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A ritmo de peixe e mar, PeiX amosa o bo xantar!

TEACHING UNIT

Primary Education

UNIÓN EUROPEA
FONDO EUROPEO MARÍTIMO E DE PESCA (FEMP)
galicia
Xacobeo 2021
XUNTA DE GALICIA

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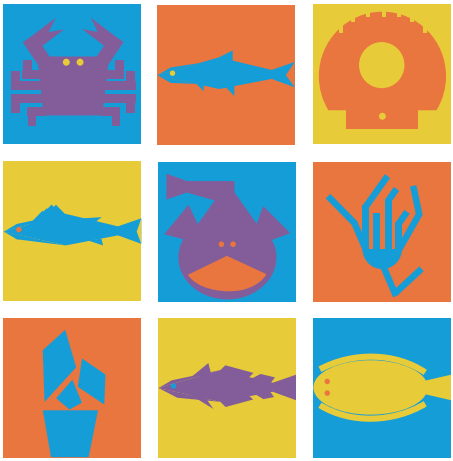
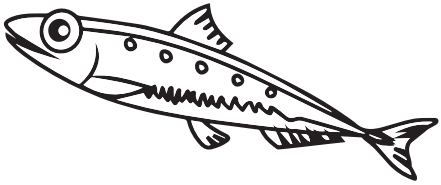
According to the general provisions of the Ministry of Education and University Planning, as set out in Decree 105 // 2014, of 4 September, which establishes the curriculum of Primary Education in the Autonomous Community of Galicia, this teaching unit is designed to be used after the visit to the program school.

The main aspects of the educational curriculum that the teacher can address from these notebooks are:

1. OBJECTIVES

The starting objectives of this campaign focus on conveying to primary school students the importance of fish and shellfish in the diet, in relation to their nutritional contributions, and encouraging their consumption. In addition, they will delve into the knowledge of the species and the role of consumers in preserving the resources of the sea and in enhancing the professions of the sea.





2. BASIC COMPETENCES

Mathematical competences and basic competences in science and technology MCSTC.

Contents related to the world of fishing, transport and preparation of seafood.

Competence in linguistic communication CLC.

Reading comprehension and written expression.

Digital competence DC.

Students will acquire new knowledge of the environment and the diversity that the world of the sea entails, through the guided search for information.

Social and civic competence CSC.

The consumption of fish as a source of health, and as an economic and social resource.

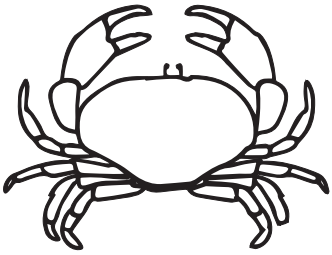
Sense of initiative and entrepreneurship CSIEE.

New knowledge about the value of consuming fish and seafood that will allow them to make decisions regarding their consumption.

3. CURRICULAR CONTENTS

The purpose of Primary Education is to provide students with the learning of oral expression and comprehension, reading, writing, arithmetic, the acquisition of basic notions of culture, the habits of coexistence, study and work, the artistic sense, creativity and affectivity, in order to ensure a comprehensive training that contributes to the full development of his personality.

Although the contents of the teaching unit can be treated from a point of view of the different areas of knowledge, we collect below those related to the area of knowledge of the natural, social and cultural environment for being the area of greatest involvement and most directly related.



4. CONTENTS

Block natural sciences

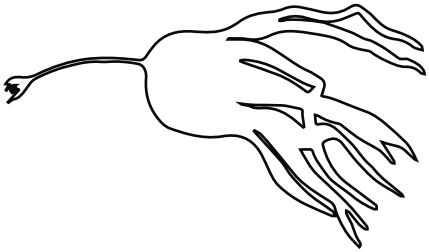
- Approach to nature.
- Identification of characteristics of animals, plants and natural elements.
- Identification of animal and plant habitats.
- Experimentation of actions on the natural environment.
- Curiosity, care and respect for animals and plants and their habitats.
- Interest and respect for the care and conservation of their environment.

Block social sciences

- Assessment of the influence of technological development on living and working conditions.
- Recognition of different professions avoiding sexist stereotypes.

Art education block

- Discovery and observation of the manifestations and of the Galician cultural heritage as a sample of diversity and richness.
- Active participation and enjoyment in the interpretation of songs and musical games.



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5. STARTING ACTIVITY - STORY

UXÍA THE BIOLOGIST

From an early age, Uxía was always very clear that when she grew up she wanted to work with sea animals.

Her curiosity led her to study Biology, and to specialize in the marine world.

She is now researching the nutritional properties of seafood, after discovering important improvements in our body through its regular consumption in different dishes.

Investigate these improvements with the help of “Roque The Fishmonger” and its virtual assistant “PeiX”.

ROQUE THE FISHMONGER

A fishmonger by profession, he helps Uxía with her research due to her experience in the sector.

Given its profession as a fishmonger, he is located in the middle of the journey of seafood, from the time it is fished or extracted, until it reaches the final consumer.

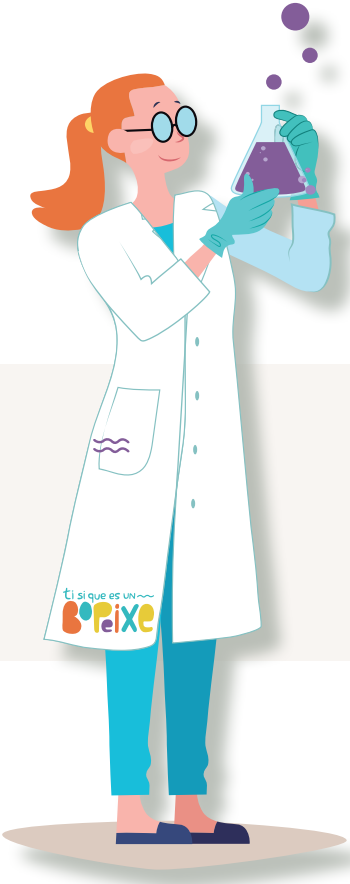
For his work he talks both with sailors, shellfish gatherers, workers at the fish market and also with the cooks of restaurants, consumers, etc.

This gives him extensive experience in the environment, and a great knowledge of the species and products of the sea, with which he works daily.

PEIX, THE GOOD FISH!

Uxía's digital assistant and subject of virtual research tests. Delicious test designed by Roque experiencing in the virtual world the improvements of a diet based on seafood. The method of communicating with PeiX is through music and rhythms. **PeiX loves music so much that it only speaks in rhymes!**

To the rhythm of fish and sea, PeiX shows its good delicacy!



Uxía, our Biologist, is doing some final checks on her tablet before turning on PeiX and starting to work, when Roque enters the laboratory door very agitated.

- Uxíaaaa! UXÍAAAAA!

- What's up Roque? Why are you screaming? - asked Uxía.

- Because the people from the fish market have just told me that a cyclogenesis is about to enter, which will paralyze the port for several days in a row! And I don't know how that will affect our research! - he told her very worried.

Uxía looked at Roque and after thinking for a moment he replied:

- Calm down Roque, with the data we have so far we can work for a while only with PeiX ... Also, wasn't this week that we were gonna go to the school to show our first results to the kids?

- It's true, it's true... - Roque said scratching his forehead, already calmer **– and by the way, how are the results?**

- Well look, at this moment I was going to connect to see how PeiX did! Why don't you sit down and print out the fish and seafood chips from the menus we've prepared for you and what's best suited for you, and see what nutrients are the ones that make it possible?

- Of course! This way we can make new recipes with those fish and seafood!

Uxía finishes checking her tablet's battery and turns on the program so she can talk to PeiX.

- Good morning PeiX, how are you today? - Uxía asks him.

- BIP! Good morning Uxía! I'm wonderful! BIP!

Whenever PeiX talks start with a **BIP!** And it ends with another **BIP!** Plus because he likes music so much he always speaks with musical rhythm and rhymes!

Roque approaches to greet PeiX as well.

- Very good PeiX! Ready to give us the results of this week's menus?

- BIP! Of course Roque, if you want you can print in bulk! BIP!

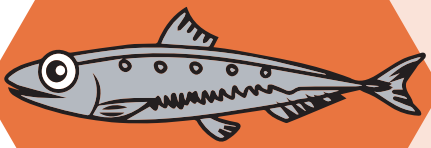
- This PeiX is smarter every day Uxia...

- That's because I augmented the Sardines in its diet, Roque - Uxía replied.

- BIP! Sardine Sardine... for intelligence is beret! BIP!

- Come on! - says Roque. **- Let's then print the final data of the study!**

SARDINE



Help us keep good eyesight!

Common name: Sardine or mackerel.
Scientific name: *Sardina pilchardus*

It has **5 fins**, being the tail fin with two points the one that identifies it as blue fish.

It lives in the sea with other sardines forming **large shoals** and rises at night to the surface of the water

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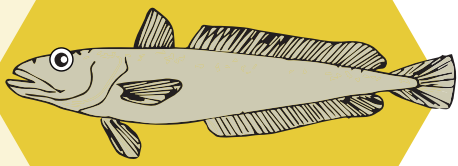
It is fished from late spring to autumn, being its meat better in summer season.
It is a source of vitamin A, Retinol, which helps us to maintain good eyesight, vitamin D and omega 3 fatty acid.

HAKE



It keeps our heart healthy

Common name: Hake.
Scientific name: *Merluccius merluccius*

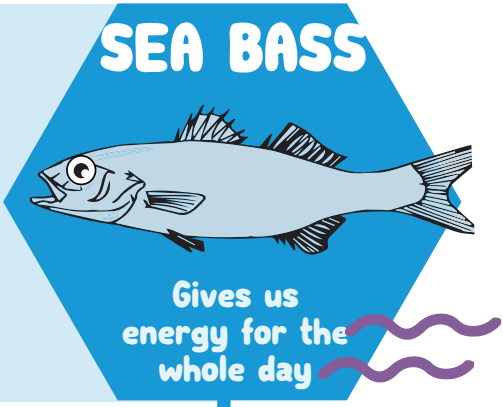
White fish with a cylindrical body of 1 m in length. It has 8 fins and a mouth with 2 rows of teeth in the lower jaw and 1 in the upper jaw. It has 8 fins and lives near the bottom of the sea.

K

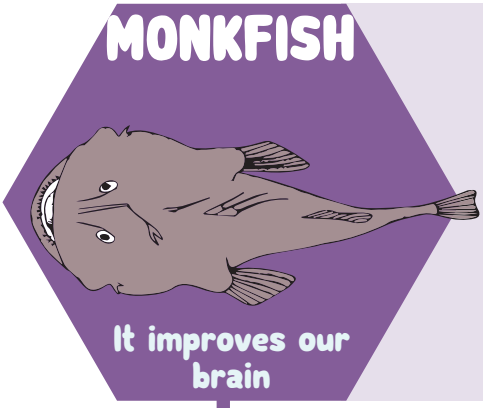
It is fished by trawling, especially in winter because it lives at greater depths, or by fishing line in summer in coastal areas.
It has **vitamins B12 and B3, but also potassium** that will allow our heart to beat well.

Common name: Sea bass.
Scientific name: *Dicentrarchus labrax*

It is a type of white fish, with an elongated, light-colored body, only slightly darkened on the back. It has 7 fins and a lateral line along the body.
It eats both small shellfish and other fish.



It is fished during the winter, from November to March by hook, either with reeds in the troll, or with surface longline.
It provides us with very important minerals, proteins and vitamins such as **vitamin B3** that will give us energy and others in group B.

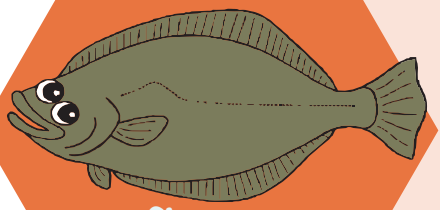


Common name: Monkfish.
Scientific name: *Lophius piscatorius*

Dark brown flat fish without scales and with a large head where the dorsal eyes are located and a worm-shaped fin that serves to hunt its food: other fish. Long and thick tail with two pectoral fins.

It is fished with nets or cane wires that are placed on the seabed, which is where it lives all year round. **It provides us with vitamin B12, calcium and potassium.** This vitamin B12 will be critical in the proper maintenance of neurons and red blood cells.

SOLE



Gives us strength to the body!

Common name: Sole.
Scientific name: *Solea solea*

It is a **dark-colored flat fish** when it is wild and lighter in color if it is farmed. It has small scales, and is born with an eye on each side of the body that then moves to the top, to be able to see when it is on the seabed.

P

It lives near the coast, buried in the day sands, so as not to be hunted. In the evening he goes out to eat small shellfish. It contains vitamins and minerals such as **phosphorus that will give us body strength** by being a component of teeth and bones.

BARNACLE

Total recharge of our body

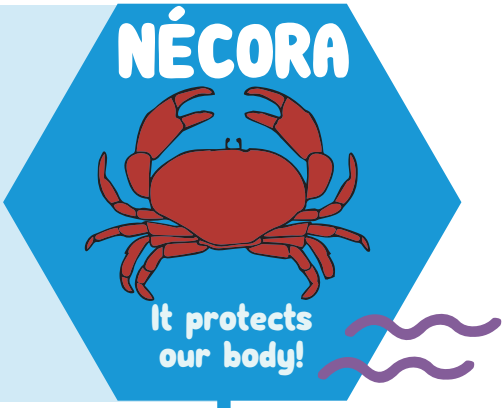
Common name: Barnacle.
Scientific name: *Pollicipes pollicipes*

It is a **shellfish, crustacean** that lives without moving on the rocks where the sea hits, which brings many nutrients: its food. There are 2 different parts: the head - composed of small nails that protect the organs - and the peduncle, - which covers the muscle -.

They are collected every month of the year from the rocks by highly prepared shellfish. We damage many **B vitamins, B1, B2, B3, B6 and B12 and minerals such as iodine, calcium, magnesium, potassium, phosphorus and selenium**, a natural recharge of components of our body.

Common name: Nécora.
Scientific name: *Necora puber*

It is a **crustacean shellfish with 10 legs** that emerge from a hard central shell. The first two have pincers that are used to pick up food and bring it to the mouth and are larger in males because they are also used to defend themselves.



They live on rocks and eat algae, fish and other animals. They are collected **at night, in pots** left on the seafloor left on the seabed and during the months from July to December. They provide us with **minerals and vitamin E,** essential to protect our body, and B6.

Common name: Scallop.
Scientific name: *Pecten maximus*

It is a **bivalve mollusk** (formed by two shells). They are wavy on the outside and are brown to red in color. It lives in the seabed areas of the coasts with clean water. They feed by filtering the water and collecting nutrients.

They are collected by boat using the scallop trail, which is like a rake with a net behind to collect them from the seabed. They provide us with **minerals and B vitamins** such as vitamin B9, which promotes growth, and B3 and B12.

Common name: Golden Kelp.
Scientific name: *Laminaria ochroleuca*
It is a very consumed brown macroalgae. Its body is divided into a rhizoid -which is fixed to the rocky seabed as the roots-, a stipe -cylindrical and long as a stem- and the flat blades that come out in a webbed shape, similar to leaves.

There are places where **it is grown, then packaged and sold.**
It has many **mineral nutrients, fiber, vitamins such as vitamin C**, necessary to defend us externally and proteins.

SOME KITCHEN TIPS...

SARDINE: It is cooked in all ways if we take it fresh and also find it canned.
HAKE: From an early age we start eating it boiled and when we grow we take it on the grill or in stews with vegetables.
BASS: Although it was known as a fish for the sick, eating it only boiled it is nowadays cooked more in the oven and is also included in new recipes such as lasagna or musaka.
MONKFISH: Usually we only eat its cooked tail, grilled or baked, as it has more meat and the head is used to make soup.
SOLE: It is eaten grilled or in more sophisticated preparations with seafood or fruit sauces.
BARNACLE: They are eaten cooked, but there are also those who make them into pâté.

NÉCORA: They are eaten boiled, in pâtés and in a hodgepodge of seafood.
SCALLOP: They have always been eaten baked with a sauce but now they are also mixed with different seafood and wines.
GOLDEN KELP: It is used in Japanese cuisine in recipes such as dashi, seitan or ramen. Here the majors are also used as a condiment and in salads.

- BIP! These are the results of Uxía's research !, and knowing it fills me with energy! BIP!

- BIP! All these seafood products bring us improvements in our body! I'm flabbergasted! BIP!

- It turns out that in addition to fish, seafood also gives work to a huge number of people who strive every day in the sea and estuaries to bring all sorts of very important species for food for adults and children! - Roque comments to PeiX and Uxía.

- If we don't eat fish, - says Uxía **- not only do we go against our own health, but we also leave them without work!**

- BIP! To fully understand all this and sound smart ..., I have prepared some activities! Let's do it! What are you waiting for? - BIP!

6. TECHNICAL SHEETS

ACTIVITY 1. CLASS DEBATE

The aim of this activity is for girls and boys to distinguish fish and shellfish from other types of animals due to their general morphological characteristics. To do this, they must circle the fish and shellfish on the card and color them, putting the name of the product.

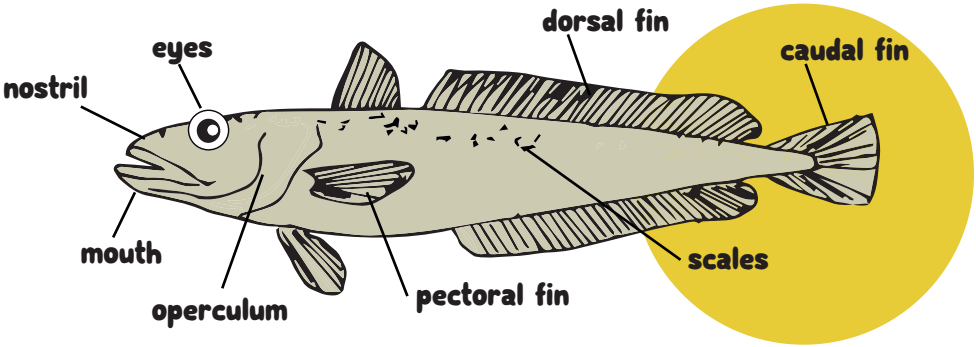
After seeing the results of the PeiX research, the following questions are asked to the classes. As they respond, a debate around the different answers is encouraged.

1. **Do you like fish? How many yes? How many do not?**
2. **Do you think you eat all the fish and seafood you need? Why?**
3. **Let those who eat fish raise their hands more than four times a week.**
4. **What about seafood?**
5. **Those who didn't raise it, why don't they eat so much fish and seafood?**
6. **Is it because they don't like it? Is it because they don't put it in the house?**
7. **As for those who do eat it more than four times a week, what is their favorite fish? Why?**
8. **How was it cooked?**

There will be a table on the board where you can quantify the answers to see the "reality" of the consumption of seafood in class.

ACTIVITY 2. LET'S GO BY PARTS...

A fish is drawn on the board. Then, with the help of the class, the names of the different parts are written in their corresponding place, while explaining what each of these parts is for:



ACTIVITY 3. YOU HAVE TO TELL US!!

You need to eat more fish! And you have to say it! Divide the class into groups. Each of them should think of an advertising campaign in the form of a poster to convince their families and friends, as well as the rest of the school, of the many benefits of eating fish.

Each poster must have at least:

- A phrase - motto that encourages the consumption of fish.
- An allusive drawing.
- A list of three reasons why you should eat fish.
- The names of the campaign authors.

Then, these posters can be photocopied and hung with the authorization of the center by the corridors of the same.

ACTIVITY 4. LET'S FISH!

START: A talk will begin on fishermen (work they do, responsibilities, type of fish they catch, etc.). They will be asked if anyone has ever been fishing and what tools they need to go fishing ?, waiting for them to answer until they talk about fishing rods, at which point they are asked if they want to go fishing and are invited and encouraged to do so.

DEVELOPMENT:

They are told that there are fish in the room (with different scores) so we can fish them. This activity will be done in teams as the teacher wants to organize them. They will be able to roam freely (individually) and fish for ten minutes; but at the end, the teams will come together to count their catches and see how many fish they have gathered for each team. Each team will assign a manager to record the amount that will pass the board and write down how many fish they have put together. A comparison will be made between all of them and they will tell who has more fish.

END:

They will talk about the methods they used to gather more fish and there will be a small awards ceremony for the team that collected the most points, compare why that team won, what strategies they used, what was difficult for them, where there were more fish and why. strategies that were used to catch more fish ?, did you make comparisons with those of your peers? Have you identified where there is more? Have you identified where there is less? Where was the same amount?

ACTIVITY 5. THE SEA

Children will be encouraged to talk about marine animals by asking them:

What are marine animals? What do they look like? Where do they live? Which ones do you know? What do they eat? Where else are there seas?

They will first be allowed to imagine how they live under the sea, and then shown how it really is in the visual medium that the teacher prefers.

After listening to the opinions of each of the children, all the things will be written on the board to make a comparison and get more information, so that the boys and girls can have more knowledge and new learning.

6. FINAL QUESTIONNAIRE

The teacher will be able to gather the students and answer individually or in groups this brief questionnaire, which will serve to reinforce the fundamental concepts, especially of attitudes of the boys and girls.

"Now you know something more about how important a diet that includes Galician fish and seafood is. In case we have any questions, answer ...":

Do you believe now, more than before, that fish is key in your diet?
Are you willing to change your eating habits to get the benefits that fish brings you?
Can you say three basic species of Galician sea fish in your diet?
What benefits can eating more fish have for you?
Have you learned anything new about fish in the diet that you can tell your parents or siblings?

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