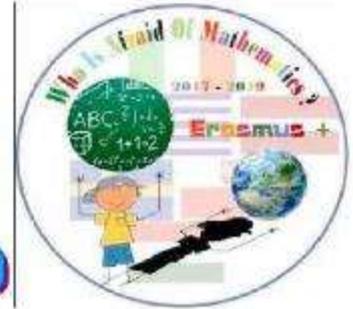


# LESSON PLAN

## Who is Afraid of Mathematics?



Category: MATHS in HEALTHY LIFESTYLE

Title of the activity:

**”Healthy eating versus junk food: we are what we eat”**

Year Group: Grades 4 and 5 (9-10-11 years old)

Teachers:

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### Learning Objectives:

- To have knowledge of what we could find inside the food we usually eat ( fats, calories, proteins, vitamins, sugar, salt, carbohydrates, food coloring...) through the capacity of reading data in food labels.
- To know what the food pyramid is, how it works and what is the daily amount of calories
- To become aware of the importance of a balanced diet for an healthy life
- To promote good behaviours in our lifestyle, based on mathematical data.

### Success Criteria:

- Group working and research about snacks made the research very effective and captivating for students.
- Watching videos about healthy eating and how you can avoid trash food and its consequences on our body.
- Work with “realia resources” as food labels, books, newspapers, magazines, recipes books
- Cooking activities like preparing cakes
- Collecting data by interviewing common people in the streets and a dietist in class.
- Collecting and understanding pieces of information by reading interview charts.

- Create different graphics.

### Resources:

IWB, pc, videos , books, interviews, magazines , newspapers, books of recipes, copybooks, scales and kitchen scales, leaflets with calories and nutritional values of different foods, weekly schedule about food portions distributed in the school canteen.

### Differentiation:

Students with dyslexia, special needs or with particular difficulties were helped by student-tutors, so they were not left alone or they could feel unease. Lots of activities have been made in groups using strategies of cooperative learning.

### Lesson Description

#### Grade 4

- The first lesson starts with the description of what children usually eat every day for breakfast, lunch, dinner and snack. Then, teacher shows the pyramid food and pupils can realize how their diet can be wrong or right, then they divide healthy food from junk food.
- Pupils collect ideas about what calories are, and how a wrong amount of them could bring diseases and obesity (<https://www.google.it/amp/s/amp-video.repubblica.it/amp/mondo/germania-lo-spot-che-vi-fara-emozionare-mangia-come-cio-che-vuoi-essere/268068/268480>)
- In next step pupils learn how to read information of a food label and its structure on different drinks and food. They discover lots of mathematical data.
- Cooking activity: preparation of “ Salame di cioccolato“ ( a roll chocolate cake) and “ Tiramisu”. During the preparation pupils know the different kind of ingredients, their nutrients, and the amount of calories in every slice.
- Afterwards pupils compare the ingredients quantity of homemade cakes with the industrial chocolate cakes that are usually bought at the supermarket.
- The teacher suggests pupils to interview different targets of people in school and outside. They prepare a chart containing information about age, sex, main daily meals (breakfast, lunch and dinner), beverages, for instance fizzy drinks, and practiced sports. Different ages are organized into five ranges: from 6 - 14, 15 - 30, 30 - 50, 50 - 65, over 65. Each pupil will interview five people for each age range. Afterwards, in class collected data are discussed and displayed in different graphs. This is useful because they can have a view on what Italian people mostly have at every kind of meal.
- Pupils calculate the real amount of daily calories that a person needs and compare it with the calories results of the food eaten by the interviewed people. The

comparison of mathematical data help pupils to understand that it is important to combine healthy eating to healthy lifestyle, practising sports or just walking for an hour a day.

### **Grade 5**

- Brainstorming
- Know and practice English weight measures.
- Activities about Food Pyramid
- Research and reading of Food labels data.
- Surveys about snacks

### **Introduction:**

#### **Grade 4**

- Recognize junk food, what a food pyramid is, how graphics can be organize, know the concept of obesity.

#### **Grade 5**

- To use confidently written and mental arithmetical calculation techniques
- To know the use of scales (tare, net weight, gross weight)
- To know the use of metric system and equivalences
- To collect, classify and represent data with diagrams, tables, bar graphs
- To the concept of mean, median, percentage

### **Main Lesson**

- Organize interview data in graphs and compare them.
- Calculate the right amount of necessary nutrients in a day.
- Calculate the right amount of calories of each food, based on the food labels information, and nutrients inside different types of food.
- Interview the school dietician about the right amount of food elements that a child and an adult need to eat every day.

### **Plenary:**

Maths is everywhere and children are not afraid of it. We have tried to understand and use it with simplicity and applying it to real life. Studying Maths is not simple calculate and dealing with numbers; this is a good starting point to look at things including their context, not as different blocks, one different from the other.

Being involved in researching tasks with different roles and responsibility and working in groups with a shared target, have promoted interdependence and developed new practical mathematical knowledges.

# PHOTOS

