



# Year 8ST Homework Information Booklet

## *For students and parents*

### **Key information about the 'Tic Tac Toe' system**

#### **Aims**

- To develop independent learners
- To encourage students to manage their time effectively
- To enable students to be resourceful

#### **How does Tic Tac Toe work?**

- Students choose three tasks to complete over the term in each subject
- The tasks should form a line that runs through the centre. The line can be vertical, horizontal or diagonal.
- Each pupil should complete a task labelled as 1, 2 and 3
- For each task that is chosen there is a due date
- In some cases this is denoted by 'w/c' which means week commencing. Students should then submit the work in their lesson that week.

#### **How long should students spend?**

- Students should spend around 75 minutes on each task in Year 8.
- Students are encouraged to break up the tasks into research, producing and proof reading.

If you have any questions then please do not hesitate to ask, by contacting [carla.hyland@dovercourt.edu.sg](mailto:carla.hyland@dovercourt.edu.sg) or the relevant subject teacher.

<p><b>1. LO: Understand the 6 R's of sustainability</b></p> <p><b>Task:</b> Define what is meant by the term sustainability and create a fact file on each, describing how they can be applied to create sustainable product design.</p> <p><b>Due date: w/c 18/02/2019</b></p> <p><b>Top Tip: Use the sustainability help sheet on Google classroom</b></p> <p><b>CODE: 8ason8</b></p>	<p><b>1. LO: To be able to correctly identify and describe properties of materials</b></p> <p><b>Task:</b> Create an A4 poster which describes the following properties of materials:</p> <ol style="list-style-type: none"> <li>1. Strength</li> <li>2. Elasticity</li> <li>3. Hardness</li> <li>4. Toughness</li> <li>5. Ductility</li> <li>6. Malleability</li> </ol> <p>Provide examples of materials which have these properties and give examples of when these properties are useful</p> <p><b>Due date: w/c 18/02/2019</b></p> <p><b>Top Tip: Research each property individually.</b></p>	<p><b>2. LO: To understand the term "Planned Obsolescence"</b></p> <p><b>Task:</b> Produce a one page research essay including supporting images on what is meant by planned obsolescence and how it impacts the design of products.</p> <p><b>Due date: w/c 11/03/2019</b></p> <p><b>Top Tip: Your essay should include examples of products examples. Is planned obsolescence always bad? Try and</b></p>
<p><b>2. LO: To understand how mains electricity is produced.</b></p> <p><b>Task:</b> Research and produce a poster explaining how we generate mains electricity. You should refer to renewables/non renewables where possible.</p> <p><b>Due date: w/c 18/02/2019</b></p> <p><b>Top Tip: Use the Energy Production help sheet on Google classroom</b></p> <p><b>CODE: 8ason8</b></p>	<p><b>3. LO: To gain better understanding of Art History</b></p> <p><b>Task:</b> Create an artist research page on an artist from 19<sup>th</sup> Century (Goya, Rousseau, Delacroix, W.P. Firth) You may draw an image and label it with information about the artist /painting.</p> <p><b>Due date: w/c 1/04/2019</b></p> <p><b>Top Tip: You can use the Google help document on the classroom drive for guidance.</b></p>	<p><b>2. LO: To consider setting when developing a design</b></p> <p><b>Task:</b> Create two 3d design ideas for a new Bluetooth speaker system that would complement a specific style of home interior.</p> <p><b>Due date: w/c 11/03/2019</b></p> <p><b>Top Tip: First identify 2 different styles of interior design (either online or at home). Your wireless speaker system design must be infitting with the design of the room</b></p>
<p><b>1. LO: To know the difference between softwood, hardwood &amp; man made woods.</b></p> <p><b>Task:</b> Create an fact file for each wood type. It should include a description of each with examples (eg Pine/MDF/Teak) and describe advantages &amp; disadvantages of each.</p> <p><b>Due date: w/c 18/02/2019</b></p> <p><b>Top Tip: A fact file can be a poster, infographic or written paper - just as long as it answers the task.</b></p>	<p><b>2. LO: To evaluate an existing product.</b></p> <p><b>Task:</b> Find a product in your home that does not perform as you expect it or require it to. Create a unique and imaginative redesign in 3d and including detailed annotations explaining your changes.</p> <p><b>Due date: w/c 11/03/2019</b></p> <p><b>Top tip: You can choose something small and simple that you think could be improved. 1 A4 page only.</b></p>	<p><b>2. LO: To conduct a product analysis</b></p> <p><b>Task:</b> Research how to carry out a product analysis. Choose a piece of furniture in your home and carry out a product analysis on it.</p> <p><b>Due date: w/c 11/03/2019</b></p> <p><b>Top Tip: Use the link on the google classroom to learn about product analysis. Stick to 1 page of A4.</b> <b>CODE: 8ason8</b></p>

<p><b>1. LO: To be able to describe how plants are adapted to different biomes.</b></p> <p><b>Task:</b> Research how plants have adapted to the desert biome. Produce an annotated diagram showing and explaining how at least <u>two species</u> of plants have adapted.</p> <p><b>Due date:</b> wc 18/02/2019</p> <p><b>Top Tip:</b> Explain your points clearly within the annotations (labels) on the diagrams. Think about the environmental conditions the plants have to adapt to (e.g. lack of water)</p>	<p><b>1. LO: To be able to describe how plants are adapted to different biomes.</b></p> <p><b>Task:</b> Research how plants have adapted to the rainforest biome. Produce an annotated diagram showing and explaining how at least <u>two species</u> of plants have adapted.</p> <p><b>Due date:</b> wc 18/02/19</p> <p><b>Top Tip:</b> Explain your points clearly within the annotations (labels) on the diagrams. Think about the environmental conditions the plants have to adapt to (e.g. lack of water)</p>	<p><b>2. LO: To be able to describe the distribution of mega cities in the world.</b></p> <p><b>Task:</b> Research what a mega city is and design a poster showing the 10 most populous cities in the world are.</p> <p><b>Due date:</b> wc 11/03/19</p> <p><b>Top Tip:</b> Include the definition and a table of the data to 'set the scene' with your work.</p>
<p><b>1. LO: To be able to raise awareness of the impact humans have on their environment</b></p> <p><b>Task:</b> Produce <u>three</u> Tee-shirt designs to raise awareness of the impact people have on their environment (such as the impact of deforestation). For each, explain their design and its meaning underneath.</p> <p>Display appropriately (Use pencil for drawings and shade using coloured pencils).</p> <p><b>Due date:</b> wc 18/02/2019</p> <p><b>Top Tip:</b> Think about the information on a tee-shirt, maybe you could look at a slogan or a cartoon image.</p>	<p><b>3. LO: To be able to explain the problems with rapid urban growth.</b></p> <p><b>Task:</b> Research and create a leaflet about a shanty-town settlement in an LEDC/LIC.</p> <p>Create the leaflet using publishing software. Include:</p> <ul style="list-style-type: none"> <li>• Introduction to your shanty-town case study including location and important information (e.g size, population)</li> <li>• Problems found there.</li> <li>• Solutions to the problems.</li> <li>• Images linked to the information you have provided.</li> </ul> <p><u>The work should approximately be between 200 and 500 words long and include images and maps.</u></p> <p><b>Due date:</b> w/c 01/04/2019</p> <p><b>Top Tip:</b> Plan your work first</p>	<p><b>2.LO: To be able to describe the problems living in cities</b></p> <p><b>Task:</b> Research and create an informative poster to stop people moving to cities from rural areas. Explain at least five reasons why people wouldn't want to move to a city.</p> <p><b>Due date:</b> wc 11/03/19</p> <p><b>Top Tip:</b> Spider diagram your research in a plan before completing the work.</p>
<p><b>1. LO: To be able to describe the impact of people on ecosystems</b></p> <p><b>Task:</b> Research how plants have adapted to the <u>Tundra</u> biome. Produce an annotated diagram showing and explaining how at least <u>two species</u> of plants have adapted.</p> <p>Display in your books using a neatly, pencil drawn diagram with clear labels (use a ruler and pencil).</p> <p><b>Due date:</b> wc 18/02/2019</p> <p><b>Top Tip:</b> Explain your points clearly within the annotations (labels) on the diagrams. Think about the environmental conditions the plants have to adapt to (e.g. lack of water)</p>	<p><b>2. LO: LO: To be able to describe the land use distribution of Singapore.</b></p> <p><b>Task:</b> Create an <u>annotated map</u> to display the main locations of different types of landuse in Singapore (e.g. factories, CBD, Low class housing and High class housing).</p> <p><b>Due Date:</b> w/c 11/03/2019</p> <p><b>Top Tip:</b> Use internet sources to support your work. Is there a useful map already created you can use to support your work?</p>	<p><b>2. LO: To be able to describe why people build on greenfield land.</b></p> <p><b>Task:</b> Design an informative brochure/leaflet entitled 'build on the greenfield'.</p> <p>Inside add your research into why people should build on greenfield sites.</p> <p><b>Due date:</b> wc 11/03/19</p> <p><b>Top Tip:</b> Ensure you understand the definitions of the key terms, use them in the work to develop the readers understanding.</p>

<p><b>1. LO: To be able to communicate about the past.</b></p> <p><i>Task: Create a Poster on the benefits of the British empire for Britain.</i></p> <ul style="list-style-type: none"> <li>- Must include key dates.</li> <li>- Must include key individuals.</li> <li>- Must have images.</li> </ul> <p><i>Challenge: Are there any modern benefits that can be attributed to the British empire?</i></p> <p><b>Due date: WC 28/01/2019</b></p> <p><i>Top Tip: Mention more than one benefit.</i></p>	<p><b>1. LO: To be able to communicate about the past.</b></p> <p><i>Task: Create a timeline of key events of a country that was part of the British empire.</i></p> <ul style="list-style-type: none"> <li>- Must include key events.</li> <li>- Must have images</li> <li>- Must have a short summary (not more than 50 words) explaining why these dates were significant.</li> </ul> <p><b>Due date: WC 28/01/2019</b></p> <p><i>Top tip: Include between 6 and 10 dates.</i></p>	<p><b>2. LO: Explain, analyse and make judgments about historical events and periods.</b></p> <p><i>Task: Write a newspaper article about a key event during the British empire.</i></p> <p><i>Challenge: Include primary sources as evidence in your article.</i></p> <p><i>Make sure it is laid out like a newspaper article. You can find templates on Microsoft Word to help you.</i></p> <p><b>Due date: WC 25/02/2019</b></p> <p><i>Top tip: This could be the discovery of a new colony, the first shipment of colonists, a key battle or a mutiny.</i></p>
<p><b>1. LO: Explain, analyse and make judgments about historical events and periods.</b></p> <p><i>Task: Create a Top Trumps set of Cards based on 10 or more countries in the British empire. You must include;</i></p> <ul style="list-style-type: none"> <li>- When they were conquered</li> <li>- A judgement on how rebellious they were</li> <li>- A judgement on how useful they were to the British empire</li> <li>- Two further categories of your choice.</li> </ul> <p><b>Due date: WC 28/01/2019</b></p> <p><i>Top tip: look at the categories of other historical top trump cards to give you ideas.</i></p>	<p><b>3. LO: To interpret and cross-refer sources to understand about a past event.</b></p> <p><i>Task: Find two primary sources about the British Empire that have different interpretations of the empire.</i></p> <ul style="list-style-type: none"> <li>- Annotate the sources.</li> <li>- Write a summary of the interpretations explaining <u>why</u> they differ.</li> </ul> <p><i>Challenge: Include a quotation from a historian supporting the interpretation for one or both of the sources.</i></p> <p><b>Due date: WC 18/ 03/2019</b></p> <p><i>Top Tip: You might want to consider Nature, Origin and Purpose (NOP) in your answer.</i></p>	<p><b>2. LO: To explain, analyse and make judgments about historical events and periods.</b></p> <p><i>Task: To create a historical interpretation of the British empire. This can be;</i></p> <ul style="list-style-type: none"> <li>- a quotation of 50 – 100 words summarizing the British empire.</li> <li>- A cartoon (with caption) displaying an element of the British Empire.</li> <li>- A mural/ image (with title) identifying an aspect of the British Empire.</li> </ul> <p><b>Due Date: WC 25/02/2019</b></p> <p><i>Helpful hint: Look at examples on google of political cartoons (PUNCH, Spectator, Economist) Banksy and Guernica to get ideas.</i></p>
<p><b>1. LO: Explain, analyse and make judgments about historical events and periods.</b></p> <p><i>Task: Create a mindmap connecting the Industrial Revolution to the British Empire.</i></p> <p><b>Due date: WC 28/01/2019</b></p> <p><b>Top Tip: Focus on the key inventions and how they enabled conquest or expansion in Britain’s colonies.</b></p>	<p><b>2. LO: To be able to communicate about the past.</b></p> <p><i>Task: Create a Poster on the benefits of the British empire for a country that was colonized.</i></p> <ul style="list-style-type: none"> <li>- Must include key dates.</li> <li>- Must include key individuals.</li> <li>- Must have images.</li> </ul> <p><i>Challenge: Are there any modern benefits that can be attributed to the British empire?</i></p> <p><b>Due date: WC 25/02/2019</b></p> <p><i>Top Tip: Mention more than one benefit.</i></p>	<p><b>2. LO: Explain, analyse and make judgments about historical events and periods.</b></p> <p><i>Task: Write a newspaper obituary for a key person in the British empire.</i></p> <p><i>Challenge: Include primary sources as evidence in your article.</i></p> <p><b>Due date: WC 25/02/2019</b></p> <p><i>Top tip: This could an explorer/ soldier/freedom fighter/ writer...</i></p>

<p><b>1. LO: COMPUTING</b> To develop your research, analysis and essay writing skills.</p> <p><b>Task:</b> Discuss how possible future developments in communications technologies could impact on how a company communicates with its customers. Think about both positive and negative aspects and discuss these in detail.</p> <p><b>Due date:</b> 28/01/2019 <b>Top Tip:</b> Remember to state all the sources you used. Submit the Google Slide/Doc document on Google classroom under the assignment section.</p>	<p><b>1. LO: COMPUTING</b> To develop your research, analysis and essay writing skills.</p> <p><b>Task:</b> Discuss how possible future developments in communications technologies could impact on how a company communicates with its customers. Think about both positive and negative aspects and discuss these in detail.</p> <p><b>Due date:</b> 28/01/2019 <b>Top Tip:</b> Remember to state all the sources you used. Submit the Google Slide/Doc document on Google classroom under the assignment section.</p>	<p><b>2. LO: MUSIC</b> To be able to describe and recognise different Chinese musical instruments.</p> <p><b>Task:</b> Research a particular Chinese musical instrument and present: (i) a picture; (ii) five basic facts detailing how it is made; (iii) and a description of how it is played.</p> <p><b>Due date:</b> W/c 25/02/2019 <b>Top Tip:</b> Present your work so that it can be proudly displayed on the wall in class!</p>
<p><b>1. LO: COMPUTING</b> To develop your research, analysis and essay writing skills.</p> <p><b>Task:</b> Health problems related to working with ICT and measures to avoid them. There are several problems that can be caused by using computers for long periods of time.</p> <p><b>Due date:</b> 28/01/2019 <b>Top Tip:</b> Remember to state all the sources you used. Submit the Google Slide/Doc document on Google classroom under the assignment section.</p>	<p><b>3. LO: MUSIC</b> To be able to record ideas using graphic notation or music notation.</p> <p><b>Task:</b> Compose music to describe “The Emperor’s Battle”, as instructed by the worksheet provided.</p> <p><b>Due date:</b> W/c 18/03/2019 <b>Top Tip:</b> Use the black note pentatonic scale in your piece and attempt to use Chinese timbre using sound sources available within the classroom.</p>	<p><b>2. LO: MUSIC</b> To be able to perform and read the notation of five black notes on the keyboard.</p> <p><b>Task:</b> Perform “China Town’ using only the black notes (Pentatonic Scale), as notated on the score.</p> <p><b>Due date:</b> W/c 25/02/2019 <b>Top Tip:</b> Use the 1-5 numbering system learned during class to help guide your right-hand fingers.</p>
<p><b>1. LO: COMPUTING</b> To develop your research, analysis and essay writing skills.</p> <p><b>Task:</b> Communication is playing such a vital role in technology. Geographical boundaries have been eliminated as we can contact someone who is at the other side of the world in minutes. There are different ways of communicating:</p> <p><b>Due date:</b> 28/01/2019 <b>Top Tip:</b> Remember to state all the sources you used. Submit the Google Slide/Doc document on Google classroom under the assignment section.</p>	<p><b>2. LO: MUSIC</b> To develop a deepening understanding of the music that you perform and to which you listen, and its history.</p> <p><b>Task:</b> Complete the ‘Chinese Music’ worksheet to develop your knowledge and understanding of Chinese Music.</p> <p><b>Due date:</b> W/c 25/02/2019 <b>Top Tip:</b> Answer each question in full sentences, while clearly write the question number in the margin of your page.</p>	<p><b>2. LO: MUSIC</b> To be able to perform and read the notation of five black notes on the keyboard.</p> <p><b>Task:</b> Perform “China Town’ using only the black notes (Pentatonic Scale), as notated on the score.</p> <p><b>Due date:</b> W/c 25/02/2019 <b>Top Tip:</b> Use the 1-5 numbering system learned during class to help guide your right-hand fingers.</p>

<p><b>1. LO:</b> To be able to outline the order of the first 20 elements from The Periodic Table.</p> <p><b>Task:</b> Using an audio and/or visual media device to create a <b>Podcast</b> of you outlining from memory the order of the first 20 elements (H to Ca).</p> <p><b>Challenge:</b> include the atomic and mass numbers for each element e.g. Helium, atomic no. 2 &amp; mass no. 4.</p> <p><b>Due date:</b> 18/02/2019</p> <p><b>Top Tip:</b> For some inspiration watch:  <a href="https://www.youtube.com/watch?v=1TfPDIA1xE">https://www.youtube.com/watch?v=1TfPDIA1xE</a> (Daniel Radcliffe sings The Elements Song 1:43)</p>	<p><b>1. LO:</b> To be able to research relevant information and summarise findings effectively.</p> <p><b>Task:</b> Research an example of an <b>isotope</b>: where is it found, it's 'abundance' and their uses. <b>Present this as you see fit!</b></p> <p><b>Challenge:</b> Describe how you calculate relative atomic mass.</p> <p><b>Due date:</b> 18/02/2019</p> <p><b>Top Tip:</b> e.g. Hydrogen-2, Carbon-14, Chlorine-37.</p>	<p><b>2. LO:</b> To construct a range of valid circuits</p> <p><b>Task:</b> Using proper circuit symbols produce four detailed, neat and accurate <b>circuit diagrams</b> to test your class-mates on. You should include the answers on the back / on a separate sheet.</p> <p><b>CHALLENGE:</b> Include one incorrect circuit / component to catch your class-mate out!</p> <p><b>Due date:</b> 11/03/2019</p> <p><b>Top Tip:</b> Include series and parallel circuits and at least at least 4 components in each one! Use the circuit symbols given to you in class.</p>
<p><b>1. LO:</b> To describe a factor which affects the rate of a reaction.</p> <p><b>Task:</b> Produce a <b>poster</b> which illustrates one factor which affects <u>the rate of reaction</u>.</p> <p><b>Challenge:</b> Include a real life of this example.</p> <p><b>Due date:</b> 18/02/2019</p> <p><b>Top Tip:</b> Factors: Surface area, concentration, temperature, presence of enzymes.</p>	<p><b>3. LO:</b> To explain how compasses are used for navigation using the Earth's magnetic field.</p> <p><b>Task:</b> Use a <b>poster</b> to illustrate how a compass is used to navigate using the <u>magnetic field</u> of the world.</p> <p><b>Challenge:</b> Why do scientists think that the Earth's magnetic field might 'flip' and change polarity.</p> <p><b>Due date:</b> 01/04/2019</p> <p><b>Top Tip:</b> The Earths geographic north pole is actually the magnetic south pole!</p>	<p><b>2. LO:</b> To evaluate power usage and energy efficiency</p> <p><b>Task:</b> Research the power usage of an electrical appliance. Discuss alternative more 'efficient' options. Present this in the form of a <b>catalogue</b> (of laptops or smart phones for instance).</p> <p><b>Challenge:</b> Which is best and why?</p> <p><b>Due date:</b> 11/03/2019</p> <p><b>Top Tip:</b> power = energy / time <math>P = E / t</math> OR  power = current <math>\times</math> voltage <math>P = I \times V</math>  Efficiency: power out/ power in!</p>
<p><b>1. LO:</b> To represent uses for each element of The Periodic Table.</p> <p><b>Task:</b> Produce your very own <b>periodic table</b> with a picture showing a use for each element!</p> <p><b>Challenge:</b> Can you physically make this as a model!?</p> <p><b>Due date:</b> 18/02/2019</p> <p><b>Top Tip:</b> Research the uses for each element first, then design the layout (based on the real periodic table) with enough space for uses!</p>	<p><b>2. LO:</b> To explain the differences between current, potential difference and resistance.</p> <p><b>Task:</b> Use an <b>analogy</b> / personification to discuss the differences between <u>current, potential difference and resistance in a circuit!</u> Present this as a story or a comic strip.</p> <p><b>Challenge:</b> What are the limits of your analogy!?</p> <p><b>Due date:</b> 11/03/2019</p> <p><b>Top Tip:</b> one 'flows', one 'pushes' and one 'resists'. A classic analogy is that of water flowing!</p>	<p><b>2. LO:</b> To describe the uses of magnets in everyday life</p> <p><b>Task:</b> Produce a <b>poster</b> on the uses of <u>magnets</u> in everyday life. Describe why each use is benefitted by being a magnet. You should include at least one electromagnet.</p> <p><b>Challenge:</b> Can you think of alternative uses of magnets not already being done!?</p> <p><b>Due date:</b> 11/03/2019</p> <p><b>Top Tip:</b> e.g. fridge decorations, bags, toys...</p>

## Additional notes about core subjects

### MATHEMATICS

- Students in Key Stage 3 will be set two pieces of homework per week.
- One piece will be set from *MyiMaths*, an online portal for which the students have personalised logins. These pieces will be marked online and their results logged. The tasks can be done several times for more practice, as the tasks change each time.
- The second piece of homework will be written, and should take between 30 and 45 minutes. It will be marked by the teacher or by peers in class.

### ENGLISH

- Students in Key stage 3 will be set two pieces of homework per week.
- One piece will be set in direct relation to the classwork, and should take a minimum of forty minutes.
- The other piece will be shorter and relate to key skills such as spelling, punctuation and grammar: for example, revising for a spelling test, correcting punctuation in a text etc.

### OVERVIEW OF DEADLINES FOR YEAR 8

	<b>Task 1</b>	<b>Task 2</b>	<b>Task 3</b>
Visual Arts and Design Technology	18/02/2019	11/03/2019	01/03/2019
Music + Computing	28/01/2019	25/02/2019	18/03/2019
Geography	18/02/2019	11/03/2019	01/04/2019
History	28/01/2019	25/02/2019	18/03/2019
Science	18/02/2019	11/03/2019	01/04/2019