



NORD ANGLIA
INTERNATIONAL SCHOOL
AL KHOR

Thematic Overview / Year 10 / Summer Term

2016-2017

Dear Parent / Guardian

Please find attached our Thematic Overview for Year 10 Summer Term.

We hope that this will give you a clear picture of the work being carried out by your child in school and enable you to facilitate their learning at home.

The activities being carried out encourage your child to review past learning, access and retain new knowledge, as well as develop and practise a variety of key skills to prepare them for ambitious goals.

Yours sincerely

Ms L. Gonzalès

Head of Secondary

English -----

First Language

This term, the students will need to work and revise for the First Language paper. All areas of the exam have been covered. The students will reflect on teacher feedback given for each question of the paper throughout the year.

Second Language

This term, the students will be continuing to prepare for their IGCSE listening, reading and writing exams. They will be working on building their vocabulary, and their spoken and written English skills. The students will focus on the following objectives:

- Identify and retrieve facts and details.
- Understand and select information.
- Recognise and understand, opinions and attitudes and the connections between related ideas.
- Understand what is implied but not actually written e.g. gist, relationships, writer's purpose/intention, writer's feelings, situation or place.
- Communicate clearly, accurately, and appropriately.
- Convey information and express opinions effectively.
- Employ and control a variety of grammatical structures.
- Demonstrate knowledge and understanding of a range of appropriate vocabulary.
- Observe conventions of paragraphing, punctuation and spellings.
- Employ appropriate register/style.

English Literature -----

This term, the students will begin their studies for Literature. Students will prepare for two papers: Paper 1 is Poetry and Prose, and Paper 2 is Drama. The students will also study poetry from the Songs of Ourselves Anthology Volume One and begin their study of the text Spies by Michael Frayn. The students will focus on the following objectives:

- Show detailed knowledge of the content of literary texts in the three main forms (drama, poetry and prose), supported by reference to the text.
- Understand the meanings of literary texts and their contexts, and explore texts beyond surface meanings to show deeper awareness of ideas and attitudes.
- Recognise and appreciate ways in which writers use language, structure and form to create and shape meanings and effects.
- Communicate a sensitive and informed personal response to literary texts.

Mathematics -----

This term, the students will need to continue to revise past objectives. Their end-of-term assessments may cover the following topics:

- Pythagoras theorem.
- Trigonometric ratios.
- Calculating angles.
- Using sine, cosine and tangent functions.
- Sine rule and the cosine rule.
- Angles of elevation and depression.
- Using sine to find the area of a triangle.
- Straight line graphs.
- Graphs of functions.

Combined Science -----

This term, the students will revise past objectives and work on the following topics:

Chemistry

- Explore electrolysis.
- Use the terms electrode, electrolyte, anode and cathode.
- Describe the electrode products.
- Relate the terms exothermic and endothermic to the temperature changes observed during chemical reactions.
- Describe the effect of concentration, particle size, catalysis and temperature on the rate of reaction.
- Define catalyst as an agent which increases rate of reaction.
- Define oxidation and reduction in terms of oxygen loss/gain.
- Review the periodic table.

Biology

- List the chemical elements that make up: carbohydrates, fats, proteins.
- Describe the structure of large molecules made from smaller basic units.
- Describe tests for: starch (iodine solution), reducing sugars (Benedict's solution), protein (biuret test), and fats (ethanol).
- List the principal sources and describe the importance of carbohydrates, fat, protein, vitamins (C and D only), mineral salts (calcium and iron only), and fibre.
- Describe the deficiency symptoms for: vitamins (C and D only) mineral salts (calcium and iron only).

- Define photosynthesis.
- Investigate the necessity for chlorophyll, light and carbon dioxide for photosynthesis.
- Describe the intake of carbon dioxide and water by plants.
- Identify and label the cuticle, cellular and tissue structure of a dicotyledonous leaf.
- State what is meant by the term balanced diet.
- Identify the main regions of the alimentary canal and associated organs.
- Describe the functions of the regions of the alimentary canal.
- Define 'digestion'.
- Identify the types of human teeth and describe their structure and functions, and the causes of dental decay.
- State the significance of chemical digestion.

Physics

- Describe what is meant by wave motion.
- State the meaning of and use the terms speed, frequency, wavelength and amplitude.
- Distinguish between transverse and longitudinal waves and give suitable examples.
- Discuss reflection of light.
- Describe an experimental demonstration of the refraction of light.
- Describe the main features of the electromagnetic spectrum.
- Demonstrate an awareness of safety issues regarding the use of microwaves and X-rays.
- Describe the production of sound by vibrating sources.
- Relate the loudness and pitch of sound waves to amplitude and frequency.
- Demonstrate understanding of current, potential difference and resistance, and use with their appropriate units.
- Use and describe the use of an ammeter and a voltmeter.
- Describe simple experiments to show the production and detection of electrostatic charges.
- State that current is related to the flow of charge.
- State that resistance = p.d. / current.
- Recall and use the equation $R = V / I$.
- Identify electrical hazards.
- Explore damaged insulation, overheating of cables, damp conditions.

Co-ordinated Sciences -----

Chemistry

- Same as Combined.
- Describe the electroplating of metals, using laboratory apparatus.
- Same as combined.
- Devise a suitable method for investigating the effect of a given variable on the rate of a reaction.

Biology

- Same as Combined.
- Describe the importance of nitrate ions for protein synthesis and magnesium ions for chlorophyll synthesis.
- State where enzymes are secreted and the functions.
- Define absorption and identify the small intestine as the region for the absorption of digested food.
- Describe the role of the liver and the role of fat.

Physics

- Same as Combined.
- Give the meaning of critical angle.
- Describe internal and total internal reflection.
- Describe the dispersion of light by a glass prism.
- Draw ray diagrams for the formation of a real image.
- Give a qualitative account of the dispersion of light by a single lens.
- Describe the properties of magnets.
- Identify the pattern of field lines round a bar magnet.
- Distinguish between permanent magnets and electromagnets.

Separate Science-----

Chemistry

- Same as Co-ordinated.
- Describe the electroplating of metals.
- Outline the uses of electroplating.
- Describe the reasons for the use of copper and aluminium in cables, and why plastics and ceramics are used as insulators.
- Interpret energy level diagrams showing exothermic and endothermic reactions.
- Energy transfer, such as describing the release of heat energy by burning fuels and the state the use of hydrogen as a fuel.
- Identify physical and chemical changes.
- Interpret data obtained from experiments concerned with rate of reaction.
- Reversible reactions: Understand that some chemical reactions can be reversed by changing the reaction conditions.

Biology

- Same as Co-ordinated.
- State where enzymes are secreted and the functions.
- Define absorption and identify the small intestine as the region for the absorption of digested food.
- Describe the role of the liver and the role of fat.
- State that water is absorbed in both the small intestine and the colon.

Physics

- Same as Co-ordinated.
- Describe methods of magnetisation.

Global Perspectives -----

During the final nine weeks of term, the Year 10s will be completing their first controlled assessment project. They will take four weeks to complete this. As it is an individual project and time is precious, all students must attend all Global Perspectives lessons to gain the maximum mark for the project. The project is based off one of eight topics, which will be chosen by the students in the first week. They will then work to research their topic and the issues surrounding it. They will look at the effects of the issues on a local, national and global level and try to find solutions to them. They will complete the project by writing a 1500 to 2000 word report on the research that they conducted. The second half of the term will be spent working on a mock group project in preparation for next year.

French -----

This term, the students will:

- Talk about themselves and ask questions.
- Memorise new vocabulary relating to jobs, webcast, holidays and food.
- Write a short paragraph using accurate grammar and spelling.
- Listen to a short conversation and answer simple questions.
- Read a short text and answer various questions.

Music Appreciation -----

In this unit, the students will learn about the development and conventions of minimalism. They will explore/identify and listen to how minimalist composers use small rhythmic motifs to build a bigger piece.

Visual Arts -----

Through exploring a selected Design or Expressive topic of the student's choice, the students will learn to:

- Create mind maps that would explain how they would explore their selected topics.
- Observe and record accurately.
- Analyse their own artworks critically.
- Create works inspired by various artists of their own choice.
- Experiment with various media, such as lino printing, sculpture making etc.
- Take high quality photographs for their selected topic to use as their primary sources.
- Use different media to enhance the presentation of their artworks.

Physical Education -----

This term, the students will be investigating Health and Fitness. Students will be performing numerous tests to help them to understand their current levels of fitness and will be shown various methods of training to help improve different components of fitness. There will also be elements of movement composition in lessons – meaning students will learn body management techniques such as jumping, landing and balancing. Later in the term, there will be a focus on leadership skills, with the opportunity for some of our students to lead small groups of Primary students.