

# **Yearly plan** Lingua Italiana L2

**Class** 10<sup>th</sup> grade

**Academic year** 2020/2021

## General objectives

Per perseguire un apprendimento positivo e funzionale agli studenti, si rende necessaria la creazione di un ambiente favorevole alla comunicazione, al miglioramento delle relazioni di classe, al potenziamento delle abilità sociali, all' aumento dell'autostima, al potenziamento e alla gestione dell' autonomia e non da ultimi all'aumento della motivazione e del benessere psicologico.

Per fare questo, ove necessario, si renderà necessaria la flessibilità del programma e delle modalità di svolgimento del corso, affinché si possano creare percorsi nei quali coniugare le esigenze scolastiche e quelle dello studente.

Per queste ragioni si potranno strutturare momenti che vedranno lavorare in parallelo il corso L2 con le altre materie, dove in via supportiva le competenze acquisite nella seconda lingua saranno funzionali a conseguire obiettivi e competenze in altre discipline, venendosi a costituire un percorso interdisciplinare.

(Riferimento alle Metodologie della didattica L2).

Gli obiettivi generali sono di acquisire le capacità comunicative necessarie per usare la lingua italiana con autonomia e in modo adeguato nelle situazioni più frequenti della vita quotidiana, essendo in grado di comunicare nelle situazioni di tutti i giorni in forma sia scritta sia orale, di comprendere i punti essenziali di un discorso articolato chiaramente in lingua standard, di leggere i testi scritti che incontra più frequentemente nella vita quotidiana.

La produzione orale e scritta è comunicativamente efficace, anche se contiene errori.

## Specific objectives

Per quanto riguarda le abilità relative all'oralità, lo studente è in grado di comprendere il senso globale e le principali informazioni presenti in testi parlati di contenuto quotidiano e generale.

Sa esprimere in maniera chiara ed è in grado di adattare il proprio modo di esprimersi per far fronte ad elementi di novità introdotti dall'interlocutore.

Sa produrre in modo abbastanza scorrevole una descrizione semplice di uno o più argomenti che rientrano nel suo campo di interesse, una narrazione, un racconto di avvenimenti o esperienze in cui riferisce sentimenti ed impressioni, infine è in grado di dare brevi motivazioni e spiegazioni delle proprie opinioni e azioni, di fare paragoni e proposte.

Nello specifico della lettura, è in grado di leggere e comprendere le principali informazioni presenti in testi scritti con struttura lineare di argomento quotidiano e generale, per poi compiere operazioni di analisi, sintesi, trasformazione delle strutture linguistiche sul piano lessicale e morfosintattico.

Lo studente è in grado di produrre testi scritti con strutture semplici, ma che trasmettano le informazioni in modo chiaro e efficace dal punto di vista comunicativo su argomenti noti o di suo interesse.

## Methodology

Le tecniche nella didattica dell'italiano come L2 prevedono che si intervenga

1. sulla lingua dei testi disciplinari, tramite tecniche quali la semplificazione, l'integrazione e la riscrittura

2. sulla metodologia, prediligendo una didattica cooperativa, esperienziale, ludica che consenta la creazione di un clima collaborativo, l'esposizione ad input non troppo slegati dal contesto, l'uso della multimedialità, anche allo scopo di abbassare il filtro affettivo e sostenere la motivazione dell'alunno.

3. per coniugare contenuti, tecnologia e aspetti cognitivi.

Per quanto riguarda le loro caratteristiche generali e comuni, possiamo indicare le seguenti, elencate nel Quadro comune europeo di riferimento:

- esposizione diretta all'uso autentico della lingua;
- esposizione diretta a enunciati orali e testi scritti in lingua, appositamente selezionati e graduati;
- partecipazione diretta a interazioni comunicative autentiche in lingua;
- partecipazione diretta a compiti in lingua, specificamente progettati e costruiti;
- combinazione di presentazione, spiegazione, esercizi e attività di reimpiego, ma con l'uso talvolta di una lingua veicolare comune per la gestione della classe e delle spiegazioni.

## Content

Dando per acquisite le pregresse conoscenze della lingua, le principali strutture morfosintattiche da acquisire sono

- dell'aggettivo qualificativo: la posizione, il grado comparativo e superlativo;
- pronomi diretti e indiretti, relativi;
- aggettivi e pronomi indefiniti ogni, ciascuno, nessuno, qualche;
- preposizioni articolate;
- coniugazione della forma attiva e riflessiva dei verbi regolari, dei verbi modali e dei principali e più comuni verbi irregolari al modo indicativo; condizionale presente e passato; gerundio presente e passato
- più frequenti avverbi qualificativi, di tempo, di quantità, di luogo;

Conosce e sa adoperare i principali usi e le regole di scambio sociale e comunicativo tipici delle situazioni più comuni della vita quotidiana, inoltre dispone di repertorio lessicale sufficiente per gestire le più comuni situazioni e per far fronte a situazioni non prevedibili.

Nella produzione orale e scritta sa usare parole del lessico fondamentale e parole del ad alta disponibilità.

Per quanto riguarda la narrativa, si proporranno agli studenti una serie di tipologie testuali differenti, che spaziano dai libri di narrativa graduata a specifici approfondimenti di natura sociale e culturale relative all'Italia.

La volontà di non specificare e non costituire un percorso con testi fissi, nasce dalla volontà di coniugare esigenze didattiche e preferenze/necessità dello studente che si mostreranno durante il percorso.

**Yearly plan** History of art  
**Class** 10th grade – [FOUR-YEAR COURSE]  
**Academic year** 2020 - 2021

## General objectives

As part of the high school program, students will develop a clear understanding of the relationship between the works of art and the historical context in which they were produced, therefore they will be able to make connection with literature, philosophical and scientific thought, politics, religion.

Through the analysis of pictorial, sculptural and architectural works of art, they will be able to grasp and appreciate aesthetic values.

## Specific objectives

- Identifying the artists and the artworks analysed in class within a specific historical context, through the use of an appropriate methodology and terminology
- Recognising and explaining iconographic and symbolic aspects, stylistic features, as well as the materials and the techniques employed
- Knowing how to read and analyse a work of art by making comparisons and connections
- Developing a deep awareness of the great cultural value of the archaeological, architectural and artistic heritage of our country, also through issues concerning the protection, conservation and restoration of our tradition

## Methodology

The teaching of art aims at an active and participatory learning through the use of interactive teaching methods, such as LIM and multimedia tools, dialogical approach to lectures and compare and contrast method to activate students' learning processes, as well as educational visits to museums or exhibitions, in order to allow a direct relationship with the work of art.

In consideration of the extended period of time covered by the art course, the planning will be articulated through the fundamental contents (artists, works, movements) within the different historical contexts.

In addition to the textbook, study materials and lecture notes will be provided in order to offer an in-depth analysis on significant aspects related to local artistic tradition as well as the international context, thus emphasising the interdisciplinary vocation of the subject.

## Content

During the second year, the art history course will begin with the medieval period and end with the Baroque.

The development of Romanesque art and architecture, introduced at the end of the first year, will be analysed in its stylistic and iconographic characteristics, as well as architectural styles that developed in Italy and Western Europe.

The evolution of Romanesque art will be compared with the innovations introduced by Gothic art and architecture in materials and structures, by examining its most significant examples.

The transition from the medieval style of painting to Giotto's proto-Renaissance style will be analysed through the fresco technique. The art of Giotto and the other great masters active between the second half of the thirteenth century and the first half of the fourteenth century marks the "birth" of Italian art.

Regarding the art of the Renaissance, taking into account the richness and complexity of the artistic production of this period, students will study through a selection of artists, works and guiding criteria capable of providing them with a general framework, as well as relevant examples from the local artistic tradition. Specifically, the Early Renaissance in Florence, the development and promotion of the arts, Humanism and the rediscovery of classical culture; the invention of the linear perspective; the main Italian artistic centres; the study of painting, sculpture and architecture in the Late Renaissance; the great season of Venetian art in the comparison between pictorial and linear style; the relationship between Italian art and Flemish art.

The examination of the artistic movements between the seventeenth and eighteenth centuries will move on from the Mannerist style to arrive at the innovations proposed by Baroque art in the context of the Counter-Reformation. The development of the Baroque movement will also be analysed in the context of Flemish and Spanish art, as well as the golden age of Dutch art. At the end of the course, we will discuss the differences between Baroque, Rococo, and the development of a new artistic style in France.

## Evaluation methods

The assessment of students' knowledge and skills will take into account, in addition to the average of the marks achieved in the exams, the actual commitment and participation in the class work, the progress shown in learning and widening contents, appropriate use of specific terminology, critical ability, punctuality and accuracy in meeting deadlines and completing assignments.

The evaluation tools include oral tests (interrogations, discussions, classroom interventions, etc.), written tests (tests and questionnaires, worksheets, reports, etc.) and interdisciplinary projects.

# **Yearly plan** English Language and Culture

**Class** 10th Grade

**Academic year** 2020-2021

## General objectives

Work independently, work together in pairs or in groups, playing according to the rules.

Gain awareness of the importance of communication using a language which is not your own.

Show interest and openness towards the culture of other countries.

Compare different cultures and reflect on some of their differences.

## Specific objectives

The minimum learning objective for the first two years is the obtainment of the level B1.

**Listening:** get the gist of a reasonably long conversation in standard English; understand the key points in a radio news broadcast or an audio recording on a familiar every day topic; understand television news stories, TV films, live interviews or talk shows; understand detailed information communicated in standard English, even if there is background noise.

**Reading:** read comments and interviews on present day issues in newspapers and magazines in which a specific standpoint is adopted and understand the key arguments; read articles on unfamiliar topics, using a dictionary to look up unknown terms; read reviews and be able to summarise the author's main assertions.

**Speaking:** justify and explain your viewpoint in a discussion or debate; talk about a brief extract of a text you have read; give accurate detailed information.

**Writing:** produce clear and detailed pieces of writing related to areas of your own interest ; write a critique; write a story; write an essay or a report, emphasising the main points and putting forward evidence to support your argument.

## Methodology

In order to avoid a teacher centred approach, students will be asked to work in pairs, small groups and as a whole class, interacting with each other and with native speakers in role-taking and role-playing activities. To make students the active participants of their learning, inductive-explorative activities will be preferred, as well as the assignment of "authentic" tasks, such as the creation of a multimedia diary.

## Content

### **Communicative functions**

Pupils will learn to: talk about DIY; talk about customer service; describe a concert or a sports event; talk about entertainment in your area; talk about looking after yourself; describe a famous building and its history; talk about house rules; agree on a plan of action; describe a wedding; discuss aspects of US culture and its influence on other countries; talk about an exam that didn't go well; talk about having a good memory or not; give directions in a building; talk about how to prepare for an exam and exam stress; express relief and gratitude.

### **Grammatical structures**

- Obligation, necessity, prohibition, advice;
- *can, could, be able to*;
- phrasal verbs;
- verb patterns;
- *have something done*;
- the passive; impersonal *you*;
- reported speech;
- uses of the past perfect;
- *be, do* and *have*: auxiliary and main verbs;
- revision of verb forms.

## Vocabulary

- DIY and repairs (paraphrasing);
- at a restaurant;
- cash machines (phrasal verbs);
- live entertainment;
- fitness and beauty treatments;
- hairdressing and hairstyles;
- history;
- weddings;
- British and American English;
- exams.

## Pronunciation

- Consonant clusters;
- word pairs with *and*;
- the phonetic alphabet;
- vowel sounds;
- consonant sounds;
- sentence stress;
- word stress;
- words with two pronunciations;
- the letters ***ar***.

**Civilisation and cross-cultural awareness:** IKEA; service in a London restaurant; giving tips in the UK; the Globe Theatre; people whose job involves playing internet games; Gettysburg, site of a historic battle; Westminster Abbey; The Shard; a wedding planner; an oral history project called *Story Corps*; British writer, William Somerset Maugham; a wedding in Egypt; the USA and its culture;

British versus American English; the *Gaokao*, demanding university entrance exam in China; choosing an American university.

### **Citizenship and constitution**

**Citizenship:** house rules.

**Educational guidance:** choosing an American university.

**Affectivity:** luck.

**Health education:** keeping fit.

Note: Teaching materials will also be taken from other sources, where appropriate.

### Evaluation methods

Following the four-fold structure of the English language examinations, right from the start students will be evaluated in the four key skills: writing, reading, listening and speaking. Writing skills will be assessed through linguistic-literary compositions (essays, mini-essays, etc.) and simulations of real-life communication (emails, messages, blog posts); oral skills will be evaluated both through “classic” interrogations and oral presentations with multimedia supports on linguistic-literary topics and on topics related to the students’ interests, as well as through role plays, role-taking activities, debates; oral and written comprehension skills will be assessed through oral, audio-visual and written structured and authentic texts, to comprehend globally and in detail, related to general interest or artistic and literary topics.

**Yearly Plan** CULTURA Y LENGUA ESPAÑOLA  
**Class** 10<sup>th</sup>

**Academic Year** 2020/2021

Objetivos generales

OBJETIVOS GENERALES que promueven el aprendizaje del español se basarán en el uso adecuado del idioma presentándose una serie de experiencias de aprendizaje que se fomentarán en clase, y tienen como objetivo:

- Estimular el interés y sensibilidad hacia las culturas en las que se habla la lengua objeto de estudio.
- Crear un clima de seguridad, confianza y afectividad. Para que el alumnado se exprese libremente, se respeten, y establezcan lazos afectivos satisfactorios.
- Fomentar la confianza del alumno en sí mismo a la hora de comunicarse.
- Aumentar la motivación para aprender dentro y fuera del aula.
- Desarrollar la capacidad de aprender de manera autónoma

## Objetivos específicos

Los objetivos ESPECÍFICOS que se perseguirán están recogidos en el nivel A2 del MCER (Marco Común Europeo de Referencia para las lenguas):

- Comprender frases y el vocabulario más habitual sobre temas de interés personal (información personal y familiar muy básica, compras, lugar de residencia, empleo).
- Ser capaz de leer textos muy breves y sencillos.
- Saber encontrar información específica y predecible en escritos sencillos y cotidianos como anuncios publicitarios, prospectos, menús y horarios y comprendo cartas personales breves y sencillas.
- Poder comunicarme en tareas sencillas y habituales que requieren un intercambio simple y directo de información sobre actividades y asuntos cotidianos.
- Ser capaz de realizar intercambios sociales muy breves, aunque, por lo general, no puedo comprender lo suficiente como para mantener la conversación por mí mismo.
- Utilizar una serie de expresiones y frases para describir con términos sencillos a mi familia y otras personas, mis condiciones de vida, mi origen educativo y mi trabajo actual o el último que tuve.
- Ser capaz de escribir notas y mensajes breves y sencillos relativos a mis necesidades inmediatas. Puedo escribir cartas personales muy sencillas, por ejemplo agradeciendo algo a alguien

## Metodología

La presente programación se ha diseñado siguiendo principalmente el enfoque comunicativo. Esta perspectiva implica aprender usando la lengua para los fines para los que se utiliza normalmente.

Los alumnos se enfrentarán a situaciones de comunicación real, donde los diferentes contenidos se les presentarán de manera integrada dentro de tareas comunicativas de comprensión, expresión, interacción, mediación o distintas combinaciones de las mismas.

Para el desarrollo de habilidades socioculturales y el conocimiento de las culturas asociadas con el español (española, andaluza, hispanoamericana etc.) se realizarán tareas con materiales auténticos y/o adaptados, y teniendo en cuenta el nivel de los alumnos , donde las tareas le permitirán entrar en contacto directo con las costumbres, usos del español y características de las culturas en cuestión.

Por último, se aplicará una metodología que proporcione al alumnado las competencias y destrezas necesarias para realizar las tareas con eficacia.

Aclaración sobre la metodología:

Debemos tener en cuenta que es muy importante tanto en la organización espacial como la temporal la flexibilidad, de modo que tengan cabida nuevas iniciativas, investigaciones, intereses, propuestas o proyectos que nos ayuden a conseguir una enseñanza más completa.

## Contenidos

Para conseguir los puntos anteriores debemos conocer bien los siguientes CONTENIDOS que seguirán siempre una gradualidad y progresión adecuadas, estableciendo procesos adaptados a los diferentes ritmos y circunstancias personales de aprendizaje.

Se comenzará con el repaso y profundización de los siguientes contenidos:

- Ir a/ Pensar+ infinitivo.
- Ir/ Venir.
- Imperativo afirmativo de 2ª persona.
- Imperativo irregular de 2ª persona singular.
- La posición de los pronombres con el imperativo.
- El otro/ Otro/ Más.

- Los usos principales de por y para
- Ser/ Estar+ adjetivos.
- Porque / Por qué.
- Pretérito perfecto.
- Participios pasados irregulares.
- Acabar de+ infinitivo.
- Los verbos de obligación y de necesidad.

Después empezaremos los nuevos argumentos:

- Pretérito imperfecto.
- Pretérito pluscuamperfecto.
- Los comparativos.
- Los comparativos irregulares.
- Los superlativos.
- Los pronombres posesivos.
- Los adjetivos posesivos pospuestos.
- Pretérito perfecto simple.
- Pretérito perfecto simple de dar, ir y ser.
- Los verbos en -ir con diptongación y alternancia vocálica.
- Los verbos con pretérito perfecto simple irregular.
- Los indefinidos.
- Pretérito perfecto y pretérito perfecto simple.
- El uso de los tiempos del pasado.

## LITERATURA

- Adquirir y utilizar el léxico relativo a la historia y a la literatura.
- Comprender e interpretar textos literarios sabiendo reconocer el género.

## CULTURA E CONVERSACIÓN.

Realizaremos clases periódicas donde trabajaremos sobre la cultura, sociedad y tradiciones de España y Latinoamérica con el libro "Conocemos el mundo hispano". Durante cada unidad se estudiará el vocabulario de un/os campo/s específico/s, donde repasaremos y ampliaremos lo visto en el curso anterior.

Este vocabulario está recogido en el Plan Curricular del Instituto Cervantes y corresponde a los niveles A1- A2

([https://cvc.cervantes.es/ensenanza/biblioteca\\_ele/plan\\_curricular/niveles/09\\_nociones\\_especificas\\_inventario\\_a1-a2.htm](https://cvc.cervantes.es/ensenanza/biblioteca_ele/plan_curricular/niveles/09_nociones_especificas_inventario_a1-a2.htm))

## Método de evaluación

La evaluación del español, como lengua, será una evaluación continua e integrada en la metodología, como indicador de la marcha del alumno en singular, como el de la clase en general.

Serán considerados los siguientes aspectos dentro de la comprensión y producción oral:

- Compresión de la tarea y ejecución.
- Eficacia comunicativa.
- Organización del discurso.
- Corrección gramatical y léxica.
- Pronunciación y fluidez.

Dentro de la comprensión y producción escrita de los diferentes tipos de texto (dialógico, descriptivo, narrativo, argumentativo,...) se evaluarán los siguientes aspectos:

- Eficacia comunicativa.
- Adaptación al formato solicitado.
- Organización y formulación de los textos.
- Corrección gramatical.
- Corrección léxica y ortográfica.

Naturalmente, los descriptores indicados se basan en el MCER Marco (Común europeo de Referencia para las lenguas) y sobre las Indicaciones Nacionales para los Institutos. Para todo esto se utilizarán unas tablas de evaluación que se explicarán al inicio del curso para el conocimiento y participación consciente del alumno en la consecución de los objetivos que tienen que alcanzar y en su propia evaluación.

Los textos literarios tendrán una consideración particular con una tabla de evaluación concreta.

Por cada tabla elaborada se facilita además otra relativa a la evaluación de los estudiantes con trastornos del aprendizaje.

Además de todo lo anterior, se tendrán en cuenta otros aspectos importantes que forman parte del aprendizaje, como son:

- La realización regular de los deberes, así como su puntualidad en la entrega.
- El interés y la participación en las clases.
- La evolución del alumno a largo del año.

## **Yearly plan** Chinese Language and Culture

**Class** 10<sup>th</sup> grade

**Academic year** 2020-2021

### General objectives

The proposed course provides students with the cultural and methodological tools for a basic understanding of the Chinese linguistic and cultural identity. The course also aims at developing in the students a rational, creative and critical attitude, so that they will be able to compare situations, phenomena and problems. Accordingly, upon completion of the course the students should be able to demonstrate knowledge, skills and competence to understand a linguistic and cultural landscape generally perceived as distant. The course includes the greatest possible exposure to the foreign language. This will enable students to share experiences of both language communication and understanding of foreign culture in an intercultural perspective. This objective will be pursued through virtual exchanges and face to face classes, which will provide exposure to the most truthful language inputs.

### Specific objectives

In terms of linguistic-communicative competence, students understand in a global way short oral and written texts on known topics related to their personal sphere; they produce short oral and written texts to describe in a simple way people and situations. They also participate in short conversations and interactions with simple exchanges on known topics of personal interest. Students are asked to reflect on the system (phonology, morphology, syntax, lexicon, etc.) and language functions. Students are able to understand

expressions referring to areas of immediate priority (e.g. really basic information about the person and family, purchases, local geography and work). They are able to describe or present in a simple way people, living or working conditions, daily tasks. They are also able to indicate what they like or don't like with simple expressions and phrases linked together. They are able to use technological tools in order to write the characters and are able to use a paper dictionary to look characters up. For what concerns the cultural universe, students will be able to understand and analyze aspects related to culture, with particular reference to the social sphere, historical and literary contexts. Students are asked to start focusing in a systematic way on Chinese early literature.

## Methodology

The study of Chinese language and culture must proceed along two fundamental and intertwined lines: the development of linguistic-communicative skills and the development of knowledge related to the cultural universe. The language presents a total morphological diversity while culture is commonly perceived as "other" compared to the western cultural block. For all these reasons, students are asked to overcome stereotypes and preconceptions and to look at the course as an opportunity for exchange and awareness. Students will also be provided with a social, cultural, historical and geopolitical introduction to the Chinese reality. The added value is the conscious use of effective communication strategies and a reflection on the language system and uses.

## Content

Language goals:

- General review of A1 level;
- Character and physical description;
- Space concepts, asking for and providing spatial indications;
- Buying goods in a store;
- Going to the doctor and talking about health;
- Talking about the weather, planning a trip and talking about transport means.

Historical and literary goals:

- Introduction to Chinese literature;
- Chinese antiquity and the first dynasties;
- Confucian classics and early philosophical texts;

The listed linguistic and historical literary knowledge represents a base from which the teacher and the students will draw inspiration to develop the program in a flexible and personal way

## Evaluation methods

The proposed evaluation method will be applied to all components and activities of the educational path. Students' oral and written production/comprehension skills will be evaluated by written and oral tests. The evaluation may be implemented by group work project or individual work project on linguistic or cultural topics. Respect of deadlines, level of attention and participation in class will be basic factors for the final evaluation. The teacher will determine the weight of the different tests (possible differentiation of Chinese language tests and Chinese culture tests ).



## **Yearly plan: Mathematics**

**Class:** 10<sup>th</sup> grade

**Academic year:** 2020 - 2021

### **General objectives:**

to have a general knowledge on more advanced topics of Mathematics, like systems of equations in several unknowns and higher-order equations; to be able to work with geometric abstraction; to apply correctly the theoretical notions, passing from general knowledge to skills and abilities.

### **Specific objectives:**

to work correctly with the concept of root and to be able to express this as a fractional power; to solve systems of equations in 2 and 3 unknowns by finding the appropriate methods and the respective geometric configuration; to apply the solution methods of second-order equations, implementing them in particular case of higher-order equations and, possibly, to apply those methods to the respective disequations; to understand the geometric meaning of second-order equations; to interpret the concept of a probabilistic event and to combine more events; to acquire a higher geometric abstraction skills by means of studying plane figures and their geometric transformations.

### **Methodology:**

lectures, with the effective participation of students; exercises.

### **Contents:**

1. Roots in : definitions and formal properties; roots as fractional powers; roots operations.
2. Systems of linear equations in several unknowns: systems of 2 equations in 2 unknowns, types of solutions and their geometric interpretation on the Cartesian plane; solution methods (substitution, comparison, reduction, Cramer); basics on systems of 3 equations in 3 unknowns.
3. Review and complements about the Cartesian plane.
4. Second-order equations: solution methods, particular cases, factorization; parabolæ.
5. Basics on systems of second-order equations; basics on higher-order equations and systems.
6. Tentative complements on disequations: second-order disequations, fractional disequations, systems of disequations.

7. Probability: random events, sum and product of events.
8. Euclidean Geometry: circumference and circle: Euclid's and Pythagoras' Theorems; proportions and similarities; Thales' Theorem.
9. Basics on geometric transformations (tentative): translations, rotations, symmetries, homotheties.

**Evaluation methods:**

written and oral tests; participation and interest of the students.

## **Yearly plan:** Physics

**Class:** 10<sup>th</sup> grade

**Academic year:** 2020 - 2021

### **General objectives:**

during the year, the student will have to get familiarity with some "advanced" topics of Classical Physics, such as the Laws of Dynamics and Galileo's Relativity, the 2D-description of physical motions, the various forms of energy and the Conservation Principle, together with the basics of Thermodynamics.

### **Specific objectives:**

to work productively and analytically with the laws of Dynamics by interpreting correctly the composition of several physical motions; to provide a geometric abstraction of two-dimensional physical motions by giving both a quantitative and qualitative description; to understand the concept of energy both in static (i. e. potential energy) and cinematic-dynamic (i. e. kinetic energy, work) situations, by making distinctions between conservative and non-conservative forces and getting therefore a clear insight into the conservation of energy; to know the fundamental notions of Thermodynamics and to interpret them from the point of view of energy; to get familiarity with the states of matter and to be able to discuss phase transitions.

### **Methodology:**

lectures, with participation and involvement of students; exercises.

### **Content:**

1. Introductory review on Physics: brief history, scopes of the subject, its theoretical and experimental aspects.
2. Newton's Laws: the Three Principles of Dynamics; inertia, inertial and non-inertial systems; Galileo's Relativity and the composition of motions; "fake" (fictitious) forces.
3. Review of fundamental concepts from Mathematics.
4. Motions on the Cartesian planes: vector quantities and their interpretation on the Cartesian plane; vector components; displacement, speed and acceleration vectors; circular motion and angular velocity; projectile motion.
5. Forces and work: operational definition of work; power; kinetic energy; potential energy, conservative vs. non-conservative forces; particular cases (potential elastic energy, potential energy associated to weight); energy conservation.

6. Thermodynamics (introduction): temperature, heat, specific heat and thermal capacity, phase transitions, equilibrium.
7. Tentative complements: harmonic motion.

**Evaluation methods:**

written and oral tests; participation and interest of the students.

**Yearly plan** Natural Science  
**Class** 10<sup>th</sup> grade  
**Academic year** 2020-2021

General objectives

Knowing the fundamental concepts of chemistry and biology, and using the specific procedures in a proper way, through the application of the scientific method, are the main objectives of the subject.

## Specific objectives

The Chemistry course will resume the compound notion and it will be focused on the understanding and determination of the chemical formula.

The quantitative approach (stoichiometry) will be reinforced by the introduction of the concept of mole and yield.

The Biology course will start from both observation and analysis of the living organisms features. As a natural consequence, evolution, systematic and the cell structure will be studied.

## Methodology

Traditional teaching, based on frontal lesson, will be done together with flipped classroom where the students will present to the class a specific topic helped by the teacher.

Both methodologies will be supported by interactive technology tools thanks to the use of smartboards.

Team activities will be organized to allow the student to learn the rules that govern the team work.

Lab activities will play a pivotal role in the course and everytime lab reports will be worked out creating a connection between theory and practise.

## Content

The Chemistry course will focus on:

- Types of bonds: ionic, covalent, metallic, hydrogen
- Chemical formula determination
- Compound representation: empirical and structural formula, Lewis formula
- Stoichiometry:

- Chemical equations
- Mass in reactions, percentages and volumes.

The Biology course will cover the following topics:

- Biology definition
- Features of the living organisms
- Evolution and classification of living organisms: the five Kingdoms
- Biological macromolecules: main features of carbohydrates, lipids and proteins
- Description of the cell structure

## Evaluation methods

The acquired knowledge will be evaluated through both written and oral test. In the team work, contents, interest and sympathy will be part of the evaluation. Student participation and curiosity will be fundamental elements taken into account by the teacher in the evaluation method.

**Yearly plan** Business Studies

**Class** 10<sup>th</sup> grade

**Academic year** 2020-2021

**General objectives**

The aims of the Business Studies programme, which are not listed in order of priority, are to enable candidates to: 1) make effective use of relevant terminology, concepts and methods, and recognise the strengths and limitations of the ideas used in business; 2) apply their knowledge and critical understanding to current issues and problems in a wide range of business contexts; 3) distinguish between facts and opinions, and evaluate qualitative and quantitative data in order to help build arguments and make informed judgements; 4) appreciate the perspectives of a range of stakeholders in relation to the business environment, individuals, society, government and enterprise; 5) develop knowledge and understanding of the major groups and organisations within and outside business, and consider ways in which they are able to influence objectives, decisions and activities; 6) develop knowledge and understanding of how the main types of businesses are organised financed and operated and how the relations with other organisations consumers employees, owners and society are regulate. 7) develop skills of numeracy, literacy, enquiry, selection and use of relevant sources of information, presentation and interpretation. 8) Develop an awareness of the nature and significance of innovation and change within the context of business activities

### **Specific objectives**

First Term; Understanding the role of Marketing in a Business environment focusing on the following concepts; (i) marketing, competition and the customer, (ii) market changes (iii) concepts of niche marketing and mass marketing (iv) market segmentation (v) the role of market research and methods, (vi) presentation of market research (vii) Marketing mix - Product, price, packaging, promotion and place, (viii) Technology and marketing mix, (ix) Marketing Strategy

Second Term; Case Study Project: Marketing strategy and Plan for an authentic local Business, where students work as teams to complete a structured project culminating in a Marketing Strategic Plan for a local Business Owner.

## **Methodology**

In order to avoid a teacher-centred approach, students will be asked to work in pairs, small groups and as a whole class, interacting with each other and with native speakers in role-taking and role-playing activities.

To make students the active participants of their learning, inductive-explorative activities will be preferred, as well as the assignment of "authentic" tasks. Authentic and modern world case study analysis will be constantly referenced and the practical aspects of presenting a realistic and feasible Strategic Marketing Plan for an authentic local business, as a team, will be a key component of the course programme.

## **Content**

3.1.1 The role of marketing: • Identifying customer needs • Satisfying customer needs • Maintaining customer loyalty; building customer relationships

3.1.2 Market changes: • Why customer/consumer spending patterns may change • The power and importance of changing customer needs • Why some markets have become more competitive • How business can respond to changing spending patterns and increased competition

3.1.3 Concepts of niche marketing and mass marketing: • Benefits and limitations of each approach to marketing

3.1.4 How and why market segmentation is undertaken: • How markets can be segmented, e.g. according to age, socio-economic grouping, location, gender • Potential benefits of segmentation to business • Recommend and justify an appropriate method of segmentation in given circumstances

3.2.1 The role of market research and methods used: • Market-oriented businesses (uses of market research information to a business) • Primary research and secondary research (benefits and limitations of each) • Methods of primary research, e.g. postal questionnaire, online survey, interviews, focus groups; the need for sampling • Factors influencing the accuracy of market research data

3.2.2 Presentation and use of market research results: • Analyse market research data shown in the form of graphs, charts and diagrams: draw simple conclusions from such data

3.3.1 Product: • The costs and benefits of developing new products • Brand image – impact on sales and customer loyalty • The role of packaging • The product life cycle: main stages and extension strategies; draw and interpret a product life cycle diagram • How stages of the product life cycle can influence marketing decisions, e.g. promotion and pricing decisions

3.3.2 Price: • Pricing methods: cost plus, competitive, penetration, skimming and promotional; their benefits and limitations • Recommend and justify an appropriate pricing method in given circumstances • Understand the significance of price elasticity: difference between price elastic demand and price inelastic demand; importance of the concept in pricing decisions (knowledge of the formula and calculations of PED will not be examined)

3.3.3 Place – distribution channels: • Advantages and disadvantages of different channels • Recommend and justify an appropriate distribution channel in given circumstances

3.3.4 Promotion: • The aims of promotion • Different forms of promotion and how they influence sales, e.g. advertising, sales promotion • The importance of the marketing budget in making promotion decisions; need for cost effectiveness in spending the marketing budget

3.3.5 Technology and the marketing mix: • Define and explain the concept of e-commerce • The opportunities and threats of e-commerce to business and consumers • Use of the internet and social networks for promotion

3.4.1 Justify marketing strategies appropriate to a given situation: • Importance of different elements of the marketing mix in influencing consumer decisions in given circumstances • Recommend and justify an appropriate marketing strategy in given circumstances

3.4.2 The nature and impact of legal controls related to marketing: • Impact of legal controls on marketing strategy, e.g. misleading promotion, faulty and dangerous goods

3.4.3 The opportunities and problems of entering new markets abroad: • Growth potential of new markets in other countries • Problems of entering foreign markets, e.g. cultural differences and lack of knowledge • Benefits and limitations of methods to overcome such problems, e.g. joint ventures corporations

Working in teams research, and produce a written Marketing Plan and Presentation of a designated local business with Smiling connection

### **Evaluation methods**

Written assessment will include Exam Practise questions and completion of exam style case studies which will be graded according to Cambridge IGCSE marking criteria.

Oral assessment and presentation assessment will be marked according to content, delivery, organisation, visual and quality of interrogation questions, observation and feedback.

The local Business owner and teacher will assess the group Marketing Strategy Plan and Presentation based upon the following criteria; originality of proposal, feasibility of the project, cost benefit analysis, presentation of the project, teamwork skills.

# **Yearly plan ICT**

## **Class 10th Grade**

### **Academic year 2020/21**

#### **General objectives**

In the second year, the most common computer software will be used together with the basic concepts connected to it.

The architectural features of a spreadsheet and word processing software will be introduced.

The concept of network collaboration, the benefits of collaboration, cloud computing, its basic functionality and common features will be explained. The concept of online meeting and online study will be introduced.

The constituent elements will be introduced to guarantee the security of data and information. It is necessary to start from what students have already acquired in the basic school to let them achieve the mastery of these tools, with particular attention to online security.

The structure and services of the Internet will be introduced. Together with the other disciplines, students will be used to effectively use communication and the search for information, and to be aware of the problems and rules of this use.

#### **Specific objectives**

Acquisition of suitable knowledge and skills on the topics addressed.  
The contents will cover the following topics:

- Writer (Word)
- Spreadsheet (Excel)
- Online collaboration tools
- Security of data and information
- Safe surfing on the net

## **Methodology**

The lessons will be conducted through discursive lectures, with the support of videos and the use of technological supports. To evaluate the acquired knowledge, written and oral examinations will be carried out. Participation, socialization, collaboration with initiatives and among students will also be considered, with a judgment that is not only notional and conceptual, but also educational.

## **Content**

The contents will cover the following topics:

- Differences between licensed software and free software
- Original software and open source copies
- Desktop software and cloud software
- Settings and use of words
- Settings and use of excel
- Sharing of documents to collaborate

## **Evaluation methods**

### **INSTRUMENTS AND METHODS**

- Personal personal computer for each student
- Guidelines for preparation for ECDL exams.
- Online access for exercises related to the achievement of the European computer license.
- Frontal lessons.
- Computer exercises on the topics provided.
- Exam tests in specific Internet sites.