

A continuación, encontrarán los objetivos de aprendizaje que sus hijos van a abordar en el segundo trimestre. Estos comunican al estudiante que *debe saber, entender y ser capaz de hacer*, en cada una de las asignaturas.



MATHEMATICS

NUMERACY VARIATION & PROBLEM SOLVING:

Derive and solve linear equations in one unknown.

Derive and solve simultaneous linear equations in two unknowns.

Derive and solve simultaneous equations, involving one linear and one quadratic.

Derive and solve quadratic equations by factorisation, completing the square and by use of the formula.

Derive and solve linear inequalities.

Represent inequalities graphically and use this representation to solve simple linear programming problems.

Identify and use classical algebraic methods to solve systems of linear equations. Appropriate and apply methods by determinants, Cramer's Rule and Sarrus's method to solve systems of linear equations.

Use function notation, e.g. $f(x) = 3x - 5$, $f: x \mapsto 3x - 5$, to describe simple functions.

Find inverse functions $f^{-1}(x)$.

Form composite functions as defined by $gf(x) = g(f(x))$. Interpret and use graphs in practical situations including travel graphs and conversion graphs.

Draw graphs from given data.

Apply the idea of rate of change to simple kinematics involving distance–time and speed–time graphs, acceleration and deceleration.

Calculate distance travelled as area under a speed–time graph."

Construct tables of values and draw graphs for functions of the form $ax+b$, $\pm x^2+ax+b$, ax^n , a/x ($x \neq 0$) (and simple sums of these) and functions of the form ab^x+c .

Solve associated equations approximately, including finding and interpreting roots by graphical methods.

Draw and interpret graphs representing exponential growth and decay problems. Recognize, sketch and interpret graphs of functions.



By applying techniques such as completing the square and the quadratic equation to analyse and determine a function.

Represent graphically and accurately the different types of quadratic functions. Identify relationships between properties of graphs and properties of algebraic equations.

GEOMETRY, MEASUREMENT & PROBLEM SOLVING:

Demonstrate familiarity with Cartesian coordinates in two dimensions.
Find the gradient of a straight line.

Calculate the length and the coordinates of the midpoint of a straight line from the coordinates of its end points.

Interpret and obtain the equation of a straight line graph in the form $y = mx + c$.
Determine the equation of a straight line parallel to a given line.

Find the gradient of parallel and perpendicular lines.

STATISTICS, PROBABILITY & PROBLEM SOLVING:

Construct and use cumulative frequency diagrams.

Estimate and interpret the median, percentiles, quartiles and interquartile range.
Construct and interpret box-and-whisker plots.

Understand what is meant by positive, negative and zero correlation with reference to a scatter diagram.

Draw a straight line of best fit by eye.

ENGLISH FOR A GLOBAL WORLD

READING

Analyse connections between ideas, opinions and attitudes in authentic and adapted texts about technology, media and sustainability, identifying bias and supporting evidence.

Evaluate an author's purpose, tone and credibility through critical reading strategies such as CRAAP and See-Think-Wonder.



WRITING

Produce coherent and structured written texts (blogs, commentaries, position paragraphs) that apply linkers and varied structures to express relationships between ideas.

Apply grammatical accuracy and academic tone to analyse information, express stance and propose evidence-based actions.

LISTENING AND SPEAKING

Communicate and justify opinions through collaborative discussions, interviews and debates about digital media and sustainability, showing control of pronunciation and rhythm.

Demonstrate understanding of speaker bias and attitude, and respond with evidence-based comments to sustain interaction.

INQUIRY AND METACOGNITION

Formulate and refine research questions on global and local issues, evaluate sources critically and collect data using simple research tools.

Reflect on personal learning and teamwork by analysing challenges, evidence and changes in perspective through inquiry-based projects.

FRANCAIS

COMPRÉHENSION DE L'ORALE.

Comprendre des informations simples dans des dialogues, présentations ou enregistrements courts où des personnes parle de leur profession, de leurs loisirs, de leurs goûts, de leurs animaux, ou mentionnent des fêtes et des dates, en repérant les mots-clés essentiels.

COMPRÉHENSION DES ÉCRITS.

Comprendre de courts textes (profils, affiches, calendriers, invitations, descriptions) concernant les professions, les loisirs, les fêtes, les animaux et les dates, afin d'identifier les informations principales comme les noms, les lieux, les nationalités, les activités et les moments de l'année.

PRODUCTION ORALE.

Se présenter et parler simplement de sa profession, de ses activités de loisirs, de ses goûts et des animaux de compagnie, ainsi que décrire comment on célèbre certaines fêtes ou jours fériés dans son pays, en utilisant un vocabulaire adapté et des structures de base.



PRODUCTION ÉCRITE.

Rédiger de courts textes personnels (comme une présentation, un message ou une carte) pour parler de soi, de sa profession, de ses loisirs, de ses goûts et des fêtes importantes, en utilisant correctement les noms de pays, les nationalités, les mois de l'année et les nombres pour situer des événements dans le temps.

LENGUA CASTELLANA

LITERATURA

Identifica aspectos sociales propios del siglo XIX en las obras románticas modernistas en Latinoamérica.

Consulta información sobre el contexto histórico y social del Romanticismo y del Modernismo en Latinoamérica.

PRODUCCIÓN TEXTUAL

Produce textos escritos, que evidencien el conocimiento que ha alcanzado acerca de la literatura Latinoamericana.

Recrea versos a partir de poemas dados.

Construye poemas cortos aplicando elementos de estilo y lenguaje propios de la literatura modernista.

COMPRENSIÓN E INTERPRETACIÓN TEXTUAL:

Analiza algunos aspectos literarios e históricos en textos concretos de la literatura del Romanticismo y Modernismo en Latinoamérica.

Lee, valora e interpreta, como expresiones culturales, algunas obras literarias de la época del Romanticismo y Romanticismo en Latinoamérica.

Explica el significado y el tema de algunos poemas románticos y modernistas latinoamericanos.

Lee, comprende y analiza el libro "Traiciones de la memoria", de Héctor Abad.

COMUNICACIÓN

Reflexiona acerca de una crítica de cine de acuerdo con su intención comunicativa.

Reconoce la estructura básica y los contenidos generales de la crítica de cine. Elabora una reseña crítica a partir de una película dada.



SOCIAL STUDIES.

PENSAMIENTO SOCIAL

Relacionar las consecuencias de los eventos bélicos de la primera mitad del siglo XX con el establecimiento del nuevo orden mundial y el origen de la guerra fría. Realizar cartografías que permitan identificar el relieve, la hidrografía, las fronteras terrestres y marítimas y la división política de Europa como fuente para comprender los conflictos bélicos.

Esquematizar el desarrollo de los gobiernos de la república conservadora y la hegemonía liberal relacionando las ideologías con el entorno geopolítico mundial.

PENSAMIENTO SISTÉMICO

Enumerar y explicar los impactos de las guerras mundiales en las ideologías de los partidos políticos en Colombia.

Jerarquizar los elementos constituyentes de la Modernización del país, la distribución de la población Colombiana y la riqueza.

Explicar algunos de los grandes procesos de cambio social que se dieron en el mundo, teniendo en cuenta su origen y el impacto en situaciones de la política, la sociedad, la economía y la cultura posteriores.

MULTIPERSPECTIVISMO

Conceptualizar los componentes de la crisis en Estados Unidos de 1929: Caída de la bolsa de valores de Nueva York en 1930 y los escándalos en el mercado bursátil.

Analizar el Neoliberalismo actual de Colombia y la República Liberal del siglo XX que dio origen a las políticas económicas actuales de apertura económica y los Tratados de Libre Comercio (TLC)

Establecer relaciones entre las consecuencias de los conflictos bélicos de la primera mitad del siglo XX con los acuerdos que dieron origen a la Corte Internacional de Justicia y los preceptos del derecho internacional humanitario (DIH)

INVESTIGACIÓN SOCIAL

Describir los elementos más relevantes del periodo de entreguerras y su relación con el nuevo orden mundial.



Socializar los resultados de la indagación en torno a los testimonios sobre las consecuencias físicas y psicológicas de la guerra en los combatientes y no combatientes.

Estudio y análisis de las situaciones Tipo I y II según la ley 1620, su evolución y sus consecuencias para los implicados.

Proyecto de investigación social: Desarrollo industrial de Colombia - ODS

ECONOMÍA CIRCULAR

Strand: Espíritu Emprendedor

Elabora una propuesta de valor que ofrezca una solución a un problema o una necesidad aplicando Design Thinking.

Argumenta cómo se relaciona su propuesta de valor con el segmento de clientes seleccionado basado en la metodología Design Thinking.

BIOLOGY

COMPRENSIÓN DEL CONOCIMIENTO

State that the body has mechanical , chemical, and cells defences which can be enhanced by vaccination

Define active and passive immunity, and explain the process of vaccination.
Be able to describe the human nervous system in terms of the central nervous system and the peripheral nervous system, which together serve to coordinate and regulate body functions.

Describe a simple reflex arc in terms of receptor, sensory neurone, relay neurone, motor neurones and effector

Be able to define sense organs as groups of receptor cells responding to specific stimuli: light, sound, touch, temperature and chemicals.

Be able to define hormone as a chemical substance, produced by a gland, carried by the blood, which alters the activity of one or more specific target organs and is then destroyed by the liver.

Be able to define and investigate geotropism and phototropism.

Describe the effects of excessive alcohol consumption and abuse of heroin
Be able to describe the function of the kidney in terms of the removal of urea and excess water and the reabsorption of glucose and some salts.



Define deamination as the removal of the nitrogen-containing part of amino acids to form urea.

MANEJO DE INFORMACIÓN Y RESOLUCIÓN DE PROBLEMAS

Explain how each pathogen has its own antigens, which have specific shapes, so specific antibodies which fit the specific shapes of the antigens are needed
Explain that the cholera bacterium produces a toxin that causes secretion of chloride ions into the small intestine, causing osmotic movement of water into the gut, causing diarrhoea, dehydration and loss of ions from the blood Explain the importance of passive immunity for breast-fed infants

Be able to compare nervous and hormonal control systems.

Be able to define homeostasis as the maintenance of a constant internal environment (thermoregulation, glucose and water levels)

Explain the pupil reflex in terms of light intensity and antagonistic action of circular and radial muscles in the iris

Explain accommodation to view near and distant objects in terms of the contraction and relaxation of the ciliary muscles, tension in the suspensory ligaments, shape of the lens and refraction of light

Explain how drugs (heroin) affects the nervous system, limited to its effect on the function of synapses

Explain dialysis in terms of salt balance, the maintenance of glucose concentration and the removal of urea.

Discuss the advantages and disadvantages of kidney transplants, compared with dialysis.

HABILIDADES EXPERIMENTALES E INVESTIGACIÓN

Explain and outline the role of vaccination in controlling the spread of diseases
Be able to describe the structure and function of the eye, including accommodation and pupil reflex.

Discuss the role of the hormone adrenaline in the chemical control of metabolic activity, including increasing the blood glucose concentration and pulse rate
Explain the concept of control by negative feedback
Explain the role of auxin in controlling plant growth.

Be able to state the relative positions of ureters, bladder and urethra in the body.
Describe the use of dialysis in kidney machines.



TECHNOLOGY

UNDERSTANDING OF THE WORLD:

Analyse how machines and digital systems shape human behaviour in play/competition, identifying embedded values and setting principles for fairness, inclusion, and safety.

Evaluate the impacts of autonomous/semi-autonomous devices in daily life and formulate criteria for responsible tech challenges and collaboration.

ICT TOOLS AND CODING

Build and test motion control for a simple vehicle: simulate/program motors, use conditional logic, and debug to ensure reliable start, stop, and turns.

Design a basic mobile interface to send commands and establish Bluetooth communication, documenting code, connections, and troubleshooting steps.

DESIGN AND CREATIVITY DEVELOPING THINKING SKILLS:

Generate and justify a robot design within constraints (chassis, traction, power, and control), balancing usability, stability, and performance.

Run cycles of testing to refine control and efficiency; compare approaches, present a clear design rationale and demo, and align choices with agreed ethical guidelines.

EDUCACIÓN FÍSICA

DESARROLLO FÍSICO MOTRIZ Y UBICACIÓN TEMPORO-ESPACIAL.

Realiza test físicos que permiten evaluar y valorar sus capacidades condicionales.

Organiza actividades físicas o juegos, que involucren el trabajo colaborativo. Desarrolla y aplica correctamente los fundamentos técnicos básicos de cada deporte en situación de juego. (sports)

Realiza acciones deportivas propias de los deportes en conjunto. (casas)



FORMACIÓN Y REALIZACIÓN DE LA TÉCNICA.

Explora específicamente flexibilidad, resistencia, fuerza y velocidad.

Planifica juegos de competencia, respetando las diferencias individuales y grupales.

Regula ejercicios propios de deportes específicos. (Sports).

Aplica fundamentos técnicos de deportes básicos colectivos. (casas)

FUNDAMENTACIÓN TEÓRICA DISCIPLINAR.

Integra las reglas de juego y las modifica si es necesario, teniendo en cuenta la aplicación del fair- play.

Evalúa los aciertos o aspectos por mejorar, en la realización de actividades físicas que involucren el trabajo colaborativo.

Identifica y utiliza las diferentes habilidades y destrezas físicas, implementándolas en las actividades lúdico – deportivas, con el fin de generar espacios de autocontrol y auto exigencia. (sports).

Participa activamente de las actividades de intercasas o deportivas demostrando sana competencia y gran espíritu deportivo.(casas)

EDUCACIÓN SOCIOEMOCIONAL

INTELIGENCIA EMOCIONAL

Promueve hábitos saludables y fomenta el cuidado de la salud mental.

Reflexiona temas de actualidad (vínculos o relaciones del siglo XXI, la sexualidad sana y responsable y las adicciones del nuevo siglo).

Analiza las habilidades blandas y las competencias del nuevo siglo para fortalecer su autonomía.

MUSIC (CHOIR)

Appreciation:

Understand the conducting gestures

Follow the conductor gestures in order to get inside the ensemble tonal color.

Art Skills:

Learn where our voice is, and how to breathe for healthy singing

Use active listening to contribute to the ensemble's tone colour and dynamic contrast.

**Expression:**

Use all timbres of the voice creatively, individually and in groups.

Demonstrate ensemble skills by blending, balancing, and adjusting vocal tone to match the group in unison and two-part singing

MUSIC (INSTRUMENTAL)**APPRECIATION**

Analiza e interpreta obras artísticas comprendiendo su contexto.
Expone opiniones críticas y argumentadas sobre el arte.

ART SKILLS

Integra técnicas más avanzadas en sus producciones.
Desarrolla dominio técnico y expresivo.

EXPRESSION

Crea propuestas que reflejan su identidad y emociones.
Muestra seguridad y sentido estético en sus presentaciones.

THEATER**APPRECIATION**

Critically assess personal and group creative processes.
Analyse how design elements support dramatic meaning.

SKILLS

Experiment with physical and vocal expression to enrich performance.
Engage more critically with dramatic texts as writers and readers.

EXPRESSION

Apply dramatic action intentionally in performance.
Interpret layered emotions and character psychology on stage.
Use performance as a tool to convey internal and external conflict.
Strengthen ensemble work and clarity in dramatic communication.



DANCING

APPRECIATION

Investigate and present projects about the influence of dance in popular culture and the media.

Discuss and debate current and controversial topics related to dance, such as cultural appropriation and inclusion in the dance industry.

Appreciate and value own artistic work and that of others.

SKILLS

Participate in choreographic projects that include complex combinations of movements and sequences in different dance styles

Collaborate with students from music and theatre to create multidisciplinary artistic productions that combine dance, live music, and theatrical performance. Participate in community or school dance shows and events to gain performance experience.

EXPRESSION

Participate in choreographic projects that address social and political issues relevant to students.

Experiment with contemporary dance techniques and dance-theatre to express abstract and conceptual ideas through movement.

Reflect on the role of dance in the construction of individual and collective identity and how dance can be a tool for promoting social change.

ARTS

APPRECIATION

Actively participates in artistic experiences, giving value to own and shared ideas that strengthen individual and collective development.

Understands the different definitions of art and how they have changed over time. Understand how art in the XXI century works, from which they're able to design their personal artistic project.



Understands the three different forms of artistic research (research about arts, research for arts or research within the arts) and carries out an artistic investigation project.

ART SKILLS

Consolidates a specific technique to develop advanced skills in plastic arts according to significant, pleasure and emotional statements.

Consolidate the exploration of an artistic technique upon which to structure their personal project.

EXPRESSION

Explores artistic techniques of plastic and visual arts through drawing, painting and sculpture.

Consolidates and develops visual thinking skills that allow a critical lecture of themselves and their environment through art.