

<b>COLEGIO SAN AGUSTÍN</b> <b>YEAR 2019</b> <b>ÁREA:</b> Cs. Exactas y Naturales	<b>Teachers:</b> Lennin Fontes y Lucas Corrarello 5th year <b>Divisions:</b> A & B
<p style="text-align: center;"><b>Yearly planning</b></p>	
<p><b><u>General objectives:</u></b></p> <ul style="list-style-type: none"> <li>● Interpret and critically analyze the phenomena of daily life through the sciences that make up the area; enhancing the importance that each one of them has in the daily environment and focusing on the immediate future of the boys, that is to say, their university studies .</li> <li>● Encourage debate and collaboration among peers (students) when facing different situations raised in the lessons and / or caused by what the boys and girls propose.</li> <li>● Incorporate concepts through <b>experimentation</b> and <b>research</b>.</li> <li>● Promote curiosity from the different subjects, about current technologies.</li> <li>● Prepare 5th year students to face an increasingly technological labor market.</li> <li>● Contribution from the sciences, to develop their responsible citizenship.</li> </ul> <p><b><u>Skills to work on:</u></b></p> <ul style="list-style-type: none"> <li>● Students as active producers, not just passive consumers</li> <li>● Analysis and problem solving</li> <li>● Planning and organization capacity</li> <li>● Innovation-creativity</li> <li>● Collaborative and interdisciplinary work</li> <li>● Autonomy in decision making</li> <li>● Commitment to the objectives worked on and search for the best way to meet them.</li> <li>● Critical thinking and initiative.</li> </ul> <p>Since this approach was built up taking into account the students' opinions, they will be able to choose among three blocks of learning therefore basing this planning on the nodal contents for this school year.</p>	
<p>Learning block: Image and video</p>	

Axis	Objective	Content	Competence
<p><b>Photoshop CS5 / Canvas / Genially</b></p> <p><b>Axle N° 1/ NP 1 y 2</b></p> <p><i>The image as a generator of meanings.</i></p> <p><i>Appropriation of the work environment; Execution of processes in a creative way. Creation of meaning through work on the image.</i></p>	<ul style="list-style-type: none"> <li>→ Understand critically the ways in which we read the images.</li> <li>→ Understand how we can intervene in the creation of meanings, change them and create new possible readings.</li> <li>→ Recognise the software environment.</li> <li>→ Learn basic concepts of image design.</li> <li>→ Analyze and use the tools to make corrections of images.</li> <li>→ Create images according to the proposed objectives.</li> <li>→ Understand, be understood and reach agreements with colleagues and other groups working from other points of view on the same project.</li> </ul>	<p><b>Núcleo 1:</b> The image as producer of sensations/ feelings.</p> <p><b>Núcleo 2:</b> Recognition and use of the software. Image creation</p>	<ul style="list-style-type: none"> <li>→ Understanding the definitions and functions of the image as a producer of meanings.</li> <li>→ Critical thinking.</li> <li>→ Creativity</li> <li>→ Teamwork and between teams</li> <li>→ Preparation for university use of this tool.</li> <li>→ Creation of a comprehensive project with another subject.</li> <li>→ Advertising desing applied to students' questions on daily life .</li> </ul>
<p><b>After Effects</b></p> <p><b>Axle N° 2/ NP 1 y 2</b></p> <p><i>Image and video manipulation environments.</i></p>	<ul style="list-style-type: none"> <li>→ Recognition of the software environment.</li> <li>→ Learning of basic video concepts.</li> <li>→ Analisis and use of the tools to make visual effects on the videos</li> <li>→ Creation of videos according to the proposed objectives.</li> <li>→ Understand, be</li> </ul>	<p><b>Núcleo 1:</b> Video basics</p> <p><b>Núcleo 2:</b> Methodology of creating videos.</p>	<ul style="list-style-type: none"> <li>→ Understanding the definitions and functions of the image as a producer of meanings.</li> <li>→ Critical thinking.</li> <li>→ Creativity</li> </ul>

<p><i>Editing tools.</i></p> <p><i>Learning to learn new technologies.</i></p>	<p>understood and reach agreements with colleagues and other groups working from other points of view on the same project.</p>		<p>→ Teamwork and among teams</p> <p>→ University use of this tool.</p> <p>→ Creation of a comprehensive project with another subject.</p> <p>→ Design of advertising applied to questions of daily life from students' choice.</p>
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Learning block: Programming			
Eje / Núcleo	Objetivos	Contenidos	Competencias
<p><b><i>Python / Diagrama flow</i></b></p> <p><b>AXLE N° 1/ NP 1 y NP 2</b></p> <p><i>The preparation of the flow diagram as an introduction method to computational thinking. Introduction to different</i></p>	<p>→ Acquisition of a solid base to program. In every programm language.</p>	<p><b>Núcleo 1:</b></p> <p>What is programming and what is it for?</p> <p><b>Núcleo 2:</b></p> <p>Logic of structured programming.</p> <p>The importance of the flow chart</p>	<p>→ Understanding of the definitions and functions of the image as a producer of meanings.</p> <p>→ Critical thinking.</p> <p>→ Creativity</p> <p>→ Teamwork and among teams</p>

<i>programming languages.</i>			
<b>C++ / Java</b>  <b>AXLE N° 2/ NP 1 y 2</b>	<ul style="list-style-type: none"> <li>→ Recognition of the software environment.</li> <li>→ Recognition of syntax common to other programming languages</li> <li>→ Recognition of the procedural logics in the new programs</li> </ul>	<b>Núcleo 1:</b> Syntax of the program  <b>Núcleo 2:</b> Resolution of problems of daily life through programming.	<ul style="list-style-type: none"> <li>→ Processes of self correction and search for errors (debug a program that does not work properly)</li> <li>→ Creativity to create different resolution alternatives</li> <li>→ Solid bases in programming and professional languages</li> </ul>

Learning block: Office package			
AXLE / Núcleo	Objetivos	Contenidos	Competencias
<b>AXLE N° 1/ NP 1 Y 2</b>  <b>Word</b>  <i>The written text as a means to express ideas.</i> <i>Academic-expository text</i>	<ul style="list-style-type: none"> <li>→ Development of academic reading and writing.</li> <li>→ Recognition of the software environment</li> <li>→ Comprehension of basic concepts and the potential of text processors</li> <li>→ Management of different writing styles</li> </ul>	<b>Núcleo 1:</b>  Scientific articles and publication metrics.  Word environment to change metrics in a document.  <b>Núcleo 2:</b>  Main characteristics of a scientific text and	<ul style="list-style-type: none"> <li>→ Development of critical reading and writing</li> <li>→ Synthesis.</li> <li>→ Creativity</li> <li>→ Ability to argue</li> <li>→ Academic writing</li> </ul>

		how to do it in word.	
<b>AXEL N° 2 / NP 1 Y 2</b>  <i>Power Point and Excel</i>	→ Recognition of the software environment.  → Comprehension of basic concepts  → Evaluation of the way in which students make use of the possibilities offered by the program	<b>Núcleo 1:</b>  Graphics, simple formulas.  Núcleo 2:  Styles, formats, backgrounds.	→ Information management through graphics.  → Use of technology for the representation of information.

### **Methodological strategies:**

Mainly, the work model will consist of hands-on workshops, where the student will solve problems individually or in groups. To reinforce the activity in class, clear instructions will be given so that students can finish their tasks on their own while solving doubts in class.

The theoretical content of the subject will be dictated by the teachers using the Presentation format with multimedia support , which in turn will be included in the compendium so that it is part of the study material to be evaluated.

They will work with a digital folder .

In all cases, the classwork will aim at reaching a final conclusion linked to the contents that are being seen in other subjects. For this, teachers will propose meeting points, but students will be free to choose according to their personal likes.

Motto: We will work throughout the year motivating the concern for knowledge through educational play tools that promote interest and encourage collaboration between colleagues.

### **Group works:**

Different criteria will be taken into account throughout the year for the setting up of the working groups. The criteria chosen by the area this year will be: by affinity, by houses, mixed and by averages. They will rotate throughout the quarters.

### **Collaborative projects:**

Using information technologies in other fields of study will be fundamental, so searching for a joint project will be the final grade of the 3rd term.

This project will be on cooperation with the subject of geography. On it, the students will work on the creation of a documentary, in which they will investigate, resume content, editing videos and audio, and an interview, which should be on the final video. It will last, at least, ten minutes.

### **Evaluation and promotion**

Each core has its "deliverable" product; therefore, 80% of the evaluations (approximately) will be through these deliverables (products or functional subproducts of the workshop). That is, that the student is able to develop the product and deliver it working is, in part, proof of having acquired the required knowledge. Additionally, for each final delivery, you will have to make an oral defense of what has been done, where you will briefly explain the process by which you arrived at the product you are delivering and, through our consultations about your work, we will be able to evaluate in greater depth the level of understanding of the concepts put into practice. Finally, students must also submit written research reports and in some centers there will be theoretical-practical written evaluations.

### **Attitudinal contents:**

Each student will start with a 10 and it will be their responsibility to sustain it throughout the term. For its maintenance, the necessary materials for each class will be taken into account, active listening, the follow-up of the topics class to class, the follow-up of the slogans and the work in class in an orderly and respectful manner.

### **Schedule:**

The schedule that we propose will respond to the working plan chosen by the students. Those who have chosen image in the first quarter, during the second will see Office package, and viceversa. Those who chose programming in the first quarter and are interested in deepening their knowledge during the second quarter will be able to do so, or choose any of the other two fields.

Finally, in the last term, students belonging to the 3 groups will mix up and work in a common project, showing what they have learnt in each group.

#### Image/video

Axle n°1: March - May  
Axle n°2: June - August

#### Office

Axle n°1: March - May  
Axle n°2: June - August

#### Programming

Axle n° 1: March - May  
Axle n° 2: June - August

Integrative project: September- December.

