LESSON PLAN FORMAT FOR A CLIL LESSON:

UNIT / LESSON	TIMING	LEVEL	MATERIALS
THE WATER CYCLE	5 DAYS	4th YEAR	MATERIAL FOR TEACHER'S WORK - Blackboard - Interactive Digital Board - Power Point Presentation - Posters MATERIAL FOR PUPILS: - School material (notebook, pen/ pencil, crayons, colour cards…) - Microwave oven - Ice - Freezer - Water - Plastic bags - paper towels

CONTENT OBJECTIVES:

With the completion of the Unit students will be able to

1. Learn what water is and how water changes state.
2. Know what the water cycle (Both urban and natural) consist of.
3. Understand and explain how water is recycled throughout the natural water cycle and learn about contamination..
4. Relate the change of states to the different levels of the water cycle.
5. Define the most important processes involved in the water cycle (evaporation, condensation, precipitation and collection)
6. Characteristics of water
7. Uses of water

LANGUAGE OBJECTIVES:

Language Obligatory:
Students will

1. Acquire key vocabulary:
2. Group new words into the semantic family of water related words. River, sea, lake, pond, spring, fall, puddle, flake, ocean, creek, faucet, leak, fountain, waterfall, cloud, boiling, lagoon...

   ELEMENTS INVOLVED IN THE WATER CYCLE: Sea, river, lake, rain, fog, hail, snow, ice, water, cloud, ocean, sun, droplet, mountains, valley, Icicle, thunder, lightning, storm... .

   VERBS: to evaporate, to condense, to freeze, to melt, to change, to form, to heat, to drop, to cool, to fall, to snow, to rain, to hail

   STATES: liquid, solid, vapor, gas.

   TEMPERATURE AND SIZE ADJECTIVES: hot, cool, freezing, Warm, cold, big, small...

3. Use present simple/ present continuous to describe, define and explain the processes involved in the water cycle.

4. Use effectively cero conditional sentences for cause/ effect processes.

5. Use correctly the structures:
   - It changes into: it becomes...
   - heat up, warm up / cool down...
6. Use comparative forms of the adjective: bigger than/ smaller than....
7. Use the superlative: The biggest/ the smallest...

Language Compatible:
Students will be able to:

1. Understand the language of describing, defining and explaining the processes involved in the water cycle.
2. Understand the percentages collocation.
3. Understand more specific vocabulary thanks to context.

INSTRUCTIONAL STRATEGIES:

Brain storming: (Using pictures to prompt them if necessary) Useful to give us indicator of their previous knowledge and start grouping those words in Semantic fields.

Semantic families. Students will decide which words to include on what groups.
Adjectives: Temperature, water properties (transparent, odourless, tasteless...), capacity (litre, cubic litres, cubic centimetres...) and measurements
Static verbs/ action verbs: To be/ to fall, to rain, to flow, tu rush, to gush...

CULTURAL OBJECTIVES:
Students will :

- Be conscious of the influence of water in the history and cultural behavior of people and in their quality of life.
- Understand that Water is present in many cultural, historical, religious and literary aspects of a country.
- Become aware of the importance of water for everyday life.

MAKING CONNECTIONS: Crosscurricular extensions

Math
Explaining volume and how to measure it.
Hands on problems: "getting wet" Bring a big bucket of water and different containers ((plastic bottle, yoghurt container, can, actimel pet...) and measure their capacity. Compare and fill in a chart.

Religion: Importance and symbolism of water in different religions: Baptism, purification, totems in Catholicism, Budhism, Shintoism... Water to purify, to welcome, to clean...

Music: Making music through water (Activity on Anex II: Water chimes): listening to music made with water (Playing with a virtual water bottle xylophone: http://www.philtulga.com/water.html#virtual)

Arts and crafts: Dividing the class into three groups and giving each group a different name: Rain/ Snow/ Hail; they will work on three different projects:
(Techniques that are based on the use of water: Water colours, tempera, finger paints, mixtures with sugar and chalk).

- Rain: Making the city´s shield of arms with different techniques and materials)
- Snow: will make a water cycle model using papier mache.
- Hail: will make a collage based on the poems using different coloured papers and pictures

Poetry and literature:

Students are still working in three groups.
Each group will prepare and act a different poem related to the topic.

Water (Rain)

Water, water everywhere, water all around,
Water in the ocean, water in the ground.

Water in a river, water in a creek,
Water in a faucet with a drip-drip leak!

Water in a fountain, water in a lake,
Water on a flower, as day begins to break.

Water from a waterfall, rushing down from high,
Water from a dark cloud, raining from the sky.

Water boiling hot, water frozen ice,
Water in a blue lagoon, clean and clear and nice.

Water at a fire, gushing through a hose,
Water in a garden, so every flower grows.

Water for the animals swimming in the sea,
Water, water everywhere for you and for me!

Snow

The snow falls softly all the night.
It makes a blanket soft and white.
It covers houses, flowers and ground,
But does not make a single sound!

The Water Cycle

I think, think think
that water comes
from the kitchen sink.

But no, no, no
and now I know,
that water comes
from rain and snow.
It stays there, waiting,
in the sky,
in clouds above
our world so high.
And when it falls,
it flows along,
and splashes out
a watery song,
as each raindrop
is joined by more
and rushes to
the ocean shore,
or to a lake, a brook, a stream,
from which it rises,
just like steam.
But while it's down here
what do you think?
Some DOES go to
the kitchen sink!

LESSON DELIVERY:

LESSON 1

Introduction and practice

Activity 1)

As an introduction of the unit we put the title of the unit: "the water cycle" on the blackboard and draw clouds, a river, a lake, a pond, the sea...and we do a brainstorming in order to know how much they know about it. We direct the brain storming so we get all the vocabulary needed for the unit (Anex 1: Vocab.).

Once we clarify all the vocabulary for everybody we make a general introduction of the unit explaining the contents.
We can cut out words and make different shaped posters (cloud/ mountain/ ocean/ lake...) where to stick the words. Also if we are lucky enough and it is raining that day we can just show them looking out of the window!!

Activity 2) Exposition of the power point: "Water cycle" And showing the short video: (Water boy we will rock you) http://www.youtube.com/watch?v=_VGoE5Gcy-A&feature=related

We explain the process prompting them to help with the vocabulary they already know(or should know) and quizzing them to assure they understand. Then they can quiz each other working in pairs or in small groups.

Activity 3) Concreting concepts: We ask them to write down on their notebooks these concepts in red. They should answer the questions individually first and then we complete a big poster on the board with the whole class. The result should be something like this:

Why do we need the water cycle?

The Earth is covered by water, however, almost 97% is salt water found in the oceans. We can not drink salt water or use it for crops because of the salt content. We can remove salt from ocean water, but the process is very expensive.

How many processes make up the water cycle?

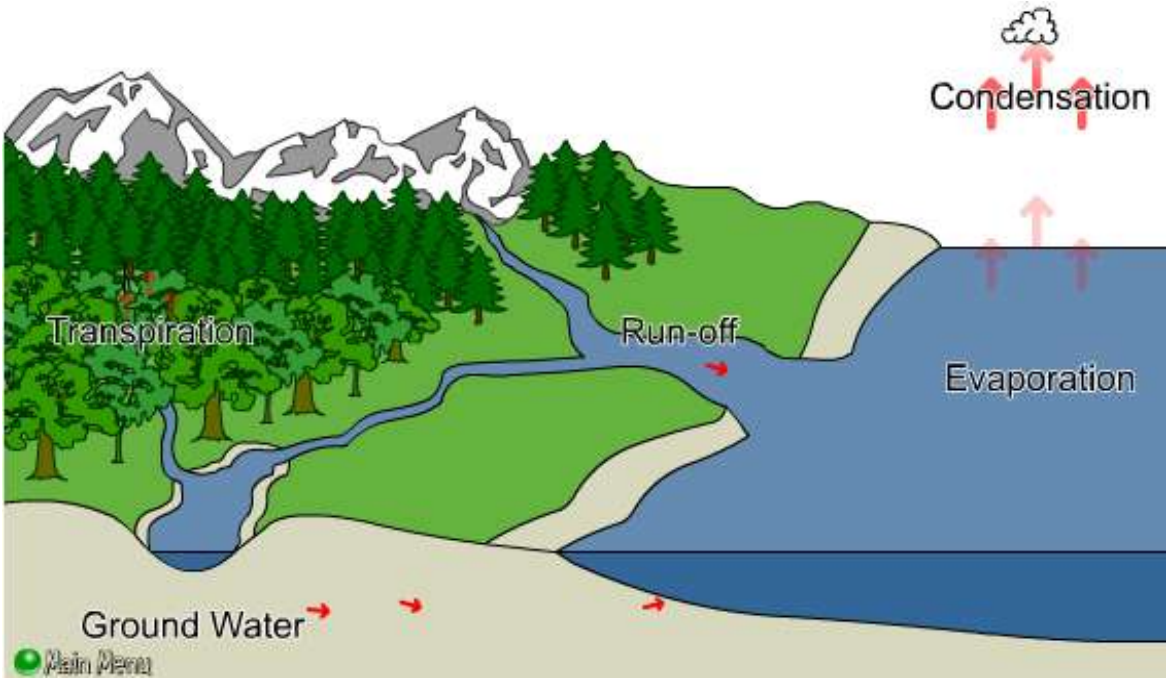
There are **six** important processes that make up the water cycle.

1. Condensation - A gas changes into a liquid: for example when it is very cold outside and we are in the car sometimes you can "draw" on the window glass. This is because of condensation)

2. Infiltration - Infiltration is an important process where rain water soaks into the ground, through the soil and underlying rock layers. (Bring a bucket with water and a sponge to show if necessary)
3. Runoff - Much of the water that returns to Earth as precipitation runs off the surface of the land, and flows down hill into streams, rivers, ponds and lakes. (Make your sponge "rain" over an upside down bowl so water runs off it!)
4. Evaporation – The opposite to condensation. the process where a liquid, in this case water, changes from its liquid state to a gaseous state. (Ask them to tell you how this could occur)
5. Precipitation - When the gas water condensed in the clouds becomes small droplets of water that turn into larger droplets and precipitation (rain) occurs. The raindrops fall to Earth.
6. Transpiration - As plants absorb water from the soil, the water moves from the roots through the stems to the leaves. Once the water reaches the leaves, some of it evaporates from the leaves, adding to the amount of water vapor in the air. This process of evaporation through plant leaves is called transpiration.

Activity 4) We give them a sheet of paper with this photocopy that they will stick on their notebook. They should draw the change of the cloud on their notebook.

http://www.biology.ualberta.ca/facilities/multimedia/uploads/alberta/watercycle.html



Lesson 2

Content practice: hands on water!

Activity 1) If there is a kitchen in the school we take the children to the kitchen. Otherwise we can bring a camping gas and a pot or a microwave oven to the class and some ice as well.

We divide them in groups . Every student will take a piece of ice and they will put it in a glass of water. In groups , we will then put the glasses in the microwave and warm them. With this process children will see fusion. When all of them have melted, we will talk about the fusion and temperature, and the children will have to explain what happened with the ice.

Activity 2) In groups again, we will put the glass in the microwave and boil the water so they will see the vapor of water: cover the glass with a small plate so they will appreciate the drops of water forming on the plate. What is the name of this process? Explanation and consolidation of ideas.

Activity 3) If there is a freezer at the school , the groups will put all the water left on the in a plastic bag and store the plastic bag in the freezer again. We will leave it there and in the next lesson we will come to check what happens.

If there is no freezer, they can do the same individually in their houses as homework and bring their ice the following day.…

Lesson 3 (Practice and consolidation)

Activity 1) Go to the kitchen again and have a look of the Kitchen again and check in the freezer how water is now. Or get their own ice cubes. We review the whole process again with the help of our poster.

Activity 2) We go back to the class and they work in groups. Each group gets one copy of the different poems cut out into stripes. The teacher reads the poems out loud and the students have to recognize the verses and put them in order.

Activity 3: The students are given the different words in cards and they have to find the words in the poems, the group that finds all the words first gets to choose the poem they want to work with first.

Activity 4: (Language and literature)The students will turn the poems into posters, using calligrams or simply drawing the words and the corresponding pictures. While they do this, the teacher walks around asking them about the words and the water cycle process. At the end they will have a reciting contest and each member of the group will memorize a part of the poem or all of it.

If they don't have enough time to finish it in class they can do it at home as homework or in their spare time in the school. Because they will show the result to the rest of the class in the next lesson.

Lesson 4:(History of our shield) We start by getting the students to recite their poems. We bring a picture of the shield of the city of Logroño and ask if they see any water in the shield. We ask if they know why there is water in the shield. We ask if they know the names of any rivers that go through the city of Logroño.

We can show them some pictures of different fountains in Logroño and ask if they have seen them and they recognize them. We can accompany the photos with some water music.
http://www.youtube.com/watch?v=PjRpJHYMuNY

(Arts and crafts) We finish by making our shield in groups using different painting techniques.

Lesson 5: (Music) We bring enough glasses for all the children (or ask in their houses to bring them) and follow the steps on http://www.philtulga.com/water.html#virtual to make a water xylophone. We let the children experiment with the new sounds either on a real xylophone or the virtual one.

ASSESSMENT:

- Everyday observation.
- Developement of the proposed activities.
- Vocabulary Assessment (Anex I)
- Content Assessment (Anex IV)