

*To be the school of choice for those who seek to be future leaders*

# LEARNING OBJECTIVES

## GRADE TWELVE

cognia™



مدارس قمم الحياة العالمية

Qimam El-Hayat International Schools

## By the end of the year students are expected to:

Subject	Learning Objectives
<h3 style="color: #c00000; margin: 0;">English Language</h3>	<ul style="list-style-type: none"> <li>• understand differences and similarities between points of view in extended texts.</li> <li>• understand the positive and negative connotations of words that have similar meanings.</li> <li>• identify common features of an academic abstract.</li> <li>• understand the details of long complex instructions in their field, rereading as necessary.</li> <li>• recognize contrasting arguments in structured, discursive text.</li> <li>• critically evaluate the effectiveness of a simple argumentative essay.</li> <li>• synthesize information from different sources in order to give a written or oral summary.</li> <li>• use a variety of reference materials to check factual information quickly and efficiently.</li> <li>• evaluate information in an academic text using specific criteria.</li> <li>• evaluate the main points of an academic argument on an unfamiliar topic.</li> <li>• recognize organizational patterns in linguistically complex speech by reading a transcript.</li> <li>• recognize poetic devices such as rhythm, alliteration or repetition.</li> <li>• take detailed notes on research in their field of specialization.</li> <li>• follow the development of a central theme to support a specific conclusion in an academic text.</li> <li>• infer the author's attitude in a linguistically complex academic text.</li> <li>• identify logical flaws in an argument in an academic paper.</li> <li>• follow abstract argumentation, for example the balancing of alternatives and the drawing of a conclusion.</li> <li>• critically evaluate the structure, content and style of a text using linguistically complex language.</li> <li>• critically evaluate the writer's choice of words.</li> <li>• identify different kinds of phrases.</li> <li>• use numerous types of phrases to give more details to their writings.</li> <li>• trim sentences to reach core meaning of a reading passage.</li> <li>• understand various kinds of clauses.</li> <li>• identify adjective, adverb, and noun clauses in sentences.</li> <li>• be able to vary their writing styles.</li> <li>• be more confident with writing long sentences.</li> <li>• be aware of subject verb agreement.</li> <li>• speak well and write grammatically correct sentences, paragraphs, and essays.</li> <li>• be more confident in using pronouns that agree with their antecedents.</li> <li>• use the tenses consistently.</li> <li>• identify and use coordinating, subordinating, and correlative conjunctions.</li> <li>• use context clues to figure out the meaning of new vocabulary words.</li> <li>• use word structure (prefixes, roots, suffixes) to figure out the meaning of new vocabulary words.</li> <li>• use sound clues to figure out the meaning of new vocabulary words.</li> <li>• use dictionary definitions to figure out the meaning of new vocabulary words.</li> <li>• identify synonyms and antonyms for new vocabulary words.</li> <li>• recognize the multiple meanings of new vocabulary words.</li> <li>• use conceptual maps to determine the meanings of new vocabulary words.</li> <li>• use the new vocabulary words in meaningful sentences.</li> <li>• be familiarized with word formation and derivatives.</li> <li>• work smoothly and confidently with variation in vocabulary usages.</li> </ul> <p><b>*** Final Impact:</b></p> <ul style="list-style-type: none"> <li>- Students developed the kind of critical thinking skills that will serve as strong foundations for the later demands of school and work.</li> <li>- Students enhanced their skills of using grammatical rules needed to be applied in all of the other English branches and <b>SAT</b>.</li> <li>- Students enhanced more high-level vocabulary skills and strategies which form the basis of the <b>SAT</b>.</li> </ul>

Subject	Learning Objectives
<b>Math</b>	<ul style="list-style-type: none"> <li>• work with functions represented in a variety of ways: graphical, numerical, analytical, or verbal, and understand the connections among these representations.</li> <li>• understand the meaning of the derivative in terms of a rate of change and local linear approximation and should be able to use derivatives to solve a variety of problems.</li> <li>• understand the meaning of the definite integral both as a limit of Riemann sums and as the net accumulation of a rate of change and should be able to use integrals to solve a variety of problems.</li> <li>• understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.</li> <li>• communicate mathematics both orally and in well- written sentences and should be able to explain solutions to problems.</li> <li>• model a written description of a physical situation with a function, a differential equation, or an integral.</li> <li>• use technology to help solve problems, experiment, interpret results, and verify conclusions.</li> <li>• determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.</li> <li>• develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment</li> </ul>
<b>Biology</b>	<ul style="list-style-type: none"> <li>• know how to identify reactions that involve oxidation and reduction and how to balance oxidation-reduction reactions.</li> <li>• know the bonding characteristics of carbon allow the formation of many different organic molecules of varied sizes, shapes.</li> <li>• know some large molecules (polymers) and their subunits.</li> <li>• know the system for naming the ten simplest linear hydrocarbons, isomers and simple molecules that contain a benzene ring.</li> <li>• know how to identify the functional groups.</li> <li>• know the nuclear forces.</li> <li>• compare how much energy released in nuclear fusion or fission reactions and in ordinary chemical reactions.</li> <li>• identify some naturally occurring isotopes of elements are radioactive.</li> <li>• know the three most common forms of radioactive decay and their properties.</li> <li>• know how to calculate the amount of a radioactive substance remaining after an integral number of half-lives has passed.</li> </ul>
<b>Physics</b>	<ul style="list-style-type: none"> <li>• know charged particles are sources of electric fields and are affected by the forces of the electric fields from other charges.</li> <li>• know magnetic materials and electric currents are sources of magnetic fields and are subject to forces arising from the magnetic fields of other sources.</li> <li>• know how to determine the direction of a magnetic field produced by a current flowing in a straight wire or in a coil.</li> <li>• know the structure of generators and motors and the conversion of energy form one form to another.</li> <li>• identify magnets, magnetic field and the force on a charged particle in an electric field.</li> <li>• electromagnetism, solenoid and introduce magnetic domains.</li> <li>• know induced current and apply Faraday’s law to calculate induced emf, induced current and discuss Lenz’s law.</li> <li>• discuss transformers and examine mutual inductance.</li> <li>• explain the quantization of energy in blackbody radiation and the photoelectric effect.</li> <li>• explain the difference between the models of the atom.</li> <li>• discuss the wave–particle duality of light and matter, show how to calculate DE Broglie wavelength and identify uncertainty principle.</li> <li>• distinguish between nuclear fission and fusion.</li> <li>• know how to calculate the electric field resulting from a point charge and the magnitude of the force on a moving particle</li> </ul>

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<p><b>Chemistry</b></p>	<ul style="list-style-type: none"> <li>• identify biotic and abiotic factors in an ecosystem and describe how a change in one factor an ecosystem can affect others.</li> <li>• describe the roles of producers and consumers in ecosystem and compare photosynthesis to chemosynthesis.</li> <li>• describe the structure of a food chain and explain how food chains and trophic levels are related.</li> <li>• summarize Earth’s hydrologic and biogeochemical cycles and relate cycling of matter.</li> <li>• compare and contrast interspecific and intraspecific competition and describe three types of symbiosis.</li> <li>• identify the characteristics of populations and describe the basic types of survivorship curves.</li> <li>• identify the factors that affect population size and compare exponential and logistic population growth.</li> <li>• explain the difference between primary and secondary succession.</li> <li>• know the scientific naming system developed by Linnaeus.</li> <li>• describe classification as a work in progress and identify the three domains in details.</li> </ul>
<p><b>Social Studies</b></p>	<ul style="list-style-type: none"> <li>• learn how to recognize bias in secondary sources.</li> <li>• learn how to make inferences about what they read.</li> <li>• learn how to analyze historical events.</li> <li>• learn how to make generalization for historical events, and identify supporting details.</li> <li>• learn how to interpret movement maps and evaluate information on the internet.</li> <li>• learn about how new technology affected the World War I.</li> <li>• learn about how the World War I affected different countries in the world.</li> <li>• learn about the costs of the war.</li> <li>• learn how the trouble times after World War I affected societies across the world.</li> <li>• learn how World War I affected the economy and led to huge loses.</li> <li>• learn how World War I helped totalitarian dictators rise power in Europe.</li> <li>• learn how the Allies and the Axis Powers used science and technology in their efforts to win World War II.</li> <li>• learn how the Cold War conflict between the United States and the Soviet Union affected societies around the world.</li> </ul>

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<p><b>French</b></p>	<ul style="list-style-type: none"> <li>• compréhension à lire</li> <li>• le futur simple</li> <li>• la restriction et l'exception</li> <li>• v. parler, v. diriger, v. essayer, v. rencontrer, v. annoncer, v. acheter, v. apprécier, v. aimer, v. préférer, v. détester</li> <li>• v. se présenter, v. se marier, v. partir, v. être, v. élire, v. mettre, v. vendre</li> <li>• la civilisation de France</li> <li>• l'éducation en France</li> <li>• le régime politique en France</li> <li>• les pronoms (en) &amp; (y)</li> <li>• les vêtements</li> <li>• les couleurs</li> <li>• le style indirect (phrase affirmative – phrase impérative – phrase interrogative)</li> <li>• la restriction et l'exception</li> <li>• exprimer une opinion</li> <li>• décrire sa maison</li> <li>• les parties de la maison</li> <li>• la comparaison (adjectif &amp; adverbe)</li> <li>• le superlatif</li> <li>• les médias</li> <li>• les journaux français</li> <li>• les rubriques des journaux</li> <li>• le subjonctif</li> </ul>
<p><b>Computer Science</b></p>	<ul style="list-style-type: none"> <li>• understand the uses of A.I</li> <li>• learn importance of A.I</li> <li>• learn about how Robotics Work.</li> <li>• understand the importance of – Security Cam.</li> <li>• understand the importance of – Drones.</li> <li>• understand the importance of – Bots.</li> <li>• understand the importance of Arduino.</li> <li>• learn the Types of Arduino boards.</li> <li>• understand Arduino Datatypes</li> <li>• understand Arduino Shields and Sensors.</li> <li>• understand the importance of Web designing.</li> <li>• learn how to use HTML.</li> <li>• be able to create Web pages.</li> <li>• be able for Dealing with images.</li> <li>• be able to use links.</li> <li>• understand the uses Relational Database Model</li> <li>• learn importance of SQL Database.</li> <li>• learn about Aggregate Functions with Subqueries</li> <li>• understand the Nested Subqueries</li> <li>• understand the uses of VB.net</li> <li>• learn importance of programming language.</li> <li>• learn about how to create new project.</li> <li>• understand the concepts of programming languages.</li> <li>• understand the importance of – looping structures.</li> </ul>

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<p style="text-align: center;"><b>Arabic Language</b></p>	<ul style="list-style-type: none"> <li>• التعرف على تحليل الجمل وتحليل الكلمة ( اسم – فعل – حرف ) .</li> <li>• التعرف على أنواع التوابع وإتقان إعراب التوابع إعراباً صحيحاً.</li> <li>• التعرف على أسلوب النداء و إتقان إعراب المنادى .</li> <li>• التعرف على المبني والمعرب من الأسماء والأفعال .</li> <li>• إعراب الكلمات إعراباً صحيحاً وذكر العلامة الإعرابية المميزة لكل كلمة .</li> <li>• إتقان استخراج الممنوع من الصرف وذكر سبب منعه من الصرف .</li> <li>• إعراب الممنوع من الصرف في حالة الرفع والنصب والجر .</li> <li>• التعرف على صيغتي التعجب وكيفية التعجب من الأفعال الثلاثية وغير الثلاثية .</li> <li>• التعرف على سبب كتابة الألف المتطرفة ( قائمة أو على صورة الياء غير منقوطة ) .</li> <li>• إتقان كتابة الكلمات التي تحذف منها بعض الحروف مثل ( الألف - الواو ) .</li> <li>• التعرف على زيادة بعض الحروف في بعض الكلمات مثل ( الألف - الواو ) .</li> <li>• تصحيح الأخطاء الإملائية ومواضع علامات الترقيم .</li> <li>• كتابة الهمزة المتطرفة كتابة صحيحة .</li> <li>• التعرف على العناصر المكونة لعملية القراءة ( عناصر الفعل القرائي ) .</li> <li>• التعرف على مستويات القراءة ومهاراتها .</li> <li>• إدراك أهمية القراءة السريعة وأنواعها واستراتيجياتها .</li> <li>• القدرة على القراءة الذكية والقفز عن الكلمات غير الضرورية .</li> <li>• التدريب على القراءة السريعة والتخلص من المشكلات الست التي تحد من سرعة القراءة .</li> <li>• القدرة على التواصل الإقناعي وعرض القضايا بأساليب متنوعة .</li> <li>• استخدام البرهان المنطقي من خلال : ( منهج الاستقراء – الاستنتاج – القياس والمماثلة ) .</li> <li>• التعرف على أنواع الكتابة الوظيفية المختلفة .</li> <li>• التعرف على كتابة الرسالة الإدارية والتقارير والمحاضر .</li> <li>• القدرة على عمل إعلانات وعروض تسويقية وإتقان خصائصها الفنية وعناصرها الأساسية .</li> <li>• التعرف على أهمية الخطابة المحفلية والقدرة على توظيفها .</li> <li>• التعرف على مهارات الخطابة والإلقاء وإكساب الطالب القدرة على الإلقاء المتميز بجرأة وطلاقة .</li> </ul>
<p style="text-align: center;"><b>Islamic Studies</b></p>	<ul style="list-style-type: none"> <li>• التعرف على أحكام الخطبة والنكاح .</li> <li>• التعرف على أحكام الطلاق والخلع .</li> <li>• التعرف على البيوع وأنواعها وشروطها .</li> <li>• التعرف على أنواع البيوع المحرمة .</li> <li>• التعرف على أحكام المعاملات المصرفية .</li> <li>• التعرف على شروط الوكالة والعارية والإيجارة .</li> <li>• التعرف على أنواع الشركات ( شركات الأشخاص - شركات الأموال ) .</li> <li>• التعرف على شروط المسابقات والجوائز .</li> <li>• التعرف على اللقطة وأحكامها .</li> <li>• التعرف على أنواع الجنايات .</li> </ul>
<p style="text-align: center;"><b>Saudi History</b></p>	<ul style="list-style-type: none"> <li>• التعرف على علم الجغرافيا .</li> <li>• التعرف على الكون والمجموعة الشمسية .</li> <li>• التعرف على شكل كوكب الرض وحرارته .</li> <li>• التعرف على تشكيل سطح الأرض .</li> <li>• التعرف على الغلاف المائي .</li> <li>• التعرف على الغلاف الجوي .</li> <li>• التعرف على الغلاف الحيوي .</li> </ul>

*The End*