



Eat Healthy, Stay Healthy

Unit Summary

Life is more hectic than ever -- between school, sports, and friends. Very few have the time to think about what to eat. We often wonder whether we eat to live or live to eat. The answer to this question decides our eating habits. However, the lifestyle of many people suggests that we live to eat. Our modern lifestyle has brought a dramatic change in the eating disorders. There has been an alarming increase in obesity worldwide. Earlier, obesity was just linked to adults but now it has engulfed children. Statistics show that about one in ten children in Asian countries suffer from obesity. This has become a concern to all, and various ways and means are being taken to reduce the number of cases of childhood obesity.

In this unit, student nutritionists of school, investigate the eating habits of their peers by conducting a survey. The students work in groups with an aim to create awareness about childhood obesity in the school community and propose feasible strategies to prevent and control obesity. They plan a balanced diet for their peers and present their study through wiki. As a culminating activity, the young nutritionists create flyers to generate awareness about balanced diet and distribute them during the *Eat Healthy, Stay Healthy* Campaign.

Curriculum- Framing Questions

- **Essential Question**
How can we lead a better life?
- **Unit Questions**
How do I plan a healthy and nutritious balanced diet?
How do I prevent and control obesity in my school community?
- **Content Questions**
What are the classes of food?
What are their functions to the body?
What is obesity?
What is Body Mass Index (BMI)? How to calculate it?

Assessment Processes

View how a variety of student-centred [assessments](#) are used in the Eat Healthy, Stay Healthy Unit Plan. These assessments help students and teachers to set goals; monitor students' progress; provide feedback; assess thinking, processes, performances, and products and reflect on learning throughout the learning cycle.

Instructional Procedures

Prior to Instruction:

Distribute the [project newsletter](#) (DOC 1.00MB) to parents and school community to explain the concept of projects in your classroom

Week 1: Getting Started

Pose and discuss the Essential Question, *How can we lead a better life?* Elicit students' ideas and examples. Relate the discussion to the topic of healthy eating. Use the [Food Nutrition Quiz*](#) to tap students' prior knowledge. Have students write notes and questions in their journals.

The Problem Scenario

At a Glance

Year/Form: Form 2 – 3
Subject(s): Science, Health Education
Topics: Nutrition, Health
Key Learnings: Classes of Food, Balanced Diet, Obesity, Eating Habits, Body Mass Index
Time Needed: 4 weeks (12 periods of 40 minutes)

Things You Need

[Assessment](#)
[Standards](#)
[Resources](#)

Place students in groups of five. Explain the following situation using the [project introduction slideshow](#) (PPT 1.64MB).

Obesity was once associated with adults but now it is affecting children too. In the recent years, cases of childhood obesity have increased significantly. Your class has been asked to work as nutritionists to create awareness about childhood obesity and propose feasible strategies to prevent and control obesity in the school community.

Introduce the Unit Questions:

- *How do I plan a healthy and nutritious balanced diet?*
- *How do I prevent and control obesity in my school community?*

Explain to students that they will be exploring these questions throughout their work on the project. Distribute the [To-Do-List](#) (DOC 297KB) to help students self-assess their own progress.

Homework Assignment: Ask students to refer the [list of websites](#) (DOC 28.5KB). Ask them to think about the following Content Questions while they are researching and to take notes to prepare for the upcoming class discussion.

- *What is food pyramid?*
- *What are the classes of food?*
- *What are their functions to the body?*
- *What is obesity?*
- *What is Body Mass Index (BMI)? How to calculate it?*

Covering Nutrition Basics

Introduce the [Discussion Rubric](#) (DOC 87KB) to the students. Explain to students that the project requires them to participate in a number of discussion activities using the online discussion board. [Yahoo! Group*](#), [ezboard*](#) and [phpbb*](#) are the tools for setting up the online discussion platform. Review the different criteria such as "Engagement, Interaction, Collaboration and Reflection". Highlight the key points of each criterion and stress the importance of using the rubric as a scaffold to help students benefit maximum from the discussion sessions.

Students discuss their research findings using the online discussion board. Have the appointed moderators to monitor the group discussions. Remind students to review the discussion rubrics and the [online discussion guidelines](#) (DOC 54KB) before they start their discussions. Support the students by giving your inputs on nutrition basics.

Get students to present their understanding of the terms - food pyramid, obesity, BMI, etc. on posters for the class notice board. Encourage the students to make posters creatively by using drawing, photographs, etc.

Week 2: Conducting Online Survey

Inform students that survey is one of the important milestones of their project. Provide time for students to come up with some questions that they would like to investigate. Let students brainstorm in their groups and share their questions with the class. Compile a survey questionnaire based on suggested questions.

Introduce online survey tool for students to post their surveys. [Surveymonkey*](#) is an example of the online survey tools. Share with students the [survey guidelines](#) (DOC 43KB). Students identify sample classes in the school to conduct the online survey.

Analysis

Have students analyse the survey data in their respective groups. Arrange a session with the mathematics teacher for analysis of the survey data and presenting it in a graphic form. Provide time for students to do the analysis and plot the graphs. Review students' work and provide feedback.

Sharing session

After the completion of the survey, make students sit in their respective groups and discuss their survey results. Ask them to note down their learning from the survey. Spend time with each group and monitor their progress. Encourage students to make connections between the data collected and the eating habits, family background, daily routine, etc. Have students calculate the BMI of each student and categorise them in underweight, normal, overweight and obese students. Also, to make students realise the feelings of obese students – have an open discussion and share some case studies. Request students to empathise with the students and thus sensitise them about the problems of childhood obesity. Speak about the impact of obesity covering both the physical as well as the emotional aspects. Introduce students to the *Eat Healthy, Stay Healthy* Campaign and ask for suggestions to make the campaign informative and interesting for the school community. Instruct students to collate their entire study, as they will start making their wiki in the next class. Ask students to brainstorm and discuss on the causes and effects of obesity on children. Pose the

Unit Question again, "How do I plan a healthy, nutritious balanced diet?" Encourage students to conduct research for planning healthy diet to prevent obesity. Arrange for a session with a Dietician. Encourage students to clear their doubts regarding diet and obesity. Organise each group to have a face-to-face interaction with the Dietician and get them to share their plans for a healthy diet.

Week 3: Creating Wiki and Flyers

Introduce the assignment of creating a [wiki](#)*. Share the [wiki rubric](#) (DOC 41KB). Explain each criteria of the rubric. Ask students to make a story board of their wiki in a group. Review the story board and give comments. Emphasise that the wiki will answer the Essential Question "How can we lead a better life?" Schedule two to three days for students to work on this project and have meetings in-between to check on students' progress.

Encourage students to make [Eat Healthy, Stay Healthy flyer](#) (PDF 337KB) for answering the Unit Question "How do we prevent and avoid obesity in our school community?" Describe the criteria in assessing the students' flyer using [Eat Healthy, Stay Healthy flyer checkbric](#) (DOC 31KB). Provide two days for the completion of this assignment.

Week 4: Awareness campaign

Put the posters prepared by the students during the project on the school notice board. Send invitation letters to the parents, the dieticians for the *Eat Healthy, Stay Healthy* Campaign. Arrange for a hall where students will present their findings. The hall should be big enough to allow students to present simultaneously.

Allocate a session in which students would do a rehearsal on their presentations. Make all students in each group to participate in the presentations.

Arrange for the banner of *Eat Healthy, Stay Healthy* to be put up in the entrance of the hall. Put up the posters of the students in the hall. Have students share their [wiki](#)* and the diet posters to the audience. Make students distribute the [Eat Healthy, Stay Healthy flyer](#) (PDF 337KB) to the students and parents.

At the end of the project, as a culminating activity ask students to write their reflections in the journals.

Prerequisite Skills

- Basic knowledge on nutrition and various types of food in Malaysia
- Fundamental skills of basic computer operations and ability to use word processing and spreadsheet software
- Students may need mini lesson on online tools – Discussion Board, Survey and Wiki

Differentiated Instruction

Special Needs Students

- Provide a to-do list to the students
- Allocate tasks by taking into consideration the student's strength and weaknesses
- Discuss frequently with students to check on the progress of their project

Gifted Student

- Assign the role of moderator to monitor group discussion
- Get them to undertake the responsibility to plan the progress and deadlines of their project
- Involve them in interpreting and analysis of data

Nonnative Speakers

- Provide a vocabulary list

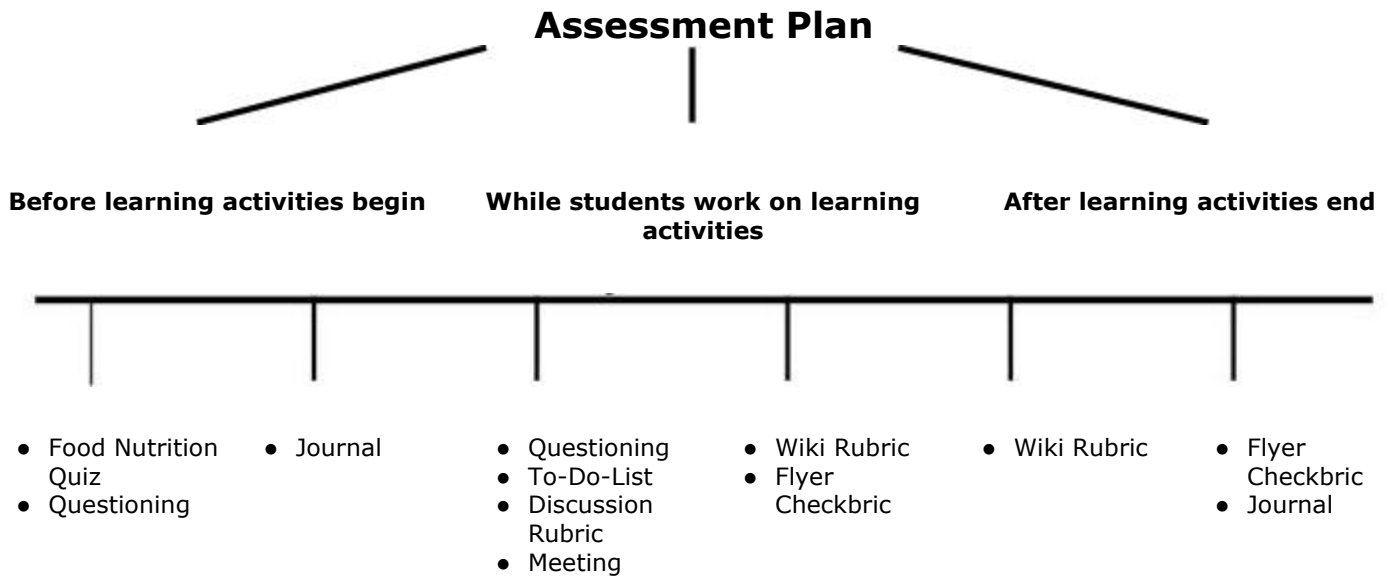
Credits

The project idea has been developed by Lim Siew Geck and Lee Yee Suen. A team of teachers expanded the plan into an example that you can see here.

Note: The hyperlinked support documents are not part of the PDF. They can be downloaded and printed individually.

Designing Effective Projects: Eat Healthy, Stay Healthy Assessment

Assessment Plan



Assessment

The unit begins with tapping students' prior knowledge about healthy eating with the [Food Nutrition Quiz*](#). Journal writing is used throughout the unit to respond to questions and reflection. Questioning is also used throughout the unit to spark discussion and promote higher order thinking. Students use the [To-Do-List](#) (DOC 297KB) to self-assess their own progress. [Discussion Rubric](#) (DOC 87KB) is used as a scaffold to help students in the discussion sessions. Meetings are conducted frequently to check on students' progress. Assess the wiki and Eat Healthy, Stay Healthy Flyer with the [Wiki Rubric](#) (DOC 41KB) and [Flyer Checkbric](#) (DOC 31KB) respectively.

Designing Effective Projects: Eat Healthy, Stay Healthy

Content Standards and Objectives

Targeted State Frameworks/Content Standards/Benchmarks

Curriculum Specifications and Objectives

Form 2 Science

Learning Area: 2 Nutrition

2.1 Analysing the classes of food

2.2 Evaluating the importance of a balanced diet

2.6 Put into practice the habits of healthy eating

- **Form 3 Health Education**
 - Personal and Family Health
 - Excessive eating habit
 - Factors of excessive eating habits
 - Effects of excessive eating habits
 - Ways to overcome overweight and obesity
 - Body Mass Index (BMI)

Student Objectives/Learning Outcomes:

By the end of the unit, students are able to:

- Organise different classes of food accordingly
- Analyse the relationship between a balanced diet, obesity and body mass index
- Investigate reasons for excessive consumption of food
- Explain the factors affecting our balanced diet
- Work collaboratively to investigate the eating habits of their peers
- Plan a balanced diet for their peers
- Suggest strategies to prevent and control obesity
- Create awareness in the school community about the importance of healthy eating habits through campaign

Designing Effective Projects: Eat Healthy, Stay Healthy

Resources

Materials and Resources

Printed Materials

Text book and magazine

Internet Resources

- <http://www.nutriweb.org.my/index.php>*
The site is published by the Nutrition Society of Malaysia and promotes authoritative nutrition knowledge and advance nutrition science. The site also features a membership application to the Nutrition Society of Malaysia.
- http://www.exhibits.pacsci.org/nutrition/noflash_nutrition.html*
The home page of this site is <http://www.eatsmart.org/>*
This is a site published by the Washington State Dairy Council and the "Nutrition Café" link is a joint endeavour of the Pacific Science Centre and the Washington State Dairy Council. The site gives information on nutrition. The Nutrition café link has interactive fun games for the user to know more about nutrition.
- <http://www.halls.md/body-mass-index/overweight.htm>*
This site is an article written by Steven B. Halls, MD. A discussion of obesity and body mass index gives the reader background information about the Body mass index (BMI) levels that categorize fatness. The site summarises the science behind overweight definitions.
- <http://www.afic.org/Preventing%20Childhood%20Obesity.htm>*
This site is published by the Asian Food Information Centre. The site provides science-based information on nutrition, health and food safety for the Asian region. The link provides information on preventing childhood obesity.

Other Resources

Technology – Hardware

- Computer
- Printer
- Internet connection

Technology – Software

- Spreadsheet
- Internet Web Browser
- Word Processing