

AERO:SBC Basic Unit Template

Subject/Course:	Science
Grade Level:	4 th grade
Topic/concept:	Our Amazing machine – The Human Body (The Digestive System)
Estimated Time Required:	2 weeks

Desired Results:

1. What do we want students to know or be able to do? List standard(s) and relevant benchmark(s)

Standard 1 – 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions;

1.2: Students understand and interpret written and spoken language on a variety of topics;

1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

Standard 2- 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied.

Standard 3 – 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.

Standard 4 – 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

2. What are the enduring understandings that this unit is built upon?

Students will understand the function and importance of each organ in the human body system presented; Students will understand how to take care and help the digestive system work healthily.

3. What essential or unit questions will prompt curiosity and focus?

3.1 Why do we eat food?

3.2. Why do we feel hungry or thirsty?

3.3. Why do we call the human body " a machine"?

3.4 How does food/drink enter our body?

3.5 What happens to the food/drink inside our body?

3.6 How does digestion take place?

3.7 How does our body absorb the nutrients from the food/drink?

3.8 Which kind of food is healthy/ unhealthy for our body?

4. In the context of this unit, what specific knowledge or skills do you want the students to acquire?

Students will know relevant vocabulary to the function of the human body studied; students will be able to understand and explain the function of the digestive system.

Evidence of Learning:

How will we know if students have achieved the desired result and can meet the standard(s) and benchmark(s)?

1. Provide a detailed description of the culminating task (summative assessment):

* Identify/Place the Digestive System organs using a plastic human body model.

*Class discussion

*Quiz on the Digestive System

*Students will write an essay about the digestion process

*Power point presentation

*Students will work in groups and present a project on the Digestive System (oral presentation).

*All the assessments are to be done along the unit.

2. Provide the scoring guide/rubric for the culminating task (summative assessment).

Criteria	1 - Attempts the standard	2 - Approaches the standard	3 - Meets the standard	4 - Exceeds the standard
Oral Presentation-Group project	Students use the vocabulary not very accurately. Information is presented separated / not in a context	Students are able to use the vocabulary accurately. There is little logical order of ideas.	Students are able to use the vocabulary accurately, show logical thinking. Information is sometimes presented separated. Students involve the audience.	Students are able to use the vocabulary accurately; show logical thinking. Ideas are linked and Students can express their own opinions. Students involve the audience and are open for group discussion.
Poster Presentation – display/ visual aids	Students display very basic information. Few pictures and short written texts.	Students display basic information. Pictures are well displayed, even though they might be small to be seen from a certain distance. Witten texts are not very clear.	Students display basic information. Pictures are well displayed (colorful and big enough o be seen from a certain distance). Written texts are mostly clear.	Students display more than basic information. Pictures and written texts are well displayed (colorful; letter size is big enough to be read from a certain distance; the written texts are clear and concise).
Essay writing	Students use appropriate vocabulary, however, there is a strong	Students use appropriate vocabulary, however, makes	Students use appropriate vocabulary with few spelling or grammar	Students use appropriate vocabulary with minimum spelling or

	need to improve spelling. There are a considerable number of grammar mistakes.	grammar or/ and spelling mistakes quite often. Students express opinion at a very basic level.	mistakes. Ideas follow a logical sequence, and students are able to express opinions.	grammar mistakes. Ideas are very clear and follow a sequence. Students are able to express their own opinions and provide more than basic information.
Power point presentation	Presentation is basically focused on pictures. There is a lack of information.	Basic presentation with pictures and short written texts.	Informative and well elaborated presentation. Good pictures and basic information is provided.	Informative and very well elaborated presentation. The written texts are clear, concise, and rich in information. The pictures are well presented.

Instructional Plan

Provide a plan of your instructional activities, including time and materials needed. Map out, in steps, how you will get from the introduction of the unit to its conclusion so that by the end, your students can succeed on the culminating task and meet the benchmarks. Be sure to include any formative assessments at the points in the plan when you will need them.

Lesson Plan # 1

***Lesson Title:** Our Amazing Machine: The Human Body – The Digestive System

***Subject/ Topic:** Science

***Grade:** 4

***Goal:** Introduce new vocabulary; the importance and function of each organ in of the Digestive System; present how the digestion process happens.

***Key words:** mouth, teeth, tongue, saliva, salivary glands, esophagus, stomach, digestive juice, small intestine, large intestine, anus.

Standards

- *Major standards – 1.1; 1.2; 1.3
- * supporting Standards – 3.1

Brief Summary of Lesson

- *Teacher brings some cookies and cups of water to the classroom and gives to the students. T. asks students to bite a piece of the cookie and then drink some water while one of their hands holds their front neck. T. asks students to describe what they felt.
- * T. asks students to bite the cookies again, but at this time to focus on what happens inside their mouths; how the food breaks and mixes with the liquid in it.
- *T. shows a plastic human body and introduces the Digestive System organs explaining their corresponding functions.
- *T. gives each student a slip of paper with the name of an organ of the Digestive System. T. asks Ss to go to the plastic human body and stick the slip of paper their received on top of the organ.
- * Ss receive a worksheet with the drawing of the Digestive System. Ss will label the organs and write their corresponding functions.

Learning Modalities

- *Visual, auditory, kinesthetic

Identify desired results:

Students will understand...

- *How each organ of the digestive system functions and has its own importance in the whole process of digestion.
- * How our body absorbs the nutrients from the food and drink

Students will know...

- * The name and function of each organ of the digestive system
- * How the digestion process takes place

Students will be able to...

- *name and explain how the digestive system works, and the function and importance of each of its organ.

Materials and Resources

- *cookies and cups of water

- *board
- *board markers
- *plastic human body
- *slips of paper
- *worksheets

Lesson Plan # 2

** Goal: Consolidate vocabulary; develop reading skill.*

**Key words: mouth, teeth, tongue, saliva, salivary glands, esophagus, stomach, digestive juice, small intestine, large intestine, absorb, nutrients, anus.*

Standards

- *Major standards – 1.1; 1.2; 1.3
- * supporting Standards – 3.1, 2.1

Brief Summary of Lesson

* Teacher divides the classroom in small groups of 4. Each group receives a set of memory game cards. Students will sit together and play the memory game (match the pictures of the Digestive System organs and their corresponding words). When they have finished, the teacher asks students to display their cards on their desks and walk around seeing their classmates' answers. Teacher gets the feedback by showing flashcards of the Digestive System organs and eliciting from the students their corresponding words.

*Teacher asks students to open their books on page # and read about the Digestive System in silence (read for general information).

*Teacher gets the feedback by asking students what they remember from the text they have just read. As they say, the teacher writes their answers on the board. Teacher gives students a worksheet with some questions about the Digestive System. Students will answer individually (read for specific information). When students finish answering the questions, the teacher asks them to compare their answers with the friend sitting next to them. Teacher corrects the questions orally with the big group.

*Teacher gives each student some plastic food/flashcard and asks them to imagine they will eat that. Students are asked to write an essay describing how that food will enter their bodies and how digestion will take place. It is important to know that the different nationalities in the classroom. So the teacher can give a typical food from the students' countries.

Learning Modalities

*Visual, auditory, kinesthetic

Identify desired results:

Students will understand...

*How each organ of the digestive system functions and has its own importance in the whole process of digestion.

* How our body absorbs the nutrients from the food and drink

Students will know...

* The name and function of each organ of the digestive system

*more specific information about the organs and their function in the Digestive System

Students will be able to...

*name and explain how the digestive system works, and the function and importance of each of its organ.

* Develop their reading skill by reading for gist and scanning.

Materials and Resources

*board

*board markers

*plastic food

*memory game

*flashcards

*worksheet

*text book

Lesson Plan # 3

*Goal: Exchange nutritional information about typical kinds of food in different countries; explain how to help keeping a healthy body; lead students to create a power point presentation.

*Key words: mouth, teeth, tongue, saliva, salivary glands, esophagus, stomach, digestive juice, small intestine, large intestine, anus, digestion, fat, storage, fiber, muscle, healthy, unhealthy

Standards

- *Major standards – 1.1; 1.2; 1.3
- * supporting Standards – 3.1, 2.1, 4.2

Brief Summary of Lesson

*Teacher asks students to put on their desks the plastic food they had received in the previous class so the whole group could see them. Teacher asks volunteer students to read their essays aloud to the big group what they have written for their essays.

Teacher collects the essays.

* Teacher collects the plastic food/ flashcards and displays them on the front of the classroom. Teacher explains to the students that some kinds of food are healthier for our body than others because of their nutrients and amount of fat. Teacher explains about the digestion of fat, fiber; the benefits of a healthy diet.

* Teacher draws two circles on the floor (using chalk), one for healthy and the other for unhealthy kinds of food. Teacher asks each student to stand up, get the food they had received in the previous class and place them inside the circle they think is more appropriate. Teacher opens for comments and discussions.

*Teacher elicits from the students the kinds of food are typical in Brazil. As students say, the teacher writes on the board. Teacher peers students up and takes them to the computer lab to search for information about Brazilian typical kinds of food.

*Teacher gives students the directions for working on a power point presentation, comparing the kinds of food they had received and written their essays about, and the typical Brazilian foods.

Learning Modalities

*Visual, auditory, kinesthetic

Identify desired results:

Students will understand...

- * How our body absorbs the nutrients from the food and drink
- *How certain kinds of food help or difficult the digestion process
- * That people around the world have different eating habits

Students will know...

- * How to identify healthy and unhealthy kinds of food
- *The different kinds of food / eating habits in different countries

Students will be able to...

*Contrast and compare different kinds of food and classify them, according to their nutrients, if they are healthy or unhealthy.

Materials and Resources

- *plastic food
- *flashcards
- *Students' essays
- *board
- *board markers
- *computer
- *notebooks

Lesson Plan # 4

*Goal: Assess students' comprehension about the topics presented so far.

*Key words: the vocabulary presented so far.

Standards

- *Major standards – 1.1; 1.2; 1.3
- * supporting Standards – 3.1, 4.2

Brief Summary of Lesson

* Teacher starts the lesson by saying to the students that they will all pretend they had lost their voices and cannot say any word nor make sounds during the next activities. Teacher gives each student a sheet of paper with some numbers written on it, and asks them to write their names on top of it. Teacher explains that she will show the digestive system organs and the students will have to write their corresponding words according to the sequence they are been shown.

* Teacher gives each student an envelope and asks them to keep it closed until she finishes giving the instructions. Teacher explains that in each envelop there is a question with a corresponding number. Teacher will play a soft background music and students are to answer to the question they have received, making sure they write their answers next to the correct number on their worksheet. Once they have finished answering their question, they need to put the question back in the envelope. When the teacher pauses the music, the students need to pass their envelopes to the classmate sitting on their right. This activity goes on until all the students have answered all the

questions. The teacher needs to make sure she gives enough time to the students answer the questions before passing to their classmates.

* In pairs, students go to the computer lab to play the Digestive System Quiz at the website: www.brainpop.com and continue working on their power point presentation.

* Teacher asks students to bring pictures of the typical food in their countries as well as pictures of the typical kinds of food in Brazil.

Learning Modalities

*Visual, kinesthetic

Identify desired results:

Students will understand...

*How each organ in the digestive system work.

* How our body absorbs the nutrients from the food and drink

*The difference between healthy and unhealthy food

Students will know...

* The name and function of each organ of the digestive system

*How to compare and contrast information

*How to express opinion in written form

Students will be able to...

*name and explain how the digestive system works, and the function and importance of each of its organ.

*Compare and contrast different kinds of food around the world.

*Identify healthy and unhealthy eating habits

*Express opinion in written form.

Materials and Resources

*worksheet

*plastic human body organs (digestive system)

*flashcards

*CD

*CD player

*computer

Lesson Plan # 5

* Goal: Develop writing skill

*Key words: the vocabulary presented so far.

Standards

- *Major standards – 1.1; 1.2; 1.3
- * supporting Standards – 3.1, 4.2

Brief Summary of Lesson

*Teacher asks students to sit in small groups of four. Each group will share information about what they have searched about the Brazilian food and make a list of the common information they have found. Teacher asks one student of each group to go to the board and write their information on the board. Teacher compares with the big group all the information the students have presented (web).

* Teacher asks the students to sit in pairs again (same partners they have worked on the power point presentation). Teacher gives each pair a blank sheet of paper and the essays they had written in the second class back. Teacher asks the students to write one essay comparing and contrasting the Brazilian food with the typical food from their countries. Students are encouraged to include additional information such as the amount of calories, etc.

* Teacher gives each pair a poster and asks students to arrange the pictures they have brought about Brazilian food and the ones that are typical in their countries. Students are asked to paste their first essays as well as the essay they have written in pairs.

Learning Modalities

*Visual, auditory, kinesthetic

Identify desired results

Students will understand...

- *The difference between Brazilian typical kinds of food and food in other countries
- *different nationalities' eating habits

Students will know...

- * The difference between Brazilian typical kinds of food and food in other countries.
- *How to write an essay comparing and contrasting food in different countries.
- *How to prepare a poster using the information they have collected.

Students will be able to...

- *write an essay comparing and contrasting information.
- *arrange pictures and information on a poster.

Materials and Resources

- *blank sheets of paper
- *pictures
- *board
- *board markers
- *posters
- *glue
- *material for decorating the poster (color pencils, crayons, etc.).

Lesson Plan # 6

*Goal: final assessment. Check students comprehension about the Digestive System and the different kinds of food around the world compared to the Brazilian typical kinds of food.

*Key words: the vocabulary presented so far

Standards

- *Major standards – 1.1; 1.2; 1.3
- * supporting Standards – 3.1; 4.2

Brief Summary of Lesson

*Teacher asks students to present in pairs their posters and the power point they have been working on. When students are done, the teacher gives them a worksheet for self-evaluation. Students are encouraged to mention what they believe went well or not during their presentation and how they can improve for future presentations. Teacher asks students to read their answers aloud.

Learning Modalities

*Visual, auditory, kinesthetic

Identify desired results:

Students will understand...

* learning is a continuous process.

Students will know...

* That all that all the activities they have done so far are linked to one major topic.

Students will be able to...

- * To present projects in both written and oral forms for an audience.
- * Sum all the information they have acquired along their learning process.

Materials and Resources

- *computers
- *posters
- *board
- *board markers
- *worksheets