OBJETIVOS GENERALES DE LA MATERIA O ASIGNATURA

1. Entender la función de la tecnología y su importancia en el desarrollo de la civilización.
2. Identificar necesidades, estudiar ideas, desarrollar soluciones y construir objetos para resolver problemas simples.
3. Conocer los elementos básicos de un ordenador personal, su uso y conexiones, y cómo funciona como un todo.
4. Manejar las operaciones básicas de un sistema operativo: personalización del sistema, mantenimiento, organización y almacenamiento de la información.
5. Realizar búsquedas rápidas sencillas con motores de búsqueda de Internet y conocer las posibilidades que los portales ofrecen.
6. Conocer donde provienen diferentes materiales (madera, metal, plástico, textiles, cerámica y piedra) y sus usos en la fabricación.
7. Conocer las características de la madera, como uno de los materiales técnicos más frecuentemente usados, y cómo se obtiene y se clasifica.
8. Conocer sobre derivados de la madera, sus propiedades y su uso comercial con el objetivo de identificar su adecuación para diferentes usos.
9. Manejar con facilidad el dibujo básico en dibujo técnico, así como los instrumentos y herramientas necesarios para ello.
10. Estimar el valor de la importancia de los dibujos técnicos como medio de expresión y comunicación en el campo de la tecnología.
11. Analizar estructuras simples fuertes, identificando los elementos a los que están compuestos y los cargas y estreses a los que se sujetan.
12. Identificar los elementos principales de un circuito simple y distinguir la función de cada uno.
13. Entender cómo el corriente eléctrica funciona en la práctica y aprender sobre sus propiedades y efectos.

CONTENIDOS

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CONTENIDOS MÍNIMOS (por UD o Temas)

UNIT 1. TECHNOLOGY.
- Understand the function of technology and its importance in the development of civilisation.
- Know technological processes and the stages to follow.
- Solve simple problems, starting from identifying needs in the world around us and complying with the stages of a technological project.
- Identify needs, study ideas, develop solutions and build objects to solve simple problems.
- Understand and assimilate the way a technology workshop works and the activities carried out in that area.
- Recognise and respect health and safety rules in the technology workshop.

UNIT 7. GRAPHIC EXPRESSION AND COMMUNICATION
- The concept and use of technical drawing as a means of expression of technical ideas.
- Materials and basic drawing instruments (types and characteristics): pencils, set squares, compasses, rulers and protractors.
- Basic line drawing in technical drawing: parallel and perpendicular lines, main angles.
- Sketches and diagrams as elements of expression and to order ideas.

UNIT 4. MATERIALS AND WOOD
- Classify raw materials according to their source.
- Know where different materials (wood, metal, plastic, textiles, ceramic and stone) come from and their uses in manufacturing.
- Know the basic properties of materials (physical, chemical and ecological) and the factors that influence the choice of material for a specific manufactured product.
- Value the importance of materials in technological development and the environmental impact of using natural resources to produce them.
- Know the benefits of recycling materials and acquire consumer habits that help to save raw materials.
- Know about wood’s characteristic properties, as one of the most frequently used technical materials, and how it is obtained and classified.
- Know about wood derivatives, their properties and their commercial use with the aim of identifying their suitability for different uses.
- Know and use correctly the basic techniques of machining, finishing and joining wood, whilst respecting the safety rules, to make simple objects and follow the project methodology.

UNIT 8. STRUCTURES.
- Forces and structures. Natural and artificial structures.
- Main types of stress: traction, compression, bending, torsion and shear.
- Types of structure: massive, lintelled, vaulted, lattice, triangulated, suspended, pneumatic, rolled and plate, geodesic.

UNIT 9. INTRODUCTION TO ELECTRICITY
- Identify the principal elements of a simple circuit and distinguish the function of each one.
- Understand how electric current works in practice and learn about its properties and effects.
- Know, value and respect safety rules for using electricity.

UNIT 2. HARDWARE AND SOFTWARE
- Use a computer as a tool to find, process, organise, present and later store information.
- Know the basic elements of a personal computers, its use and connections and how it works as a whole.
- Manage the basic operations of an operating system: personalising the system, maintenance, organisation and storage of the information.
- Actively assimilate the advances in new technologies and incorporate them into daily life.
- Office software applications in Windows: word processors, spreadsheets, databases and presentations.

UNIT 3. INTERNET:
Understand how the Internet works and the characteristics of its services.
Undertake quick simple searches with Internet search engines and know the possibilities that portals offer.
Value the advantages and disadvantages of communication between computers.
Use email efficiently, know its range and functions.

**MATERIALES PARA EL ALUMNO**

- **Activities workbook**: Technologies ESO I, Ed. Oxford
- **Portfolio or plastic cover to handle the activities.**
- **DIN A4 sheets.**
- **Drawing material:**
  - Set square and protractor
  - Ruler (30 cm.).
  - Pencil HB. Rubber.
  - Compass.

**EVALUACIÓN Y CALIFICACIÓN**

**Instrumentos de Evaluación**
- Exams. Theory questions and exercises.
- Activities workbook and class workbook.
- Draft Projects.
- Projects.
- IT activities.
- Behaviour and working habits.

**Procedimientos de Calificación. (Con valoración porcentual)**
- Exams. 40 % of the final grade.
- Workshop 30 % of the final grade. Draft Project 15 % and project 15%
- IT activities 20% of the final grade
- Attitude. 10 % of the final grade

*Minimum grade in the exam in order to average is 4.*

**Recuperaciones parciales**
There will be no retake exams

**Calificación Final de Curso**
In order to obtain a pass grade students must obtain an average of 5 between the three terms. At least two out of three terms must have been graded as “Passes” in order to perform an average. Students who fail to do so will have to take one exam of the terms failed during the course.

**Recuperación Extraordinaria**
In case of not obtaining a “pass” grade in June the student should have a retake exam in September containing the three terms. It is mandatory to hand in a workbook of activities before taking the September exam. This workbook will be provided to the student at the end of June.
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