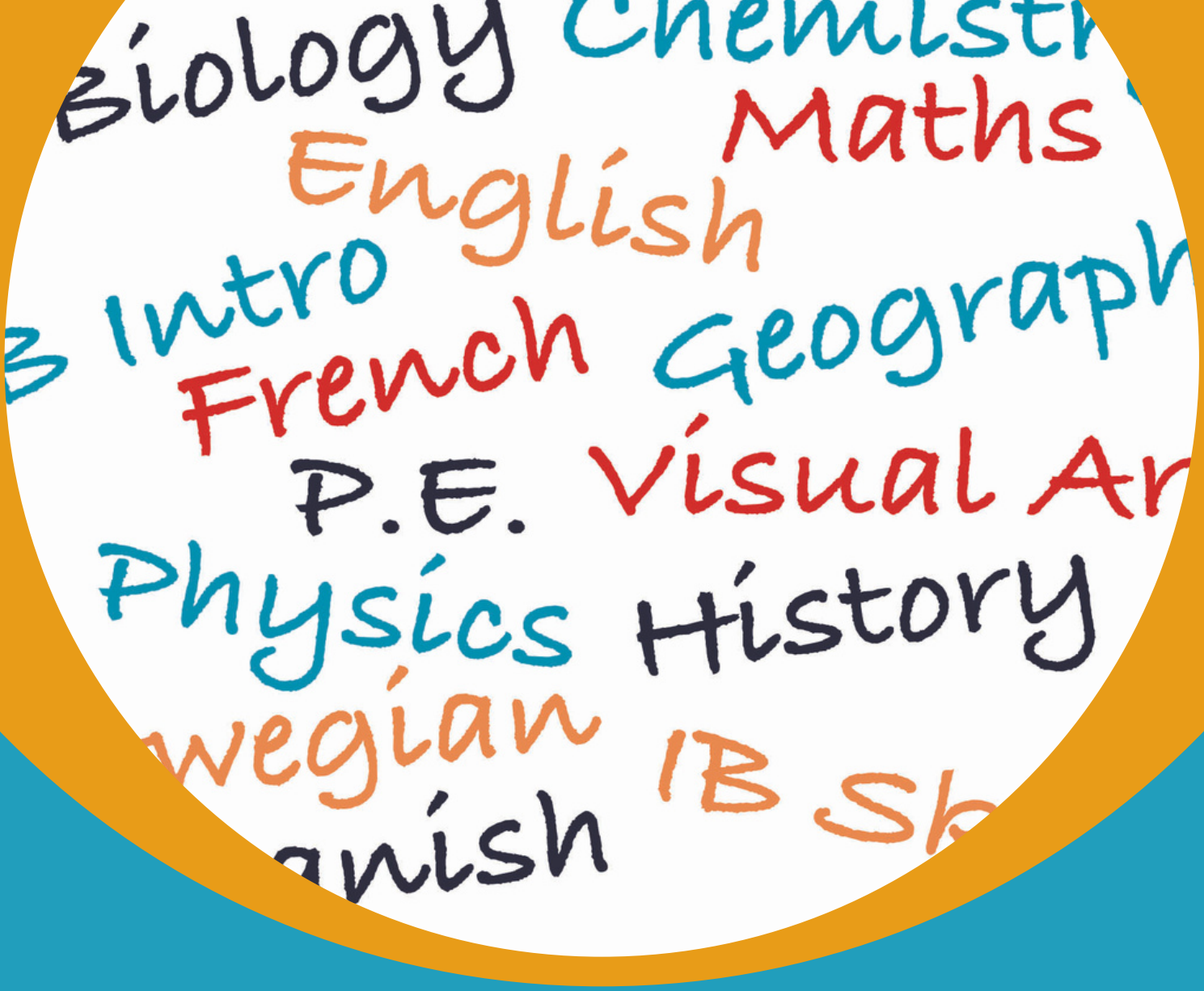

OSLO INTERNATIONAL SCHOOL

PRE-IB SUBJECT GUIDE

OIS | OSLO INTERNATIONAL SCHOOL

Pre-IB core subjects

English

Course description:

Pre-IB English covers both language and literature, and is designed to enable students to clearly express themselves in English in a variety of contexts, with varying audiences and a variety of purposes. Students develop their language skills through listening, speaking, reading, and writing.

The literature section focuses on fostering an enjoyment of reading and literary analysis, developing a recognition of literature as a work of art, and furthering students' understanding of the human concern of literature. Students begin to examine pieces of unseen literary work, applying their knowledge of literary technique in order to further their understanding and make reasonable predictions. As students work on developing skills in informative, analytical, argumentative, descriptive, imaginative, or narrative language use, a number of different text types are introduced.

Works Studied:

- Selection of short stories
- Selection of poetry
- Selection of non-literary texts
- Life of Pi by Yann Martel
- Catcher in the Rye by J.D. Salinger/Brave New World by Aldous Huxley/Great Gatsby by F. Scott Fitzgerald
- Hamlet or Macbeth by William Shakespeare

Mathematics

Course description:

Pre-IB Mathematics is taught during 5 lessons weekly, and can lead through to any of the three Mathematics courses offered in the IB programme at OIS. During this year you will study:

Syllabus outline:

- Number Sets and Sets Theory
- Algebra
- Radicals, Surds and Exponents
- Trigonometry
- Coordinate Geometry
- Statistics
- Relations, Functions and Sequences
- Quadratic Equations, Functions, & Inequalities
- Advanced Trigonometry
- Introduction to Logarithms

In addition to the topics listed above, students will complete one or more written projects. The project is a mathematical exploration in the style of the IB Internal Assessment.

Pre-IB core subjects

Geography *

Course description:

Geography is the study of people and places. It is broken down into three sections: Population and Settlement, Natural Environment, and Economic Development and the Use of Resources. For each section, in addition to learning theory and case studies of each topic, students are expected to take part in a fieldwork exercise, and apply what they have learnt to the study of maps.

Syllabus outline:

- Employment Structures
- Farming
- Resources (energy)
- Industry
- Tourism
- World development and interdependence
- Weather and climate
- World climate
- Geographical skills
- Map work
- Fieldwork (Questionnaire)

History *

Course description:

The study of History at the Pre-IB level concerns itself with individuals and societies in the wider context: political, social, economic, religious, technological, and cultural. Pre-IB History focuses on regional histories, with the aim to promote international awareness. This course is concerned with trends and developments, with continuity and change through time, and with specific happenings. Focus is on the process of historical enquiry, explanation and interpretation, as well as on the acquisition of historical knowledge, so that students develop both an understanding of different accounts of the past and an ability to develop independent judgments.

Syllabus outline:

Regional studies of 20th Century:

- USA 1917-1941
- USSR and Eastern Europe 1945-1991
- Cold War: Korea, Cuba and Vietnam
- Far East with a focus on China
- Middle East: The Arab-Israeli Conflict 1945-c.2000
- UN and EU

- *Note that only one of the two can be selected: Geography OR History*

Pre-IB core subjects

IB Skills: Creativity, Service and Research *(one trimester each)*

Course description:

This trimester course contains both project centred courses to prepare students for the CAS component of the IB Diploma Programme, as well as a module to help students build their research toolkit in preparation for the Extended Essay and Internal Assessment requirements of the Diploma Programme.

In the creativity and service modules students have the opportunity, through investigation, discussion, initiative, action and reflection to broaden their outlook, shape their attitudes and develop ideas related to local and global communities. Central to this is the idea that the development of the well-rounded individual is dependent not only on conventional curriculum content but also on activities which relate to real-life experiences.

In the research module, students are taught research processes and methods that are vital skills in the 21st Century. They also have the chance to apply these skills in an investigation of a topic of their own choosing based on individual interests.

Syllabus outline:

- Students get acquainted with the philosophy and requirements of the Diploma Programme, CAS, Extended Essay and Internal Assessment components.
- Students spend one third of the year working with creative issues and one third of the year with service issues. The nature of these issues is explored through discussion, experimentation, oral presentation, practical tasks and reflection. During each module students are expected to complete projects that relate to local/global communities (real-life situations).
- In the service learning section, students have the opportunity to engage in a direct service, advocacy project of their choice. They learn about Non-Governmental Organizations (NGOs), define "service learning", explore global citizenship, engage with The Small World (TSW), learn about Bobole community, and work with the Inter African Committee.
- In the last third of the year students learn, in the context of their own chosen topic, to formulate research questions, locate sources, understand research methods, develop critical thinking and analysis, and learn how to communicate and present their findings.

Pre-IB core subjects

Introduction to Economics *(one trimester)*

Course description:

The main aims of the course are twofold: 1. To introduce students to basic economic theories and concepts and 2. To develop students' communication, research, reasoning, and technical skills. Students will develop their knowledge and understanding of economics and learn how to apply economic theory and concepts to current events. The course provides a very good background for IB economics and it will help students to make an informed decision about their choice of Group 3 Diploma subject(s).

Syllabus outline:

- Introduction to the market structures of monopoly and oligopoly
- Monopolistic competition, economic survey of Bekkestua
- Consumer demand and firms' revenue
- Production, costs, revenues, and profits
- Social problems and economic policies
- The differences between IB Business and Management and IB Economics.

Introduction to Computer Science *(one trimester)*

Course description:

This course is the study of computational systems, programming and use of computers to solve real world problems. It requires an understanding of programming and the underlying concepts of computational thinking. The aim is to provide an overview of the fundamental ideas and tools of the IB Computer Science course. The study of Computer Science in IB demands a higher level of problem-solving skills and the ability to understand and manipulate abstract concepts. Although no previous knowledge of computer science is required, some exposure to programming is desirable.

Syllabus outline:

- Topic 1. Programming in Python
- Topic 2. Systems Development Life Cycle and Rapid Application Development (RAD)
- Topic 3. Prototyping, Digital Creativity

The Protoyping and Digital Creativity component uses a project-based, individualised approach to learning allowing students to explore a range of units including:

- 3D Modelling and 3D Printing
- Video Editing
- Image Editing
- Sound Editing and Music Production
- Animation
- Games Development
- Robotics and Control Technology
- Electronics
- Web Development

Pre-IB core subjects

Communication and Media *(one trimester)*

Course description:

Media is a contemporary and interactive subject which encourages students to develop their creative, analytical, research, and communication skills, through exploring a range of media forms and perspectives. Working collaboratively is the foundation of the work. A variety of teaching and learning methods are used. The students communicate their learning through action: workshops, demonstration, oral, visual, and written expression. They work in small and large groups, individually and in pairs exploring issues, ideas, texts, and media forms. They develop their own work and observe the work of others during their learning process.

Physical Education

Course description:

Physical Education in the Pre-IB Programme encourages each student to develop the ability to officiate, organise and motivate themselves and others in a variety of activities. The emphasis is also on the social aspect of PE and its value in a healthy lifestyle, and as a tool for developing personal social skills.

This draws together the elements developed in PE over the 4 previous years including the ability to observe and evaluate practical skills within an applied situation. On the basis of what is seen, students should be able to draw on a bank of knowledge regarding rules of play, codes of conduct related to that activity, and thereby make informed decisions.

Syllabus Outline:

The following activities are offered in 6 weeks units:

- Fitness
- Football
- Frisbee
- Volleyball
- Handball
- Basketball
- Badminton
- Aesthetic unit
- Floorball
- Smolball
- Athletics, deadball or orienteering (if timetabling permits)

Pre-IB choice subjects

Biology

Course description:

Biology is an experimental science that combines academic study with the developments of practical and investigatory skills. The syllabus is designed to develop a broad, general understanding of the principles of Biology and there are four basic concepts underlying the whole programme. These are Structure and Function; Universality versus Diversity: Equilibrium within Systems and Evolution. The syllabus also stresses the need to consider the ethical aspects of many of the recent developments in Biology.

The course aims to equip the students with the skills required to achieve in the experimental science courses. Practical/investigative work is an important component of the course. As part of the practical programme, a number of hours are spent on a joint biology-chemistry-physics project (the mini Group IV Project) which prepares the students for a more in-depth project in IB.

Syllabus outline:

- Characteristics and classification of living organisms
- Organisation and maintenance of an organism
- Movement in and out of cells
- Biological molecules
- Enzymes
- Respiration
- Plant nutrition and transport
- Inheritance
- Variation and selection
- Biotechnology and genetic engineering

Physics

Course description:

Physics is an experimental science that combines academic study with the developments of practical and investigatory skills. It is the one science that demands the most mathematics. Apart from being a subject for study in its own right, Physics is a requirement for many other courses in higher education, such as engineering, medicine and space science. Practical/investigative work is an important component of the course.

Syllabus outline:

- Topic 1: Measurement
- Topic 2: Mechanics
- Topic 3: Thermal Physics
- Topic 4: Waves
- Topic 5: Electricity and magnetism

Prerequisites: A good grasp of the principles of mathematics is necessary

Pre-IB choice subjects

Chemistry

Course description:

Chemistry is an experimental science that combines academic study with the developments of practical and investigatory skills. Chemical principles relate both to physics and biology and so chemistry has therefore sometimes been called the central science. Apart from being a subject for study in its own right, chemistry is a requirement for many other courses in higher education, such as medicine, biological and environmental sciences and many branches of engineering.

The course builds on students' previous study of the nature of matter and how matter as represented by the different types of atoms are related to each other and interact with each other in mixtures and compounds. The focus in the Pre-IB year is the behaviour and significance in the wider world of some important groups of compounds and specific elements. In addition students study two important aspects: the mechanism of chemical reactions; energy and rates of reaction. Overall, this package of study provides an excellent basis for study at the International Baccalaureate level. Practical/investigative work is a compulsory component of the course.

Syllabus outline:

- Moles
- Periodic Table
- Bonding
- Organic chemistry
- Metal Reactivity
- Electrolysis
- Investigations and Report Writing

Visual Arts

Course description:

Visual Arts provides a framework allowing teachers to choose content and activities appropriate to their own and their students' interests and experience. The course will develop an understanding of historical and contemporary art in a diversity of media, enabling the student to represent their ideas and interests in artworks.

Syllabus outline:

The syllabus is comprised of three main parts: Studio Work, Visual Arts Journal and a Comparative Analysis. These three parts have a natural relationship and can be inspired by each other. An understanding of aesthetics, the social and cultural functions of art and the relationship between form and meaning in Studio Work. Research pertaining to all parts is channelled through media studies and theme work.

Pre-IB choice subjects

Norwegian A

Course description:

The Pre-IB Norwegian A course consists of the study of literary and non-literary text as well as work with language skills. The language section is designed to enable students to express themselves clearly in a variety of contexts and purposes and also to varying audiences. The study of non-literary texts is to enable students to understand texts in terms of their purpose, audience and medium within a cultural context. The literature section focuses on encouraging the enjoyment and understanding of literary works. Students learn to analyse literature and recognise literature as works of art through employing literary techniques. They learn to develop and reflect on their own personal response to works of literature.

Works studied:

- Selection of contemporary short stories
- Selection of poetry
- *Kong Oidipus* by Sofokles
- *Soga om Gunnlaug* Ormstunge

Prerequisites: Students should have reached a level of Norwegian which enables them to read works of literature relatively easily and to cope with the demands of Norwegian as a first language.

Language B - French, Norwegian or Spanish

Course description:

Language B course is intended for students with some previous experience in the target language (Level A2 on Common European Framework Scale). The main focus is on language acquisition (vocabulary), organisation of ideas, message, the development of language skills and style. Students get the opportunity to reach an appropriate level of competence in a foreign language (Level B on the CEF) to allow them to follow the IB Diploma Programme. The range of purposes and situations in which the language is used extend well beyond a basic course in the language, from work, education and social relationships to exploring cultures where the target language is dominant.

Syllabus outline:

The presentation, explanation and review of grammatical structures and vocabulary are integrated throughout. The four primary language skills to be developed are:

- Listening
- Speaking
- Reading
- Writing

Competence in each of the primary language skills will involve an understanding of interrelated areas at both standard and advanced level. Prerequisites: The target language proficiency must be a level A2 on the CEFR Global Scale

Pre-IB choice subjects

Norwegian for Beginners

Course description:

Beginners Norwegian is a course intended for students with little to no previous experience in the Norwegian language. The main focus is on language acquisition (vocabulary), organisation of ideas, message and the development of language skills and style.

Syllabus outline:

The presentation, explanation and review of grammatical structures and vocabulary are integrated throughout. The four primary language skills to be developed are:

- Listening
- Speaking
- Reading
- Writing

Competence in each of the primary language skills will involve an understanding of interrelated areas at a standard level.