

# WELL-CHILD PROJECT (50 POINTS)

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## PART I:

### I. Identifying data (1 point)

- A. Sophie
- B. Healthy blonde hair and blue eyes, soft light skin, thin frame, good muscle tone, healthy overall appearance
- C. Lives with her single mother and her two brothers. She gets along great with them and it is a very loving environment. She spends every other weekend with her real father; she does not enjoy this time with him.

### II. Health history (10 points)

- A. (1) Female (2) 5 years & 4 months
- B. (1) October 17, 2006; (2) birth weight: 5lbs 10 oz and 10<sup>th</sup> percentile range; and (3) birth length: 18.5 inches and 10<sup>th</sup> percentile
- C. (1) Present weight: 35 lbs and 15<sup>th</sup> percentile range (2) present height: 44 inches and 75<sup>th</sup> percentile
- D. 2 siblings; both males, ages 13 and 17
- E. Mother had 2 previous births before Sophie; Sophie was “preterm” and arrived 1 month early; mother gained 25lbs in pregnancy with Sophie.
- F. No history of illnesses (including any chronic diseases) for Sophie
- G. No medications; mother said she didn’t use fluoride treatments because the water where she lives contains fluoride and the doctor told her that would good enough for Sophie’s fluoride needs.
- H. Dental history: Previous episodes of grinding teeth; chipped front four teeth; she currently has caps on all front four teeth to protect them.
- I. No allergies or other food intolerances

### III. Developmental skills assessment (6 points)

- A. Developmental skills – perform the Denver Developmental Screening Test (DDST) - **ATTACH SCREENING FORM**
- B. Interpretation of the test: Sophie is definitely “normal”. She passed everything and had no delays or cautions. Sophie is my cousin and I preformed this test when I was with her at my Grandma’s house. She loves to play with me, which is why I think she complied so well. If there had been another tester, she may have refused to do many of the things, due to her shy nature around people she doesn’t know. Overall, compared to other kids her age, I feel like Sophie is above the average level of development. Her mother plays a big role in this, due to her high education level and great parenting methods.

#### IV. Nutritional assessment (8 points)

- A. Obtain a 24-hour recall from Sophie's mother:
  - About 1 cup of Cheerios with whole milk; small bowl of grapes; 1 piece white bread with butter and cup of whole milk; a few apple slices; 2 rolls with butter; 1 cup salad with vegetables
- B. Sophie is "ok" for her calorie intake; she could be eating a few hundred more calories per day to meet her requirement. Her protein intake is under. Her dairy is under. Her vegetables are under. Her fruit intake is over. Her grain status is "ok". Sophie likes all the right foods and eats a healthy diet. The only thing is that she needs to eat more of them.
- C. **ATTACH PRINTOUTS FROM USDA's ChooseMyPlate SuperTracker TO PROJECT.** This should include the "Food Group and Calories" Report, the "Nutrients" Report, and the "Meal Summary" Report. Please print your reports as PDF documents.
- D. Parental description of food habits: LIKES- broccoli, carrots, noodles, rice, bread and butter, all fruits; DISLIKES- nuts
- E. Child's intake of vitamin/mineral supplements: She takes gummy vitamins every morning
- F. Mother *does not* use supplemental foods, WIC, SNAP, food bank, church resources, etc.

#### V. Nutritional care plan and implementation (15 points)

- A. Sophie enjoys and eats all the right foods. She may need to incorporate more fiber in her diet, given her status was under in her 24-hour recall. Her vitamin and mineral statuses were normal without her daily gummy vitamin included. It is great that Sophie enjoys vegetables and fruits so much, but she needs to make sure she is eating enough of them. I am not worried about Sophie eating healthier, but eating more. She is a very active little girl and has a skinny appearance. She is healthy, but I would suggest that she eats 200-250 more calories per day in vegetables, dairy, and protein. She definitely needs to increase her protein intake. She is very active and involved in sports, and protein will be necessary for her muscle growth.
- B. I plan to show Sophie's mother the growth charts for children her age. I plan to explain to her details about how to find what percentile your child is in, and then showing her where Sophie is. I will explain that just because Sophie is at the lower end, it is due to her normal growth in height, but low growth in weight. I will advise her to continue with her active schedule, but explain that it is especially important for Sophie to meet her energy requirements when she is using up so much energy. It is important to meet the energy demands of a growing child, especially a very active child. I would advise Sophie's mother to keep feeding her how she is currently. I would advise her to encourage Sophie to eat larger portions so she can get even more nutrients, while providing the calories she needs as well.

## PART II

### I. Recommendations to child's caregiver:

- She can increase other foods to get her calories up, as well as eating more of the same foods she is eating now.
- For heart health, 1% of skim is ok and she will still have the good source of calcium and vitamin D
- Her saturated fat intake is 15% and switching to low fat milk would be a good option; she is 5 years old and does not need the extra fat, unless the purpose was because of concern that she is not getting enough calories
- Her vitamin and mineral statuses were normal, with the exception of low potassium; this can be fixed by eating higher potassium foods; bananas and other fruit are good sources of potassium
- It is great that she enjoys vegetables and fruits so much, but she needs to make sure she is eating enough of them, especially vitamins D, E, and K; eating larger quantities will help her maintain a healthy vitamin and mineral status
- I would suggest she eats 350-400 more calories a day in vegetables, dairy, protein, and oils
- Her protein is mainly from grains and dairy now, and she likely meets the iron recommendation from the fortified cereal
- She is low on the stature-for-age and BMI-for-age percentile charts; with her low calorie intake and active lifestyle, it would be best to increase the amount of food she eats
- She should continue her active schedule, but it is very important that she meets her energy requirements when she is using up so much energy
- She should eat larger portions and eat more from the vegetable, dairy, protein, and oil food groups; this will help her get even more nutrients and the extra calories she needs

### II. 2-week follow up:

I think the education I gave made a notable impact on Sophie's nutrition. Her mom did change the milk she drinks to low fat. She said the only real reason she was feeding her whole milk was because that is what her two teenage boys drank and it was easier to feed Sophie the same thing. She also paid more attention to the amount of food on Sophie's plate at each meal and she made a greater effort to have her eat larger quantities. She also added more chicken to Sophie's meals because that is a meat she likes and was a good source of protein. She gave Sophie bananas as part of her snacks, which would help her get enough potassium. She also started adding salad dressing to Sophie's salads, which Sophie definitely liked. The oils in the dressing provided healthy fat and more calories. Her conscious effort to improve Sophie's diet was critical in utilizing my recommendations.

Seeing how Sophie plotted on the percentile charts was also a attention getter for Sophie's mom. I think that was a good tool to have to encourage these new changes in Sophie's diet. I think one reason Sophie's mom followed what I said is because I have the credibility of being a dietetics student, where I learn the most recent information on nutrition every day, but mainly because I am related to them and I already had a foundation of trust with them. I would hope that if I counseled a stranger they would take my same advice, but I feel like the trusting relationship I have with them caused them to follow my advice more closely. Sophie did notice that her mom offered her different milk, and at first did not like it. After a day or so she did not really notice a difference and continued drinking the low fat milk. I could have improved the education I gave by collecting even more nutritional information about Sophie. This would allow me to have a more precise concept of Sophie's nutrition status. Although the information that I did gather was enough to work with, a more prolonged diet history would have been ideal.

# Sophie's Food Groups and Calories Report 03/05/12 - 03/06/12

Your plan is based on a **1400 Calorie** allowance for a preschooler.

Food Groups	Target	Average Eaten	Status
<b>Grains</b>	<b>5 ounce(s)</b>	<b>4½ ounce(s)</b>	<b>OK</b>
Whole Grains	≥ 2½ ounce(s)	½ ounce(s)	Under
Refined Grains	≤ 2½ ounce(s)	4 ounce(s)	Over
<b>Vegetables</b>	<b>1½ cup(s)</b>	<b>¾ cup(s)</b>	<b>Under</b>
Dark Green	1 cup(s)/week	0 cup(s)	Under
Red & Orange	3 cup(s)/week	¼ cup(s)	Under
Beans & Peas	½ cup(s)/week	0 cup(s)	Under
Starchy	3½ cup(s)/week	0 cup(s)	Under
Other	2½ cup(s)/week	½ cup(s)	Under
<b>Fruits</b>	<b>1½ cup(s)</b>	<b>2¼ cup(s)</b>	<b>Over</b>
Whole Fruit	No Specific Target	2¼ cup(s)	No Specific Target
Fruit Juice	No Specific Target	0 cup(s)	No Specific Target
<b>Dairy</b>	<b>2½ cup(s)</b>	<b>1½ cup(s)</b>	<b>Under</b>
Milk & Yogurt	No Specific Target	1½ cup(s)	No Specific Target
Cheese	No Specific Target	0 cup(s)	No Specific Target
<b>Protein Foods</b>	<b>4 ounce(s)</b>	<b>0 ounce(s)</b>	<b>Under</b>
Seafood	6 ounce(s)/week	0 ounce(s)	Under
Meat, Poultry & Eggs	No Specific Target	0 ounce(s)	No Specific Target
Nuts, Seeds & Soy	No Specific Target	0 ounce(s)	No Specific Target
<b>Oils</b>	<b>4 teaspoon</b>	<b>0 teaspoon</b>	<b>Under</b>
<b>Limits</b>	<b>Allowance</b>	<b>Average Eaten</b>	<b>Status</b>
<b>Total Calories</b>	<b>1400 Calories</b>	<b>971 Calories</b>	<b>OK</b>
<b>Empty Calories*</b>	<b>≤ 121 Calories</b>	<b>302 Calories</b>	<b>Over</b>
<b>Solid Fats</b>	<b>*</b>	<b>229 Calories</b>	<b>*</b>
<b>Added Sugars</b>	<b>*</b>	<b>73 Calories</b>	<b>*</b>

\*Calories from food components such as added sugars and solid fats that provide little nutritional value. Empty Calories are part of Total Calories.

**Note:** If you ate Beans & Peas and chose "Count as Protein Foods instead," they will be included in the Nuts, Seeds & Soy subgroup.

# Sophie's Nutrients Report 03/05/12 - 03/06/12

Your plan is based on a 1400 Calorie allowance for a preschooler.

Nutrients	Target	Average Eaten	Status
Total Calories	1400 Calories	971 Calories	OK
Protein (g) <sup>***</sup>	19 g	26 g	OK
Protein (% Calories) <sup>***</sup>	10 - 30% Calories	11% Calories	OK
Carbohydrate (g) <sup>***</sup>	130 g	149 g	OK
Carbohydrate (% Calories) <sup>***</sup>	45 - 65% Calories	61% Calories	OK
Dietary Fiber	25 g	11 g	Under
Total Fat	25 - 35% Calories	31% Calories	OK
Saturated Fat	< 10% Calories	15% Calories	Over
Monounsaturated Fat	No Daily Target or Limit	9% Calories	No Daily Target or Limit
Polyunsaturated Fat	No Daily Target or Limit	4% Calories	No Daily Target or Limit
Linoleic Acid (g) <sup>***</sup>	10 g	3 g	Under
Linoleic Acid (% Calories) <sup>***</sup>	5 - 10% Calories	3% Calories	Under
$\alpha$ -Linolenic Acid (g) <sup>***</sup>	0.9 g	0.6 g	Under
$\alpha$ -Linolenic Acid (% Calories) <sup>***</sup>	0.6 - 1.2% Calories	0.5% Calories	Under
Omega 3 - EPA	No Daily Target or Limit	0 mg	No Daily Target or Limit
Omega 3 - DHA	No Daily Target or Limit	2 mg	No Daily Target or Limit
Cholesterol	< 300 mg	95 mg	OK
Minerals	Target	Average Eaten	Status
Calcium	1000 mg	1786 mg	OK
Potassium	3800 mg	1422 mg	Under
Sodium <sup>**</sup>	< 2300 mg	913 mg	OK
Copper	440 $\mu$ g	599 $\mu$ g	OK
Iron	10 mg	10 mg	OK
Magnesium	130 mg	126 mg	Under
Phosphorus	500 mg	627 mg	OK
Selenium	30 $\mu$ g	44 $\mu$ g	OK
Zinc	5 mg	7 mg	OK
Vitamins	Target	Average Eaten	Status
Vitamin A	400 $\mu$ g RAE	639 $\mu$ g RAE	OK
Vitamin B6	0.6 mg	1.1 mg	OK
Vitamin B12	1.2 $\mu$ g	3.8 $\mu$ g	OK

Vitamin C	25 mg	38 mg	OK
Vitamin D	15 $\mu$ g	7 $\mu$ g	Under
Vitamin E	7 mg AT	2 mg AT	Under
Vitamin K	55 $\mu$ g	53 $\mu$ g	Under
Folate	200 $\mu$ g DFE	646 $\mu$ g DFE	Over
Thiamin	0.6 mg	1.3 mg	OK
Riboflavin	0.6 mg	1.7 mg	OK
Niacin	8 mg	11 mg	OK
Choline	250 mg	109 mg	Under

### Information about dietary supplements.

\*\* If you are African American, hypertensive, diabetic, or have chronic kidney disease, reduce your sodium to 1500 mg a day. In addition, people who are age 51 and older need to reduce sodium to 1500 mg a day. All others need to reduce sodium to less than 2300 mg a day.

\*\*\* Nutrients that appear twice (*protein, carbohydrate, linoleic acid, and  $\alpha$ -linolenic acid*) have two separate recommendations:

- 1) Amount eaten (in grams) compared to your minimum recommended intake.
- 2) Percent of Calories eaten from that nutrient compared to the recommended range.

You may see different messages in the status column for these 2 different recommendations.