About your Technology and Digitisation I book

GEN i OX

Technology and Digitisation I ESO is organised into units and projects which bring together the content studied in the units.

UNITS

Unit introduction ・・・・・・●●

The opening pages are structured in the following way:

A list of the contents and sections in the unit

An introduction to the **Work on your key competences** task, which is the **Learning situation** LS at the end of the unit

In **Think and discuss,** there are activities that promote reflection on and debate about the contents of the text.

In addition, by going to your **GEN i OX Desktop** you can access **Oxford Projects.** You can consolidate your learning with this digital resource, which includes tasks and simulators.

The introductory texts have been selected to foster **individual growth** (emotional, social and academic) and to encourage you to respond to the **challenges facing the world today:** the achievement of the Sustainable Development Goals, children's rights, gender equality and digital competence. They'll also help you to develop the personal, academic and professional **competences** you'll need in the future.

Development ・・・・・・●●

These boxes introduce interesting facts or ask questions based on everyday life, experiments or images. This helps you to deduce what content will be covered in the section.

In the margins, there are **glossary boxes** with definitions of key vocabulary, as well as complementary texts that reinforce or extend the content.

Key content is highlighted.

Revision activities •••••••●●

The revision activities are organised by topic. They include a wide variety of different types of activity that cover the different key competences and all of them cover the STEM and plurilingual competences.

In the **Study skills** section, you'll make a summary of the unit, a concept map and a scientific glossary. You'll be able to use all of these resources to revise the contents of the unit.

Practical skills sections •••••••●●

There are three sections that help you work on your practical technological skills:

- **Working with technology.** In this section, you'll learn about interesting methods and techniques for working with materials and tools, applying what you've learned throughout the unit.

- **Working with computers.** In this section, you'll learn how to use information Technology as a tool to explore, analyse, design, model and digitalise technological objects.

- **Technology workshop.** In this section, you'll use procedures and activities to analyse technological objects. You'll learn how to define any technological problem and set up problem-solving processes.

Emerging technologies and sustainability •••••••●●

In this section, you'll see how technological and digital developments are giving rise to new concepts and more environmentally-friendly products. These new concepts and products will revolutionise our lives in the coming years.

Work on your key competences •••••••●●

The **Learning situation** in **Work on your key competences** enables you to put the contents you've studied into practice in an integrated manner, as well as allowing you to relate them to the Sustainable Development Goals.

Throughout the unit there are **LS** activities, which are connected to the Learning situation.

On your **GENiOX Desktop** there's a **Task guide,** which includes the self-assessment rubrics.

About your Technology and Digitalisation I book

Projects and the guided project ·······●●

At the end of the book, you'll find three projects that bring together what you've learned in various units. These paced projects will allow you to use your **creativity** and imagination within a **project methodology** framework.

The guided project is designed so that you can apply **project methodology** to the **design and construction of a car.**

Symbols used in this book

Some sections and activities in this book are specifically designed to develop the **key competences** and to **focus on** aspects of your **individual development** and the **challenges of today's world.**

The symbols below help you to identify these sections and activities.

Remember that Technology and Digitisation mainly works the STEM competence. This means that all of the activities in this book develop that competence, as well as the plurilingual competence.

KEY COMPETENCES

- Linguistic competence
- Plurilingual competence
- Competence in Science, Technology, Engineering and Mathematics (STEM)
- Digital competence
- Personal and social competence and learning to learn
- Civic competence
- Entrepreneurial competence
- Cultural awareness and expression

FOCUS ON

- Children's rights
- Gender equality
- Physical and emotional wellbeing
- Digital competence
- The world of work
- The Sustainable Development Goals

OTHER SYMBOLS

- LS Learning situation
- Speaking activity
- Group activity and cooperative learning
- STEAM task (interdisciplinary activity)
- Downloadable material

The GENiOX Desktop

The GENiOX Desktop is a digital space where you can access your **digital book,** as well as a wide range of **resources** in different formats (such as video, HTML and PDF). These will help you with the tasks and processes that are the basis of your learning: observation, analysis, consolidating and expanding your knowledge, study skills and exam revision.

- **Unit presentation**
- **Oxford Pojects,** which works on the contents digitally through tasks, animations and simulators
- **Animations** that help you to visualise processes and mechanisms in a dynamic way
- **Simulators** that allow you to work in a virtual laboratory
- ▶ **Video** of the guided project
- **Digital revision activities** to test your knowledge in an interactive format
- **Concept maps, dictionary worksheets** and **scaffolding worksheets**
- **Weblinks** to expand your knowledge and find information for research tasks

The Sustainable Development Goals

The UN launched the Sustainable Development Goals (SDGs) in 2015 for its member states to adopt. The SDGs aim to end poverty, reduce inequality and injustice and tackle climate change for everyone in the world.

Go to your **GENiOX Desktop** to learn about the objectives associated with each Sustainable Development Goal.

GLOBAL DEVELOPMENT WITHIN PLANETARY BOUNDARIES

GOVERNMENT — 16 PEACE, JUSTICE AND STRONG INSTITUTIONS — 17 PARTNERSHIPS FOR THE GOALS — PARTNERSHIPS

2050
2030

SOCIAL AND ECONOMIC DEVELOPMENT

SUSTAINABLE RESOURCE USE

8 DECENT WORK AND ECONOMIC GROWTH — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE — 11 SUSTAINABLE CITIES AND COMMUNITIES

UNIVERSAL VALUES

6 CLEAN WATER AND SANITATION

4 QUALITY EDUCATION

BASIC HUMAN NEEDS

7 AFFORDABLE AND CLEAN ENERGY — 1 NO POVERTY — 2 ZERO HUNGER — 3 GOOD HEALTH AND WELL-BEING — 5 GENDER EQUALITY

12 RESPONSIBLE CONSUMPTION AND PRODUCTION — 10 REDUCED INEQUALITIES

ESSENTIAL CONDITIONS FOR THE EARTH

13 CLIMATE ACTION — 14 LIFE BELOW WATER — 15 LIFE ON LAND