing effective professional relationships with colleagues.  SENCOs, pastoral leaders, careers advisors and other specialist colleagues also have valuable expertise and can ensure that appropriate support is in place for pupils. | **Professional behaviours**  Being a professional  Relationships and partnerships | Research and make notes on the role of the form tutor in schools. | Contribute positively to the wider school culture and develop a feeling of shared responsibility for improving the lives of all pupils within the school. |
| 2-4  SK128 | JC | PGC7007M  Writing instruction across the curriculum | Every teacher can improve pupils’ literacy, including by explicitly teaching reading, writing and oral language skills specific to individual disciplines. | **Pedagogy**  **Curriculum**  Being a professional  Research engaged | Read Chapter 3 <https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=5323091>  Read Chapter 5 <https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=5323091> | Support pupil writing skills through guiding the process from plan to composition. |
| 4-5  SK128 | JC | PGC7007M Critical writing –assignment 1 progress check | Engaging in high-quality professional development can help teachers improve  Research influences practice and pedagogy | **Assessment**  Research engaged | Please come to this session with a **draft of your introduction** and any notes you have made during your engagement with academic reading. | Reflect on critical writing process and progress, evaluating the impact on practice and re-evaluating critical reading. |
| Wed 9/11  1-3  SK128 | RM/ JC | PGC7007M Building subject knowledge/  schemes of work | In all subject areas, pupils learn new ideas by linking those ideas to existing knowledge, organising this knowledge into increasingly complex mental models (or “schemata”); carefully sequencing teaching to facilitate this process is important.  Pupils are likely to struggle to transfer what has been learnt in one discipline to a new or unfamiliar context. | **Pedagogy**  **Curriculum**  Being a professional  Relationships and partnerships | Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013) Improving students’ learning with effective learning techniques: Promising directions from cognitive and educational psychology. Psychological Science in the Public Interest, Supplement, 14(1), 4–58. <https://doi.org/10.1177/1529100612453266>. | Draw explicit links between new content and the core concepts and principles in the subject.  Use retrieval and spaced practice to build automatic recall of key knowledge. |
| 3-5  SK128 | KB/BR | PGC7007M  Planning a sequence of learning | Secure subject knowledge helps teachers to motivate pupils and teach effectively.  Ensuring pupils master foundational concepts and knowledge before moving on is likely to build pupils’ confidence and help them succeed. | **Pedagogy**  **Curriculum**  Being a professional  Research engaged | Sweller, J. (2016). Working Memory, Long-term Memory, and Instructional Design. Journal of Applied Research in Memory and Cognition, 5(4), 360–367. <http://doi.org/10.1016/j.jarmac.2015.12.002>.  Chapter 1  <https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=6269344> | Draw explicit links between new content and the core concepts and principles in the subject.  Use retrieval and spaced practice to build automatic recall of key knowledge. |
| Wed 16/11  1-2  SK128 | BR | PGC7008M  Research Project – introduction & proposal - assignment 2 | Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement. | **Assessment**  Research engaged | Read P62-65: [Bryan, H, Carpenter, C, & Hoult, S 2010, Learning and Teaching at M-Level : A Guide for Student Teachers, SAGE Publications, London.](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=743516&ppg=61)  Bell, J. and Wats, S. (2018) Doing your research project: A guide for first time researchers | Engage critically with research and use evidence to critique practice. |
| 2-3.30  SK128 | BR | PGC7008M National policies and key issues | Engaging with national policies is a vital part of effective practice. | **Professional behaviours**  Relationships and Partnerships  Being a professional | Check these websites to keep up to date with educational issues:   * [BBC - Education](https://www.bbc.co.uk/news/education) * [The Guardian - Education](https://www.theguardian.com/education) * [GOV.UK - Education, training and skills](https://www.gov.uk/education) * [TES](https://www.tes.com/news) * [The Independent](https://www.independent.co.uk/) * [The Glossary of Education Reform](https://www.edglossary.org/) * [UK Parliament](https://www.parliament.uk/)   Read chapter 3:  [Brooks, Valerie, et al. Preparing To Teach In Secondary Schools : A Student Teacher's Guide To Professional Issues In Secondary Education, McGraw-Hill Education, 2012.](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=990488&ppg=52) | Develop as a professional by receiving clear, consistent and effective mentoring on the duties relating to Part 2 of the Teachers’ Standards. |
| 3.30-5  SK128 | JC | PGC7007M Critical Writing – Assignment 1 drop-in session |  | Assessment |  |  |
| Wed 23/11  9-4  See room info | Subject Day | PGC7007M  Sessions 9-12 |  |  |  |  |
| 4-5 |  | Independent study |  |  |  | Subject based tasks to complete and reflect upon through the weekly reflection page on pebblepad. Discuss these tasks with your school mentor and how they will support your subject knowledge. |
| Wed 30/11  1-3  SK128 | HSLT – Fiona Hunter | PGC7008M  Adaptive Teaching  Effective use of support staff | Pupils with special educational needs or disabilities are likely to require additional or adapted support; working closely with colleagues, families and pupils to understand barriers and identify effective strategies, engaging with the SEND Code of Practice, and understanding your (multi-agency) role as a teacher is essential.  Teaching assistants (TAs) can support pupils more effectively when they are prepared for lessons by teachers, and when TAs supplement rather than replace support from teachers. | **Professional behaviours**  **Pedagogy**  Relationships and partnerships  Research engaged | Arrange to speak with your school SENCo before this session  <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/349053/Schools_Guide_to_the_0_to_25_SEND_Code_of_Practice.pdf>    Read 4.6  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_302)    Look at the resources available here.  <https://www.sendgateway.org.uk/whole-school-send/what-works/>    [Davis, P., Florian, L., Ainscow, M., Dyson, A., Farrell, P., Hick, P., Rouse, M. (2004) Teaching Strategies and Approaches for Pupils with Special Educational Needs: A Scoping Study.](http://dera.ioe.ac.uk/6059/1/RR516.pdf.)    [Education Endowment Foundation (2015) Making Best Use of Teaching Assistants Guidance Report.](https://educationendowmentfoundation.org.uk/tools/guidance-reports/) | Improve at preparing teaching assistants for lessons under supervision of expert colleagues.  Make effective use of teaching assistants and other adults in the classroom under supervision of expert colleagues.  Meet individual needs without creating unnecessary workload. |
| 3-5  SK128 | BR | PGC7008M  Research Project – Methodology and Data Collection – assignment 2 | Data collection is vital to robust research.  Research topics impact data collection methods and methodology. | **Assessment**  Research engaged  Critical thinking | Read ch 4  [Denby, N, Butroyd, R, Swift, H, Price, J, & Glazzard, J (2008) Master's Level Study in Education: a Guide to Success for PGCE Students, McGraw-Hill Education, Berkshire.](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=369497&ppg=84)    Read ch 7  [Bryan, H, Carpenter, C, & Hoult, S (2010), Learning and Teaching at M-Level : A Guide for Student Teachers, SAGE Publications, London.](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=743516&ppg=108)  [E., Wilson (2018) School-based research- A guide for Education Students](https://app.talis.com/yorksj/player#/modules/5f48bdb152703118d296f56f/resources/5f48ed2352703118d296f812) | Critically evaluate data collection methods with a view to selecting the appropriate one for your research project. |
| Wed 7/12  1-2  SK128 | RM | PGC7008M  Wellbeing & mental health revisited | Teachers have the ability to affect and improve the wellbeing, motivation and behaviour of their pupils.  Adapting teaching in a responsive way, including by providing targeted support to pupils who are struggling, is likely to increase pupil success.  We can take steps to support our mental health. | **Professional behaviours**  Research engaged  Creative, critical reflection | Skaalvik, E. M., & Skaalvik, S. (2017) Still motivated to teach? A study of school context variables, stress and job satisfaction among teachers in senior high school. Social Psychology of Education, 20(1), 15–37. <https://doi.org/10.1007/s11218-016-9363-9> | Make marking manageable and effective, by recording data only when it is useful for improving pupil outcomes.  Understand that written marking is only one form of feedback  Identify efficient approaches to marking and alternative approaches to providing feedback. |
| 2-5  FT112  FT113 | BR/KB | PGC7008M  Ethics  In two groups | There are ethical implications for research in schools  Ethical clearance is a compulsory and important aspect of research | **Assessment**  Research engaged | Read through the ethical clearance document available [here](https://www.yorksj.ac.uk/policies-and-documents/research/ethics-and-integrity/)    Read through the [British Educational Research Association guidelines](https://www.bera.ac.uk/wp-content/uploads/2018/06/BERA-Ethical-Guidelines-for-Educational-Research_4thEdn_2018.pdf) | Complete the ethical clearance document and submit it to Moodle. |
| Wed 14/12  1-2  SK128 | All Saints | PGC7008M  Supporting students with high starting points | High-quality classroom talk can support pupils to articulate key ideas, consolidate understanding and extend their vocabulary.  How pupils are grouped is also important; care should be taken to monitor the impact of groupings on pupil attainment, behaviour and motivation. | **Pedagogy**  **Curriculum**  Research engaged  Being a professional | Read Ch 3 and consider in light of what you now know about adaptive practice:  [Cowley, S (2018) The Ultimate Guide to Differentiation : Achieving Excellence for All, Bloomsbury Publishing Plc, London.](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=5231539&ppg=72) | Communicate a belief in the academic potential of all pupils, by receiving clear, consistent and effective mentoring in how to set tasks that stretch pupils, but which are achievable, within a challenging curriculum. |
| 2-3 | HSLT  SK128 | ISSP | We need to adapt lessons to meet the needs and strengths of all pupils. | **Pedagogy**  **Curriculum**  Research engaged  Being a professional | Learn more about ISSP York  <https://yorkissp.org/> | Communicate a belief in the academic potential of all pupils, by receiving clear, consistent and effective mentoring in how to set tasks that stretch pupils, but which are achievable, within a challenging curriculum. |
| 3-4 | BR  SK128 | PGC7008M  Metacognition and self-regulation | Explicitly teaching pupils metacognitive strategies linked to subject knowledge, including how to plan, monitor and evaluate, supports independence and academic success. | **Pedagogy**  Research engaged | Education Endowment Foundation (2017) Metacognition and Self-regulated learning Guidance Report. [Online] Accessible from: <https://educationendowmentfoundation.org.uk/tools/guidance-reports/> | Narrate thought processes when modelling to make explicit how experts think (e.g. asking questions aloud that pupils should consider when working independently and drawing pupils’ attention to links with prior knowledge). |
| 4-5 | KB  SK128 | PGC7008M  Target setting/ formative progress review  Feedback | Effective professional development is likely to be sustained over time, involve expert support or coaching and opportunities for collaboration.  Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement. | **Professional behaviours**  Being a professional  Critical thinking | Read Ch 8.3  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_561) | Reflect on your recent school experience and review your progress. Set individual SMART targets for future development. Consider how to improve professional practice as part of reflective practice and your developing critical voice. |
| **Christmas Holiday**  **Monday 19th December – Monday 2nd January, 2023** | | | | | | |

**Seasonal Break – End of Term 1**

**Induction SE2 school 5th/6th January, 2023 – You must check your research project will work in your SE2 school.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Staff** | **Focus for Session** | **Student teachers will learn that…** | **Links to CCF and YSJ curriculum** | **Theoretical Perspective**  Reading, Preparation & SOL | **Student teachers will learn how to…**  How you can learn from sessions and work with expert colleagues to apply in the classroom |
| Mon 09/01  All day | Alliance led. | PGC7007/8M  Off campus visit – 6th form | Effective professional development is likely to be sustained over time, involve expert support or coaching and opportunities for collaboration.  Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement. | **Pedagogy**  **Curriculum**  **Assessment**  Relationships and partnerships  Being a professional | Engage with the post-16 syllabus for your subject.  Try to observe any additional post 16 teaching where possible | Develop a repertoire of pedagogical approaches to teaching the post-16 curriculum.  Adapt teaching for post-16 assessment objectives. |
| Tue  10/1  9-11  SK128 | KB | PGC7007M  Taking your questioning further | Questioning is an essential tool for teachers; questions can be used for many purposes, including to check pupils’ prior knowledge, assess understanding and break down problems.  High-quality classroom talk can support pupils to articulate key ideas, consolidate understanding and extend their vocabulary. | **Pedagogy**  **Assessment**  **Curriculum**  Research engaged  Critical thinking | <https://my.chartered.college/impact_article/skilful-questioning-the-beating-heart-of-good-pedagogy/> | Plan activities around what you want pupils to think hard about.  Include a range of types of questions in class discussions to extend and challenge pupils (e.g. by modelling new vocabulary or asking pupils to justify answers).  Provide appropriate wait time between question and response where more developed responses are required. |
| 11-12  SK128 | Careers  JC | Career input | There are key issues, opportunities and challenges for new teachers at a local level. | **Professional behaviours**  Personal teaching philosophy | Sign up for [Launchpadonline](https://yorksj.jobteaser.com/en/users/sign_in?back_to_after_login=%2F)  For help with job applications, email [careers@yorksj.ac.uk](mailto:careers@yorksj.ac.uk)  See ´[YSJ Launchpad YouTube Channel](https://www.youtube.com/channel/UCRSU2wI0vEVE10TLHLVhW_g/videos) for videos and helpful support  Chapter 8  [Capel, S. A., Leask, M. and Younie, S. (2016) Learning to Teach in the Secondary School : A Companion to School Experience. London: Routledge](http://yorksj.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1202221&site=eds-live&scope=site&ebv=EB&ppid=pp_561) | Identify which schools you would like to work in.  Approach applications. |
| 1-4  SK128 | RM | PGC7008M  SE1 reflections  SE2 briefing  SBT  Diversity handbook  Walk through | Transition points between placements are an important process of reflection and forward thinking.  Effective professional development comes from experiences in different settings. | **Professional behaviours**  Critical reflections | List any questions you have about SE2. | Reflect on your recent school experience and review your progress.  Set individual SMART targets for future development. Consider how to improve professional practice as part of reflective practice and your developing critical voice.  Work effectively with colleagues on short placement experiences. |
| 4-5  SK128 | BR | PGC7007M  Local policy | Teachers can make valuable contributions to the life of the school by supporting school and local policies. | **Professional behaviours**  Being a professional | Find out from your placement school how local policy impacts practice and provision. | Contribute positively to the wider school culture and developing a feeling of shared responsibility for improving the lives of all pupils within the school.  Contribute positively by supporting school policies consistently. |
| Wed 11/1  All day | Alliance led off campus | PGC7008M  Diversity enrichment day | Seeking to understand pupils’ differences, including their different levels of prior knowledge and potential barriers to learning, is an essential part of teaching.  A culture of mutual trust and respect supports effective relationships.  High-quality teaching has a long-term positive effect on pupils’ life chances, particularly for children from disadvantaged backgrounds. | **Professional behaviours**  **Pedagogy**  Personal teaching philosophy | <https://naldic.org.uk/the-eal-learner/eal-learners-uk/>    <https://ealresources.bell-foundation.org.uk/teachers>    [Take a look at some of the resources from a local authority](https://wsh.wokingham.gov.uk/learning-and-teaching/mea/eal/eal-guidance/)  Read through the diversity handbook on moodle and complete the trackers | Plan effectively for inclusion, with appropriate provision for all pupils and those at risk of underachievement.  Be aware of effective behaviour/classroom management strategies being employed to support learning and progress.  Understand how EAL pupils’ language needs are addressed and assessed and how teachers can support language development within mainstream/subject classes. |
| Thur 12/1  9-12  SK128 | MJ | PGC7008M  Decolonising the curriculum | Education should be inclusive of all, including the most vulnerable learners.  Developing positive relationships with the whole school community is important for effective teaching.  Creative thinking is complex and can take many forms such as problem solving/PBL, critical reflection, dialogic talk, questioning, flipped learning activities and SBL. | **Professional behaviours**  **Curriculum**  Critical thinking and reflection | Read through the contributions on the Padlet compiled by YSJ tutors: <https://padlet.com/mjagdev1/mq0v0wrwvjr4v7ai>  <https://www.bbc.co.uk/teach/black-lives-black-history-resources/zy7sm39>    [The Black Curriculum](https://theblackcurriculum.com/)    Peggy McIntosh’s paper: Unpacking the Knapsack – See Moodle  [Welsh curriculum and mandatory Black History lessons](https://www.bbc.co.uk/news/uk-wales-56447682)    [Stephen Lawrence Day: 22 April 2021](https://www.youtube.com/watch?v=tk-Tc2g5hSc) | Communicate a belief in the academic potential of all pupils, by receiving clear, consistent and effective mentoring in how to set tasks that stretch pupils, but which are achievable, within a challenging curriculum.  Use intentional and consistent language that promotes challenge and aspiration.  Become teacher-researchers, evolving your practice through experimentation and evaluation |
| 1-3  SK128 | BR | PGC7008M  Research Project – Writing the literature review and methodology - assignment 2 | A literature review is a critical evaluation not a report.  Language should be cautious and not absolute.  The review needs to be grounded in and supported by informed opinion and sources, not only personal opinion and experience. | **Pedagogy**  **Professional behaviours**  Critical thinking and reflection  Research engaged | Recap your learning from:  Read Ch 4  [Denby, N, Butroyd, R, Swift, H, Price, J, & Glazzard, J (2008) Master's Level Study in Education: a Guide to Success for PGCE Students, McGraw-Hill Education, Berkshire.](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=369497&ppg=84)    Read Ch 7  [Bryan, H, Carpenter, C, & Hoult, S 2010, Learning and Teaching at M-Level : A Guide for Student Teachers, SAGE Publications, London.](https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=743516&ppg=108) | Compose an effective literature review that has critical evaluation at its heart.  Employ tentative language appropriately. |
| 3-4  SK128 | JC | PGC7008M  British Values | Citizenship comprises British Values.  We are all expected to promote the basic British values of democracy, the tule of law, individual liberty, and mutual respect and tolerance for those of different faiths and beliefs. | **Professional Behaviours**  **Curriculum** | British Values guidance  <https://www.gov.uk/government/news/guidance-on-promoting-british-values-in-schools-published#:~:text=We%20want%20every%20school%20to,of%20different%20faiths%20and%20beliefs>. | Develop pupils’ understanding of British Values by discussing and analysing with expert colleagues how to consider and to build these into individual lessons and within a Scheme of Learning. |
| 4-5  SK128 | LS | PGC7008M  Pastoral Leadership | SENCOs, pastoral leaders, careers advisors and other specialist colleagues also have valuable expertise and can ensure that appropriate support is in place for pupils. | **Professional Behaviours**  Being a professional | Speak to your mentor before this session about the structure of pastoral leadership in your placement school. | Consider your career path by gaining insight into various routes of progression in schools. |
| Fri 13/1  9-10.30  SK128 | HSLT | PGC7008M  PSHE | The responsibility of the subject specialist extends to other curriculum areas.    PSHE is a non-statutory subject meaning that units can be tailored to the needs of the pupils in individual schools. | **Professional Behaviours**  **Pedagogy**  **Curriculum**  Relationships and partnerships | PSHE Framework  <https://www.gov.uk/government/publications/personal-social-health-and-economic-education-pshe/personal-social-health-and-economic-pshe-education> | Work with expert colleagues to develop confidence and competence in delivering lessons outside of your subject specialism. |
| 10.30-12  SK128 | HSLT | PGC7008M  Citizenship | The responsibility of the subject specialist extends to other curriculum areas.  Citizenship education helps to provide pupils with knowledge, skills and understanding to prepare them to play a full and active part in society.  It should foster pupil awareness of democracy, government and laws. | **Professional Behaviours**  **Pedagogy**  **Curriculum**  Relationships and partnerships | Citizenship Framework  <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908347/SECONDARY_national_curriculum_-_Citizenship.pdf> | Work with expert colleagues to develop confidence and competence in delivering lessons outside of your subject specialism. |
| 1-3  SK128 | BR | PGC7008M  Reflective seminar – diversity and enrichment | Reflective practice is likely to support improvement.  Effective professional development is sustained over time. | **Professional Behaviours**  Critical reflection | Bring your reflective notes to this session. | Reflect on and discuss effectively issues raised from enrichment week.  Extend pedagogical and subject knowledge by participating in wider networks. |
| 3-4  SK128  4-5  SK128 | RM  RM | PGC7008M  Feedback session - student voice  SE2 drop in and SKA updated | Effective feedback can lead to change.  Teaching is a generous profession with feedback about our experiences refining provision for others. | **Professional Behaviours**  Being a professional  Critical reflection | You will have been asked to contribute to student feedback prior to this session. | Contribute effectively to the continuous improvement of education communities. |
| Wed 18/1  9-4  See room info | Subject staff | PGC7007M  Sessions 13-16 |  |  |  |  |
| 4-5 |  | Independent study |  |  |  | Subject based tasks to complete and reflect upon through the weekly reflection page on pebblepad. Discuss these tasks with your school mentor and how they will support your subject knowledge. |
| Wed 25/1  1-3  SK128 | Jenn Cassarly | PGC7007/8  RSHE | The responsibility of the subject specialist extends to other curriculum areas.  RSE is compulsory in every secondary school.  RSHE is compulsory in every state funded secondary school. | **Professional Behaviours**  **Curriculum**  Being a professional | <https://www.gov.uk/government/publications/relationships-education-relationships-and-sex-education-rse-and-health-education/relationships-and-sex-education-rse-secondary>    https://pshe-association.org.uk/ | Seek to break down complex material into smaller steps (e.g. using partially completed examples to focus pupils on the specific steps).  Discuss and analyse with expert colleagues how to sequence lessons so that pupils secure foundational knowledge before encountering more complex content.  Discuss and analyse with expert colleagues how to identify possible misconceptions and plan how to prevent these forming |
| 3-4  SK128 | HSLT | PGC7007/8M  Mathematics across the curriculum | Every teacher can improve pupils’ numeracy skills by explicitly teaching skills relevant to subject disciplines. | **Professional Behaviours**  **Curriculum**  **Pedagogy**  Being a professional | Hodgen, J., Foster, C., Marks, R. & Brown, M. (2018) Improving Mathematics in Key Stages Two and Three: Evidence Review. [Online] Accessible from  <https://educationendowmentfoundation.org.uk/education-evidence/guidance-reports/maths-ks-2-3> | Take opportunities in subjects to make links to numeracy.  Support pupils’ skills in numeracy by observing how expert colleagues integrated numeracy in lessons. |
| 4-5  SK128 | BR/  Careers | Job application support | Understand the process of writing job applications and interview process | **Professional Behaviours** | Sign up for [Launchpad online](https://yorksj.jobteaser.com/en/users/sign_in?back_to_after_login=%2F)  For help with job applications, email [careers@yorksj.ac.uk](mailto:careers@yorksj.ac.uk)  See ´[YSJ Launchpad YouTube Channel](https://www.youtube.com/channel/UCRSU2wI0vEVE10TLHLVhW_g/videos) for videos and helpful support | Sign up to job alerts in your area  Begin to draft your covering letter |
| Wed  1/2  1-4  FT112  FT113 | RM/JC  IT rooms | PGC7007/8  Cross curricular workshop and micro teaching afternoon | Effective professional development is likely to be sustained over time, involve expert support or coaching and opportunities for collaboration.  Engaging in high-quality professional development can help teachers improve. | **Professional Behaviours**  Being a professional  Critical reflection  Research engaged | Read: Oxford education Blog  <https://educationblog.oup.com/secondary/mfl/the-value-of-teachmeets> | Work together to produce effective CPD and to inspire others when sharing practice.  Network with colleagues. |
| 4-5  SK128 | White Rose | PGC7007/8M  Literacy across the curriculum | Every teacher can improve pupils’ literacy, including by explicitly teaching reading, writing and oral language skills specific to individual disciplines. | **Professional Behaviours**  **Pedagogy**  **Curriculum** | [Education Endowment Foundation (2019) Improving Literacy in Secondary Schools: Guidance report](https://educationendowmentfoundation.org.uk/public/files/Publications/Literacy/EEF_KS3_KS4_LITERACY_GUIDANCE.pdf) | Model reading comprehension by asking questions, making predictions, and summarising when reading.  Promote reading for pleasure (e.g. by using a range of whole class reading approaches and regularly reading high-quality texts to children).  Teach different forms of writing by modelling planning, drafting and editing. |
| Wed 8/2  1-3  SK128 | KB | PGC7008M  Revisiting motivation and regulation | Teachers can affect and improve the wellbeing, motivation and behaviour of their pupils.  Pupils are motivated by intrinsic factors (related to their identity and values) and extrinsic factors (related to reward).  Pupils’ investment in learning is also driven by their prior experiences and perceptions of success and failure. | **Behaviour and expectations**  Relationships and partnerships | Zimmerman, B. J. (2002) Becoming a Self-Regulated Learner: An Overview, Theory Into Practice. Theory Into Practice, 41(2), 64–70. <https://www.jstor.org/stable/1477457?seq=1#page_scan_tab_contents>. | Support pupils to master challenging content, which builds towards long-term goals and deconstructing this approach.  Provide opportunities for pupils to articulate their longterm goals and help them to see how these are related to their success in school. |
| 3-4  SK128 | Campus Stockton | PGC7008M  Revisiting parental engagement – difficult conversations | Building effective relationships with parents, carers and families can improve pupils’ motivation, behaviour and academic success. | **Behaviour and expectations**  Relationships and partnerships | How to involve hard-to-reach parents: encouraging meaningful parental involvement with schools  <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/340369/how-to-involve-hard-to-reach-parents-full-report.pdf> | Communicate with parents and carers proactively and make effective use of technology, data, reporting and feedback methods to engage parents and carers in their children’s schooling. |
| 4-5  SK128 | JC | PGC7007/8M  Vocabulary instruction | Every teacher can improve pupils’ literacy, including by explicitly teaching reading, writing and oral language skills specific to individual disciplines.  Vocabulary instruction can improve literacy and learning in all subjects. | **Professional Behaviours**  **Pedagogy**  Research engaged | Read Chapter 1  <https://ebookcentral-proquest-com.yorksj.idm.oclc.org/lib/yorksj/reader.action?docID=5323091> | Teach unfamiliar vocabulary explicitly and plan for pupils to be repeatedly exposed to high-utility and high-frequency vocabulary in what is taught.  Model and require high-quality oral language, recognising that spoken language underpins the development of reading and writing (e.g. requiring pupils to respond to questions in full sentences, making use of relevant technical vocabulary). |
| **Half term 13th-17th February** | | | | | | |
| Wed 22/2  1-3  SK128 | BR | PGC7008M  Research Project – Presenting and analysing data – assignment 2 | How you present your data impacts on the accessibility and efficacy of your research.  There are different ways of presenting data which are influenced by your methodology and findings. | **Professional Behaviours**  Research engaged | Consider how data is presented to you in daily life and how it impacts on the way you receive the findings. Arrive with specific examples and ideas to share. | Present data effectively. |
| 3-4  SK128 | HSLT | PGC7008M  RSHE policy | The responsibility of the subject specialist extends to other curriculum areas.  RSE is compulsory in every secondary school.  RSHE is compulsory in every state funded secondary school. | **Professional behaviours**  **Curriculum**  Relationships and partnerships | RSHE framework  <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908013/Relationships_Education__Relationships_and_Sex_Education__RSE__and_Health_Education.pdf> | Develop pupils’ understanding of relationships, sex and health by observing and discussing with expert colleagues how to integrate this purposefully into subjects and curriculum. |
| 4-5  SK128 |  | Independent study | Assignment 2 independent work |  |  |  |
| Wed 01/03  1-2  SK128 | BR | PGC7008  Research Project - Presentation preparation, Q&A | Presentation skills are an important aspect of continued professional development.  A successful research project culminates in the presentation of findings. | **Professional Behaviours**  Critical thinking  Research engaged | Come to the session ready with questions you need answering. | Integrate research and findings into concise and effective presentations.  Present to peers and research engaged experts. |
| 2-3  SK128 | BR | PGC7008M  Revisiting pastoral roles in school | SENCOs, pastoral leaders, careers advisors and other specialist colleagues also have valuable expertise and can ensure that appropriate support is in place for pupils. | **Professional Behaviours**  Being a professional | An example of a pastoral leader job description:  <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjUzqKLwJfyAhXEg_0HHVc1DmkQFnoECAcQAw&url=https%3A%2F%2Fmy.redbridge.gov.uk%2FJobs%2FShowFile%2F10179&usg=AOvVaw2K51UYk6nYXUlVgFNR79vB> | Contribute positively to the wider school culture and develop a feeling of shared responsibility for improving the lives of all pupils within the school (e.g. by supporting expert colleagues with their pastoral responsibilities). |
| 3-5  SK128 | RM | PGC7007/8M  SE3 briefing &SBT | School-based tasks and subject specific school-based tasks can be tailored to your needs in SE3.  Professional development is a continuous cycle of reflection and planning. | **Professional Behaviours**  Critical reflection and thinking  Being a professional | List any questions you have about SE3 and bring them to this session. | Reflect on progress made, recognising strengths and weaknesses and identifying next steps for further improvement. |
| Wed 8/3  9-4  See room info | Subject staff | PGC7007M  Sessions 17-20 |  |  |  |  |
| 4-5 |  | Independent study |  |  |  | Subject based tasks to complete and reflect upon through the weekly reflection page on pebblepad. Discuss these tasks with your school mentor and how they will support your subject knowledge. |
| Wed 15/3  1-4  SK128 | LS | PGC7008M  Revisiting SEND adaptive and inclusive practice | Flexibly grouping pupils within a class to provide more tailored support can be effective, but care should be taken to monitor its impact on engagement and motivation, particularly for pupils with low starting points.  There is a common misconception that pupils have distinct and identifiable learning styles. This is not supported by evidence and attempting to tailor lessons to learning styles is unlikely to be beneficial.  Pupils with special educational needs or disabilities are likely to require additional or adapted support; working closely with colleagues, families and pupils to understand barriers and identify effective strategies is essential. | **Behaviour and Expectations**  **Pedagogy**  Being a professional  Research engaged | Read and recap:  <https://www.gov.uk/government/publications/send-and-ap-green-paper-responding-to-the-consultation/summary-of-the-send-review-right-support-right-place-right-time> | Group pupils effectively, by discussing and analysing with expert colleagues how the placement school changes groups regularly, avoiding the perception that groups are fixed.  Apply high expectations to all groups, and ensure all pupils have access to a rich curriculum. |
| 4-5  SK128 | BR | Research Project - Presentation drop-in |  |  |  |  |
| Wed 22/3  1-3  SK128 | RM | PGC7007/8M  Preparing for the consolidation phase for after Easter  Continuum/ progress review meeting | Reflective practice, supported by feedback from and observation of experienced colleagues, professional debate, and learning from educational research, is also likely to support improvement. | **Professional Behaviours**  Critical reflection  Being a professional | Arrive at the session with any questions you may have ready. | Reflect on progress made, recognising strengths and weaknesses and identifying next steps for further improvement. |
| 3-5  SK128 | DS | PGC7007/8M  Reading across the curriculum | To access the curriculum, early literacy provides fundamental knowledge; reading comprises two elements: word reading and language comprehension; systematic synthetic phonics is the most effective approach for teaching pupils to decode.  Every teacher can improve pupils’ literacy, including by explicitly teaching reading, writing and oral language skills specific to individual disciplines. | **Professional Behaviours**  **Curriculum**  **Pedagogy**  Being a professional  Research engaged | EEF Improving literacy in Key Stage 2 (2021) available from <https://educationendowmentfoundation.org.uk/education-evidence/guidance-reports/literacy-ks2>  Krashen, s. (2004) The Power of Reading available from <https://www.researchgate.net/publication/247950880_The_Power_of_Reading_Insights_from_the_Research> | Support pupils to become fluent readers.  Mode reading comprehension by asking questions, making predictions, and summarising when reading.  Promote reading for pleasure (e.g. by using a range of whole class reading approaches and regularly reading high-quality texts to children). |
| Wed 29/3  9-4  SK128 | All staff | PGC7008M  Research presentations | Evaluation of appropriate research processes and methodologies of educational enquiry are integral to the development of the profession.  We can learn from the enquiry of other practitioners, whatever stages of their career.  Professional learning and future practice is informed by critical analysis. | **Professional Behaviours**  Critical reflection  Research engaged | Prepare a 15min presentation and handout – see info on Moodle | Respond to and question the research of peers to inform your practice and wider debates about educational policy and pedagogy. |
| **Easter Holidays 3rd-14th April, 2023** | | | | | | |
| Wed 19/4  1-2.45  SK128 | KB | PGC7007M  Using visual tools for structuring thinking and learning | Visual learning enables students to recognise how their learning is organised and connected.  New concepts are more easily integrated with prior learning, and aspects of critical thinking can be explored, discussed and exemplified. | **Pedagogy**  **Assessment**  **Curriculum**  Research engaged  Critical thinking | TBC | Utilise visual learning strategies in the classroom.  Integrate aspects of prior learning and new concepts. |
| 2.45-4.30  SK128 | KB | PGC7007M  Summarisation activities | Summarisation techniques often require multiple complex cognitive processes and these need to be directly modelled and practiced with students.  Practice is an integral part of effective teaching; ensuring pupils have repeated opportunities to practice, with appropriate guidance and support, increases success.  It is increasingly understood from neuroscience and educational psychology that learners need several reconceptualisations of material for it to go into longer term memory. | **Pedagogy**  **Assessment**  **Curriculum**  Research engaged  Critical thinking | TBC | Plan regular reviews and practice key ideas and concepts over time (e.g. through careful planning and use of structured talk activities) and deconstruct this approach.  Design practice, generation and retrieval tasks that provide just enough support so that pupils experience a high success rate when attempting challenging work. |
| Wed  26/4  1-2.45  SK128 | KB | PGC7007M  Modelling thinking strategies | Research offers evidence as to what constitutes best practice.  Teaching about thinking approaches (based on a definitive review of research in this area by Hattie, Biggs and Purdie) are shown to raise grades by 1-2 levels. | **Pedagogy**  **Assessment**  **Curriculum**  Research engaged  Critical thinking | TBC | Narrate thought processes when modelling to make explicit how experts think (e.g. asking questions aloud that pupils should consider when working independently and drawing pupils’ attention to links with prior knowledge). |
| 2.45-4.30  SK128 | KB | PGC7007M  Engagement strategies | Engagement is the gatekeeper to mental readiness, consisting of four parts: paying attention, being energised, being intrigued and being inspired. | **Pedagogy**  **Assessment**  **Curriculum**  Research engaged  Critical thinking | TBC | Create a culture of respect and trust in the classroom that supports all pupils to succeed.  Develop strategies to inspire readiness and intellectual curiosity. |
| Wed 3/5  1-2.45  SK128 | KB | PGC7007M  Using co-operative learning strategies | Co-operative learning has been used preferentially for both academic and interpersonal functions.  Paired and group activities can increase pupil success, but to work together effectively pupils need guidance, support and practice.  Its benefits are enhanced when there is sufficient debriefing of the activities for the students to realise how as well as what they have learned collaboratively. Effect size exceeds that of more traditional competitive learning approaches. | **Pedagogy**  **Assessment**  **Curriculum**  Research engaged  Critical thinking | TBC | Stimulate pupil thinking by considering the factors that will support effective collaborative work. |
| 2.45-4.30  SK128 | KB | Checking for understanding | There are a range of diagnostic formative approaches that help provide teachers and their pupils with information about their factual, procedural and conceptual knowledge in order for next steps to be taken. | **Pedagogy**  **Assessment**  **Curriculum**  Research engaged  Critical thinking | TBC | Prompt pupils to elaborate when responding to questioning to check that a correct answer stems from secure understanding. |
| Wed  10/5  1—5  FT112  FT113 | RM/JC  IT Room | Cross Curricular Teaching | Collaborating across departments and learning from other subjects and disciplines is a key part of teacher development. | **Professional Behaviours**  **Pedagogy**  Relationships/ partnerships  Research engaged | Bring ideas to this session as to what aspects of your subject you would like to teach those from different departments. | Work together to produce effective CPD and to inspire others when sharing practice.  Network with colleagues. |
| 17/5  24/5  5/6 | **2 weeks full time in school plus 1 extra week after half term w/b 5th Jun**e | | | | | |
| Half term 29th May – 2nd June, 2023  SE3 Placement ends Friday 9th June 2023  School Based Enrichment Week 12th – 16th June | | | | | | |
| Mon 19/6  9-10  SK128 | BR | PGC7007/8M  Reflecting on the year and enrichment week | Enrichment opportunities should continue throughout your career. | **Professional behaviours**  **Pedagogy** | Reflect on your enrichment week  Reflect on the last year, what have been your strengths and development areas. | Strengthen pedagogical and subject knowledge by participating in wider networks.  Reflect on progress made, recognise strengths and weaknesses and identify next steps for further improvement. |
| 10-12  SK128 | LW/RM | PGC7008M  Early Career teacher transition session | YSJ will help you in your transition to your ECT years.  YSJ will continue to support your development in your ECT years. | **Professional behaviours** | You will need your final report from pebblepad and 3 ECT targets | Seek challenge, feedback and critique from mentors and other colleagues in an open and trusting working environment.  Reflect on progress made, recognise strengths and weaknesses and identify next steps for further improvement. |
| 1-3  SK128 | BR/JC | PGC7008M  CPD task | CPD continues throughout your career.  CEDPs can help identify next steps and priorities. | **Professional behaviours** | Working through the ECT content and expectations |  |
| 3-5  SK128 | RM/JC | Independent study CEDPs |  | **Professional behaviours** | Time to complete your ECDP | Reflect on progress made, recognise strengths and weaknesses and identify next steps for further improvement. |
| Tues 20/6  9-4pm | RM/JC | University based – cross curricular day | | | | |
| Wed  21/6 |  | University – presentation prep | | | | |
| Thus  22/6 |  | University- presentation prep | | | | |
| Fri 23/6  Temple Hall  9-12 | RM | Presentation set up  CPD presentations | | | | |
| Temple Hall  1-4pm | RM  All staff  Alliance staff | Guest speaker  Final celebration afternoon | | | | |

# 7. 7.1 Subject knowledge development - SKA



York St John places great importance on student teachers’ subject knowledge development and the auditing process to ensure that student teachers develop as confident, competent and reflective practitioners who meet the high expectations of subject knowledge demanded to teach your subject(s) across the full secondary age range. Core principles and values underpin all curriculum decisions. The auditing process for your subject knowledge is a formative process that encourages you, the student teacher, to take ownership through ongoing self-assessment, review and reflection, and to share this process with your subject tutor (ST), school mentor (SM) and Academic Tutor (AT).

* It is important to **continually review**subject knowledge to increase confidence in both teaching and assessment practice.
* By **systematically improving** subject knowledge student teachers will be in a stronger position to provide appropriate challenge and next steps for all children, impacting positively on pupil progress.

**7.1 Subject Knowledge Auditing Process – PGCE Secondary**

* **Initial/Baseline Subject Knowledge Audits** completed; share these **via email/Pebble Pad** with your ST, AT and SM.
* **Independent Study** – Identify your gaps and create an Action Plan. ST and SM will be able to help you establish priorities and direct you to subject/topic specific resources, reading lists and Subject Associations.

**Subject Knowledge Auditing Process – PGCE Secondary**

**SE2**

**SE3**

**ECT**

**Induction Weeks**

* **Subject Days 1-3:** Your tutor will enhance your subject knowledge within 12 face-to-face workshops in accordance with their carefully sequenced curriculum and subject vision and intent.
* **SKA/Action Plan:** shared and discussed in **Subject Days 1, 2 and 3** and **updated and shared at the end of SE1.**
* **School Experience:** SE1 allows subject knowledge to be discussed in weekly review meetings with mentors and any key strengths and targets in relation to curriculum are captured on Pebble Pad.
* **PGC7007 module will focus on Subject Knowledge:** Preparation for and engagement with your assignment will include a critical evaluation of the role of Subject Knowledge within your emerging practice and your developing understanding of Subject Pedagogy.
* **PGC7008 module:** Your choice of research area and your engagement with reading will further enhance your subject knowledge.
* **School Experience Formative Assessment Continuum:** This clearly indicates Subject Knowledge as a key component the staged expectations within curriculum for SE1, SE2, SE3 and Beyond SE3. This reimagined summative grading process allows for regular constructive feedback dialogue between you and your mentor focussed on subject knowledge.
* **Academic Tutor Subject Knowledge Discussion:** AT meeting schedules identify time to monitor progress in relation to Subject Knowledge Audits in addition to Subject Days 1, 2 and 3.

**SE1**

* **Subject Day 4:** Your tutor will continue to enhance your subject knowledge in a further 4 sessions.
* **Subject Knowledge Re-Audits completed** at the **end of** **SE2.** These are once again shared electronically with your ST, SM, and AT. Action Plans are updated.
* **School Experience:** SE2 allows you to develop your subject knowledge in a different setting. Again, this will be discussed in weekly review meetings with mentors and any key strengths and targets in relation to curriculum will be captured on Pebble Pad.
* **Academic Tutor Subject Knowledge Discussion**: AT meeting schedules identify time to monitor progress in relation to Subject Knowledge Audits.
* **PGC7007 module:** feedback from this assignment will include subject specific targets as well as academic targets.
* **PGC7008 module:** You will continue to engage with relevant academic sessions and literature which will enhance your subject knowledge.
* **School Experience Formative Assessment Continuum:** This continues to capture your development in this key component and allows for regular constructive feedback dialogue between you and your mentor focussed on subject knowledge.
* **Subject Day 5:** Your tutor will continue to enhance your subject knowledge in these final 4 sessions.
* **Subject Knowledge Re-Audits completed** again **at the end of SE3** and shared with ST, mentor and AT. Action Plans should be updated.
* **School Experience:** SE3 allows subject knowledge to be continued to be discussed in weekly review meetings with mentors and any key strengths and targets in relation to curriculum are captured on Pebble Pad.
* **PGC7008 module:** During the Research Presentations Day, engagement with your peers’ research provides insight into further areas of subject knowledge.
* **Academic Tutor Subject Knowledge Discussion:** AT meeting schedules identify time to monitor progress in relation to Subject Knowledge Audits.
* **School Experience Formative Assessment Continuum:** This is used to capture your development and informs **Progress Reviews** and the setting of final targets, including for ECT year.
* **Webinars:** Subject tutors involved in webinars when appropriate to needs.
* Updates in termly newsletter include key curriculum and subject focus when appropriate to needs.
* **Subject Associations and Teacher Research Groups:** Promoting engagement.

# 7.1 Subject knowledge days

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Staff** | **Focus for Session** | **Student teachers will learn that…** | **Links to CCF and YSJ curriculum** | **Theoretical Perspective**  Reading, Preparation & SOL | **Student teachers will learn how to…**  How you can learn from sessions and work with expert colleagues to apply in the classroom |
| Subject knowledge and pedagogy will be developed throughout your school experiences and Professional Studies, through your assignment and wider reading, and in your Subject Days below. Please note, as well as the content specified in this table, we will be integrating the following themes across all sessions:  Behaviour management  Inclusive practice  Adaptive practice  Critical evaluation  Cross-curricular learning | | | | | | |
| Wed 14/9 9.00-10.30 | MKJ | **SK Audits**  Aims of the mathematics    maths focussed pedagogy and planning including formative assessment.  Assignment  School-based tasks | *the subject has changed and developed over time and the implications of current developments and initiatives*    *mathematics pedagogy is related to learning*    *enquiry-based learning in mathematics can offer opportunities for pupils to deepen their knowledge*    *accessing and joining relevant subject associations can enhance good practice in schools* | **Pedagogy**  **Curriculum**  **Assessment**  Research based  Critical reflection | **Review of Audit: Exam boards for subject knowledge – online materials; exam papers – AQA, Edexcel; NCETM**    Learning theories for mathematics teaching  YSJ Moodle ppt.      Explore Skemp’s Maths Theory using the link below. Why? Should we strive to produce relational learning in Mathematical teaching?  You will want to put these into practice during SE1. Discuss ideas in session. | Identify pedagogies when observing  Identify areas of subject knowledge that need to be developed with reference to your SKA. Share these with your mentor in school and discuss actions to move forward.        critically analyse the relationship between progress, planning and assessment in mathematics (pedagogy)      understand the assessment requirements of KS 4 and 5 external examinations |
| 10.30-12.00 | MKJ | National Curriculum for mathematics, KS3 and 4  Transition | **… for pupils to think critically, they must have a secure understanding of knowledge within the subject area they are being asked to think critically about.** | **Pedagogy**  **Curriculum**  Research based  Critical reflection | **Read Jo Boaler ’Fluency’ paper to discuss in session.**    1) Read Chapter 2 Teaching Mathematics in Secondary School (Chambers & Timlin)  2) Investigate: Singapore Maths Maths Mastery  Problem Solving  Mathematical Reasoning Concrete-Pictorial-Abstract (CPA) | Identify pedagogies when observing. Research subject specific pedagogies and include these approaches in your planning Start to identify the behaviour management strategies during your observations in school. |
| 1-2.30 | MKJ | Mathematics -  Research and subject priorities | *the significance of transition for secondary school settings*    **… questioning is an essential tool for teachers; questions can be used for many purposes, including to check pupils’ prior knowledge, assess understanding and break down problems.** | **Pedagogy**  **Curriculum**  Research based  Critical reflection | Find out about:  **The Maths Association (MA)**  **2) Equals Online is a plethora of excellent resources (produced** **by the MA) by teachers sharing ideas.**  **3) Association of Teachers of Mathematics (ATM)**  **4) STEM website**    **Thoughts? Conferences; student membership; online webinars**    [https://www.mentallyhealthyschools.org.uk/risks-and-protective-factors/school-based-risk-factors/transitions/](https://www.mentallyhealthyschools.org.uk/risks-and-protective-factors/school-based-risk-factors/transitions/%E2%80%AF)    Read about Maths anxiety and confidence | Speak to the transition co-ordinator or head of year 7 in school – how do they plan for transition usually. Become a member of relevant subject associations. Access resources to support your teaching and learning. |
| 2.30-4.00 | MKJ | Mathematics Knowledge - An introduction to maths specific pedagogies | knowledge and understanding of different forms of feedback including verbal, whole class, well supported self/peer and written link to mathematics concepts for subject knowledge development | **Pedagogy**  **Curriculum**  Research based  Critical reflection | *Bring some of your ideas for lesson planning to the session for a discussion on pedagogies*    *Feedback must lead to change and opportunities to act on feedback.* | ***.. through receiving feedback and practising, teachers can include a range of types of questions in class discussions to extend and challenge pupils. (e.g. by modelling new vocabulary or asking pupils to justify answers*)** |
| 4.00-5.00 |  | Independent study | Plan how you will approach SBSSTs (outlined below) |  |  |  |
| Wed 19/10 9.00-10.30 | MKJ | Planning -  Learning objectives  Assignment  School-based tasks  SKAudits | **..providing opportunities for discussion within mathematics is part of effective teaching**  (PUPIL VOICE)    **...high quality classroom talk can support pupils to articulate key ideas, consolidate understanding and extend their vocabulary.**    **…assessment for learning tools are a vital component of each lesson**    *- Being a reflective practitioner is a core skill in teaching and how to identify this in academic sessions and mentor dialogue.*    **.. a mathematics curriculum enables it to set out its vision for the knowledge, skills and values that its pupils will learn, encompassing the national curriculum within a coherent wider vision for successful learning.** | **Pedagogy**  **Curriculum**  **Behaviour and Expectations**  Research based  Critical reflection | During observations: write a retrospective lesson plan to support your understanding of the planning cycle    Read ‘Maths – mistakes, misconceptions and misunderstandings’ - Malcolm Swan’s Chapter 10 ‘Dealing with misconceptions’ from ‘Issues in mathematics’ book, editor Peter Gates    Read about a variety of mathematics education learning theories and problem-solving – see Moodle PowerPoint materials | **Deliver a carefully sequenced and coherent curriculum, by:**  -receiving clear, consistent and effective mentoring in how to identify essential concepts, knowledge, skills and principles of the subject.  - observing how expert colleagues ensure pupils’ thinking is focused on key ideas within the subject and deconstructing this approach. |
| 10.30-12.00 | MKJ | Planning -  SK - pair/group work  Schemes of Learning | **…an understanding of the elements of mastery is part of being an effective teacher.**    **… effective teaching can transform pupils’ knowledge, capabilities and beliefs about learning.**    **… placing learning into meaningful context can allow the children to apply their learning and can improve engagement and understanding.**    **… secure subject knowledge helps teachers to motivate pupils and teach effectively.**    **… regular purposeful practice of what has previously been taught can help consolidate prior knowledge and help pupils remember what they have learned.** | **Pedagogy**  **Curriculum**  **Behaviour & Expectations**  Research based  Critical reflection | Read about ‘Memory and cognitive load’ and link to Jo Boaler’s ideas of mathematics learning  Watch videos:   YouCubed resources folder <https://drive.google.com/drive/folders/1Af3CIzYLXBcYZM2MLzV3KCHmIWFdJnSm?usp=sharing>  Learn how to use mathematics key words and vocabulary with links to oracy and literacy  Resources and equipment; ICT in maths teaching | **...expert colleagues ensure pupils’ thinking is focused on key ideas within the subject and deconstructing this approach.**    ***… secure subject knowledge helps teachers to motivate pupils and teach effectively.***    ***… Discussing and analysing with expert colleagues the rationale for curriculum choices, the process for arriving at current curriculum choices and how the school’s curriculum materials inform lesson preparation.*** |
| 1-2.30 | MKJ | Planning -  SK - Sequencing | **… variation and intelligent practice in mathematics is part of effective teaching and mastery - which can transform pupils’ knowledge, capabilities and beliefs about learning.**    **.. pupils learn new ideas by linking those ideas to existing knowledge; carefully sequencing teaching to facilitate this process is important.**    **… secure subject knowledge helps teachers to motivate pupils and teach effectively.** | **Pedagogy**  **Curriculum**  Research based  Critical reflection | Read about effective pedagogy in mathematics YSJ Moodle ppt;    Make links to variation in mastery in mathematics: [Starting Points Maths – Tasks and Blogs from Chris McGrane](https://startingpointsmaths.com/); <https://www.youtube.com/watch?v=G7qor4KjWpg>; book: [Mathematical Tasks: The Bridge Between Teaching and Learning: Amazon.co.uk: Chris McGrane, Mark McCourt: 9781913622060: Books](https://www.amazon.co.uk/Mathematical-Tasks-Between-Teaching-Learning/dp/1913622061) | **… create learning opportunities that can motivate the children and contributes to promoting positive behaviour.**    ***... through receiving feedback and practising, teachers can include a range of types of questions in class discussions to extend and challenge pupils. (e.g. by modelling new vocabulary or asking pupils to justify answers*)**  ***...start all planning and learning opportunities from the statutory documentation.*** |
| 2.30-4.00 | MKJ | Planning -  SK -  Adaptive teaching | **...teachers are key role models, who can influence the attitudes, values and behaviours of their pupils.**    **..teachers can influence pupils’ resilience and beliefs about their ability to succeed, by ensuring all pupils have the opportunity to experience meaningful success.**    **...pupils are motivated by intrinsic factors (related to their identity and values) and extrinsic factors (related to reward).** | **Pedagogy**  **Curriculum**  Research based  Critical reflection | Plan a microteaching session n for KS3 or 4 to share with your peers. Include learning objectives, outcomes, adaptive teaching, assessment opportunities.    Consider how an individual lesson fits in a sequence (topic plan).    Keeping up to date with policy/developments in subject - Padlet of useful mathematics websites and resources: <https://padlet.com/awardgow/vxvlexjhh75lrd9l> ongoing... | ***… support pupils by observing how expert colleagues interleave concrete and abstract examples, slowly withdrawing concrete examples and drawing attention to the underlying structure of problems and deconstructing this approach.***    ***…plan effective lessons by observing how expert colleagues break tasks down into constituent components when first setting up independent practice (e.g. using tasks that scaffold pupils through meta-cognitive and procedural processes) and deconstructing this approach.*** |
| 4.00-5.00 |  | Independent study | Plan how you will approach SBSSTs (outlined below) |  |  |  |
| Wed 23/11 9.00-10.30 | MKJ | Assessment - Principles of successful assessment  Formative and summative  Assignment  School-based tasks  SKAudit | **… the role of teacher includes statutory guidance, expectations and conditions of service.**  **... questioning is an essential tool for teachers; questions can be used for many purposes, including to check pupils’ prior knowledge, assess understanding and break down problems.** | **Pedagogy**  **Curriculum**  **Assessment**  Research based  Critical reflection | **Review of Audit: Exam boards for subject knowledge – online materials; exam papers – AQA, Edexcel; NCETM**  Consider the use of open-ended questions and role of discussion in maths lessons    DfE (2014) ***The National curriculum in England: mathematics programmes of study – key stages 3 and 4.***London, HMSO. | Take opportunities to practice drawing explicit links between new content and core content in your teaching.    ***... enable critical thinking and problem solving by first teaching the necessary foundational content knowledge.***    ***...start all planning and learning opportunities from the statutory documentation*** |
| 10.30-12.00 | MKJ | Assessment -  SK -  The learning environment e.g different groupings and transitions. | understand and engage with the assessment & planning cycle    teach critical thinking skills in your subject    Pedagogy and assessment focus connecting new content with existing knowledge and understanding    Giving feedback leads to change | **Pedagogy**  **Curriculum**  **Assessment**  Research based  Critical reflection  Behaviour management | Have a retrospective lesson plan that you will be able to share    Have examples to share of a variety of feedback that you have observed (verbal, whole class, written etc)    Consider the right tasks for the right group: short, sharp, chunked activities; variety; treasure hunt; active – out of seats; time of the day; routines at start and end of lessons – settling; planning time for packing away – class management; reflective practitioners – critical learners  Read about the Learning environment and Active engagement: <https://www.kaganonline.com/free_articles/dr_spencer_kagan/281/Kagan-Structures-A-Miracle-of-Active-Engagment>    <https://learningspy.co.uk/behaviour/fair-expect-everyone-follow-rules/>  Assessment  Speckesser, S., Runge, J., Foliano, F., Bursnall, M., Hudson-Sharp, N., Rolfe, H. & Anders, J. (2018) Embedding Formative Assessment: Evaluation Report. [Online] Accessible here Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2004). Working inside the Black Box: Assessment for Learning in the Classroom. Phi Delta Kappan, 86(1), 8–21. | Support pupils to build increasingly complex mental models, by:  •Discussing and analysing with expert colleagues how to revisit the big ideas of the subject over time and teach key concepts through a range of examples.  • Discussing and analysing with expert colleagues how they balance exposition, repetition, practice of critical skills and knowledge. |
| 1-2.30 | MKJ | Assessment -  SK –  Become increasingly familiar with the expectations of the mathematics programmes of study. | **…learning needs to be based on the children’s prior knowledge/learning and the statutory requirements of the curriculum.**    **... a complete understanding of the structure of the national curriculum, the statutory and non-statutory, and the topics included is part of being an effective teacher.** | **Pedagogy**  **Curriculum**  **Assessment**  Research based  Critical reflection | Consider assessment – level 9 and Tips for higher attainers – YSJ Moodle ppt.  Be prepared to discuss and reflect upon the previous session on behaviour management.    Pre-reading: chapter ‘Everything is connected’ in book by Mike Ollerton – Getting the Buggers to Add Up. Make links to lesson panning. | And - following expert input - by taking opportunities to practise, receive feedback and improve at:  • Providing tasks that support pupils to learn key ideas securely (e.g. quizzing pupils so they develop fluency with times tables). |
| 2.30-4.00 | MKJ | Assessment -  SK –  Pedagogical approaches revisited.  Critical thinking skills.  Linking new content to existing knowledge. | Anticipating common misconceptions within mathematics is also an important aspect of curricular knowledge; working closely with colleagues to develop an understanding of likely misconceptions is valuable.  For pupils to think critically, they must have a secure understanding of knowledge within mathematics they are being asked to think critically about.  Every teacher can improve pupils’ literacy, including by explicitly teaching reading, writing and oral language skills specific to individual disciplines. | **Pedagogy**  **Curriculum**  **Assessment**  Research based  Critical reflection | Read:  Hattie, J., & Timperley, H. (2007) The Power of Feedback. Review of Educational Research, 77(1), 81–112. Wiliam, D (2017). Embedded Formative Assessment:  (Strategies for Classroom Assessment That Drives Student Engagement and Learning). Solution Tree, Bloomington, Indiana  Read about Critical thinking - Better questioning YSJ Moodle ppt; [SSDD Problems – Same Surface, Different Deep Structure maths problems from Craig Barton @mrbartonmaths](https://ssddproblems.com/)    Revisit Motivation – Nurturing confidence YSJ Moodle ppt.    Read through the Learning cycle: YSJ Moodle slide  to support planning and assessment | And - following expert input - by taking opportunities to practise, receive feedback and improve at:  • Ensuring pupils have relevant domain-specific knowledge, especially when being asked to think critically within a subject.  And - following expert input - by taking opportunities to practise, receive feedback and improve at:  • Teaching unfamiliar vocabulary explicitly and planning for pupils to be repeatedly exposed to high-utility and high-frequency vocabulary in what is taught.  • Modelling and requiring high-quality oral language, recognising that spoken language underpins the development of reading and writing (e.g. requiring pupils to respond to questions in full sentences, making use of relevant technical vocabulary). |
| 4.00-5.00 |  | Independent study | Plan how you will approach SBSSTs (outlined below) |  |  |  |
| Wed 18/1 9.00-10.30 | MKJ | Curriculum -  **SKAudit**s  GCSE  Challenge for all.  Adaptive Practice  Assignment  School-based tasks | curriculum choices ensure a carefully sequenced and coherent curriculum | **Pedagogy**  **Curriculum**  Research based  Critical reflection  Assessment | **Review of Audit: Exam boards for subject knowledge – online materials; exam papers – AQA, Edexcel;**  **EAL**: <https://www.bell-foundation.org.uk/eal-programme/guidance/guidance-by-curriculum-subject/teaching-eal-learners-in-maths/>  What are the challenges for EAL learners in maths at word level, sentence level, text level? Supporting EAL learners with unfamiliar maths language; EAL learners' progress; useful links including wordy maths problems, resources, NRICH and hot-dog problem. | Drawing conclusions about what pupils have learned by looking at patterns of performance over a number of assessments with support and scaffolding from expert colleagues (e.g. appreciating that assessments draw inferences about learning from performance).    Take opportunities to practice drawing explicit links between new content and core content in your teaching. - What are the core principles of mathematics? |
| 10.30-12.00 | MKJ | Curriculum -  SK - Schemes of work and curriculum choices.  (Sequencing) | **... pupils learn new ideas by linking those ideas to existing knowledge; carefully sequencing teaching to facilitate this process is important.** | **Pedagogy**  **Curriculum**  Research based  Critical reflection | Read:  [https://www.sec-ed.co.uk/best-practice/five-ways-to-measure-pupil-progress-in-the-classroom-and-online-assessment-teaching/](https://www.sec-ed.co.uk/best-practice/five-ways-to-measure-pupil-progress-in-the-classroom-and-online-assessment-teaching/%E2%80%AF)  See the NCETM website:  What strategies have you observed for ensuring pupils are challenged and motivated?      Have a discussion with the Head of Department about the rationale for curriculum choices. Bring an overview of the SoW and notes from the discussion to this session.  Read:  <https://blog.teamsatchel.com/what-is-lesson-sequencing-and-how-can-it-save-you-time> | ***Deliver a carefully sequenced and coherent curriculum, by:***    *... sequence lessons using variation and intelligent practice.*  *... identify possible misconceptions within mathematical concepts and plan how to challenge these.* |
| 1-2.30 | MKJ | Curriculum -  SK –  Progress over time | **… pupils learn new ideas by linking those ideas to existing knowledge, organising this knowledge into increasingly complex mental models (or “schemata”); carefully sequencing teaching to facilitate this process is important.** | **Pedagogy**  **Curriculum**  Research based  Critical reflection | Read about mathematical proofs and challenge for all - well-developed subject knowledge YSJ Moodle ppt. and Alice’s ppt.  **Read:**  Pupil progress and more able learners:  [**https://www.nace.co.uk/blogpost/1761881/Curriculum-teaching-and-support**](https://www.nace.co.uk/blogpost/1761881/Curriculum-teaching-and-support) | ***... acknowledging and praise pupil effort and emphasising progress being made.***    ***...communicate a belief in the academic potential of all pupils, by receiving clear, consistent and effective mentoring in how to set tasks that stretch pupils, but which are achievable, within a challenging curriculum.*** |
| 2.30-4.00 | MKJ | Curriculum -  SK –  Interpreting data. | -existing research findings underpin curriculum content and lesson design. | **Pedagogy**  **Curriculum**  **Assessment**  Research based  Critical reflection | Watch these videos -  **SEND/inclusion:** <https://en.unesco.org/gem-report/2020-background-papers?fbclid=IwAR0eyGh7QGKUyTWaD88Wu_VQ11VNfbVFR2WiQUrXaAubKAjpCkpCfH4kPvc>  <https://en.unesco.org/gem-report/report/2020/inclusion>    <https://www.senteacher.org/printables/mathematics/> Maths special needs printable resources  <https://mathsnoproblem.com/blog/learner-focus/send-inclusion-jigsaw-teaching-strategy/> Resources, videos, products, shop, training | Discussing and analysing with expert colleagues: How to ensure feedback is specific and helpful when using peer- or self- assessment. How to identify efficient approaches to marking and alternative approaches to providing feedback |
| 4.00-5.00 |  | Independent study | Plan how you will approach SBSSTs (outlined below) |  |  |  |
| Wed 8/3 9.00-10.30 | MKJ | Consolidation -  Post-16  SK –  How enquiry-based learning in your subject can offer opportunities for pupils to deepen their knowledge.  Assignment  School-based tasks  SK audits | **..they should be mindful that pupils are likely to struggle to transfer what has been learnt in one discipline to a new or unfamiliar context.**    **... questions can be used for many purposes, including breaking down problems.**  **...high-quality classroom talk can support pupils to articulate key ideas, apply knowledge and skills to new contexts, consolidate understanding and extend their vocabulary.** | **Pedagogy**  **Curriculum**  **Behaviour management**  Research based  Critical reflection | **review of Audit: Exam boards for subject knowledge – online materials; exam papers – AQA, Edexcel;**  **NCETM**    **Session is underpinned by:**  <https://www.atm.org.uk/Maths-Book-Reviews/teaching-mathematics-for-social-justice/144174> Teaching mathematics for social justice' by Association of Teachers of mathematics (ATM)  'Multicultural mathematics' by David Nelson: [https://www.worldofbooks.com/en-gb/books/david-nelson/multicultural-mathematics/9780192822413?msclkid=3fa625e0b7c518a7ad1845067bca0415&utm\_source=bing&utm\_medium=cpc&utm\_campaign=S%20-%20PLA%20-%20New%20Customer%20Acquisition%20-%203000001-4000000%20-%20Bing&utm\_term=4575205329583382&utm\_content=3000001-4000000](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.worldofbooks.com%2Fen-gb%2Fbooks%2Fdavid-nelson%2Fmulticultural-mathematics%2F9780192822413%3Fmsclkid%3D3fa625e0b7c518a7ad1845067bca0415%26utm_source%3Dbing%26utm_medium%3Dcpc%26utm_campaign%3DS%2520-%2520PLA%2520-%2520New%2520Customer%2520Acquisition%2520-%25203000001-4000000%2520-%2520Bing%26utm_term%3D4575205329583382%26utm_content%3D3000001-4000000&data=04%7C01%7Cm.jagdev%40yorksj.ac.uk%7Ccc3dc69be01d42a53c0508d9421b82b2%7C5c8ae38ef85b4309b7ec862815a37aee%7C0%7C0%7C637613508180735585%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=huZFeKQ76lXgHs4d7RibNKRfDzdFwp%2F0RPYWnjHTqy0%3D&reserved=0) | ***... seek opportunities to engage parents and carers in the education of their children (e.g. proactively highlighting successes)***    ***... acknowledging and praise pupil effort and emphasising progress being made.*** |
| 10.30-12.00 | MKJ | Consolidation -  Decolonising the curriculum  Transfer of knowledge to another context. | **..teachers can influence pupils’ resilience and beliefs about their ability to succeed, by ensuring all pupils can experience meaningful success.**  **...setting clear expectations can help communicate shared values that improve classroom and school culture.**    **...teachers are key role models, who can influence the attitudes, values and behaviours of their pupils.** | **Pedagogy**  **Curriculum**  Research based  Critical reflection | Read:  Ernest, P., Sriraman, B. and Ernest, N. eds. (2016) *Critical mathematics education: theory, praxis, and reality*. Cognition, equity, & society: international perspectives. Charlotte, NC, Information Age Publishing, Inc. | ***...communicate a belief in the academic potential of all pupils, by receiving clear, consistent and effective mentoring in how to set tasks that stretch pupils, but which are achievable, within a challenging curriculum.*** |
| 1-2.30 | MKJ | Consolidation -  SK –  Adaptive teaching – high achievers. | **...pupils are motivated by intrinsic factors (related to their identity and values) and extrinsic factors (related to reward).**  **... requiring pupils to retrieve information from memory, and spacing practice so that pupils revisit ideas after a gap are also likely to strengthen recall.** | **Pedagogy**  **Curriculum**  Research based  Critical reflection | **Adaptive teaching - Level 9 questions and answers YSJ Moodle ppt. for high achievers**    Cross-curricular links to other secondary subjects: English, Science, Art, PE, RE, Music, MFL, History, Drama, Geography | ***… use intentional and consistent language that promotes challenge and aspiration***    ***... create a positive environment where making mistakes and learning from them and the need for effort and perseverance are part of the daily routine*** |
| 2.30-4.00 | MKJ | Consolidation -  SK –  **Mathematical problem-solving; investigations and critical mathematics education** | **... effective professional development is likely to be sustained over time, involve expert support or coaching and opportunities for collaboration. Engaging in high-quality professional development can help teachers improve.** | **Pedagogy**  **Curriculum**  Research based  Critical reflection | Reading - critical mathematics education and social justice; MKJ’s ppts    Read about Diversity – Historical and cross-cultural roots of mathematics; current developments YSJ Moodle ppt: anti-racist practice in education; MKJ’s ppts.    Read about the use of other media to teach - Films featuring mathematicians – Hidden Figures, The Man who knew Infinity; Imitation Game; Cipher and code breaking, Bletchley Park and computer science. | ***Links to mathematical investigations including social justice examples.*** |
| 4.00-5.00 |  | Independent study | Plan how you will approach SBSSTs (outlined below) |  |  |  |

# 8. Mathematics Subject Specific School Based Tasks

**Compulsory tasks to follow each subject day**

**School Based Tasks to support and develop subject specific knowledge and subject pedagogy related to Physical Education: it is important that these tasks do not become a tick-box exercise. Completed properly, they should form the basis for discussion with your tutor and inform and impact your practice. For example, if you find out how expert colleagues check for understanding, you should then discuss your observations with your mentor, pinpointing any implications for practice, before taking this forward into your planning and delivery. It’s a matter of thinking, *so what?* Then, *now what*? If there is a reason why you cannot complete a compulsory task at the specified time, please let your subject tutor know in advance so that they can suggest a tweak/alternative.**

|  |  |  |
| --- | --- | --- |
| **Area** | **Mathematics focused school based tasks** | **To do?** |
| **Compulsory SSSBTs** – set in and reviewed during Subject Days | | |
|  | **Subject Day 1**  Observe expert colleagues and note down:   1. How they check for understanding of a mathematical solution 2. How they support mathematical presentation in children’s books 3. How discussion/pair work is used effectively.   Discuss these with your mentor / class teachers and articulate what impact your observations have on your teaching. | By Subject Day 2 |
| **Subject Day 2**  Discuss with expert colleagues how they:   1. Explicitly plan for behaviour in mathematics lessons 2. Plan for teaching several methods in solving mathematical problems 3. Use visuals and diagrams to support mathematical learning.   Discuss these with your mentor / class teachers and articulate what impact your observations have on your teaching. | By Subject Day 3 |
| **Subject Day 3**   1. Read/make notes on the latest mathematics GCSE Examiner reports 2. Research the use of project work, mathematical investigations and practical mathematics in the classroom 3. Read about mathematical problem-solving, real-life contexts and maths beyond the classroom.   Discuss these with your mentor / class teachers and articulate what impact these have on your teaching. | By Subject Day 4 |
| **Subject Day 4**   1. Trial a physical mathematics activity that takes place in the corridor, hall or outside such as a treasure hunt, loci etc. 2. Read/make notes on the examples in Mike Ollerton’s book – ‘Getting the Buggers to Add Up’ – which will you trial in your own teaching? 3. Link up with another school subject colleague such as Art, Drama, Science, History etc. and plan a cross-curricular activity in your mathematics lesson.   Discuss these with your mentor / class teachers and articulate what impact these have on your teaching. Do they need further tweaks? | By Subject Day 5 |
| **Subject Day 5**  Plan and teach a (series of) lesson(s) that:   1. Integrate critical mathematics education, for example, social justice issues on health, race inequalities, climate change etc. 2. Incorporate films clips about mathematicians especially those that challenging stereotypes 3. Considers your pupils’ interests and hobbies, making links with mathematics. | By end of SE |

# 9. Physical Education Subject Specific School Based Tasks

**Optional tasks to develop your subject knowledge**

**School Based Tasks to support and develop subject specific knowledge and subject pedagogy related to Mathematics:**

|  |  |  |
| --- | --- | --- |
| **Additional SSSBTs** – select from across the different areas | | |
| Safeguarding | Read: <https://www.theeducationpeople.org/blog/mathematical-safeguarding/> | SE1/2/3 |
| Read about Mathematical anxiety – Jo Boaler and Michael Rosen’s work | SE1/2/3 |
| Behaviour and High Expectations | Read: Active engagement: <https://www.kaganonline.com/free_articles/dr_spencer_kagan/281/Kagan-Structures-A-Miracle-of-Active-Engagment> | SE1/2 |
| Read: <https://learningspy.co.uk/behaviour/fair-expect-everyone-follow-rules/> | SE1 |
| Learning Environment | Create some classroom activities and displays based on the mathematics video ‘Always, sometimes, never true’:  <https://www.bing.com/videos/search?q=always+sometimes+never+tasks+maths&&view=detail&mid=A0B3FED1849D24CB5365A0B3FED1849D24CB5365&&FORM=VRDGAR&ru=%2Fvideos%2Fsearch%3Fq%3Dalways%2520sometimes%2520never%2520tasks%2520maths%26qs%3Dn%26form%3DQBVR%26sp%3D-1%26pq%3Dalways%2520sometimes%2520never%2520tasks%2520maths%26sc%3D0-34%26sk%3D%26cvid%3D1965C78D5D0F4CDBA17E77C6246077DE> | SE1/2 |
| Create a classroom mathematics display from the mathematics art task / photography task / tessellations etc. | SE1/2 |
| Effective teaching and learning strategies | Effective pedagogy in mathematics YSJ Moodle ppt.; Links to variation in mastery: [Starting Points Maths – Tasks and Blogs from Chris McGrane](https://startingpointsmaths.com/); <https://www.youtube.com/watch?v=G7qor4KjWpg>; | SE1/2 |
| Read book: [Mathematical Tasks: The Bridge Between Teaching and Learning: Amazon.co.uk: Chris McGrane, Mark McCourt: 9781913622060: Books](https://www.amazon.co.uk/Mathematical-Tasks-Between-Teaching-Learning/dp/1913622061) | SE3 |
| Plenary ideas to develop reflective practitioners and pupils; <http://www.magicalmaths.org/top-50-maths-mini-plenaries-ideas-to-use-in-an-outstanding-maths-lesson/> | SE2/3 |
| Find out how colleagues in your placement school tackle pupils’ misconceptions in mathematics learning and teaching. How do they plan for anticipating pupils’ mistakes and common misconceptions? | SE1/2 |
| Read Mike Ollerton’s book: ‘Getting the Buggers to Add Up’ for learning to teach mathematics with group work, open tasks, project work and mixed ability groupings. | SE2/3 |
| Assessment and use of data | Read Level 9 and Tips for higher attainers – YSJ Moodle ppt. | SE1/2 |
| Pupil Progress:  <https://www.sec-ed.co.uk/best-practice/five-ways-to-measure-pupil-progress-in-the-classroom-and-online-assessment-teaching/> | SE2/3 |
| Read: Dylan Wiliam and Paul Black – Black Box mathematics focus | SE2/3 |
| Social Context of Teaching | Padlet of useful mathematics websites and resources: <https://padlet.com/awardgow/vxvlexjhh75lrd9l> | SE2 |
| Read about ‘Critical mathematics education and social justice’ and see MKJ’s ppts | SE3 |
| Adaptive Teaching | Lesson planning, learning objectives versus outcomes, adaptive teaching, Afl (Alice’s ppt.); More able learners: <https://www.nace.co.uk/blogpost/1761881/Curriculum-teaching-and-support> | SE1/2 |
| Mathematical proofs – well-developed subject knowledge YSJ Moodle ppt. and Alice’s ppt. | SE2/3 |
| Better questioning YSJ Moodle ppt; [SSDD Problems – Same Surface, Different Deep Structure maths problems from Craig Barton @mrbartonmaths](https://ssddproblems.com/) | SE2/3 |
| Diversity and Inclusion (e.g. social, cultural) | Look at your placement school’s KS3 curriculum and evaluate its diversity.  How does it reflect current debates? What impact does that have on your practice? | SE2 |
| Read about the ‘Historical and cross-cultural roots of mathematics; current developments YSJ Moodle ppt: | SE2/3 |
| Read about ‘anti-racist and decolonial practice in education’ through MKJ’s ppts and the ITE blog of conference on 20.6.22. | SE2/3 |
| Plan a series of lessons with your mentor / class teachers to introduce ideas of social justice and critical mathematics education. | SE3 |
| Working memory | Read Jo Boaler’s work on Fluency, rote learning and memorisation in mathematics and watch the videos | SE2 |
| Read through material on growth mindset and discuss with your mentor on how these impacts planning lessons. |  |
| SEND | <https://en.unesco.org/gem-report/2020-background-papers?fbclid=IwAR0eyGh7QGKUyTWaD88Wu_VQ11VNfbVFR2WiQUrXaAubKAjpCkpCfH4kPvc>  <https://en.unesco.org/gem-report/report/2020/inclusion>  watch the videos | SE2 |
| <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/398815/SEND_Code_of_Practice_January_2015.pdf> Read Chapter 6 of this document outlining expectations for schools. Consider the impact on your understanding of the rights and responsibilities surrounding SEND provision. How might you refine your practice in response? | SE3 |
| EAL | Read: <https://www.bell-foundation.org.uk/eal-programme/guidance/guidance-by-curriculum-subject/teaching-eal-learners-in-maths/> | SE2 |
| Read: <https://axcultures.com/mathematics-and-eal/> | SE2 |
| Cross curricular themes (including literacy, oracy and mathematical skills) | Incorporate other media in mathematics lessons such as films featuring mathematicians  such as ‘Hidden Figures’, ‘The man who knew infinity’ and ‘Imitation Game’. | SE3 |
| Plan a lesson on Cipher and code breaking. Consider a trip to Bletchley Park and make links to computer science. | SE3 |
| Plan mathematics lessons with links to art, literacy, music, drama and poems – including the mathematical poetry task. |  |
| Mental Health/Wellbeing | Nurturing confidence YSJ Moodle ppt. <https://www.mentallyhealthyschools.org.uk/risks-and-protective-factors/school-based-risk-factors/transitions/> | SE3 |
| Consider how mathematics can help the well-being of your pupils. How might playing mathematical strategy games such as sudoku, chess, towers of Hanoi have benefits to mental health? Discuss with your mentor how you might try to incorporate mathematical games to target mental health and well-being support. | SE3 |
| Workload | * <https://www.moodjuice.scot.nhs.uk/> * <https://www.getselfhelp.co.uk/> * <https://www.headspace.com/>   <https://www.bbc.co.uk/programmes/m000rnwr> | SE2/3 |
| Discuss with colleagues their strategies to reduce workload for effective time management. Which would be workable for you? Reflect on how you spend the one day at the weekend when you are not working. | SE1/2/3 |
| ECF/Transition | Review your final targets for ECT and begin to map out a plan of how to meet them. | SE3 |
| <https://www.atm.org.uk/ECT>  Mathematics websites: NCETM, AQA, Edexcel, STEM, subject associations - ATM and MA, review your subject knowledge audits |

# 10. School Based Tasks for School Experiences - compulsory

## (supporting SE formative assessment continuum)

## 10.1 Behaviour and High Expectations

|  |  |
| --- | --- |
|  | **Secondary Mathematics** |
| **SE1** | **Observe and record** how expert colleagues**:**   * Create a safe and stimulating learning environment; * Model, set and maintain high expectations; * Promote positive behaviour and learning.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |
| **SE2** | **Observe/reflect and record how you and expert colleagues:**   * Consistently use strategies to promote positive behaviour; * Respond to inappropriate behaviour; * Make use of the learning space, resources, transition strategies and school policy to support behaviour.   **Discuss** your reflections, observations and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies consistently in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |
| **SE3** | **Observe/reflect and record how you and expert colleagues:**   * Use positive behaviour management consistently and effectively to motivate pupils and encourage pupils to self-regulate their learning and behaviour; * Balance teacher/pupil talk and focus on learning rather than behaviour-talk.   **Discuss** your reflections, observations and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies consistently in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |

## 10.2 Pedagogy

|  |  |
| --- | --- |
|  | **Secondary Mathematics** |
| **SE1** | **Observe and record** how expert colleagues**:**   * Break down learning into smaller, incremental steps; * Encourage pupils to reflect on their own learning; * Structure lessons to support learning; * Make use of resources and strategies to bring about a change in long term memory/ learning.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |
| **SE2** | **Observe/reflect and record** how you and expert colleagues**:**   * Plan for pupils’ learning to be focused on key aspects/concepts/ideas/perspectives in the subject and consider how these could be modelled using subject specific pedagogies; * Use open questions / talk to address misconceptions and break down learning; * Use different groupings flexibly in order to consider pupil attainment, behaviour and motivation; * Plan for additional learning needs and adapt teaching to support progress.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |
| **SE3** | **Observe/reflect and record** how you and expert colleagues**:**   * Make use of meta-cognitive strategies to promote pupil reflection and learning; * Apply the findings from research /CPD to practice, including subject specific pedagogies; * Use strategies to maximise learning in the long-term e.g. reviewing /retrieving material, modelling, scaffolded activities.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |

## 10.3 Curriculum

|  |  |
| --- | --- |
|  | **Secondary Mathematics** |
| **SE1** | **Observe and record** how expert colleagues**:**   * Use subject knowledge to inform their teaching; * Develop any cross curricular links; * Support development of literacy and mathematical skills through teaching of subject.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |
| **SE2** | **Observe/reflect and record** how you and expert colleagues:   * Sequence learning of subject content within and across lessons to support learning and progress; * Mitigate and remedy misconceptions in the subject; * Use strategies to support cross curricular links and develop literacy and mathematical skills; * Engage with and apply CPD opportunities, including via engagement with subject associations.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |
| **SE3** | **Observe/reflect and record** how you and expert colleagues**:**   * Promote and develop depth of subject knowledge and pupil understanding of the connections between topics; * Integrate subject specific pedagogy into practice; * Use strategies to support pupils critically engaging with learning activities, including development of oracy.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |

## 10.4 Assessment

|  |  |
| --- | --- |
|  | **Secondary Mathematics** |
| **SE1** | **Observe and record** how expert colleagues use hinge questioning\* and activities to:   * deepen understanding; * identify and address misconceptions; * assess progress.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development.  \*Hinge questions are a check for understanding at a ‘hinge-point’ in a lesson, i.e. the point where you move from one key idea/activity/point on to another and understanding the content is needed for the next chunk of learning. (<https://improvingteaching.co.uk/2013/08/17/do-they-understand-this-well-enough-to-move-on-introducing-hinge-questions/>) See also <https://www.youtube.com/watch?v=Mh5SZZt207k> |
| **SE2** | **Observe/reflect and record how you and expert colleagues:**   * Use assessment information to inform future plans; * Provide constructive and timely feedback which supports progress; * Keep accurate records to monitor progress.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |
| **SE3** | **Observe/reflect and record how you and expert colleagues:**   * Manage expectations for statutory assessment for KS4 (and KS5 if appropriate); * Use school data to monitor and track pupil attainment in your classes; * Monitor the progress of groups and classes using diagnostic prompts; * Engage pupils in the co-construction of success criteria and use these to promote self-evaluation.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |

### 

## 10.5 Professional Behaviours

|  |  |
| --- | --- |
|  | **Secondary Mathematics** |
| **SE1** | **Observe and record** how expert colleagues:   * apply the school’s safeguarding policy (make sure you read the policy too); * manage work life balance through the use of effective time management strategies; * maintain positive professional relationships with all colleagues.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |
| **SE2** | **Observe/reflect and record how you and expert colleagues:**   * Build and maintain positive relationships with parents; * Work collaboratively with teaching assistants and other colleagues to promote pupil progress; * Apply the school’s safeguarding policy (make sure you read the policy too); * Manage time efficiently and effectively to meet deadlines and manage workload.   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |
| **SE3** | **Observe/reflect and record how you and expert colleagues:**   * Communicate formally and informally with parents; * Contribute to the wider life of the school; * Apply the school’s safeguarding policy (make sure you read the policy too).   **Discuss** your observations, and questions you have identified, with your mentor with a view to application to your own practice.  **Practise** using these strategies in your next lesson and identify elements that weresuccessful or unsuccessful.  **Reflect** on your learning in this area in your reflective space on Pebblepad (make sure you date stamp this). Consider targets for future development. |

# 11. Mathematics Reading & Resource List

The reading and resource list for Maths can be accessed via the TALIS link on Moodle:

<https://rl.talis.com/3/yorksj/lists/8C8ABE6A-D11A-B665-16F3-2D5A88C26453.html>

Additional reading is included on the fuller resource list below:

**Essential**

Ambrâosio, U. D’ (2001) Ethnomathematics: link between traditions and modernity. Rotterdam: The Netherlands, Sense Publishers.

Bartell, T.G. ed. (2018) Toward equity and social justice in mathematics education. Cham, Switzerland: Springer.

Bishop, A. and Tan, H. eds. (2015) Diversity in mathematics education: towards inclusive practices. Cham: Springer.

Boaler, J. (2015b) The elephant in the classroom: helping children learn and love maths. Revised and updated edition ed. London: Souvenir Press.

Coles, A., Barwell, R., Cotton, T., Winter, J. and Brown, L. (2013) Teaching Secondary Mathematics as If the Planet Matters. London: Taylor & Francis Ltd.

Ernest, P., Sriraman, B. and Ernest, N. eds. (2016b) Critical mathematics education: theory, praxis, and reality. Charlotte, North Carolina, Information Age Publishing, Inc.

Gates, P. (2001b) Issues in mathematics teaching. London: Routledge/Falmer.

Morgan, J. (2019) Compendium Of Mathematical Methods. Suffolk: John Catt Educational Ltd.

Ollerton, M. and Sykes, P. (2012) Getting the buggers to add up. 3rd ed. London: Continuum.

Lemov, D. and Atkins, N. (2014a) Teach Like a Champion 2.0. 2nd Revised edition ed. New York, NY: John Wiley & Sons Inc.

Gardiner, A. (2016) Teaching mathematics at secondary level. Cambridge: Open Book Publishers.

Gutstein, E. (2006) Reading and writing the world with mathematics: toward a pedagogy for social justice. New York, Routledge.

Johnston-Wilder, S., Lee, C.S. and Pimm, D. (2017) Learning to teach mathematics in the secondary school: a companion to school experience. Fourth edition ed. London: Routledge.

Nelson, D., Joseph, G.G. and Williams, J. (1993) Multicultural mathematics. Oxford: Oxford

Skovsmose, O. (2011) An invitation to critical mathematics education. Rotterdam, Netherlands: Sense Publishers.

Southall, E. (2021) Yes, but why? Teaching for understanding in mathematics. 2nd Revised edition. London: SAGE Publications Ltd.

Watson, A., Jones, K. and Pratt, D. (2013) Key ideas in teaching mathematics: research-based guidance for ages 9-19. Oxford: Oxford University Press.

**Suggested reading**

Barton, C. (2018) How I Wish I Had Taught Maths. Saxmundham, Suffolk: John Catt Educational Ltd.

Lewis, Matt (2015) Assessment: Beyond right and wrong. Mathematics Teaching. [Post-print], (249), pp. 21–23. Available from [https://www-atm-org-uk.yorksj.idm.oclc.org/write/MediaUploads/Journals/MT249/963\_MT24 96375136060.pdf](https://www-atm-org-uk.yorksj.idm.oclc.org/write/MediaUploads/Journals/MT249/963_MT24%2096375136060.pdf).

McCrea, E. (2019) Making Every Maths Lesson Count. Camarthen: Crown House Publishing.

Mattock, P. (2019) Visible Maths. Camarthen: Crown House Publishing

Perryman, J., Ball, S., Maguire, M. and Braun, A. (2011) Life in the Pressure Cooker – School League Tables and English and Mathematics Teachers’ Responses to Accountability in a Results-Driven Era. British Journal of Educational Studies. 59 (2), pp. 179–195.

Smith, C. and Morgan, C. (2016) Curricular orientations to real-world contexts in mathematics. The Curriculum Journal, 27 (1), pp. 24–45

Taylor, H. and Vincent, K. (2014) Assessing Children’s Mathematics. In: Taylor, H. and Harris, A. ed. (2014) Learning and Teaching Mathematics 0-8. London: Sage.

**Extended reading**

Adams, G. (Ed.) Proceedings of the British Society for Research into Learning Mathematics 35(3) November 2015 [Online] [**https://bsrlm.org.uk/wp-content/uploads/2016/02/BSRLM-IP-35-3-20.pdf**](https://bsrlm.org.uk/wp-content/uploads/2016/02/BSRLM-IP-35-3-20.pdf)

Anthony, G. and Walshaw, M. (2009) Characteristics of effective teaching of mathematics: a view from the west. Journal of Mathematics Education. Vol 2, no 2, pp.147-164.

Anon (n.d.) Appreciating Mathematical Structure for All. Mathematics Education Research Journal [Post-print], 21 (2). Available from <https://files.eric.ed.gov/fulltext/EJ883866.pdf>.

Anon (n.d.) Big ideas in mathematics education: teaching for deep understanding. Available from http://toolkit.mathematicsmastery.org/app/webroot/js/tiny\_mce/plugins/moxiemanager/dat a/files/Big%20Ideas%20in%20Mathematics%20-%20Mike%20Askew.pdf

Anon (n.d.) Examining the CPA approach to primary maths, TES [Internet]. Available from <https://www.tes.com/teaching-resources/blog/examining-cpa-approach-primary-maths>.

Anon (n.d.) Using the Singapore Bar Model to support the interpretation and understanding of word problems in Key Stage 2. Available from <https://bsrlm.org.uk/wp-content/uploads/2016/02/BSRLM-IP-35-3-20.pdf>

Anon (n.d.) Teaching with Procedural Variation: A Chinese Way of Promoting Deep Understanding of Mathematics. Available from <https://www.cimt.org.uk/journal/lai.pdf>.

Askew, M. (2016) A practical guide to transforming primary mathematics. Activities and tasks that really work. Abingdon: Routledge.

Askew, M. (2015) Big ideas in mathematics education: teaching for deep understanding. Presented at Mathematics Mastery Primary Conference. Oxford. [26 January 16].

Askew, M (2014) Models in mind. [Internet]. Available from <http://nrich.maths.org/8348>

Barkatsas, T.N., Bishop, A. and Tan, H. eds. (2015) Diversity in Mathematics Education: Towards Inclusive Practices. 1st ed. 2015 ed. Mathematics Education Library. Cham: Springer International Publishing Imprint.

Barmby, P., Bolden, D. and Thompson, L. (2014) Understanding and Enriching Problem Solving in Primary Mathematics. Northwich, London: Critical Publishing.

Biggs, M (2012) Planning. In: Hansen, A.  Primary Professional Studies 2nd edition. London: Sage. p.212.

Boaler, J. (2016) Mathematical mindsets: unleashing students’ potential through creative math, inspiring messages, and innovative teaching. San Francisco, CA: Jossey-Bass & Pfeiffer Imprints.

Boaler, J. (2015) Fluency Without fear: Research evidence on the Best Ways to Learn Math Facts [Internet] <https://bhi61nm2cr3mkdgk1dtaov18-wpengine.netdna-ssl.com/wp-content/uploads/2017/03/FluencyWithoutFear-2015.pdf>

Clarke, S. (2014) Outstanding formative assessment: culture and practice. London: Hodder Education.

Clarke, S. (2008) Active Learning Through Formative Assessment. Hodder Education: London.

Clausen-May, T. (2013) Teaching mathematics visually and actively. Second edition ed. Los Angeles, California: Sage.

Coles, A., Barwell, R., Cotton, T., Winter, J. and Brown, L. (2013) Teaching Secondary Mathematics as If the Planet Matters. London: Taylor & Francis Ltd.

Cotton, T. (2010) Understanding and Teaching Primary Mathematics. Harlow: Pearson Education Limited.

Donaldson, G (2014) Pattern. In: Taylor, H. and Harris, A. eds. (2014) Learning and Teaching Mathematics 0-8. London: Sage. pp.181-195.

Donovan, M. S., and Bransford, J. D. (2005) How students learn: Mathematics in the classroom. Washington, DC: The National Academies Press.

Evans, S. (2017) Examining the CPA approach to primary maths [Internet] Available from <https://www.tes.com/teaching-resources/blog/examining-cpa-approach-primary-maths>

Fan, L. (2004) How Chinese Learn Mathematics. Singapore: World Scientific Publishing Co Pte Ltd.

Gifford, S., Nunes, T., Palmer, M., and Lloyd, V. (2020) Improving Mathematics in the Early Years and Key Stage 1: Guidance Report [Online] Accessible from  <https://educationendowmentfoundation.org.uk/public/files/Publications/Maths/EEF_Maths_EY_KS1_Guidance_Report.pdf>

Gu, L, Huang, R, & Marton, F. (2004). Teaching with variation: A Chinese way of promoting effective mathematics learning. In: Fan, L, Wong, NY, Cai, J, & Li, S (Eds.) How Chinese learn mathematics: Perspectives from insiders Singapore: World Scientific. p.309- 347.

Hansen, A. ed. (2020) Children’s errors in mathematics. Fifth edition ed. Los Angeles: Learning Matters.

Haylock, D. (2019) Mathematics explained for primary teachers. 6th edition ed. Thousand Oaks, CA: Sage Publications Ltd.

Haylock, D. & Cockburn, A. (2017) Understanding mathematics for young children – a guide for teachers of children 3-7. Fifth Edition. London: Sage.

Haylock, D. and Manning, R. (2018) Mathematics explained for primary teachers. Sixth edition ed. Los Angeles: SAGE.

Hodgen, J., Foster, C., Marks, R. & Brown, M. (2018) Improving Mathematics in Key Stages Two and Three: Evidence Review. [Online] Accessible from <https://educationendowmentfoundation.org.uk/public/files/Publications/Maths/KS2_KS3_Maths_Guidance_2017.pdf>

Jerrim, J., & Vignoles, A. (2016) The link between East Asian "mastery" teaching methods and English children's mathematics skills. Economics of Education Review, 50, 29-44. <https://doi.org/10.1016/j.econedurev.2015.11.003>.

Jones, G.A., Thornton, C.A., Langrall, C.W., Mooney, E.S., Perry, B. and Putt, I.J. (2000) A Framework for Characterizing Children’s Statistical Thinking. Mathematical Thinking and Learning, 2 (4), pp.269–307.

Lai, M and Murray, S (2009) Teaching with Procedural Variation: A Chinese Way of Promoting Deep Understanding of Mathematics [Internet] <https://www.cimt.org.uk/journal/lai.pdf>

Lo, M.L. and Chik, P.P.M. (2016) Two Horizons of Fusion. Scandinavian Journal of Educational Research, 60 (3), pp. 296–308.

Mason, J., Stephens, M. and Watson, A. (2009) Appreciating Mathematical Structure for All. Mathematics Education Research Journal, 21(2), pp.10-32.

Matthews, J. (2014) Children Talking about Mathematics. In: Taylor, H. and Harris, A Learning and Teaching Mathematics 0-8. London: Sage. pp. 20-31.

Montague-Smith, A., Cotton, T., Hansen, A. & Price, A.J. (2018) Mathematics in Early Years Education. Fourth Edition. Abingdon: Routledge.

Mooney, C. (2021) Primary mathematics: knowledge and understanding. 9th ed. Thousand Oaks: Sage.

Mooney, C., Briggs, M., Hansen, A., McCullouch, J., and Fletcher, M., (2014) Primary Mathematics: Teaching Theory & Practice, 7th ed. London: Learning Matters.

Mullis, I. V. S., Martin, M. O., Foy, P., Kelly, D. L., & Fishbein, B. (2020). TIMSS 2019 International Results in Mathematics and Science. Retrieved from Boston College, TIMSS & PIRLS International Study Center website: [https://timssandpirls.bc.edu/timss2019/international-results/](https://timss2019.org/reports)

Muijs, D. and Bokhove, C. (2020) Metacognition and Self-regulation Review: Evidence Review [Online] <https://educationendowmentfoundation.org.uk/public/files/Metacognition_and_self-regulation_review.pdf>

Ofsted (2021) Research review series: mathematics [Online]

Available from <https://www.gov.uk/government/publications/research-review-series-mathematics>

Polya, G. and Conway, J.H. (2014) How to Solve It: A New Aspect of Mathematical Method. Princeton University Press.

Polya, G. (1957) Now to solve it. A new aspect of mathematical method. New York: Doubleday Anchor Books.

Pound, L. and Lee, T. (2011) Teaching mathematics creatively. 1st ed. London; New York: Routledge.

Pratt, N. (2011) Mathematics outside the classroom. In: Waite, S. Children Learning Outside the Classroom: from Birth to Eleven. London: Sage. p.80.

Roicki, J. (2017) Multi-dimensional fluency. Math Musings.

[Online] <https://mathmusingsblog.wordpress.com/2017/08/19/multi-dimensional-fluency/>

Sheldrake, R. (2016b) Differential predictors of under-confidence and over-confidence for mathematics and science students in England. Learning and Individual Differences, 49, pp. 305–313.

Southall, E. (2021) Yes, but why? Teaching for understanding in mathematics. 2nd Revised edition. London: SAGE Publications Ltd.

Stobart, G. (2014) The expert learner: challenging the myth of ability. UK: McGraw-Hill Education.

Taylor, H. and Harris, A. eds. (2014) Learning and Teaching Mathematics 0-8. London: Sage.

Turner, S. (2013) Teaching Primary Mathematics. London: Sage.

Watson, A. ed. (2018) Variation in mathematics teaching and learning: a collection of writings from ATM: Mathematics Teaching. Derby: ATM.

# 12. Professional Studies/General Reading and Resources

The professional studies/general reading and resource list can be accessed via the TALIS link on Moodle:

<https://rl.talis.com/3/yorksj/lists/6D83213F-A75C-E543-B25E-81DAC5C71D29.html>

A fuller resource list for professional studies is below:

**Essential**

Abbott, I., Huddleston, P., Middlewood D, (2018*) Preparing to teach in secondary school*, Open University Press

Alexander R.J. (2020) *A Dialogic Teaching Companion*, London: Routledge.

Allen, B. and Sims, S. (2018) *The Teacher Gap*. Abingdon: Routledge.

Aubrey, K., (2019) *Understanding & using educational theories*, Sage

Bandura, A. (1986) *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bell, J., Waters, S., (2018) *Doing your research project: a guide for first-time researchers*, Open University Press, McGraw Hill Education

Black, P; Harrison, C, (2014) *Working inside the black box: assessment for learning in the classroom,* Learning Sciences

Brooks, V., Abbott, I., Huddleston, P., (2012) *Preparing to teach in secondary schools: a student teacher's guide to professional issues in secondary education*, McGraw-Hill/Open University Press

Capel, S., Leask, M., Younie, S., (2019) *Learning to teach in the secondary school: a companion to school experience*, 8th Edition, Routledge

Dikilitas, K., Bostancioglu, A., (2019) *Inquiry and Research Skills for Language Teachers*, Springer Nature Switzerland AG

Hattie, J. (2012) *Visible Learning for Teachers*. Oxford: Routledge.

Hirsch, E.D., (1999) *Schools We Need: And Why We Don't Have Them*, Knopf Doubleday Publishing Group

Kyriacou, C. (2018) *Essential Teaching Skills* – 5th Edition, OUP Oxford

Maguire, M., Gibbons, S., Glackin, M., Pepper, D., Skilling, K., (2018) *Becoming a Teacher: Issues in Secondary Education,* Open University Press

Muijs, D., & Reynolds, D. (2017) *Effective teaching: Evidence and practice.* Thousand Oaks, CA: Sage.

Pollard, A., (2019) *Reflective teaching in schools,* Bloomsbury Academic

Wilson, E., (2017) *School-based research: a guide for education students*, Sage

Wyse, D., Cowan, K., (2017) *The good writing guide for education students*, Sage.

**Other reading**

Clarke, S. (2001) *Unlocking Formative Assessment*, London: Hodder and Stoughton

Christodoulou, D. (2017) *Making Good Progress: The Future of Assessment for Learning*. Oxford: OUP

Hattie, J. (2009) *Visible learning: a synthesis of over 800 meta-analyses relating to achievement*. London: Routledge.

Mitchell, D. (2014). *What really works in special and inclusive education*. Oxford: Routledge.

Wiliam, D. (2017) Assessment, marking and feedback. In Hendrick, C. and McPherson, R. (Eds.) *What Does This Look Like in the Classroom? Bridging the gap between research and practice*. Woodbridge: John Catt.

Willingham, D. T. (2009) *Why don’t students like school?* San Francisco, CA: JosseyBass.

Wubbels, T., Brekelmans, M., den Brok, P., Wijsman, L., Mainhard, T., & van Tartwijk, J. (2014) Teacher-student relationships and classroom management. In E. T. Emmer, E. Sabornie, C. Evertson, & C. Weinstein (Eds.). *Handbook of classroom management: Research, practice, and contemporary issues* (2nd ed., pp. 363–386). New York, NY: Routledge.

**Journals**

Agarwal, P. K., Finley, J. R., Rose, N. S., & Roediger, H. L. (2017) Benefits from retrieval practice are greater for students with lower working memory capacity. *Memory*, 25(6), 764–771. <https://doi.org/10.1080/09658211.2016.1220579>.

Bailin, S., Case, R., Coombs, J. R., & Daniels, L. B. (1999) Common misconceptions of critical thinking. *Journal of Curriculum Studies*, 31(3), 269-283.

Bennett, R. E., (2011) Formative assessment: a critical review in Assessment in Education: *Principles, Policy & Practice*

Black, P., & Wiliam, D. (2009) Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability,* 21(1), pp.5-31.

Chapman, R. L., Buckley, L., & Sheehan, M. (2013) School-Based Programs for Increasing Connectedness and Reducing Risk Behavior: A Systematic Review, 25(1), 95–114.

Clark, R., Nguyen, F. & Sweller, J. (2006) Efficiency in Learning: Evidence-Based Guidelines to Manage Cognitive Load. John Wiley & Sons.

Cowan, N. (2008) What are the differences between long-term, short-term, and working memory? *Progress in brain research*, 169, 323-338.

Hattie, J., & Timperley, H. (2007) The Power of Feedback. *Review of Educational Research,* 77(1), 81–112. <https://doi.org/10.3102/003465430298487>

Johnson, S., Buckingham, M., Morris, S., Suzuki, S., Weiner, M., Hershberg, R., B. Weiner, Hershberg, R., Fremont, E., Batanova, M., Aymong, C., Hunter, C., Bowers, E., Lerner, J., & Lerner, R. (2016) Adolescents’ Character Role Models: Exploring Who Young People Look Up to as Examples of How to Be a Good Person. *Research in Human Development*, 13(2), 126–141. <https://doi.org/10.1080/15427609.2016.1164552>.

Slater, H., Davies, N. M., & Burgess, S. (2011) Do Teachers Matter? Measuring the Variation in Teacher Effectiveness in England. Oxford Bulletin of Economics and Statistics, <https://doi.org/10.1111/j.1468-0084.2011.00666.x>.

Zimmerman, B. J. (2002) Becoming a Self-Regulated Learner: An Overview, Theory Into Practice. *Theory Into Practice*, 41(2), 64–70. <https://www.jstor.org/stable/1477457?seq=1#page_scan_tab_contents>.

Skaalvik, E. M., & Skaalvik, S. (2017) Still motivated to teach? A study of school context variables, stress and job satisfaction among teachers in senior high school. *Social Psychology of Education*, 20(1), 15–37. <https://doi.org/10.1007/s11218-016-9363-9>.

**Others report/documents**

Education Endowment Foundation (2018) Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit: Accessible from: <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit>

Education Endowment Foundation (2018) Improving Secondary Science Guidance Report. [Online] Accessible from: https://educationendowmentfoundation.org.uk/tools/guidance-reports/

Education Endowment Foundation (2015) Making Best Use of Teaching Assistants Guidance Report. [Online] Accessible from: https://educationendowmentfoundation.org.uk/tools/guidance-reports/

Education Endowment Foundation (2017) Metacognition and Self-regulated learning Guidance Report. [Online] Accessible from: https://educationendowmentfoundation.org.uk/tools/guidance-reports/

Department for Education (2018) Schools: guide to the 0 to 25 SEND code of practice, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/349053/Schools\_Guide\_to\_the\_ 0\_to\_25\_SEND\_Code\_of\_Practice.pdf.

PISA (2015) PISA in Focus: Do teacher-student relations affect students’ well-being at school? Accessible from: https://doi.org/10.1787/22260919.

# 13. Mathematics subject specialist staff at YSJ

Our subject specialist for PGCE Secondary Mathematics is Manjinder Jagdev. Below is some information about her expertise in Mathematics:

Prior to her career in higher education Manjinder completed her BSc Honours degree in ‘Mathematics with statistics’ which was followed by an MSc in Medical Informatics. She was inspired by a university tutor and pupils in a local school, to pursue a rewarding PGCE in Secondary mathematics. She was a secondary school mathematics teacher for 10 years in multicultural and inner-city schools in Bristol and Norwich, including as Head of mathematics. Manjinder regularly organised extra-curricular activities and trips for her pupils including:

* after-school and lunchtime maths clinics
* a maths spelling bee competition for all year groups
* a school Countdown competition including a visit to the television Countdown studios where the pupils met Carol Vordeman
* Symonds Yat maze
* Techniquest Interactive Science centre in Cardiff
* Cinema visit to see preview of ‘Proof’
* Loughborough university residential for ‘Year8/9 girls into Engineering’ and ‘Nylacast Company engineering’ visit for KS4 boys.

She completed her MA in Education and Professional Development investigating the progress of pupils from Year 9 SATS to GCSE in mathematics. This enabled her to incorporate ideas from international good practice in teaching and learning, into her lessons, resulting in improved engagement and participation by pupils. As a result, value-added for mathematics results, for Year 9 and 11 pupils, ranked in the top 2% in the country.

Manjinder has been a university teacher since 2006, working with primary and secondary student teachers at several universities in the UK. She finds the work inspiring and exciting, especially with a talented team of colleagues at university and in local schools. Together, they have developed rich programmes that meet the needs of our students to motivate and challenge the next generation of children as learners, educators, and leaders.

Her research interests include social justice in mathematics education, focused on anti-racism in the national curriculum and decolonial practice. She has always taught ‘historical and cross-cultural roots of mathematics’ to children and student teachers. Manjinder has co-authored, with a school mentor, the chapter ‘Learning to teach mathematics in a multicultural society’ for the book ‘Mentoring Mathematics Teachers’. Her blog publication was part of a special British Education Research Association (BERA) series on racial justice in UK and beyond: <https://www.bera.ac.uk/blog/anti-racist-mathematics-teacher-education>.

Over the last year, Manjinder has presented at the ‘British Society for Research into Learning in Mathematics’ (BSRLM) conference and ‘Association of Mathematics Education Teachers’ (AMET) conference, ‘Guild HE - Anti-racist symposium’ (with YSJ colleagues) and written the following paper for BSRLM: ‘Anti-racist and decolonial practice in teacher education’: <https://bsrlm.org.uk/wp-content/uploads/2021/08/BSRLM-CP-41-2-10.pdf>

Manjinder’s interests in critical mathematics education extend to the links between racial and climate justice and she wrote the following blog for the Institute for Social Justice YSJ COP26 Takeover: <https://blog.yorksj.ac.uk/isj/2021/11/04/teaching-climate-and-racial-justice-throughout-the-school-curriculum/> She presented her and her students’ work ‘Intersection between climate and racial justice’ at the 1st symposium YSJ Ecological Justice. Last November, she led two Diversity conferences with primary undergraduate and secondary postgraduate student teachers, across all school subjects. Students provided positive feedback from both conferences, and this informs Manjinder’s ongoing doctoral work.