

Curriculum Intent

Think Like An Engineer: Every lesson, every day

We believe strongly in our curriculum pedagogy “**Think Like An Engineer**”. The stages of this are as follows: **Identify/Research/Plan/Create and Evaluate**. This mindset, deep rooted in research, prepares our young people to become resilient learners who can identify problems, make mistakes, apply their skills and reflect critically.

We are committed to creating a culture where reading and numeracy skills are at the heart of development and bridge the development gap. We are driven by the pedagogy of ‘Think Like an Engineer’. The key skills of: Identify/Research/Plan/Create and Evaluate cannot be developed without being underpinned with confident literacy and numeracy skills.

For struggling readers, we identify the areas for support through a triangulation of SATs, CATs and initial teacher assessment. Once this process has taken place, our SEND/Inclusion Team will use a variety of methods to support the individual pupil. This could include a Toe-by-Toe assessment, Fresh Start Phonics or Bedrock. All support will be delivered by trained specialists.

UTC Inclusive Curriculum, Nurturing and building Resilience

The UTC promotes inclusive practice across all curriculum areas to ensure children with a range of attributes such as ethnicity, gender, socio-economic status, special educational needs can learn together in our mainstream classrooms for the majority of the day. The UTC aspires to deliver learning environments and a curriculum that not only supports academic learning but also social and emotional skills in order to develop resilience and deal confidently with future life experiences. The UTC defines an inclusive and nurturing curriculum/education as one that enables all students to thrive academically to their best potential whilst also developing the social and emotional skills to avoid exclusions and flourish in terms of lifelong skills needed for their long-term future.

The UTC vision is that our curriculum functions on the premise that students with disabilities are fundamentally as competent as students without disabilities, **ALL** students can fully participate in our STEAM curriculum. We believe that successful inclusive education happens primarily through accepting, understanding, and attending to student difference and diversity, which can include physical, cognitive, academic, social, and emotional. This is not to say that students *never* need to spend time out of regular education classes, because sometimes they do for a very particular purpose, for instance, for speech or occupational therapy but ultimately our goal is that this should be the exception. The driving principle is to

make all students feel welcomed, appropriately challenged, and supported in their efforts within the classroom.

All students at the UTC will have the opportunity to receive learning experiences and an appropriate curriculum in line with the same learning goals. Teachers are trained to think about what supports individual needs, for example; making sure all students hear instructions, that all students start activities, are enabled to participate in large group instruction, and that students transition in and out of the classroom at the same time. For this latter point, not only will it keep students on track with the lessons but that peers do not see students leaving or entering in the middle of lessons, which can really highlight their difference.

In order to access our curriculum the UTC offers various strategies and modified environments to support a range of learners' needs. They include multiple ways of representing content, such as modelling, use of visual images, clear objectives and manipulatives, graphic organisers, oral and written responses, assistive technology, large print, headphones, dictated responses, drawing, use of calculators, or extra time are just some examples. The UTC also offers project-based and inquiry led learning within its curriculum where students individually or collectively investigate an experience.

The promise to leave no one behind is at the heart of the UTC philosophy. All pupils will receive a high-quality curriculum, instruction, interventions and any further support required to enable them to meet success. Inclusive education is when all of our students, regardless of any challenges they may have, are in an appropriate class which supports individual needs. Throughout the core of the UTC curriculum we aim to enhance social and emotional learning opportunities, improve mental health and wellbeing, provide equality of opportunity, increase academic engagement and outcomes, foster a sense of belonging, reduce exclusions and support personal growth and development.

SEND/Resilience pathway: (How is your curriculum adapted to support SEND students?)

- What particular strands have you taken from your KS3/4 Curriculum to embed within the resilience pathway as the building blocks to enable rapid progression for students who have significant gaps in their subject knowledge?
- What are the key most important themes that you can take from your Curriculum that would support students in the resilience pathway with consideration to their specific categories of need such as Autism, ADHD, Social, Emotional and Mental Health needs?

For example: P.E do a lot on supporting healthy living and how exercise can help students struggling with Mental Health.

- How are you selecting the students who will be on the resilience pathway and how do regular assessments support flexibility for movement back into higher ability sets.

SEND Maths

We have a responsibility to provide a broad and balanced curriculum for all pupils. Our curriculum is designed to give all learners the knowledge they need to succeed in life. It is inclusive. All students study the same topic areas and are offered support and challenges where appropriate. We know that some students find concrete and pictorial representations useful as entry platforms to abstract concepts and we review topics in differing contexts.

Our Schemes of Learning clearly outline precursors to support staff and we have aimed to address potential problems with cognitive overload - an example being our use of calculators during the first Block of algebra in Year 7. The 'mastery through small steps' structure provides an opportunity for disadvantaged students or those with special educational needs and/or disabilities to progress at a suitable pace, whilst our approach to differentiation aims to cater also for those with high needs.

Our curriculum enables teachers to set suitable challenges, respond to diverse needs and to overcome potential barriers to learning. This may include 'parallel' activities.

Our Departmental CPDs for students with SEND (based on work originally initiated by the TDA) led to a self-audit raising awareness and drawing conclusions which led to greater focus and better practice.

Through the collection of internal data using national standards testing materials, there are three groups of students who will follow a **White Rose** pathway which is different to that followed by other groups in their cohorts. To be specific:

7M and 8R will follow the Year 5 pathway and 9M the Year 7 pathway. This will be regularly reviewed.

SEND English

SEND/Resilience pathway:

Each lesson is adapted through outcome and supporting resources as well as the teacher's knowledge and understanding of the learners' needs. This ensures that all students of different abilities can fulfil their potential while setting them a challenging curriculum. Students have access to various scaffolded resources including written exemplars, live modelling and written step-by-step guides. Our adaptive curriculum encourages and nurtures all students with SEN needs, and allows them to build confidence and grow. Alongside 'adaptive teaching', where individual needs are catered for in the classroom, we have designed a 'nurture' curriculum for our less able students. Within this curriculum, students have lessons which are designed and tailored to their specific needs. Students have two hours a week dedicated to a diluted curriculum, which incorporates skills, knowledge and understanding of topics outlined in the curriculum narrative. Students also receive one lesson a week that is dedicated to developing reading confidence and comprehension skills as well as one lesson a week, dedicated to improving spelling, grammar, punctuation and handwriting. Specific reading intervention programmes are also implemented to support students further, such as Fresh Start and Reading Champions. All Key Stage 3 years will also have one lesson a week dedicated to developing their Oracy skills. This involves students learning to confidently articulate their opinions, listen attentively to their peers, gain cultural

capital in relation to current affairs and issues of significant relevance.

SEND Science

Our curriculum is mapped from identified key stage 2 start points with subject content continuously reinforcing key concepts and building upon these to develop scientific knowledge. As such, it is essential for all of our students, regardless of background, ability or learning need, to follow our learning sequence for knowledge to be acquired, understood and retained. To allow those that may not have made the progress through KS2 to access a meaningful KS3 curriculum, we have mapped KS2 appropriate learning outcomes and activity against our curriculum sequence to allow all students to make progress, and facilitate closing the learning gap for those students that require it.

Differentiation in the classroom; curriculum objectives are broken down into learning outcomes for each session and unit of work, which are differentiated by level to ensure that all students are suitably challenged. Type and level of learning need varies within our student cohort and so a 'one-size fits all' approach to resourcing learning activity is not appropriate. Staff differentiate learning activity and resources to meet the learning needs of individuals within each class so that all students can access our learning pathway.

SEND Engineering

Inclusivity in KS3

Our curriculum is developed from KS2 start points in Art, Design technology and aspects of Science. We appreciate that students arrive at UTC having had a variety of experience in these subjects and so the curriculum is mapped, following our 'think like an engineer' philosophy, through key aspects of STEAM applications. Our learning outcomes are differentiated by ability to allow students to access and progress through the curriculum pathway, regardless of background experience or 'ability'. Mapping from the KS2 curriculum also allows us to adapt our content down to students' start points to facilitate rapid progression onto relevant KS3 content. Soft testing is used at the start of a unit of work to gauge individual student prior knowledge.

We firmly believe that the breadth of our curriculum should be experienced by all and so no adaptation is made to curriculum sequencing where SEND need or other considerations are identified. Instead, lesson delivery and resourcing is adapted to facilitate students in accessing learning content and developing the skills necessary for KS4.

Inclusivity in KS4

Key knowledge and skill components needed to access the Cambridge National qualification is developed throughout KS3. Students will be familiar with the design cycle, or 'think like an engineer', components that underpin curriculum delivery. We have chosen this qualification as it offers a suitably broad base to provide clear progression onto our KS5 pathways as well as directly into employment or training in STEAM careers. The breadth of the qualification allows us to tailor it to the cohort, as well as adapt the level of learning outcomes, relevant to the assessment criteria of the course, to match student ability and aspirational outcomes.

We firmly believe that the breadth of our curriculum should be experienced by all and so no adaptation is made to curriculum sequencing where SEND need or other considerations are identified. Instead, lesson delivery and resourcing is adapted to facilitate students in accessing

learning content and developing the skills necessary for KS4.

SEND Art

Our curriculum builds upon the students previous learning; at KS3 this would build upon KS2 and at KS4 this would follow on from KS3 curriculum.

Each lesson is adapted through outcome and supporting resources as well as the teacher's knowledge and understanding of the learners' needs. This ensures that all students of different abilities can fulfil their potential while setting them a challenging curriculum.

Students have access to various scaffolded resources including visual exemplars (WAGOLs from students and teachers work), live demonstrations, recorded videos, still images of the making process, and written step-by-step guides.

We support students to broaden their cultural understanding, and their ability to view the work of others from multiple viewpoints and celebrate the differences within the work and the artists alike. Promoting awareness of spiritual, moral, social, and cultural differences is an important aspect we sensitively cover through oracy discussion.

We follow the 'graduated approach', which consists of tiered levels of students' learning needs. Although Art has mixed ability classes, we are fortunate enough to have a dedicated resilience pathway cohort. This is a much smaller group of students who frequently have a different approach to their learning. The classroom teacher will continue to use the same learning objective(s) but will change the approach accordingly to best fit the learners level of understanding and development. For example, in Year 7 students complete a project called Hardware Splat, based upon the Artist, Jim Dine. One of the activities is to use a collection of hardware tools as an outline; most students would be given free range of which tool they use, whereas our resilience pathway students would be guided to use the simplified shaped tools. Some of these students might have support tracing their shape and some might have the shape pre-drawn for them. Students then experiment with a controlled splatter technique. Most students would be expected to create this effect with a small paint brush but a few students may need a much larger brush or even a different instrument altogether. We adapt our approach and support for each student and their tailored needs, whilst striving for all students to continually make progress.

During our department meetings we discuss student progress. This helps us as a department to ensure best practice is happening - sharing and collaborating ideas and supporting our student to make progress for all levels. Class teachers often bring student books to our meeting, we take time to discuss our individual approaches to have supported our learners and celebrate their achievements.

At KS4 our GCSE groups are kept small to help us give the one-to-one support they need, particularly as the course develops at the start of Year 11. This signals the start of their independent journey where students start to take control over the direction of their work. This can be a tricky burden for some of our learners. Having smaller groups enables for better progress and support. There is much encouragement for students to attend our 'after-school Art Club', again allowing students to have additional time and support.

SEND History

Students with SEND requirements will follow the same curriculum as other students with an identical learning journey following chronological and analytical themes. Students will have individual support based on their PEN portrait as well as a particular focus on addressing misconceptions. With extended written tasks writing frames and sentence starters will be available as well as gap fill sheets for contextual information for students who need support with written work. SEND support in History will be focused around a number of key areas;

1. Begin the lesson with a review of previous learning.
2. Present new material in small steps.
3. Ask a large number of questions (and to all students).
4. Provide models and worked examples.
5. Practice using the new material.
6. Check for understanding frequently and correct errors.
7. Provide scaffolds for difficult tasks.
8. Encourage independent practice once students have demonstrated understanding.
9. Work closely with the SENDco and support team with students as it becomes clear they are struggling and make contact home at the earliest opportunity if progress is not made.
10. All lessons will be accessible digitally with the lesson content as well as a recorded version of the lesson for students to access either at home to revisit or with support staff if they are not in the main lesson to ensure they do not fall behind.

SEND P.E.

SEND Narrative: The PE curriculum builds upon prior learning although with the new concept element being introduced in Year 7 this year will be a new element for the students. Each lesson will be differentiated by the class teacher in order to cater for all learning needs via quality first teaching. This will include focussed 'Do it now' tasks and detailed plenaries. Group discussion will also help students to learn via peers sharing knowledge. The lessons are planned to enable all students to access the curriculum via scaffolding and differentiated tasks. Strategies include differentiated practical activities, verbal prompts, keywords as well as suitable challenges. Teachers will use higher order questioning and challenge tasks to stretch the most able.

The new concept curriculum at Year 7 is also looking at moving away from the 'traditional' PE curriculum where practical performance was the main aim and looking more at the value of PE. For the resilience pathway students will follow the same core curriculum of activities so they experience a breadth of study but these activities can be adapted to suit the needs of the students. Health and fitness units will focus on health and the different elements that contribute to it such as social, mental and physical and the benefits PE and activity can bring.

SEND Computing

SEND KS3: The computing curriculum builds upon the KS2 curriculum. Each lesson is differentiated by the class teacher. The lessons are planned to enable all students to access the curriculum via scaffolding and differentiated tasks. Strategies include differentiated worksheets, sentence starters, keywords as well as challenges. Teachers will use higher order questioning and challenge tasks to stretch the most able.

The resilience pathway teachers revisit and reflect on how to further differentiate the lessons by referring to the skills and knowledge from the KS2 curriculum in IT. The students are taught in small groups and the curriculum is differentiated by task with strategies individualised for the learner.

The class teacher has their class folder which contains students' pen portraits. Each class has a pyramid which highlights those students with SEND and PP. Strategies are shown on this pyramid which the individual teacher uses throughout their lessons. They have referred to the Directory of Strategies to meet need and enable progress and refer to wave 3 interventions. As a department the resilient pathway students are discussed at our faculty meetings to ensure they continue to make rapid progress and are not held back in their learning. Students are assessed at the end of each unit. Verbal and written Feedback are given regularly as per the faculty marking policy. After assessments have been taken and marked discussions are had, at our meetings, as to whether it would be appropriate to move to a higher set.

SEND KS4/5: The key stage 4 curriculum builds on the skills and knowledge gained from key stage 3, this combined with the course specifications from Computer Science and IT, is our basis for creating our SoW. Students are supported through their coursework elements with access to WAGOLL's. Exam questions are broken down and scaffolded to give students confidence to attempt to answer every question especially the higher marked questions. Model answers are highlighted by students as part of the DIRT in their lessons. We disseminate the assessment criteria to ensure that all students are able to reach their potential.

Class folders contain pen portraits and pyramids with individual interventions for students. Student progress is discussed at our faculty meetings. Revision, small group additional sessions can be planned for those students who are on the courses and who are not working at their target grade to improve their progress and their target grade.

SEND PSHE

The resilience pathway within PSHE encourages and nurtures all students with SEND needs, and allows them to build confidence and grow. Each lesson is adapted through outcome and supporting resources as well as the teacher's knowledge and understanding of the learners' needs. This ensures that all students of different abilities can fulfil their potential while setting them a challenging curriculum. Lessons are planned to 'teach to the top' with scaffolding and differentiation of tasks to those that may need it. Strategies include: coloured paper; differentiated worksheets; sentence starters; gap fills; wordbanks; larger text; simplified

factual reading as well as challenge tasks using higher order thinking skills for the most able, including evaluation debate plenaries or creating their own case studies to demonstrate understanding. Oracy skills are developed across the key stages that involve the students learning to confidently articulate their opinions, listen attentively to their peers, gain cultural capital in relation to current affairs and issues of significant relevance.

KS3. SEND

Lessons are planned to 'teach to the top' with scaffolding and differentiation of tasks to those that may need it. Strategies include: coloured paper; differentiated worksheets; sentence starters; gap fills; wordbanks; larger text; simplified factual reading as well as challenge tasks using higher order thinking skills for the most able, including evaluation debate plenaries or creating their own case studies to demonstrate understanding.

KS4. SEND

Lessons are planned to 'teach to the top' with scaffolding and differentiation of tasks to those that may need it. Strategies include: coloured paper; differentiated worksheets; sentence starters; gap fills; wordbanks; larger text; simplified factual reading as well as challenge tasks using higher order thinking skills for the most able, including evaluation debate plenaries or creating their own case studies to demonstrate understanding.

SEND German

SEND KS3:

The German curriculum builds on English language skills like speaking, listening, reading and writing which are normally acquired in KS2 however, our SEND and resilience pathway students can have significant gaps in these areas. We therefore adapt and tailor our approach for each student and their needs, whilst striving for each student to make progress and have the best possible outcomes.

Our SEND and resilience pathways are working towards the same objectives and follow the same SOW's but our approach and delivery of lessons differ. For example, this academic year we have been trialling using additional crib sheets for our resilience pathway cohorts. The cribsheets vary for students depending on their writing and comprehension skills. Some have most of the sentences written with word gaps, some are more challenging with more information needing to be presented. This allows pupils to feel like they can achieve just like everyone else and it builds their confidence.

The approach to learning is slower and with smaller chunking and SEND/resilience pathway pupils are allowed and encouraged to use their PLC's and KO's to support them with their classwork. DIN's are normally half the normal size and students can use their KO's to aid vocabulary recall. Grouping resilience pathway pupils around one table together as a class has shown success as it fosters the feeling of togetherness and support. Our confident and more able pupils in the resilience pathways are stretched and challenged for example by being encouraged to complete the full DIN's, working with only minimal support from the crib sheets and taking on extra challenges. For example, during a speaking game of connect the Y8 pupils had to name places in town and the most able pupil played against the entire class.

Listening activities are supported by pupils working with a script and/or using gap fill sheets for their answers, depending on their learning needs.

The measures mentioned above are a small snapshot of how we tailor/adapt our teaching approach in German in order to ensure that no pupil gets left behind and that all achieve to the best of their ability whilst also gaining confidence.

SEND Careers

To support all students in careers progressions we work with our careers providers to offer additional sessions for SEND students alongside other vulnerable groups as explained below:

An example of this is in year 8 where we provide an early careers meeting. The order of these meetings are planned (SEND, PP, Girls, Boys) and communicated to students and parents well in advance. We allow extra time for SEND meetings as well as sharing information of the questions we are going to ask with parents and students so time can be spent preparing for these meetings.

Year 9 is a pivotal time for students with option choices, this provides a great opportunity to discuss careers with SEND students. The careers team will be in attendance at our options choice evening as well as all parents evening throughout the year. This is to support all students, but particularly SEND students.

We are running specific mentoring for SEND students in year 11 with one of our careers partners. We will advise on which careers programme providers, activities and resources are most effective and work with industry partners to coordinate experiences of the workplace for our students that are tailored to their needs. CSW Group will work with UTC staff to identify those who are at risk of NEET in Years 9 – 12. The focus of this work will be with Year 11 students. Working with students in Years 9 and 10 will be limited to individual interviews, action planning and signposting. CSW will provide them with early, targeted and intensive support for the following students, young People in and leaving Local Authority care, young People with identified special educational need and an EHCP, Young People who are on SEN Support, Young Carers, Young people who are struggling to engage with education due to specific needs e.g. medical needs, Young People who are, or at risk of becoming known to, or returning to, the Criminal Justice System or at risk of being exploited, Young Parents,

This will:

- Raise aspirations
- Ensure they recognise their potential and understand the options open to them
- Ensure a smooth, successful and sustained transition into learning and work.

All of our EHCP students receive further individual support and from a careers specialist who has liaised with the Special Educational Needs Coordinator to discuss any specific needs of the student before the meetings take place.

