

The breakfast recipe for each grade

1. Determination of dietary energy target for the sample children

(1) Energy requirement of children in junior class: group energy requirement target
 $= \sum \text{different (subgroup energy rni} \times \text{number of people/group)} \div \text{total number of people} = (1250 \times 423 + 1200 \times 342) \div 765 = 1227\text{kcal}$

(2) Energy requirement of children in middle class: 1300kcal

(3) Energy requirement of children in older classes: 1400kcal

2. Macronutrient dietary targeting for sample children

Proportion of macronutrients supplied to children: 14% protein, 30% fat, 56% carbohydrates

(1) Dietary protein intake target for junior class (g) = $1227\text{kcal} \times 14\% \div 4\text{kcal/g} = 43\text{g}$

Dietary fat intake target for junior class (g) = $1227\text{kcal} \times 30\% \div 9\text{kcal/g} = 41\text{g}$

Dietary carbohydrate intake target for junior class (g) = $1227\text{kcal} \times 56\% \div 4\text{kcal/g} = 172\text{g}$

(2) Dietary protein intake target for children in middle school (g) = $1300\text{kcal} \times 14\% \div 4\text{kcal/g} = 45.5\text{g}$

Dietary fat intake target for middle school children (g) = $1300\text{kcal} \times 30\% \div 9\text{kcal/g} = 43.3\text{g}$

Dietary Carbohydrate Intake Targets for Middle-aged Children (g) = $1300\text{kcal} \times 56\% \div 4\text{kcal/g} = 182\text{g}$

(3) Dietary protein intake target for senior children (g) = $1400\text{kcal} \times 14\% \div 4\text{kcal/g} = 49\text{g}$

Dietary fat intake target for senior children (g) = $1400\text{kcal} \times 30\% \div 9\text{kcal/g} = 46.7\text{g}$

Dietary carbohydrate intake target (g) = $1400\text{kcal} \times 56\% \div 4\text{kcal/g} = 196\text{g}$

3. Calculation of Reference Intake of Nutrients for Breakfast for Sample Children

Breakfast should account for 30% of total energy, so breakfast nutrient intake target:

(1) Junior Class of kindergarten:

$$\text{Energy (kcal)} = 1227\text{kcal} \times 30\% = 368\text{kcal}$$

$$\text{Protein intake (g)} = 43\text{g} \times 30\% = 12.9\text{g}$$

$$\text{Fat intake (g)} = 41\text{g} \times 30\% = 12.3\text{g}$$

$$\text{Carbohydrate intake (g)} = 172\text{g} \times 30\% = 51.6\text{g}$$

(2) Middle Class of kindergarten:

$$\text{Energy (kcal)} = 1300\text{kcal} \times 30\% = 390\text{kcal}$$

$$\text{Protein intake (g)} = 45.5\text{g} \times 30\% = 13.7\text{g}$$

$$\text{Fat intake (g)} = 43.3\text{g} \times 30\% = 13.0\text{g}$$

$$\text{Carbohydrate intake (g)} = 182\text{g} \times 30\% = 54.6\text{g}$$

(3) Senior Class of kindergarten:

$$\text{Energy (kcal)} = 1400\text{kcal} \times 30\% = 420\text{kcal}$$

$$\text{Protein intake (g)} = 49\text{g} \times 30\% = 14.7\text{g}$$

$$\text{Fat intake (g)} = 46.7\text{g} \times 30\% = 14.0\text{g}$$

$$\text{Carbohydrate intake (g)} = 196\text{g} \times 30\% = 58.8\text{g}$$

4. Two-week Recipes

According to the target intake of each nutrient, various types of food were determined in the order of staple food → side dishes → vegetables → oil and salt, and the recipes are prepared as follows:

Recipe 1:

[illegible]

Recipe 2*:

	Monday		Tuesday		Wednesday		Thursday		Friday	
	Dishes	Ingredients	Dishes	Ingredients	Dishes	Dishes	Ingredients	Dishes	Ingredients	Dishes
Breakfast	Hezhou Baozi	Tailared flour (grade one) 55g Kale 50g Lamb 10g Vegetable oil 4ml	Chicken Congee with Shiitake Mushroom	Shiitake mushroom 10g Chicken 10g Round-grained rice 15g	Carrot and Sesame Buns	Tailared flour (grade one) 45g Carrot 5g Sesame 5g	Beef Steamed Bun (Beef Soup)	Beef 30g Vermicelli 10g Seaweed 10g Cilantro 10g White radish 20g Vegetable oil 5ml	Pumpkin Porridge	Millet 25g Pumpkin 30g
	Milk	Milk 100ml	Red Bean Bun	Tailared flour (grade one) 30g Red bean paste 30g	Egg custard	Egg 33g Sesame oil 5ml	Steamed Buns	Tailared flour (grade one) 50g	Egg custard	Egg 33g Sesame oil 5ml
	Boiled egg	Egg 33g	Boiled quail eggs	Quail eggs 35g	Yogurt	Yogurt 90g	Yogurt	Yogurt 90g	Steamed Broccoli	Broccoli 50g Vegetable oil 3ml
			Walnut	Walnut kernel 10g	Apple	Apple 65g			Yogurt	Yogurt 90g
									Steamed Buns	Tailared flour (grade one) 50g

Note: Amount of ingredients prepared = amount of ingredients x total number of children in kindergarten.

5. Recipe illustrations

Monday



Vegetable Congee



Steamed Buns



Egg custard



Yogurt



Apple

Tuesday



Purple Potato Buns



Tomato Scrambled Eggs



Oatmeal Milk

Wednesday



Mutton Bun (Mutton Soup)



Steamed Buns

Thursday



Leek and Egg Buns



Milk



Large almonds

Friday



Mixed congee



Fried vegetable



Egg Mantou



Yogurt

Monday



Hezhou Baozi



Milk



Boiled egg

Tuesday



Chicken Congee with Shiitake Mushroom



Red Bean Bun



Boiled quail eggs



Walnut

Wednesday



Carrot and Sesame Buns



Egg custard



Yogurt



Apple

Thursday



Beef Steamed Bun (Beef Soup)



Steamed Buns



Yogurt

Friday



Pumpkin Porridge



Egg custard



Steamed Broccoli



Yogurt



Steamed Buns

6. Provision of local ingredients

6.1 Ingredients with high calcium content

Milk, shrimp skin, sesame paste, alfalfa, kelp, peanut kernels, nori, black fungus, etc.



6.2 Ingredients with high iron content

Buckwheat (with skin), black fungus (dried), nori (dried), animal liver, tofu skin, sesame paste, mushrooms (dried), blood products, and lentils.



6.3 Ingredients with high zinc content

Wheat germ flour, walnuts, lamb, beef, animal offal, eggs, beans, oats and peanuts.

