



**Kemnal  
Technology  
College**



# **KTC CURRICULUM AMBITION AND IMPLEMENTATION**



**KEMNAL HEARTS**



**KEMNAL MINDS**



**KEMNAL READS**

*Growing Hearts, Inspiring Minds*

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## **KTC Curriculum Ambition**

### ***Growing Hearts, Inspiring Minds***

#### **KTC Ambition**

We are a community of learners who share the mind-set of determination and ambition. Curriculum is the DNA of the college and our mission is to inspire and grow our young Kemnal Hearts and Minds.

Our curriculum is underpinned by the mission and values of the college and our TKAT family. Our shared and common purpose is to ensure that the curriculum shapes our students' learning and life chances so that they can achieve success within a safe, inclusive and ambitious environment.

At KTC, we work collaboratively to create a relevant curriculum that gets under the skin of our students, provides an outstanding learning journey and enables them to meet the challenges of the evolving world. We place our students at the very heart of our curriculum.



### **KEMNAL HEARTS**

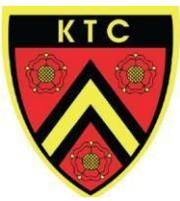


### **KEMNAL MINDS**

**Reading critically for knowledge and understanding while promoting reading for pleasure**

- ❖ **Equipping students for the future**
- ❖ **Improving students' life chances and opportunities**
- ❖ **Understanding of our values and beliefs**
- ❖ **Engaging with the wider community**

- ❖ **Knowledge Rich Curriculum**
- ❖ **Skills to help students progress**
- ❖ **Broad and balanced**
- ❖ **Engage and achieve: ambitious but inclusive**



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## **KEMNAL HEARTS**

Throughout our Kemnal Hearts Curriculum, we aim to grow every student's personal development by creating a sense of kindness and ambition, as well as an acceptance of others whose beliefs and attitudes may be different from our own.

Our Kemnal Hearts Curriculum is delivered through a combination of PSHE, extra-curricular activities, enrichment opportunities and through reading. This aspect of our overall curriculum is centred around equipping our students with the skills and knowledge to allow them to be ambitious and globally informed citizens of the future.

It is important to us that our students can contribute in a purposeful and meaningful way in our college as well as the wider community. It prepares our students with the skills and knowledge to be successful beyond our college doors.



## **KEMNAL MINDS**

Through our Kemnal Minds Curriculum, we aim to inspire and challenge our students to think critically and creatively while having the confidence to be inquisitive and independent in their learning.

We plan our curriculum collaboratively so all staff at KTC have an input on what is important for our students to learn, in order for them to achieve the very best academic results. Our curriculum is knowledge rich because we understand that a strong knowledge base will act as a gateway to other subjects, topics and disciplines.

At KTC we are passionate about reading as we know that this helps our students' learning and development in many ways. Reading is fundamental in our curriculum and we offer regular opportunities for this. Our aim is to instil a love for reading in our Kemnal Hearts and Minds.

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***Growing Hearts, Inspiring Minds***



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## **SEND Curriculum Ambition**

At Kemnal Technology College, our ambition for Special Educational Needs and/or Disabilities (SEND) is to ensure that all children achieve their potential regardless of need or disability. We believe that it is vital that our students are encouraged to develop the knowledge and skills needed to become ***ambitious, resilient and considerate learners*** both inside and outside of the classroom.

Through our assessment, planning, teaching and provision we:

- ❖ Ensure that all children have access to a broad and balanced curriculum which is differentiated to enable children to follow the National Curriculum at a level and a pace that is appropriate to their abilities.
- ❖ Provide an accessible learning environment which is tailored to the individual needs of all children.
- ❖ Develop children's independence and life skills.
- ❖ Regularly monitor the progress of children with SEND, using a child-centred approach.
- ❖ Provide good quality and relevant training for all staff members supporting children with SEND.
- ❖ Work in partnership with parents and carers. Work closely with external agencies and other professionals to develop our provision for children with SEND.

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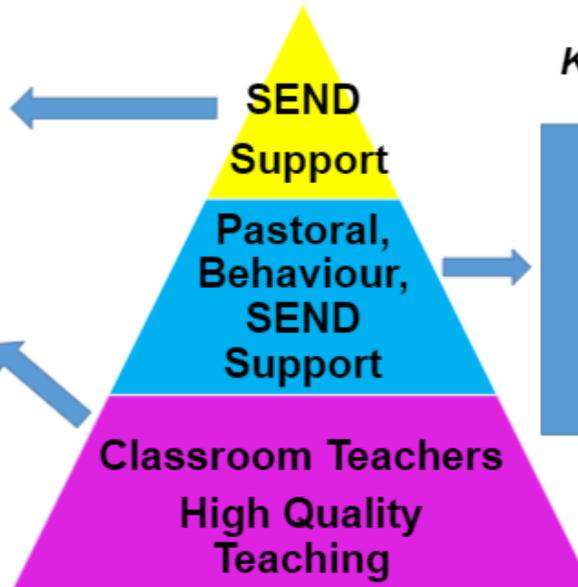
***Growing Hearts, Inspiring Minds***



## SEND Curriculum Support at KTC

- Individualised SEND support e.g 1:1 literacy/ numeracy/ phonics/ reading/ social skills
- EHCP support
- TA support in lessons
- Therapy sessions
- Counselling and mentoring

- Ambitious curriculum for all
- Fantastic 4 pedagogical model (retrieval of prior learning, challenging new content, applying knowledge and checking understanding)
- High challenge, low threat activities
- Regular opportunities to read for understanding and pleasure
- Shared strategies with all teachers and support staff
- Close communication with TAs and parents



**Every Teacher at KTC is a teacher of SEND**

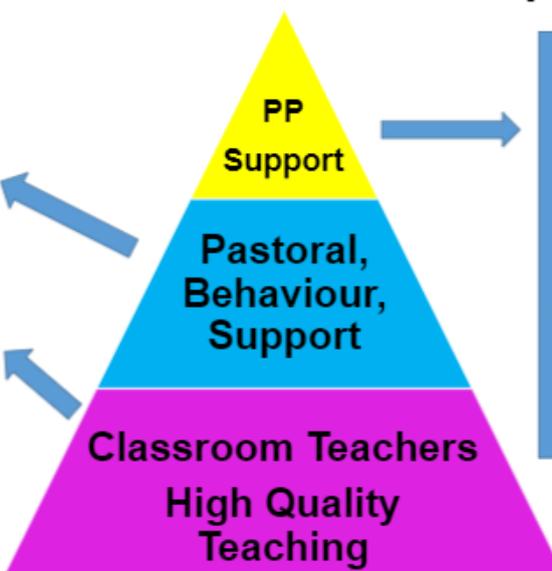
- Workshops in ICE
- Group interventions e.g Readers are Leaders Programme
- Ambition Tutor Programme
- Football Beyond Borders
- Strengthen Minds sessions
- Regular PSHE sessions
- Wrap around care
- Bromley wellbeing services
- School wellbeing page



## Pupil Premium Curriculum Support at KTC

- Workshops in ICE
- Ambition Tutor Programme
- Football Beyond Borders
- Strengthen Minds sessions
- Regular PSHE sessions
- Wrap around care
- Bromley wellbeing services
- School wellbeing page

- Ambitious curriculum for all
- PP info on seating plans
- Fantastic 4 pedagogical model (retrieval of prior learning, challenging new content, applying knowledge and checking understanding)
- High challenge, low threat activities
- Regular opportunities to read for understanding and pleasure



- Provide resources (ipads, clothing, books, stationary)
- Free Magic Breakfasts starting in Term 2
- Group interventions e.g Reading Matters Programme
- Year 11 Form Tutors contact home each week regards to academic support and well-being
- Extra- Curricular activities after school every day
- Individualised support e.g 1:1 literacy/ numeracy/ phonics/ reading/ social skills
- Teach First Tutors- English and Maths
- Counselling and mentoring



## **KEMNAL READS**

- ❖ We have designed a Curriculum Reading Map that has been co-constructed by all subjects to ensure reading is a priority across the school. This map is underpinned by the National Curriculum Reading Framework and we have taken into account the context of our students.
- ❖ Guided reading during form time twice a week and once a week for 60 minutes with their form class.
- ❖ Free use of Sora which is an online library app where students can access e-books and audio books.
- ❖ We offer regular opportunities to read in all lessons in every subject and it's included in our pedagogical model.
- ❖ We ask all students to carry a reading book in their bag as there are opportunities to read for pleasure throughout the school day.
- ❖ Weaker readers in Years 10 and 11 take part in our TKAT Reading Matters Programme
- ❖ Bespoke reading programmes are delivered by our SEND Team to both KS3 and KS4 students.
- ❖ Reward points are given to spend in our shop for students who read regularly.
- ❖ Accelerated Reader Programme- Years 7-8.
- ❖ Year 7-8s will have access to MyOn where they can access Accelerated Reader books and take part in quizzes.
- ❖ Years 7-9 have regular library lessons where they can read and change books. Years 10-11 can do this at break and lunchtime.



## KEMNAL READS Curriculum Map

- A child who reads will be an adult who thinks.
- Reading is to the mind what exercise is to the body.

**Key Terminology**

☐ Pupils read key terminology linked to individual subject & complete comprehension questions.

**Contextual reading**

☐ Individual contextual reading linked to topics and concepts.

• Reading gives us someplace to go when we have to stay where we are.

• To read is to voyage through time...

**YEAR 11**

**All Subjects**

☐ Non fiction articles linked to topic

**Technology**

☐ Non fiction articles linked to topics e.g. cookery, production and computing

**PE**

☐ Extracts from biographies and non fiction articles

**Media**

☐ Non fiction articles linked to the industry and genres

**Science (non fiction)**

☐ Non fiction articles linked to topics and scientists



**Term 4 History (fiction text)**

☐ The Diary of Anne Frank

**Term 5 French (fiction)**

☐ Extracts from Les Miserables

**Term 6 Geography (non fiction)**

☐ There is no Planet B

**YEAR 10**

**Guided Reading**

☐ Non fiction articles linked to themes  
Fiction for pleasure

**Maths Non fiction**

☐ Exploring the wording in longer Maths questions where reading ability is essential.



**Term 3 English (fiction)**

☐ Frankenstein by Mary Shelley

**Term 2 History (fiction)**

☐ Munich by Robert Harris

**Term 1 Comp Science (non fiction)**

☐ Various articles on influential thinkers & innovations in CS

**YEAR 9**

**Term 6 Geography (non fiction text)**

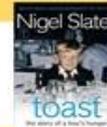
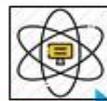
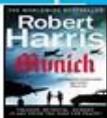
☐ Population 10 Billion

**Term 5 PSHE (FICTION)**

The Alchemist by Paulo Coelho

**Term 4 - History (fiction text)**

Roll of Thunder Hear My Cry



**Term 4 P.E (non fiction)**

☐ Influential women, men & people of colour from the history of sport

**Term 5 Maths (fiction text)**

☐ The Adventures of Penrose the Mathematical Cat

**Term 6 Art (non fiction)**

The life & times of famous artists

**YEAR 8**

**Term 1 (Science) non fiction**

Women in science: 50 famous pioneers

**Term 2 Comp Science (non fiction)**

☐ Various articles on influential thinkers & innovations in CS

**Term 3 - Food Tech (non-fiction text)**

Toast by Nigel Slater



**Term 3 (English)**

Oliver Twist- Charles Dickens

**Term 2 (Chemistry) Fiction text**

Can Reindeers Fly? The Science of Christmas

**Term 1 Technology (non-fiction)**

Articles on Construction of Cars & Environmentally friendly plastics

**YEAR 7**

**Sora- online library**

Guided reading during form time and lessons

- Accelerated Reader Year 7-8
- MyOn Year7-8
- Readers are Leaders Programme
- Individualised phonics/ reading programme for developing readers

Our aim is to develop pupils' spoken language, reading, writing and vocabulary as integral aspects of the teaching of every subject. While simultaneously developing a love of reading.

The reading curriculum aims to develop pupils' reading and writing in all subjects to support their acquisition of knowledge. Pupils are taught to read fluently, understand extended prose (both fiction and non-fiction)

Pupils' acquisition and command of vocabulary are key to their learning and progress across the whole curriculum. Each reading topic is tailored to develop vocabulary actively, and building systematically on pupils' current knowledge.

It is vital for pupils' comprehension that they understand the meanings of words they meet in their reading across all subjects. Therefore reading topics are tailored to coincide with what pupils' are learning in that subject at both KS3 & KS4



### Our Pedagogical Model

This is how we deliver our Curriculum during lessons to ensure our students learn both knowledge and skills.

 <p><b>Knowing more, remembering more and demonstrating more</b></p> <p><b>RETRIEVE</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Reading activities</li> <li><input type="checkbox"/> Low Stakes Quiz</li> <li><input type="checkbox"/> Questioning strategies</li> <li><input type="checkbox"/> Links to prior learning</li> </ul>	<p><b>CHALLENGE</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Reading activities</li> <li><input type="checkbox"/> Delivery of new content</li> <li><input type="checkbox"/> Questions</li> <li><input type="checkbox"/> Thinking hard devices</li> </ul> 
 <p><b>APPLY</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Reading activities</li> <li><input type="checkbox"/> Demonstrating knowledge and skills</li> <li><input type="checkbox"/> Extended writing</li> <li><input type="checkbox"/> Practical activities</li> </ul> <p><b>KEMNAL HEARTS</b></p>	<p><b>CHECK</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Reading activities</li> <li><input type="checkbox"/> Low Stakes Quiz</li> <li><input type="checkbox"/> Teacher assessment</li> <li><input type="checkbox"/> Peer/self- assessment</li> </ul>  <p><b>KEMNAL MINDS</b></p>



This is how we unlock our curriculum for our students, we document the 'core knowledge' they all deserve to know, regardless of their ability or need. The 'core knowledge' is followed by a set of retrieval questions/ activities. These are used in lessons, for homework and used in preparation for quizzes and assessments. They can all be found on our website in each subject tab on the following link.

[Subjects - Kemnal Technology College \(ktc-tkat.org\)](http://ktc-tkat.org)



## Here's an example of a Year 7 Science Kemnal Key



### Year 7 – Kemnal Keys



	Biology	Chemistry	Physics
1	<b>Animal Cells:</b> Nucleus, Cell Membrane, Cytoplasm, Mitochondria and Ribosomes. Plant Cells contain all the above as well as Cell Wall, Vacuole and Chloroplasts.	In <b>solids</b> the particles are very close together. In <b>liquid</b> the particles are close together but can move in any direction. In a <b>gas</b> the particles are very far apart and move quickly in all directions.	There are 7 types of <b>energy stores</b> ; Thermal, Kinetic, Chemical, Gravitational Potential, Elastic Potential, Electrostatic and magnetic.
2	<b>Eukaryotic cell</b> any cell or organism that possesses a clearly defined nucleus  A <b>prokaryote</b> is a simple, single-celled organism that lacks a nucleus and membrane-bound organelles	<b>Solids</b> – difficult to squash, can't be poured, can't change shape <b>Liquids</b> – difficult to squash, can be poured, can change shape <b>Gas</b> – can be squashed, can be poured, can change shape <b>Intermolecular forces</b> hold particles in their positions	<u>Conservation Law of Energy:</u> Energy <b>cannot</b> be created or destroyed, it can only be transferred from one store to another. Energy transfers are never <b>perfect</b> , energy will always be wasted. <u>Total Energy Input = Useful Energy + Wasted Energy.</u>
3	<b>Specialized cells</b> are cells that carry out a particular job. They have features that make them good at their role. Example :a root hair cell has large surface area to absorb water	<u>Pure substance</u> – contains only one type of particle.  <u>Mixture</u> – made up of at least two pure substances.	<b>Gravitational Potential Energy:</b> Anything in a gravitational field. (anything that can fall). The higher up = more energy stored.
4	Cells are too <b>small</b> to see, so we use a microscope to view them. <b>Magnification</b> is the process of enlarging the apparent size, not physical size	Simple distillation can separate a liquid and a solid. Fractional distillation can separate a mixture of liquids like crude oil.	<b>Kinetic Energy:</b> Anything that is moving. Examples; Cars
5	Nucleus – the information centre of the cell Cytoplasm – chemical reactions take place Cell membrane – controls what goes in and out of the cell	Chromatography is a lab technique for separating components of a mixture – they travel through paper at different speeds.	Elastic Potential: Anything that is being stretched or compressed. Example; Springs
6	Mitochondria – powerhouse of the cell, creates energy through respiration Ribosome – makes protein to support cell operation. Cell Wall – gives the cell shape Vacuole – stores nutrients for the cell Chloroplasts – contains chlorophyll which are needed for photosynthesis.	<b>Filtration</b> – separates insoluble solids from liquids. EG Sand and Water.  <b>Evaporation</b> – separates soluble solids from liquids. EG Salt and Water	<b>Chemical Energy:</b> Anything with energy that can be released by a chemical reaction. Examples; Food, fuel.  Renewable Energy – Energy sources that will never run out. Non –renewable Energy – energy sources that will run out one day.

## Quiz Time

<p><b>Week 1 Quiz</b></p> <p>Identify the 5 parts (organelles) of an animal cell Which 3 organelles does a plant cell have that an animal cell does not? Identify 3 types of energy stores Particles are tightly packed and regular in which type of matter? In a gas the particles move in all directions very _____?</p>	<p><b>Week 4 Quiz</b></p> <p>In science, _____ enlarge the image of cells so we can study them Describe the difference between simple and fractional distillation Describe the term kinetic energy Describe the process of using a microscope Describe the particle arrangement of liquid</p>
<p><b>Week 2 Quiz</b></p> <p>What cell has a clearly defined nucleus? What type of forces hold particles in their positions? What is the conservation law of energy? There is both useful energy and _____ energy Place Solid, Gas and Liquid in order of particles containing the most energy</p>	<p><b>Week 5 Quiz</b></p> <p>Name 3 parts of a cell and describe their role Describe the process of chromatography Describe elastic potential energy Identify an object that could have elastic potential energy True or False a eukaryotic cell has a clearly defined nucleus?</p>
<p><b>Week 3 Quiz</b></p> <p>Where will an aeroplane have more GPE, on the runway or in the air? Describe a specialized cell. Describe a pure substance Describe a mixture Why would a root hair cell have a large surface area?</p>	<p><b>Week 6 Quiz</b></p> <p>Identify 3 parts of a plant cell and describe their role Describe the process of filtration Describe the process of evaporation Describe the differences between renewable and non-renewable energy Give an example of chemical energy</p>