#### Estructura de una UDI: Transposición Didáctica

UNIDAD DIDÁCTICA INTEGRADA

**SAVING ENERGY AND RECYCLING**

**COURSE: 3RD CSE TIMING: 8 SESSIONS**

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| **JUSTIFICATION CURRICULAR CONCRECTION**  |
| This unit will be developed in collaboration with the Sciences Department. It has been created for students in 3rd ESO in order to make them reflect on the environment, how to take care of it, different ways to recycle, and learn about nature phenomena and their effects on the environment and the world around them. The explanations and activities will be in L2 (English) to learn the basic vocabulary related to the topic. OBJECTIVES1 To listen and produce oral text in a proper way about saving energy and recycling.2 To understand and produce simple texts about ecology.3 To exchange information using the English language appropriately.4 To develop learning and communication strategies.5 To promote student´s respect toward nature.CONTENTS1 Work on texts about recycling and natural phenomena in L2.2 Differentiation of waste and recycling sites using color codes L1 and L2.3 Creation of a card with colors to discriminate the types of waste.4 Development of a project on recycling in L2.5 Appreciation of the importance of recycling in our environment.6 Creation of a recycling club.EVALUATION CRITERIA1 Identify the different types of waste for recycling2 Differentiate the different containers to deposit waste.3 Know the facts about global warming. |

BASIC COMPETENCES

a) Competence in linguistic communication in Spanish as well as in a foreign language using the four skills.

b) Competence in digital and data processing by using the ICT´s.

c) Social and civic competence by interacting with their partners.

d) Cultural and artistic competence by designing a poster.

e) Social and civic competence by interacting with their partners.

f) Life long autonomous learning competence by using learning through the rest of the life.

TASK 1: ORGANIZE A RECYCLING ASSEMBLY

Students have to work in groups, learn and investigate about the importance of ecology. Therefore they have to look for information about the ways to recycling and saving energy. As a final product, they have to design a poster with information and organize a recycling club in their school.

ACTIVITY 1: The Three R's of the Environment

Reading and understanding of a text about the philosophy of recycling.

EXERCISES

1º Individual work. Reading comprehension.

The Three R's of the Environment

Every year, Americans throw away 50 billion food and drink cans, 27 billion glass bottles and jars, and 65 million plastic and metal jar and can covers. More than 30% of our waste is packaging materials. Where does it all go? Some 85% of our garbage is sent to a dump, or landfill, where it can take from 100 to 400 years for things like cloth and aluminum to decompose. Glass has been found in perfect condition after 4,000 years in the earth!

We are quickly running out of space. It's time to learn the three R's of the environment: reduce, reuse, and recycle. Then practice what you preach: don't buy things you don't need or items that come in wasteful packaging or that cannot be recycled. Reuse and recycle whatever you can.

Reduce

Reducing the amount of waste you produce is the best way to help the environment. There are lots of ways to do this. For example:

•Buy products that don't have a lot of packaging. Some products are wrapped in many layers of plastic and paperboard even though they don't need to be. You can also look for things that are packed in materials that don't require a lot of energy or resources to produce. Some products will put that information right on their labels.

•Instead of buying something you're not going to use very often, see if you can borrow it from someone.

•Cars use a large amount of energy and cause pollution. Some ways to reduce the environmental damage caused by cars include carpooling with friends, walking, taking the bus, or riding your bike instead of driving.

•Start a compost bin. Some people set aside a place in their yard where they can dispose of certain food and plant materials. Over time, the materials will break down through a natural process called decomposition. The compost is good for the soil in your yard and means that less garbage will go to the landfill.

•You can reduce waste by using a computer! Most newspapers and magazines are available online. Instead of buying the paper versions, you can find them on the Internet. Also remember that you should print out only what you need. Everything you print that you don't really need is a waste of paper.

Save energy by turning off lights that you are not using.

•Save water by turning off the faucet while you brush your teeth.

Reuse

•Instead of throwing things away, try to find ways to use them again! For example

Bring cloth sacks to the store with you instead of taking home new paper or plastic bags. You can use these sacks again and again. You'll be saving some trees!

•Plastic containers and reusable lunch bags are great ways to take your lunch to school without creating waste.

•Coffee cans, shoe boxes, plastic food containers, and other types of containers people throw away can be used to store things or can become fun arts and crafts projects. Use your imagination!

•Don't throw out clothes, toys, furniture, and other things that you don't want anymore. Somebody else can probably use them. You can bring them to a center that collects donations, give them to friends, or even have a yard sale.

•Use all writing paper on both sides.

•Use paper grocery bags to make book covers rather than buying new ones.

•Use silverware and dishes instead of disposable plastic utensils and plates.

•Store food in reusable plastic containers.

Recycle

Many of the things we use every day, like paper bags, soda cans, and milk cartons, are made out of materials that can be recycled. Recycled items are put through a process that makes it possible to create new products out of the materials from the old ones.

In addition to recycling the things you buy, you can help the environment by buying products that contain recycled materials. Many brands of paper towels, garbage bags, greeting cards, and toilet paper, to name a few examples, will tell you on their labels if they are made from recycled materials.

In some towns you can leave your recyclables in bins outside your home, and a truck will come and collect them regularly. Other towns have recycling centers where you can drop off the materials you've collected. Things like paper and plastic grocery bags, and plastic and aluminum cans and bottles can often be brought to the grocery store for recycling. Whatever your system is, it's important to remember to rinse out and sort your recyclables!

2º Individual work. Searching for information using the internet and completion of a card.

GLASS

TIPS TO RECYCLE GLASS:

-Take great care with broken glass, wear gloves if possible

www.recycling-guide.org.uk/materials/glass.htm

SURPRISING FACTS: “1 recycled glass bottle would save enough energy to power a computer for 25 minutes”

How many bottles do you need to recycle to power your computer during an hour?

METAL METAL

TIPS TO RECYCLE METAL:

-Make sure drink and food cans are clean before recycling

www.recycling-guide.org.uk/materials/metal.htm

SURPRISING FACTS:” 1 recycled tin can would save enough energy to power a television for 3 hours”

How many tins do you need to recycle to power a television for a whole day?

PLASTIC

TIPS TO RECYCLE PLASTIC:

- Carrier bags can be reused next time you go shopping.

www.recycling-guide.org.uk/materials/plastic.htm

SURPRISING FACTS:” 1 recycled plastic bottle would save enough energy to power a 60 watt light bulb for three hours

How many plastic bottles do you need to recycle to power a 60watt for a whole day?

PAPER

TIPS TO RECYCLE PAPER:

- Only recycle gummed paper if specified, such as envelopes and stickers.

www.recycling-guide.org.uk/materials/paper.htm

SURPRISING FACTS.” It takes 24 trees to make 1 ton of newspaper”

3. Group work. Interaction in groups and elaboration of a poster for a recycling club.

4. Whole class interaction. Selection of a place in the school to put the poster for the recycling club

Organization of the 1st assembly of a recycling club. Assembly of the recycling club.

**Arrange a suitable day for the first assembly of your recycling club, choose five speakers and organize the topics you are going to deal in this assembly as follows.**

**Summary of the intention of the association.**

**Membership and volunteers.**

**Tips for recycling and saving energy**

**Actions you are going to carry out, for example, asking the headmaster for recycling containers, saving energy bulbs, teaching other groups about recycling tips etc.,**

**Use the internet to take ideas from the following associations:**

**www.greenpeace.org/international/en/campaigns**

**www.saveearthnow.org/**

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| **LEARNING AWARENESS Activities**  | **Exercise**  | **Timing**  | **Resources**  | **Cognitive process**  | **scene**  | **Metodology**  |
| **A card**  | **look for information in the websites given**  | **2 sessions**  | **websites, Word reference dictionary**  | **- Reflexive thinking**  | **classroom**  |
| **Saving**  | **In pairs discuss why is saving electricity...**  | **2 sessions**  | **Partner,paper**  | **- Critic thinking**  | **classroom**  | **Participative**  |
| **The Philosophy of Recycling**  | **Read this texts about the philosophy of ...**  | **2 sessions**  | **Internet article, word reference dictionary.**  | **- Logic thinking - Critic thinking**  | **Classroom**  | **autonomous work**  |
| **Recycling club**  | **In groups of 5 share all the information...**  | **2 sessions**  | **www.greenpeace.org/international/en/campaigns** **www.saveearthnow.org/**  | **Creative thinking** **Critic thinking**  | **classroom**  | **Whole class**  |

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| **LEARNING EVALUATION** Instrumentos de Evaluación  |  Escala de Observación  |   |
|  **Nivel 1**  |  **Nivel 2**  |  **Nivel 3**  |  **Nivel 4**  |   |
|  **LEXTIN1.2 Comprende la información general y especifica**  |  **-Proyectos gráficos: carteles, cómics, etc. -Resúmenes, esquemas y mapas conceptuales**  |  **lee igual que antes y no ha aprendido vocabulario nuevo**  |  **Ha aprendido algunas palabras nuevas pero lee igual que antes**  |  **lee mejor que antes y ha aprendido algunas palabras nuevas**  |  **ha comprendido todo y ha aprendido palabras nuevas**  |   |
|  **LEXTIN4.2 Redacta de forma guiada textos diversos**  |  **-Proyectos gráficos: carteles, cómics, etc. -Presentación; limpieza, composición... -Resúmenes, esquemas y mapas conce**  |  **No utiliza conectores lógicos** **No utiliza marcadores**  |  **Utiliza sólo and but correctamente**  |  **usa and, but, so because, since correctamente**  |  **usa los anteriores marcadores** **Incorpora therefore, so, finally**  |   |
|  **LEXTIN6.3 Explica oralmente diferentes estrategias**  |  **-Participación: opina, debate, propone, etc. -Creatividad -Presentación; limpieza, composición... -Respeto por las opiniones, propuestas, etc.**  |  **No organiza una asamblea a de reciclaje**  |  **Organiza una asamblea pero no cubre los puntos propuestos**  |  **Organiza la asamblea de manera suficiente**  |  **organiza la asamblea ampliando los puntos dados**  |   |
|  **LEXTIN7.2 Usa las tecnologías de la información**  |  **-Proyectos gráficos: carteles, cómics, etc. -Presentación; limpieza, composición... -Resúmenes, esquemas y mapas conceptuales**  |  **No localiza la información que le piden**  |  **Copia información de una fuente para realizar un trabajo en inglés**  |  **copia información de varias fuentes para realizar un trabajo en inglés**  |  **Usa sus propias palabras al trasladar** **la información de la fuente al trabajo**  |   |