Afbeelding met tekst, Graphics, Lettertype, grafische vormgeving

Automatisch gegenereerde beschrijving

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Portfolio assignment ‘Food’ science Year 2 - P1**

**What?**

* You are going to complete an assignment regarding nutrition and food choices.

**Why?**

* You will work on the following learning goals:  
  -I can name some factors that influence your food choices.  
  -I can explain what vegetarianism and veganism are, name the reasons someone might choose to be a vegetarian or vegan, and indicate how they can get enough nutrients.  
  -I can draw a bar chart.

**How?**

* Work alone. You can help each other, but you will complete your own assignment.
* Use the internet and your textbook to find information.
* Make sure you do this assignment step by step. Fill in all answers in this booklet, and when finished hand it in during the last science lesson in week 1.5.

**When?**

* You will start in week 1.3. You will have 2 lessons at school to work on this assignment.   
  In week 1.4 you will have one more lesson to work on it. The rest must be done at home.   
  The deadline to hand in this assignment (on paper) is the last science lesson in week 1.5.

**Reflection**

* Describe what you think was interesting about this assignment. What did you learn/ what was new? Are there any unexpected outcomes?
* Explain if you will choose your food differently in the future, **and explain why**.

**Assessment**

You will not be given a mark, but you have to complete this assignment.

Part 1

When you go to McDonalds, what do you order? Do   
you ever think about the amount of calories or the  
variety of nutrients per meal? In this task you are  
going to find out some differences in calories and

nutrients per product you can order at McDonalds.

Juan is having dinner at McDonalds with his friend Josh. Josh is a vegetarian, so he orders a meal without any meat or fish.

Afbeelding met tekst, schermopname, Lettertype, plein

Automatisch gegenereerde beschrijving

Scan the QR code, it will take you to the website

of McDonalds. This is a Dutch website, you will use

the Dutch content because that is most suitable for   
 you since we live in the Netherlands.

Go to ‘menu’ and find the information needed in the   
 table below. Fill in the table.

Afbeelding met voedsel, groente, Fastfood, salade

Automatisch gegenereerde beschrijvingVeggie chicken salad honey mustard

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | energy (kcal) | fats (g) | carbo-hydrates (g) | sugar (g) | fiber  (g) | protein  (g) |
| Salad |  |  |  |  |  |  |
| Medium  cola zero |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |

Afbeelding met drinken, Alcoholische drank, Frisdrank, Bierglas

Automatisch gegenereerde beschrijving

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | energy (kcal) | fats (g) | carbo-hydrates (g) | sugar (g) | fiber  (g) | protein  (g) |
| Big mac |  |  |  |  |  |  |
| Medium  fries |  |  |  |  |  |  |
| Medium cola |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |

Big Mac voordeelmenu (medium) *🡪 make sure you look up the data for a Big Mac and medium fries separately, not as a menu.*

Afbeelding met voedsel, Amerikaans eten, Fastfood, hamburger

Automatisch gegenereerde beschrijving

Now you know what nutrients can be found in Juan’s menu, you are going to create a bar chart using this information.

Below, you will see some graph paper. The x-axis and y-axis are already labeled for you. Make sure you fill in the legend to indicate the type of nutrients.

Afbeelding met patroon, lijn, Rechthoek, plein

Automatisch gegenereerde beschrijving

Amount (g)

Type of nutrients

* Fats
* Carbohydrates
* Sugar
* Fiber
* Protein

Part 2  
  
It is important that the energy you take in and the energy you use are balanced. If there is no balance, it will have consequences for your body and health.

In the table below, you can see how many kcal someone burns per minute for each activity. For example, you burn 11,5 kcal per minute when running.

Fill in the table. First, you can see Josh’ salad with coke. Use his total amount of kcal in this task. Second, you will see Juan’s Big Mac menu with coke. Also, use the total amount of kcal. How long do John and Juan need to participate in these activities to burn all the energy they ingested by eating their meals?   
Calculate in minutes first, then convert to hours (1 decimal place).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Zwem Pictogram Vectorafbeeldingen, iconen en afbeeldingen gratis te  downloaden*swimming*  6 kcal/min | *play football*  8 kcal/min | *Afbeelding met zwart-wit  Beschrijving automatisch gegenereerd met gemiddelde betrouwbaarheid*  *walking*  4 kcal/min | *cycling 25 km/h*  11 kcal/min |
| Afbeelding met voedsel, salade, groente, gerecht  Automatisch gegenereerde beschrijving  \_\_\_\_\_\_\_\_\_ kcal | min:  hours: | min:  hours: | min:  hours: | min:  hours: |
| Afbeelding met voedsel, Amerikaans eten, Fastfood, hamburger  Automatisch gegenereerde beschrijving  \_\_\_\_\_\_\_\_\_ kcal | min:  hours: | min:  hours: | min:  hours: | min:  hours: |

Part 3

Imagine you can go to McDonalds for dinner. What would you choose to eat? Fill in the table, if you choose a menu you should put all items of that menu separately in the table.   
Go back to the website of McDonalds and also look up the amount of kcal per item, and fill it in. Don’t forget to add the sauce if you would order that as well. Also, add your dessert!

|  |  |
| --- | --- |
| **Name product** | **Amount of kcal:** |
| 1. |  |
| 2. |  |
| 3. |  |
| 4. |  |
| 5. |  |
| 6. |  |
| 7. | + |
| **Total amount of kcal:** |  |

Afbeelding met tekst, schermopname, Lettertype, plein

Automatisch gegenereerde beschrijving

****Now you know the amount of kcal you will ingest during your meal,   
you are going to have a look at your daily energy needs. To do this,   
you are going to visit the website of ‘het voedingscentrum’. This is also   
a Dutch website, because it is important to work with data that apply   
to Dutch people since we live in the Netherlands.

Fill in:

I am a *boy/girl* and I am years old. My lifestyle is *moderate/active/very active.*

According to ‘voedingscentrum’, my daily energy needs is kcal.   
In the table above, I calculated that my dinner at McDonalds is kcal.  
Now calculate what percentage of your daily energy needs you ingest if you eat this meal. Use the following formula.

total kcal meal

X100 = % ingested

daily energy needs

Part 4

Afbeelding met grafische vormgeving, Graphics, Kleurrijkheid, ontwerp

Automatisch gegenereerde beschrijvingBelow you can see the circle of five. In order to meet the guidelines of this circle of five, what should you have for breakfast, lunch, and snacks? Use the table below to write down which food belongs to which group of the circle of five.   
You can use the description of the groups and the text in your textbook.

**5 1**

**4 2**

**3**

Group 1: Eat at least 250gr of vegetables and 2 pieces  
 of fruit. These types of food mainly contain  
 vitamins, minerals, and fiber.  
Group 2: Daily ingestion of plant-based fats and oils.   
 These types of food mainly contain fats and   
 vitamins.  
Group 3: These types of food mainly contain proteins,   
 vitamins and minerals. You can alternate with  
 legumes, meat, nuts, and eggs. In terms of  
 dairy, it is important to choose varieties lower in fat.

Group 4: It is especially important to eat whole grains such as wholegrain bread,  
 wholegrain pasta, couscous, and wholegrain rice. Potatoes are a good  
 substitute. These types of food mainly contain carbohydrates (starch),   
 plant-based proteins, minerals, vitamins, and fiber.

Group 5: It is important to drink enough water daily. Water can also be substituted by  
 green tea while limiting coffee intake.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Breakfast:** | | **Lunch:** | | **Snack:** | |
| *Food* | *Group:* | *Food* | *Group:* | *Food* | *Group:* |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Explain why you made these choices.

Part 5

When it comes to food choices, people follow different diets based on health, ethical, or personal preferences. Whether someone eats a regular diet, follows a vegetarian lifestyle, or chooses a vegan approach, their food selections can greatly influence their overall nutrition and well-being.

This raises an important question: how do these different diets affect a person's ability to meet their nutritional needs, and what are the best food choices available for each?

Do some research on what exactly a regular diet, a vegetarian diet, and a vegan diet consist of, focusing specifically on which types of foods are excluded or included in these diets. Write down a short paragraph about your findings below.

Regular diet: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vegetarian diet: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vegan diet: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In the table below you will see a diet plan for a day of 3 different diets with the nutritional information included. Have a good look at each.

|  |  |  |  |
| --- | --- | --- | --- |
| **Diet** | **Regular** | **Vegetarian** | **Vegan** |
| **Breakfast** | Scrambled eggs with toast and butter, and orange juice  Calories: 490  Protein: 18g  Fat: 21g  Carbs: 55g | Greek yogurt with honey and granola  Calories: 490  Protein: 17g  Fat: 8g  Carbs: 61g | Oatmeal with almond milk, chia seeds, and berries  Calories: 490  Protein: 8g  Fat: 9g  Carbs: 43g |
| **Lunch** | Grilled chicken sandwich with French fries  Calories: 670  Protein: 49g  Fat: 28g  Carbs: 55g | Vegetarian burrito with black beans, rice, cheese, and sour cream  Calories: 670  Protein: 17g  Fat: 13g  Carbs: 48g | Vegan avocado toast with hummus and salad  Calories: 670  Protein: 12g  Fat: 27g  Carbs: 55g |
| **Dinner** | Steak (200g) with mashed potatoes and steamed broccoli  Calories: 650  Protein: 50g  Fat: 33g  Carbs: 40g | Vegetarian pasta with marinara sauce and roasted vegetables  Calories: 650  Protein: 11g  Fat: 7g  Carbs: 64g | Vegan stir-fry with tofu, vegetables, and rice  Calories: 650  Protein: 19g  Fat: 8g  Carbs: 65g |
| **Total** | Calories: 1,810  Protein: 117g  Fat: 82g  Carbs: 150g | Calories: 1,810  Protein: 45g  Fat: 28g  Carbs: 173g | Calories: 1,810  Protein: 39g  Fat: 44g  Carbs: 163g |

Questions

1. By looking at the total nutrients per diet, what do you notice most when comparing a regular diet to a vegan and vegetarian diet? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What advice can you give people who follow a vegetarian and vegan diet to ensure they consume enough of each type of nutrient? Do some research on what foods they can add to their meals. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Give 3 reasons why a person might choose to follow a vegetarian or vegan diet. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reflection

Reflect on this assignment by answering the following questions.

Describe what you think was interesting about this assignment.   
What did you learn/ what was new? Are there any unexpected outcomes?

Explain if you will choose your food differently in the future, **and explain why**.

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