

Vital human functions: Nutrition





1. CREDITS

- 1.1. Title
- 1.2. Authors
- 1.3. Technical requirements

Vital functions in the human being: Nutrition

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- Classroom with PDI, classroom server, computer room or tablet for students.**

2. CATALOGUE

- 2.1. Stage and course
- 2.2. Area
- 2.3. Block
- 2.4. Theme

4th Year of Primary
Education Nature
Sciences II: The Human Being and Health
Vital functions in the human being: Nutrition

3. PROGRAMMING

3.1. Purpose


- This block of contents covers the contents associated with the human body, its structure, functioning, vital functions, necessary care, healthy habits and the image and knowledge of oneself and its relationship with others.
- This Didactic Unit will help us to learn about one of the VITAL FUNCTIONS of the human being such as Nutrition and the apparatuses involved: (Digestive, respiratory, circulatory and excretory).
 - The digestive system and the function of the different organs involved in food transformation processes.
 - The respiratory system and the function of its various organs.
 - The circulatory system and the function performed by its various components.
 - The excretory apparatus, its function and how it is performed.
 - The importance of diet and healthy lifestyle habits: the Mediterranean diet and physical activity.
 - Starting from the knowledge of their own body, we will integrate interactive activities proposed in each of the activities, which will help them to identify and locate devices and its constituent organs.

3.2. Competences

COMPETENCIES	RELATED TASKS
Linguistic communication.	<ul style="list-style-type: none"> ▪ Interpret and express orally and in writing the concepts used in the unit.
Mathematical competence and basic competences in science and technology.	<ul style="list-style-type: none"> ▪ Assimilate knowledge about the human body in order to understand how nutrition functions and which organs and apparatuses are involved. The following spoke.
Digital competence.	<ul style="list-style-type: none"> ▪ Use ICT resources effectively and safely to access knowledge and search for information.
Learning to learn.	<ul style="list-style-type: none"> ▪ Use the information from a written text, image, video, presentation, PDI... to elaborate proposed tasks.
Social and civic competences.	<ul style="list-style-type: none"> ▪ Assimilate and incorporate healthy lifestyle habits and actions that favour and improve the care of our body.

3.3. Contents



 Vital functions in the human being: Nutritional function (digestive, respiratory, circulatory and excretory apparatus).

- Digestion: digestive system, organs and functions.
- Breathing: respiratory apparatus, organs, functions and respiratory movements.
- Circulation: circulatory system, organs, functions and heart rhythm.
- Excretion: excretory apparatus, organs and functions.
- Food: healthy lifestyle habits.



<p>3.4. Assessment criteria and learning standards</p>	<ul style="list-style-type: none"> ▪ Knowledge and responsible use of ICT in the search for information. ▪ Basic and extension vocabulary. <p>Identify and locate the main organs involved in carrying out the vital functions of the human body and know the anatomy and physiology of the apparatuses and systems: their location, shape, structure and functions, care, etc.</p> <p>1.1. Identifies and locates the main organs involved in carrying out the vital functions of the human body. 1.2. Identifies and describes the main characteristics of the vital functions of the human being. 1.3. Identifies the main characteristics of the digestive, respiratory, circulatory and excretory systems and explains the main functions.</p>
<p>4. LEARNING PROCESS 4.1. Methodology</p>	<p> The teaching-learning process in Natural Sciences should be based on participatory activities that require reflection and interaction, individually or collectively, between theoretical approaches and practice, between hypotheses and experimental results.</p> <p> The methodology used has to create the right conditions for students to interact, participate, exchange and present facts and opinions.</p> <p> In addition to meaningful expository teaching we will also rely on experimental methodology through observation, questions and hypotheses, experimentation, conclusions, documentation and discovery:</p> <ul style="list-style-type: none"> ▪ Gathering individual information in order to work on the student's reality and their immediate environment, relating it to what has been presented in the unit. ▪ Presentation of an image, video, animation, ICT resource or informative text as elements of motivation and reflection based on previous knowledge and experience. related to the organs and apparatus involved in the function of nutrition. ▪ Development of the contents and key competences with the help of the above motivational elements that allow students to build and share knowledge. ▪ Carrying out tasks and activities to consolidate and extend the contents and competences that take into account the diversity of the students. ▪ Work in the class notebook: drawings, cut-outs from magazines... where they can express in different ways what they are discovering and learning. ▪ Carrying out workshops and/or specific proposals related to the subject, encouraging interaction and collaboration among students. ▪ Localisation in pairs and/or small groups of the concepts of the unit, using different reference resources. ▪ Evaluation, co-evaluation and self-evaluation activities
<p>4.2. Timing <i>Activities and tasks</i></p>	<p>The unit will be developed in the first trimester over 6 sessions, during approximately two weeks of effective work, at a rate of 3 sessions per week.</p> <p>1st: Remember what you know...</p> <ul style="list-style-type: none"> ○ We explore previous knowledge about the vital functions of human beings, explaining what they are (relationship, reproduction and nutrition) and focus on nutrition. We propose the reading: "Nutrition as the basis of health", sharing and reflection on the reading. <ul style="list-style-type: none"> ▪ Develop, with the contribution of the whole class, a conceptual map on the nutrition. ▪ Identify through images which apparatuses and organs are involved in nutrition.



- Laboratory activity: prepare different stations (according to nutrients) with packaged or labelled foods whose labels can be read by their nutritional information. Observe, record and analyse information to draw conclusions about the healthiest products.

- VIDEO ON NUTRITION:

<https://www.youtube.com/watch?v=pZDSYQZBysg> nutrition I

<https://www.youtube.com/watch?v=p9RPRtpB0q4> nutrition II

- Notebook task: complete concept map.
- Information search: What is nutrition, health and nutrition, what is nutrition and what is it?
diet? Create a balanced diet....

- Interactive activities.

<http://www.educa.jcyl.es/zonaalumnos/es/recursos/aplicaciones-infinity/applications/supervitamins>

http://repositorio.educa.iccm.es/portal/odes/conocimiento_del_medio/la_alimentacion/contenido/index.html



2nd: Taking care of our body: food and diet.

<https://miclaseenlanube.wordpress.com/cnatur/el-ser-humano-y-la-salud/funcion-de-nutrition/the-food-and-nutrients/>

- Activity in pairs: Search for information on the Mediterranean diet.
- Presentation of the table of foods with audiovisual support (video, mural, poster, ICT resources, etc.) and pupils take a guided, joint conceptual tour of foods and nutrients, relating them to everyday situations and experiences.
- Name the most important nutrients and identify and classify foods that contain them.
<http://www.gobiernodecanarias.org/educacion/4/Medusa/GCMWEB/Docsup/Recursos/34945833R/Piramide.swf>
- Individual homework notebook: list of foods we eat in a whole day's meals, check type of nutrients with the food table.
- Group activities.
 - To develop a balanced diet taking into account both essential nutrients and the basic foods of the Mediterranean diet.
 - Group work: elaboration of a poster showing a series of rules for healthy eating. Oral presentation.
 - Physical activity survey: produce a graph. Analyse the results.
- Interactive activities.
 - http://ntic.educacion.es/w3/eos/MaterialesEducativos/mem2007/enigma_nutricion/enigma/introduction.html
 - <http://proyectos.cnice.mec.es/arquimedes/movie.php?usuario=2&nivel=1&movie=fp005/gm001/md003/ut001/Oflash/movie.swf>
 - http://servicios.educarm.es/cnice/epssd3/sd3_00_00.html
 - http://ntic.educacion.es/w3/eos/MaterialesEducativos/mem2007/enigma_nutricion/enigma/index.html
 - http://www.aula21.net/segunda/josecorral/web_ja/alimentos.htm



- http://ares.cnice.mec.es/ciengehi/c/00/animaciones/a_fc08_00.html
- http://ares.cnice.mec.es/ciengehi/b/00/animaciones/a_fb04_01.html
- http://servicios.educarm.es/cnice/epssd1/sd1_00_00.html

3rd: Apparatus involved in nutrition: Digestive system.

<https://miclaseenlanube.wordpress.com/cnatur/el-ser-humano-y-la-salud/funcion-de-nutrition/the-digestive-process/>

- VIDEO: ONCE UPON A TIME :
 - <https://www.youtube.com/watch?v=sHpXop8kGc8> digestion
 - <https://www.youtube.com/watch?v=L9ZpQMPtLNl>
- Presentation and localisation in PDI of the digestive system (interactive activities), then complete an individual worksheet identifying, classifying and locating the organs involved, describing some of the tasks they perform.
- The digestive system: what is it like, how does it work, what are the consequences of an inadequate diet? The student will search for and select information that provides answers to these and other questions posed by the teacher.
- End the activity by drawing up a joint list of basic tips for taking care of the digestive system.
- Interactive activities.
 - <http://www.pekegifs.com/estudios/videosistemadigestivo.htm>
 - <https://www.youtube.com/watch?v=kjhlhw7w9o0>
 - <https://www.youtube.com/watch?v=XpH9Z4hTQsE>
 - <http://www.supersaber.com/digestivo.swf>

4th: Apparatuses involved in nutrition: Respiratory

<https://miclaseenlanube.wordpress.com/cnatur/el-ser-humano-y-la-salud/funcion-de-nutrition/the-breathing/>

- VIDEO: ONCE UPON A TIME:
 - <https://www.youtube.com/watch?v=blyK50vbxu4>
- Presentation and localisation of the respiratory system on the PDI (interactive activities), then completing an individual worksheet in which the organs involved are identified, classified and located, describing some of the tasks they perform.
- The respiratory system: what does it look like, how does it work and how does it work? The student will search for and select information that provides answers to these and other questions posed by the teacher.
- End the activity by drawing up a joint list of basic tips for taking care of the respiratory system.
- Interactive activities.
 - <https://www.youtube.com/watch?v=pfmHXZi0Xu8>
 - <http://www.e-junior.net/juniornet/anatomy/swf/Bsrespira.swf>
 - <http://www.juntadeandalucia.es/averroes/carambolo/WEB%20JCLIC2/Agrega/Medium/The%20human%20body%20human%20apparatus%20respiratory%20content/ind ex.html>



5th : Apparatuses involved in nutrition: Circulatory system

<https://miclaseenlanube.wordpress.com/cnatur/el-ser-humano-y-la-salud/funcion-de-nutrition/the-circulation/>

- VIDEO: ONCE UPON A TIME:
 - <https://www.youtube.com/watch?v=IPb-JnNHVuY> (heart)
- Presentation and location of the circulatory system on the PDI (interactive activities), then complete an individual worksheet in which the organs involved are identified, classified and located, describing some of the tasks they perform.
- The circulatory system: what does it look like, how does it work and how does it work? The student will search for and select information that provides answers to these and other questions posed by the teacher.
- End the activity by drawing up a joint list of basic tips for taking care of the circulatory system.
- Interactive activities.
 - <http://www.juntadeandalucia.es/averroes/carambolo/WEB%20JCLIC2/Agrega/Medio/El%20cuerpo%20humano/El%20aparato%20circulatorio/contenido/index.html>
 - <http://www.e-junior.net/juniornet/anatomy/swf/Bscirculatorio.swf>
 - http://repositorio.educa.jccm.es/portal/odes/conocimiento_del_medio/el_aparato_circulatorio_humano/contenido/cm02_0a01_en/index.html
 - http://www.skool.es/content/los/biology/circ_system/index.html

6th: Apparatus involved in nutrition: Excretory

- VIDEO: ONCE UPON A TIME:
 - <https://www.youtube.com/watch?v=NE7oXe-twsU> (kidneys)
- <https://miclaseenlanube.wordpress.com/cnatur/el-ser-humano-y-la-salud/funcion-de-nutrition/the-excretion/>
- Presentation and location of the excretory apparatus on the PDI (interactive activities), then complete an individual worksheet in which the organs involved are identified, classified and located, describing some of the tasks they perform.
- The excretory system: how does it work? The student will search for and select information that provides answers to these and other questions posed by the teacher.
- End the activity by drawing up a joint list of basic tips for taking care of the excretory system.
- Interactive activities.
 - <http://www.e-junior.net/juniornet/anatomy/swf/Bsurinario.swf>
 - http://www.educa.jcyl.es/educacyl/cm/gallery/Recursos%20Infinity/juegos_jcyl/yl/uri_body/aparaturinary_plus.swf
 - http://recursostic.educacion.es/primaria/alquimia/web/b/00/animaciones/a_f_b05_04.html
 - http://agrega.juntadeandalucia.es/visualizar/es/es-an_2010040613_9121236/false
 - http://213.0.8.18/portal/Educantabria/ContenidosEducativosDigitales/Primaria/Cono_3_cycle/CONTENTS/BODY%20HUMAN/BODY%20DEFINITIVE%20EXCRIPR/Publish/index.html



5. EVALUATION

5.1. Moments

5.2. Procedures

5.3. Instruments

- http://cplosangeles.juntaextremadura.net/web/edilim/tercer_ciclo/cmedio/las_vital_functions/the_function_of_nutrition/excretion/the_excretory_apparatus/the_excretor_apparatus.html
- http://www.polavide.es/rec_polavide0708/edilim/aparato%20excretor/Ap_excretor.html

Moments	Procedures	Instruments
<i>Initial assessment</i>	Content review and/or previous knowledge.	Activity 1 to determine the starting level of pupils.
<i>Evaluation of process</i>	Analysis of participation, review and monitoring of daily work to make a qualitative (observations and notes) and quantitative (grades) assessment of individual and group progress.	<ul style="list-style-type: none"> • Activities 2, 3, 4 and 5 of elaboration, localisation and organisation of information. • Exchanges Oral exchanges: Questions and answers in class, dialogues, short colloquiums and debates. • Review, analysis and commentary of the activities and work carried out, collected in the <i>school notebook</i> and in specific exercises. • Other documents: notebooks, files, vocabulary.
<i>Final evaluation</i>	Criteria for observing the level of achievement of content and competences	Indicators of attainment of the level of acquisition of the standards of learning.



ACHIEVEMENT INDICATORS

1. Recognises the most important nutrients
2. Defines diet and describes the characteristics of a healthy diet.
3. Identifies foods that make up the Mediterranean diet.
4. Define digestion and describe the stages of digestion, naming the organs involved in each stage.
5. Identifies and names the organs of the digestive system, and is able to describe in basic terms their function.
6. Identifies and names the organs of the respiratory system, and is able to describe in basic terms their function.
7. Identifies and names the organs of the circulatory system, and is able to describe in basic terms the functions performed by the different parts involved in carrying out the circulation.
8. knows the basic structure of the heart, and describes the heart rhythm
9. Knows and explains orally or in writing in basic terms how excretion is carried out and the apparatus involved.
10. Knows and explains the beneficial effects of healthy eating, physical exercise and rest.
11. Understands and acquires vocabulary about digestion, respiration, circulation, and the excretion to express knowledge orally and in writing.



6. MATERIALS AND RESOURCES	<p>12. Identifies, locates and names the organs of the digestive system, and describes some of the tasks they perform.</p> <p>13. Uses ICT responsibly to search for information on the function of nutrition in humans.</p>
	<p>ICT MATERIALS AND RESOURCES</p> <ul style="list-style-type: none">○ http://roble.pntic.mec.es/arum0010/temas/cuerpo.htm <p>FOOD AND NUTRITION</p> <ul style="list-style-type: none">○ http://www.educa.madrid.org/web/cp.alarcon.valdemoro/Web/ColePAA15/Nueva%20Zona%20Virtual/Web%20Acceso%20recursos%20AI/03%20CONO/AlimentaNutriRecursos.htm <p>DIDACTIC UNIT</p> <ul style="list-style-type: none">○ http://www.juntadeandalucia.es/averroes/~18006947/tema1nutricion/nutricion.htm <p>ACTIVITIES</p> <ul style="list-style-type: none">○ http://contenidos.educarex.es/mci/2006/21/# <p>GAME</p> <ul style="list-style-type: none">○ http://ntic.educacion.es/w3/eos/MaterialesEducativos/mem2007/enigma_nutricion/enigma/introduction.html

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