

BREAKFAST Meal Pattern



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Overview of Meal Pattern - Measurements

Ounce Equivalents



Grain
Meat/Meat
Alternate

Cups

Fruit
Vegetables
Milk



Basics at a Glance

Recipe Abbreviations

approx.	= approximate
tsp or t	= teaspoon
Tbsp or T	= tablespoon
c	= cup
pt	= pint
qt	= quart
gal	= gallon
wt	= weight
oz	= ounce
lb or #	= pound (e.g., 5#)
g	= gram
kg	= kilogram
vol	= volume
mL	= milliliter
L	= liter
fl oz	= fluid ounce
No. or #	= number (e.g., 2#)
in. or"	= inches (e.g., 12")
°F	= degree Fahrenheit
°C	= degree Celsius or centigrade

Volume Equivalents for Liquids

60 drops	= 1 tsp	
1 Tbsp	= 3 tsp	= 0.5 fl oz
1/8 cup	= 2 Tbsp	= 1 fl oz
1/4 cup	= 4 Tbsp	= 2 fl oz
1/3 cup	= 5 Tbsp + 1 tsp	= 2.65 fl oz
3/8 cup	= 6 Tbsp	= 3 fl oz
1/2 cup	= 8 Tbsp	= 4 fl oz
5/8 cup	= 10 Tbsp	= 5 fl oz
2/3 cup	= 10 Tbsp + 2 tsp	= 5.3 fl oz
3/4 cup	= 12 Tbsp	= 6 fl oz
7/8 cup	= 14 Tbsp	= 7 fl oz
1 cup	= 16 Tbsp	= 8 fl oz
1/2 pint	= 1 cup	= 8 fl oz
1 pint	= 2 cups	= 16 fl oz
1 quart	= 2 pt	= 32 fl oz
1 gallon	= 4 qt	= 128 fl oz

Equivalent Weights

16 oz	= 1 lb	= 1,000 lb
12 oz	= 3/4 lb	= 0.750 lb
8 oz	= 1/2 lb	= 0.500 lb
4 oz	= 1/4 lb	= 0.250 lb
1 oz	= 1/16 lb	= 0.0625 lb

Fraction to Decimal Equivalents

1/8	= 0.125
1/4	= 0.250
1/3	= 0.333
3/8	= 0.375
1/2	= 0.500
5/8	= 0.625
2/3	= 0.666
3/4	= 0.750
7/8	= 0.875

Metric Equivalents by Weight

Customary Unit (avoirdupois)	Metric Unit
Ounces (oz)	Grams (g)
1 oz	= 28.35 g
4 oz	= 113.4 g
8 oz	= 226.9 g
16 oz	= 453.6 g
Pounds (lb)	Grams (g)
1 lb	= 453.6 g
2 lb	= 907.2 g
Pounds (lb)	Kilograms (kg)
2.2 lb	= 1 kg (1,000 g)

Metric Equivalents by Volume

Customary Unit (fl oz)	Metric Unit
1 cup (8 fl oz)	= 236.59 mL
1 quart (32 fl oz)	= 946.36 mL
1.5 quarts (48 fl oz)	= 1.42 L
33.8 fl oz	= 1.0 L



This poster has been developed by the Institute of Child Nutrition, a unit of the National Institute of Child Health and Human Development (NICHD), part of the National Institutes of Health (NIH). It is intended to provide a quick reference for common conversions between customary and metric units. It is not intended to be used as a substitute for a more complete reference source. For more information, please contact helpdesk@theicn.org.

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Scoops (Dishers)

Size (in.)	Level Measure	Color Code
6	2/3 cup	
8	1/2 cup	
10	3/8 cup	
12	1/3 cup	
16	1/4 cup	
20	3/10 Tbsp	
24	2/10 Tbsp	
30	2 Tbsp	
40	1-2/10 Tbsp	
50	3-3/4 tsp	
60	3-1/4 tsp	
70	3-3/4 tsp	
100	2 Tbsp	

*Scoops are flat or right-hand or non-hand type that can be used for both hands. Number on the scoop indicates how many level scoops make one cup. For example, 1/2 cup = 2 scoops = 1 level.

*Use colored dot marking the level-specific color-coded scoop size.

Ladles

Capacity	Approx. Measure	Volume (fl oz)
1 fl oz	1/8 cup	1 oz
2 oz	1/4 cup	2 oz
3 oz	3/8 cup	3 oz
4 oz	1/2 cup	4 oz
6 oz	3/4 cup	6 oz
8 oz	1 cup	8 oz

Ladles and portion servers (measuring spoons) that are volume-measuring devices are labeled "oz." "fl oz." would be more accurate since they measure volume, not weight.

Use ladles for serving soups, stews, creamed dishes, sauces, gravies, and other liquid products.

Use portion servers (ladles or perforated) for portioning solids and semi-solids such as fruits and vegetables, and condiments.

Cooking or Serving Spoons



Spoons are in length (11", 10", 10", 10", 10", 10") for ease of use in cooking or serving. Spoons can have plastic handles that are heat-resistant. Level scoops, ladles, and portion servers provide more accurate portion control than serving spoons that are not volume-standardized measure.

Specialty Spoons



A hand notch on a server or spoon handle prevents the spoon from slipping into the pan and prevents leakage from sliding into the food. Tripe-edge (ladle or perforated) spoons have a flat edge that measures the area where the spoon touches the bottom of the pan when stirring.

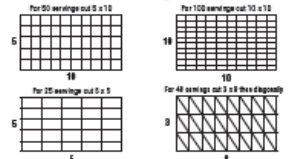
Streamtable Pan Capacity

Pan Size	Approx. Capacity	Serving Size	Ladle (fl oz)	Scoop #	Approx. # Servings
12" x 20" x 2-1/2"	2 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	64 80 96 128
12" x 20" x 4"	3-1/2 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	112 135 168 224
12" x 20" x 6"	5 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	160 200 240 320

Approximate Dimensions of Serving Sizes from Different Pan Sizes

Pan	Approx. Size	No. and Approx. Size Servings per Pan
Roasting or aluminum sheet or bun	12" x 20" x 2-1/2"	25 2" x 5-1/2"
	12" x 20" x 4"	3-1/4" x 5"
	12" x 20" x 6"	3-1/4" x 5-1/2"

Cutting Diagrams for Portioning



Other Pan Sizes



Overview of Meal Pattern - Measurements

Scoops (Dishers)



Size/No. ¹	Level Measure	Color Code ²
6	2/3 cup	
8	1/2 cup	
10	3/8 cup	
12	1/3 cup	
16	1/4 cup	
20	3-1/3 Tbsp	
24	2-2/3 Tbsp	
30	2 Tbsp	
40	1-2/3 Tbsp	
50	3-3/4 tsp	
60	3-1/4 tsp	
70	2-3/4 tsp	
100	2 tsp	

Ladles Portion Servers



Ladle fl oz	Approx. Measure	Portion Server fl oz
1 oz	1/8 cup	1 oz
2 oz	1/4 cup	2 oz
3 oz	3/8 cup	3 oz
4 oz	1/2 cup	4 oz
6 oz	3/4 cup	6 oz
8 oz	1 cup	8 oz
12 oz	1-1/2 cups	—

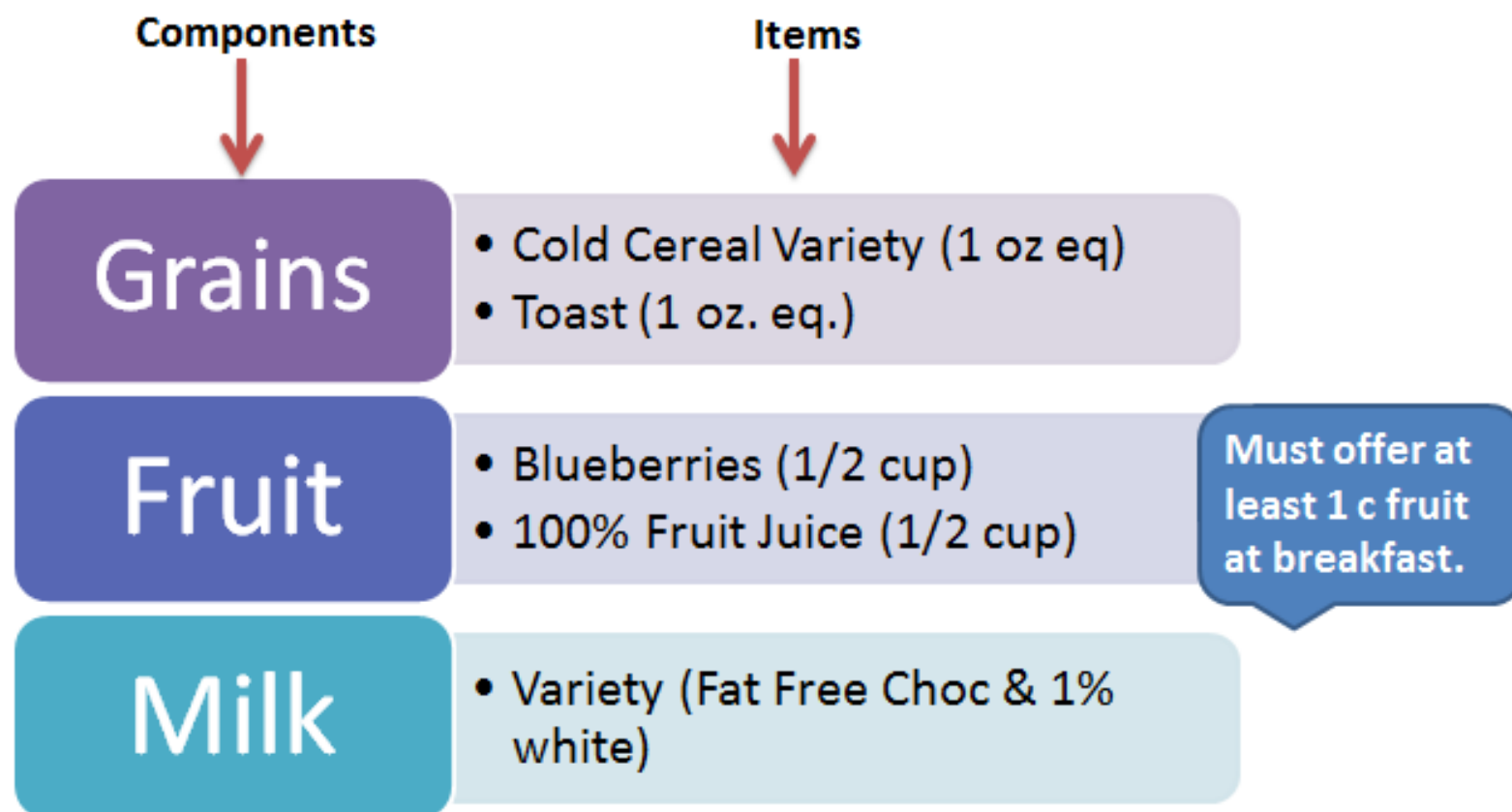
Daily Breakfast Meal Pattern

Component	Amount
Milk	1 cup
Fruit	1 cup
Grain	At least 1 oz eq

Weekly Breakfast Meal Pattern

Component	Grades K-5	Grades 6-8	Grades 9-12	Grades K-12
Grains	7 oz eq	8 oz eq	9 oz eq	9 oz eq
Fruit	5 cups	5 cups	5 cups	5 cups
Milk	5 cups	5 cups	5 cups	5 cups

Components vs. Items



Reimbursable meals under OVS must have 3 items; one item must be at least ½ cup fruit

Dietary Standards: Calories

Grade Group	Breakfast Calories
K-5	350-500
6-8	400-550
9-12	450-600
K-12	450-500



Breakfast Calorie Daily/Weekly

- On average, over the course of a **5 day week**
- Fall within the **minimum** and **maximum** levels for each age/grade group
- Overlap between the age/grade groups



Grains at Breakfast

Grains Component	Grades K-5	Grades 6-8	Grades 9-12	Grades K-12
Daily	1 oz eq	1 oz eq	1 oz eq	1 oz eq
Weekly	7 oz eq	8 oz eq	9 oz eq	9 oz eq



Grains at Breakfast

- Offer the daily and weekly serving ranges of grains at breakfast
 - 100% whole grain-rich
 - Weekly grain ranges allow daily flexibility
- May use meats/meat alternates as substitute for grains once daily minimum is met



Meats/Meat Alternates for Grain Substitutes

- Menu must provide at least 1 oz eq of grains daily
- The menu planner *may* offer meats/meat alternates at breakfast and substitute it for part of the weekly grains component
- When *used as a grain substitute*, the meats/meat alternates counts toward the weekly grains range *and* the dietary specifications



M/MA as “Extras” at Breakfast

- Must provide at least the minimum daily grain as part of the meal
- No requirement to offer M/MA
- M/MA as “extras” provide additional flexibility for menu planning
 - Not creditable as grains component
 - Not counted for OVS purposes
- Not a required component, so no weekly maximum for “extras”
- Include “extras” in the nutrient analysis and dietary specifications



Fruit at Breakfast

Fruit Component	Grades K-5	Grades 6-8	Grades 9-12	Grades K-12
Daily	1 cup	1 cup	1 cup	1 cup
Weekly	5 cup	5 cup	5 cup	5 cup



Fruit requirements

- May offer a single fruit type or a combination
- Vegetables may be served in place of fruits with subgroup restrictions
- Vegetables may be offered as “extras” and not counted as a component
- 100% juice allowed with 50% limitation



Fruit requirements

- Menu planners decide how to offer 1 cup of fruit at breakfast:
 - Single 1 cup serving (1 item)
 - Two ½ cup servings (2 items)



Juice requirements

- Juice limit applies weekly
- May credit for up to half of fruit
- Must be 100% full-strength



Fluid Milk Weekly Requirements

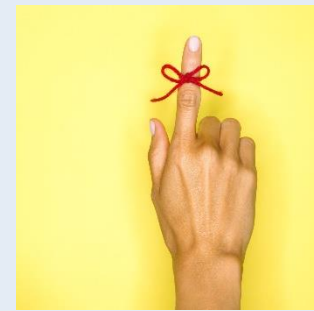
Food Components	Grade K - 5	Grade 6 – 8	Grade 9 - 12
Milk	5 cups/week (1 cup daily)	5 cups/week (1 cup daily)	5 cups/week (1 cup daily)

- At least two milk choices must be offered daily
- Both choices can be fat-free
- Both choices can be unflavored
- Offer Versus Serve-student is not need to select this component



Important Take Away Messages....

- Fruit component offering is 1 cup daily
- No more than half of the fruit may be 100% juice
- Vegetables substituted for fruits with restrictions
- All grains whole grain-rich
- Sodium restrictions apply
- For OVS, students must select ½ cup fruit or vegetable.



School Breakfast Program

**Offer Versus Serve
All Grade Levels**

Component vs Item

Component:

- One of three food groups that comprise reimbursable breakfast
 - Grains (with optional meat/meat alternate allowed)
 - Fruit/Vegetable
 - Milk

Component vs Item

Item:

- A specific food offered within the three food components

For the purposes of OVS Breakfast

- *schools must offer at least 4 food items*
- *students must select 3 food items*

Component=

the food group an *item* represents

Minimum Required Breakfast Components:

Grain 1 oz eq

Fruit/Vegetable 1 cup

Milk 1 cup

Optional:

Meat/Meat alternate 1 oz = 1 oz eq Grain*

*Grain item must be offered prior to all meat/meat alt for them to count as a grains option.

Item=

1 item food:

1 cup milk

1 cup apple juice

4 oz yogurt

1 oz cold cereal

1 oz cheese stick

1 cup peaches

2 item food:

Biscuit 2 oz eq

Waffle 2 oz eq

2 Slices French Toast

Bagel 2 oz

1 Large Egg

Component=

the food group an *item* represents

Many items provide a single component:

1 cup milk (milk)

1 oz eq cereal (grains)

1 cup peaches (fruit)

Optional:

1 oz cheese stick (optional grains equivalent)

4 oz yogurt (optional grains equivalent)

Component=

the food group an *item* represents

Components may credit as 1 or 2 Items:

- Waffle 2 oz eq (1 or 2 grains)
- 1 cup mixed berries (1 or 2 fruit)
- Muffin 2 oz eq (1 or 2 grains)

Combination of Components=

the food group *items* represents

Optional :

– Biscuit and sausage sandwich

- 1 grain and 1 meat/meat alt* = 2 grain items

– Yogurt and berry parfait

- 1 meat alt and fruit = 1 grain eq* and 1 fruit

– Pancake wrapped sausage on a stick

- 1 grain and 1 meat/meat alt* = 2 grain items

*Grain item must be offered prior to all meat/meat alt for them to count as a grains option.

Item vs Component

1 cup milk = 1 item and 1 component

1 oz eq cereal = 1 item and 1 component (grains)

Biscuit/ Sausage sandwich = 2 items same 1 component 1 grains and 1
meat/meat alternate* (optional grains)

Yogurt- fruit parfait= 2 items and 2 different components 1 meat/meat
alternate* (optional grains) and 1 fruit

*Grain item must be offered prior to all meat/meat alt for them to count as a grains option.

Optional All Grade Levels

Offer vs. Serve **optional** all grades levels

Four items must be **offered**:

1. Grain minimum 1 oz. eq.
2. Fruit/Vegetables 1 cup
3. Fluid Milk 1cup
4. Planners choice of: grain, fruit, vegetable, or meat or meat alternate

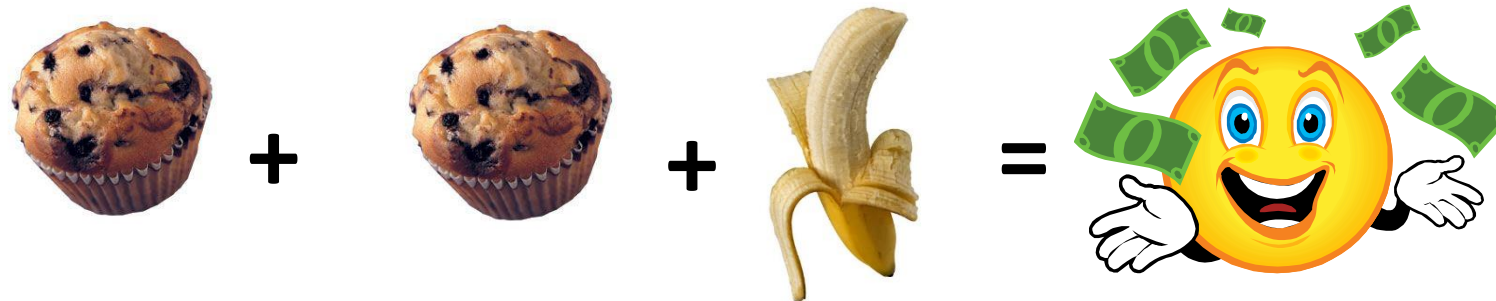
Counting/Crediting Items

Menu planner may choose to allow students to select 2 of the same grain or meat/meat alternate items and count them as 2 food items.

Example:

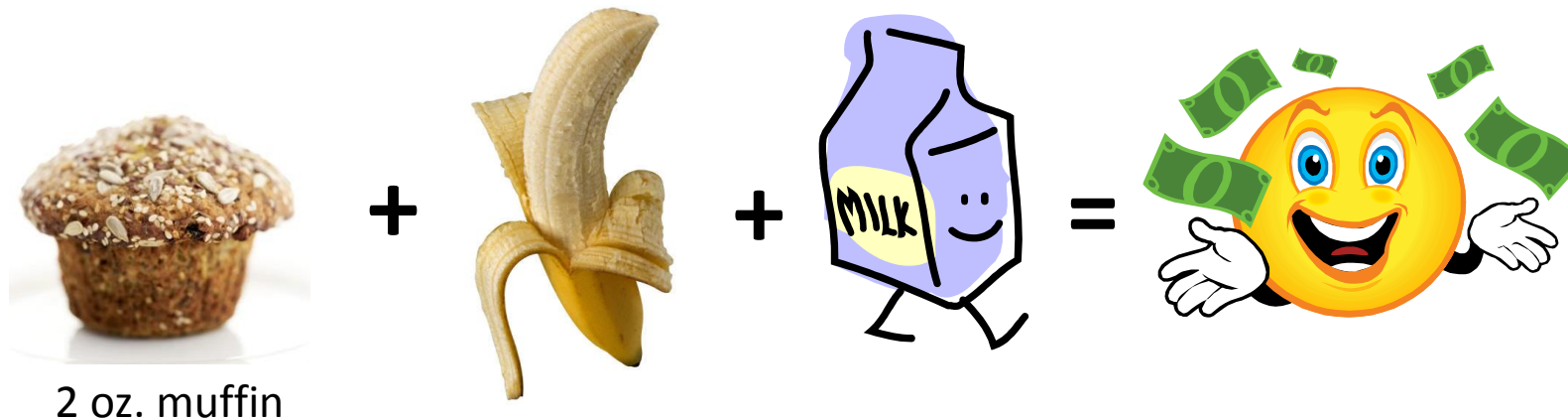
Student selects two 1 oz eq muffins = 2 grain items

plus one fruit item must be selected for meal to be reimbursable



Counting/Crediting Items

Menu planner may choose to consider a 2 oz. grain eq. as *1 item* so the student must then select 2 more items for the meal to become reimbursable.



All Grade Levels

Reimbursable Meal must contain:

- Three items at a minimum:

Decline options:

- Only one of the four items offered may be denied, even if more than four items are offered.
- **Fruit:**
- Minimum required ½ cup serving taken

Planning Breakfast Menu

Breakfast menu planner keep in mind:

- **Item count = 4**
- **Components = 3**
- **Meat/meal alternate**
 - **Offered in same menu with a grain may be credited a grain item**
 - **“Additional” do no count as grains but must be included in dietary specifications**

Yes..... or..... No?

Looking at the following meals a student selects, would these meals be a reimbursable meal under offer vs serve?

Why? Or Why not?

Fruit

$\frac{1}{2}$ cup

Grain

1-2 oz.

Milk

8 oz.

K-12 Grade Menu

Vegetable

$\frac{1}{2}$ cup

**NOT
required**

1oz.

**NOT
required**

**Meat/
Meat
Alternate**

Fruit

½ cup

Grain

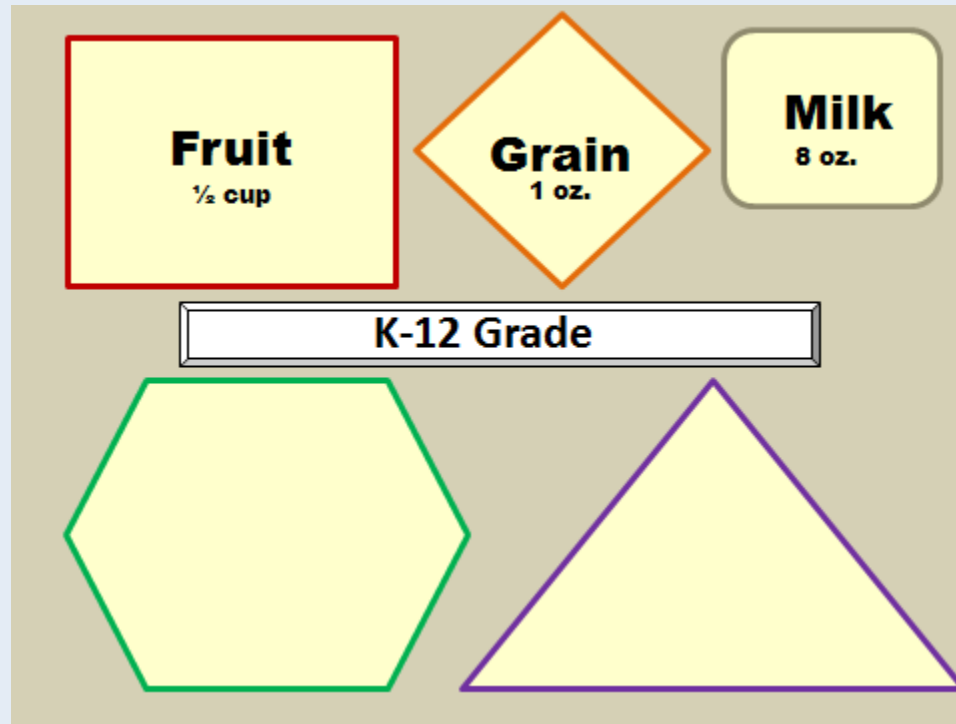
1 oz.

Milk

8 oz.

K-12 Grade Selection

yes



Student selected:

3 full items/components:

- Fruit
- Grain
- Milk

Fruit

$\frac{1}{2}$ cup

Grain

1-2 oz.

Milk

8 oz.

K-12 Grade Menu

Vegetable

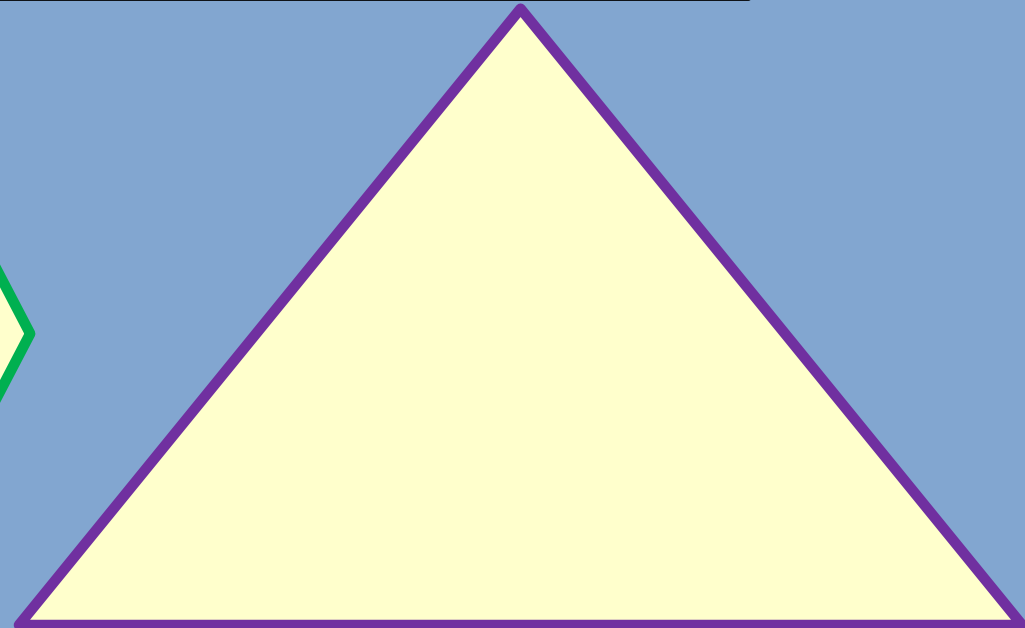
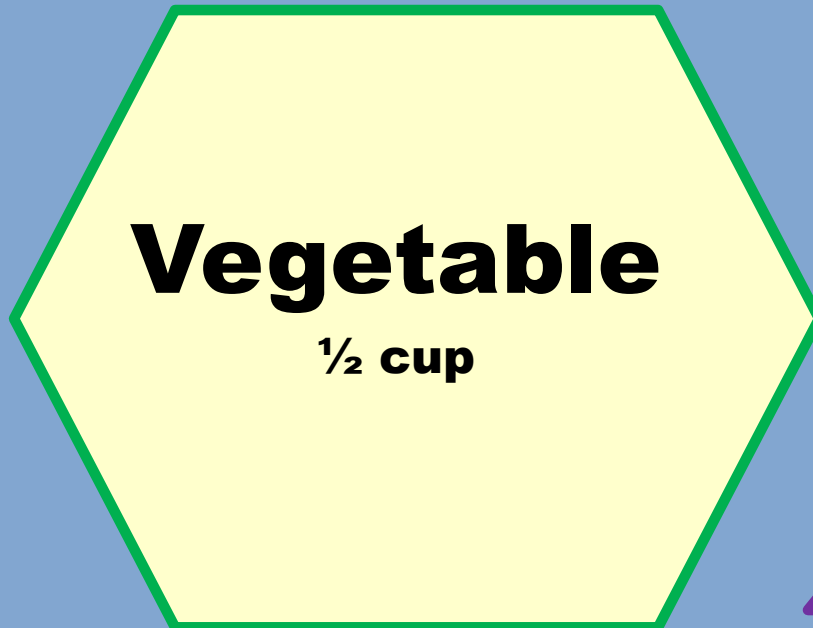
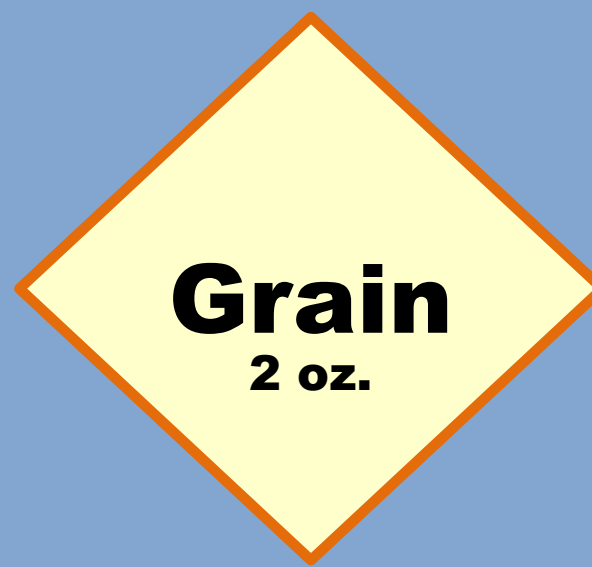
$\frac{1}{2}$ cup

**NOT
required**

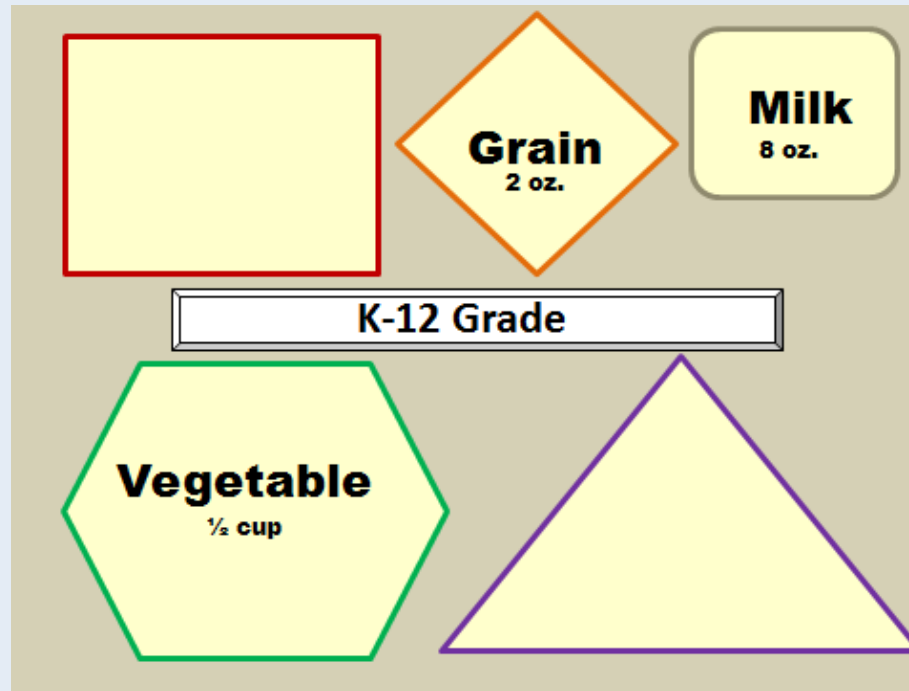
1oz.

**NOT
required**

**Meat/
Meat
Alternate**



yes



Student selected:

3 items:

- Vegetable
- Grain
- Milk

Fruit

$\frac{1}{2}$ cup

Grain

1-2 oz.

Milk

8 oz.

K-12 Grade Menu

Vegetable

$\frac{1}{2}$ cup

**NOT
required**

1oz.

**NOT
required**

**Meat/
Meat
Alternate**

Fruit

$\frac{1}{2}$ cup

Milk

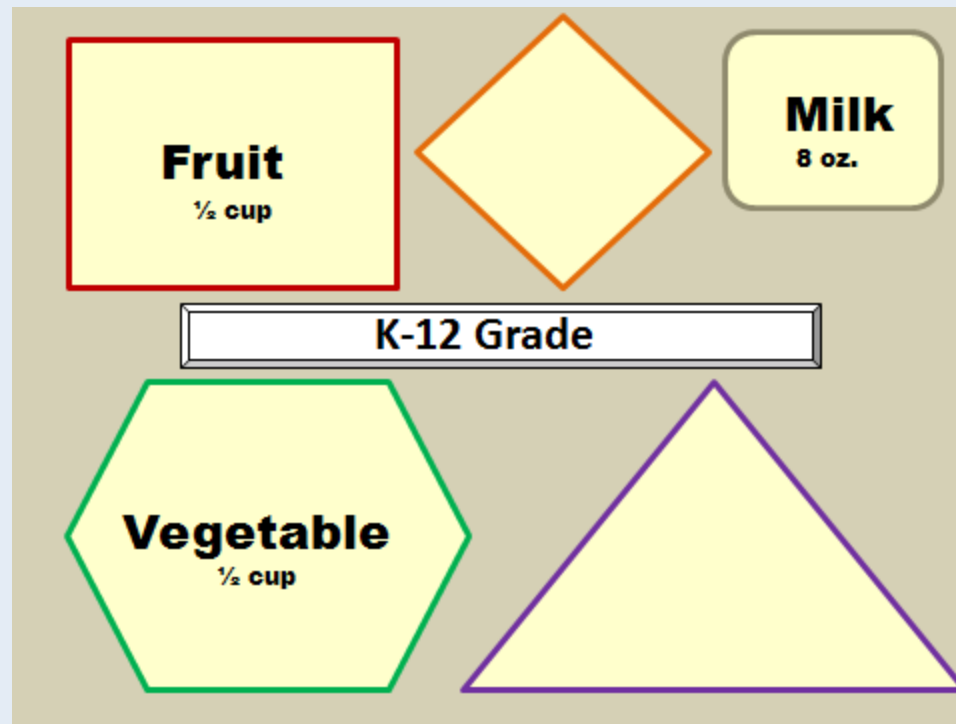
8 oz.

K-12 Grade Selection

Vegetable

$\frac{1}{2}$ cup

yes



Student selected:

3 items:

- Fruit
- Vegetable
- Milk

Fruit

$\frac{1}{2}$ cup

Grain

1-2 oz.

Milk

8 oz.

K-12 Grade Menu

Vegetable

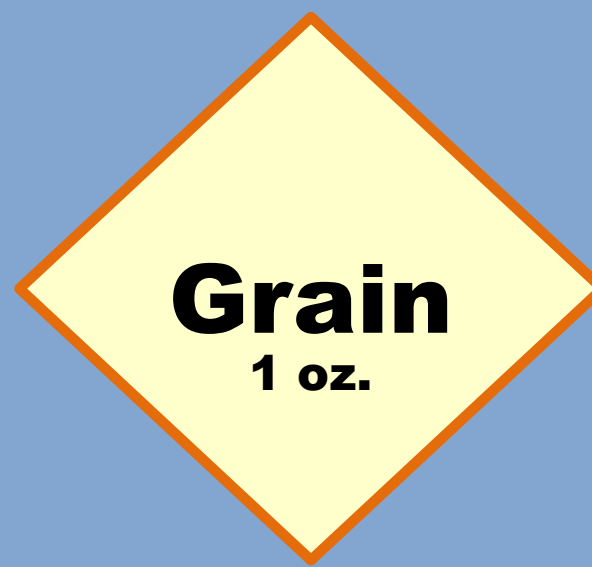
$\frac{1}{2}$ cup

**NOT
required**

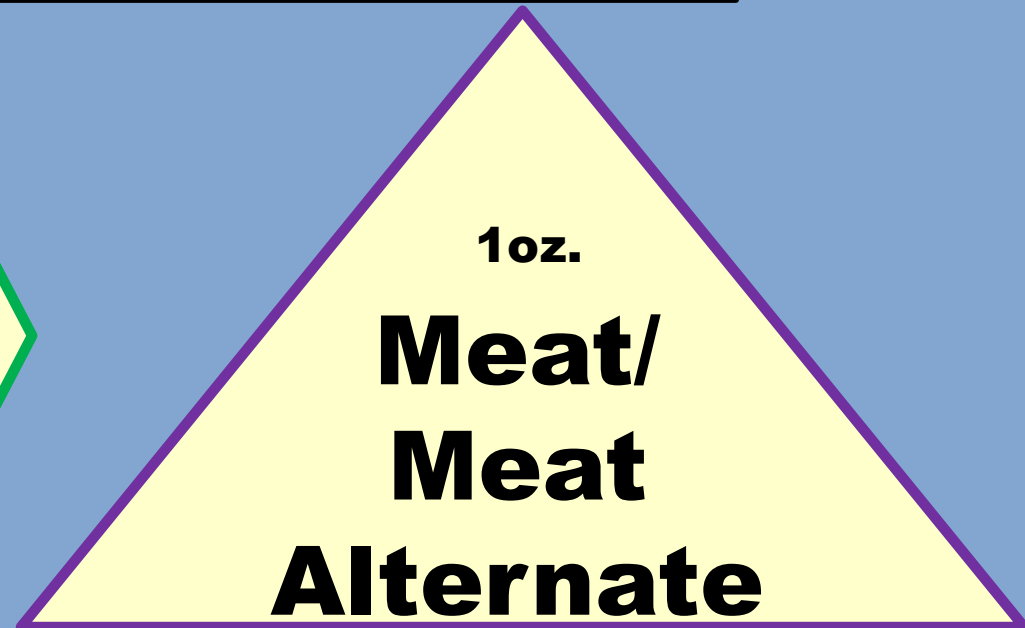
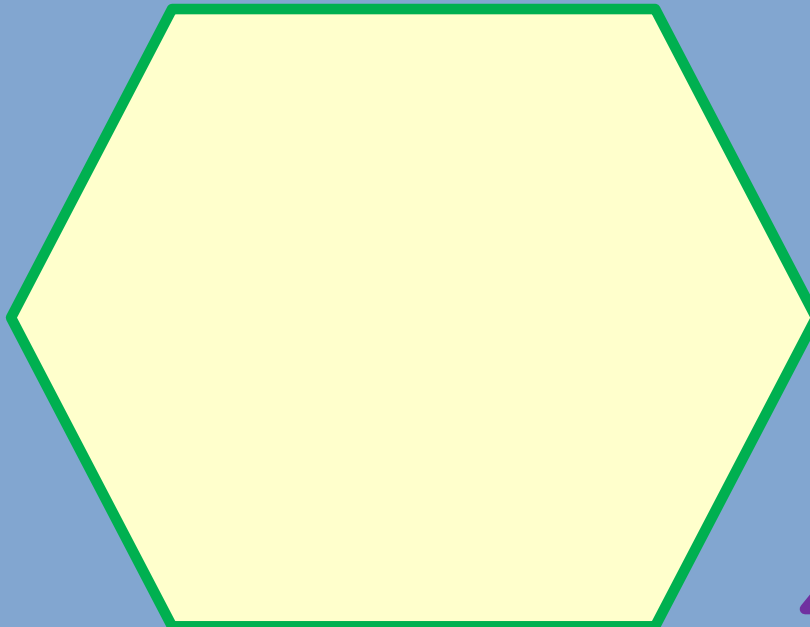
1oz.

**NOT
required**

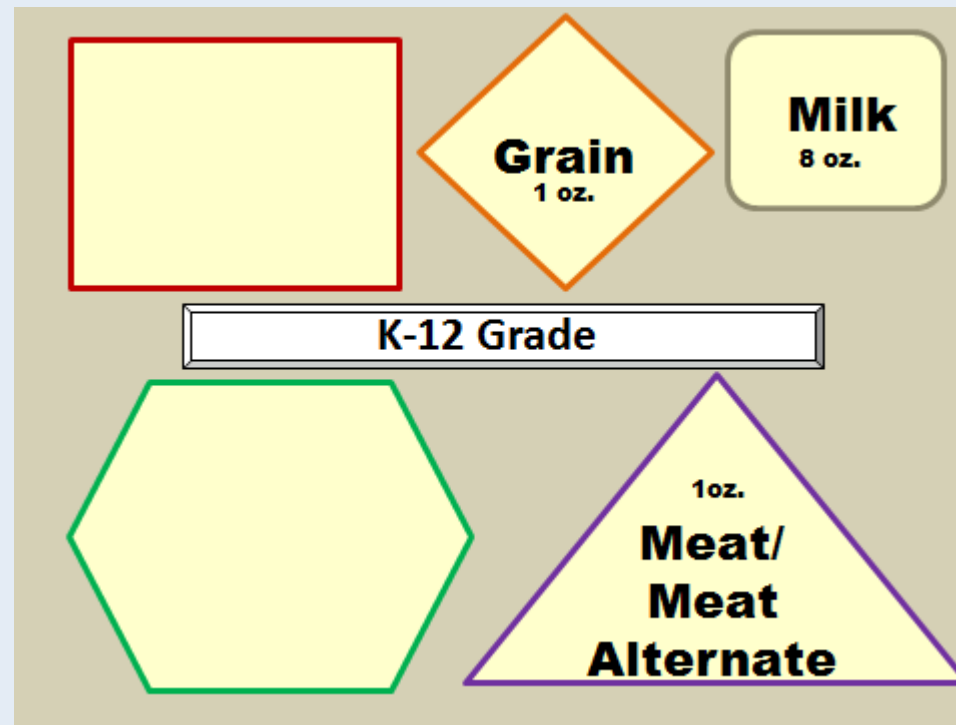
**Meat/
Meat
Alternate**



K-12 Grade Selection



NO



Student selected:

3 items: **a minimum of ½ cup fruit must be taken**

- Milk
- Grain
- Meat/Meat Alternate = 1 oz grain eq

Fruit

$\frac{1}{2}$ cup

Grain

1-2 oz.

Milk

8 oz.

K-12 Grade Menu

Vegetable

$\frac{1}{2}$ cup

**NOT
required**

1oz.

**NOT
required**

**Meat/
Meat
Alternate**

Fruit

$\frac{1}{2}$ cup

K-12 Grade Selection

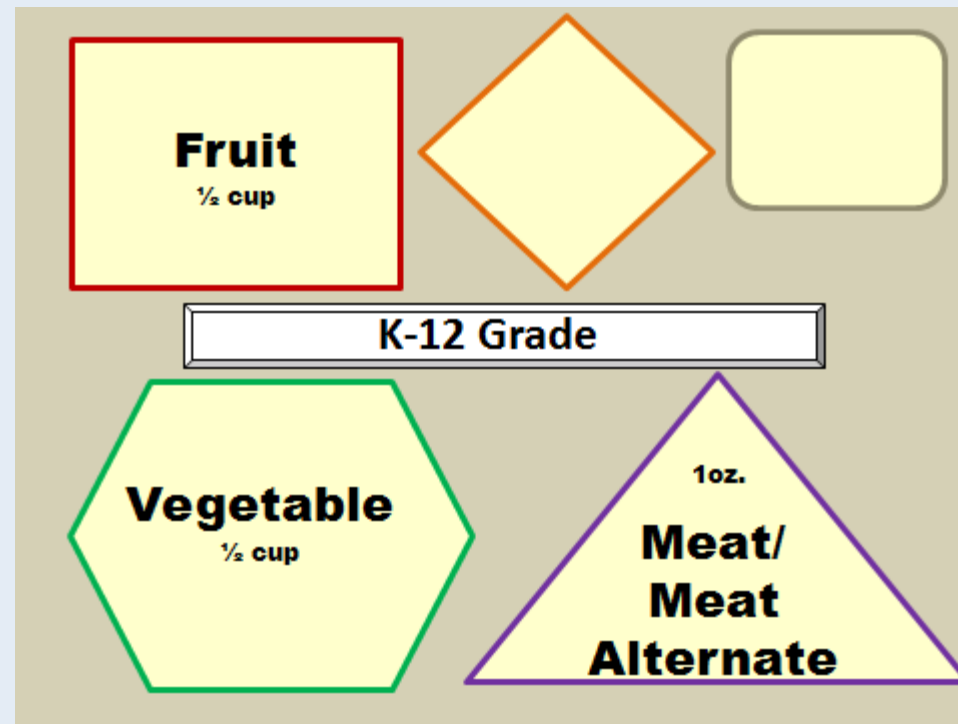
Vegetable

$\frac{1}{2}$ cup

1oz.

**Meat/
Meat
Alternate**

Yes



Student selected:

3 items:

- Fruit
- Vegetable
- Meat/Meat Alternate

Fruit

$\frac{1}{2}$ cup

Grain

1-2 oz.

Milk

8 oz.

K-12 Grade Menu

Vegetable

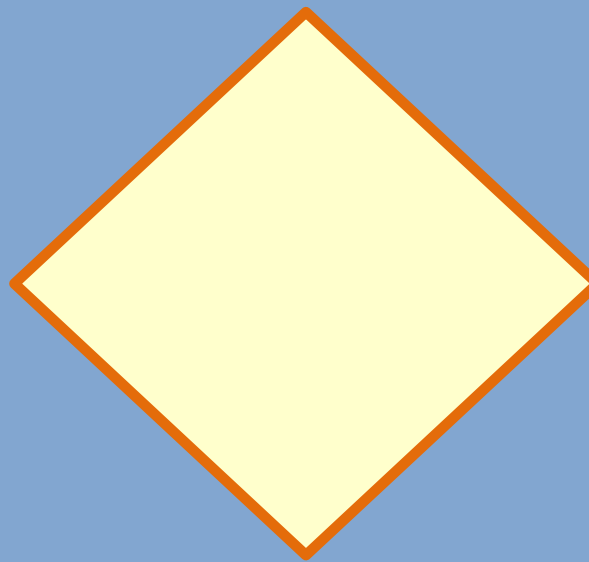
$\frac{1}{2}$ cup

**NOT
required**

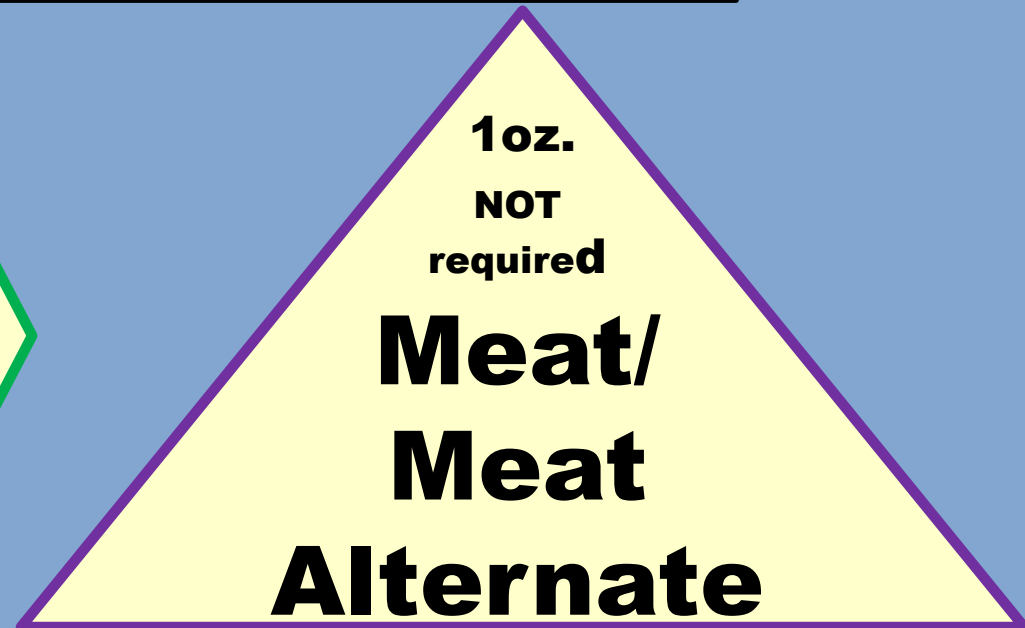
1oz.

**NOT
required**

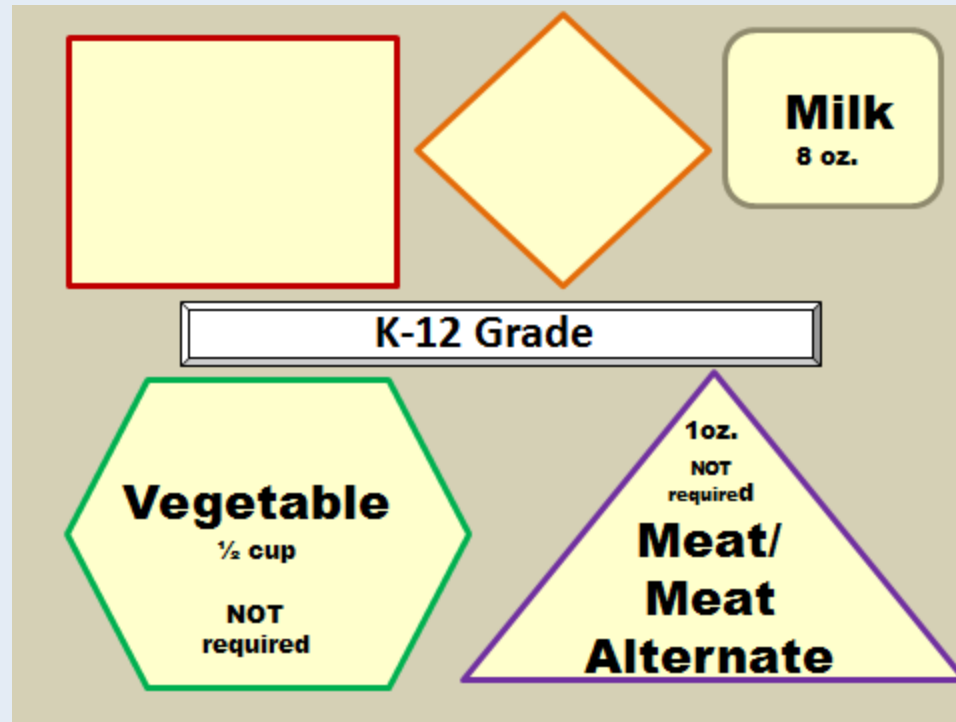
**Meat/
Meat
Alternate**



K-12 Grade Selection



Yes



Student selected:

3 full items:

- Milk
- Vegetable
- Meat/Meat Alternate

Fruit

$\frac{1}{2}$ cup

Grain

1-2 oz.

Milk

8 oz.

K-12 Grade Menu

Vegetable

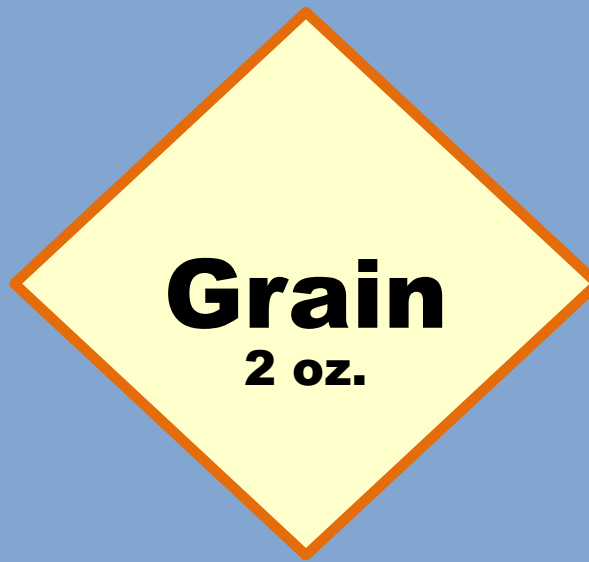
$\frac{1}{2}$ cup

**NOT
required**

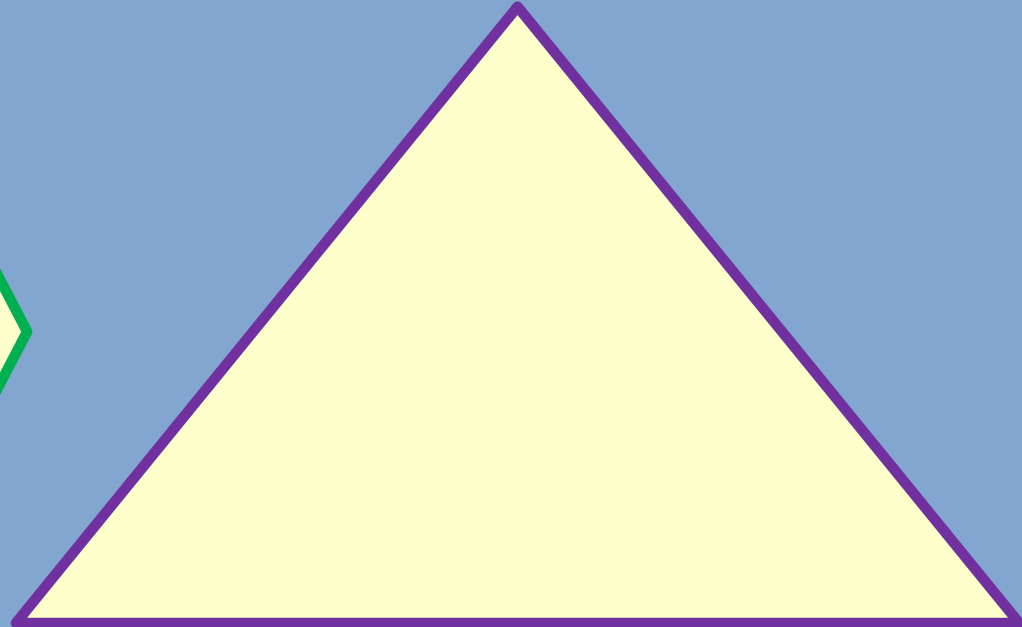
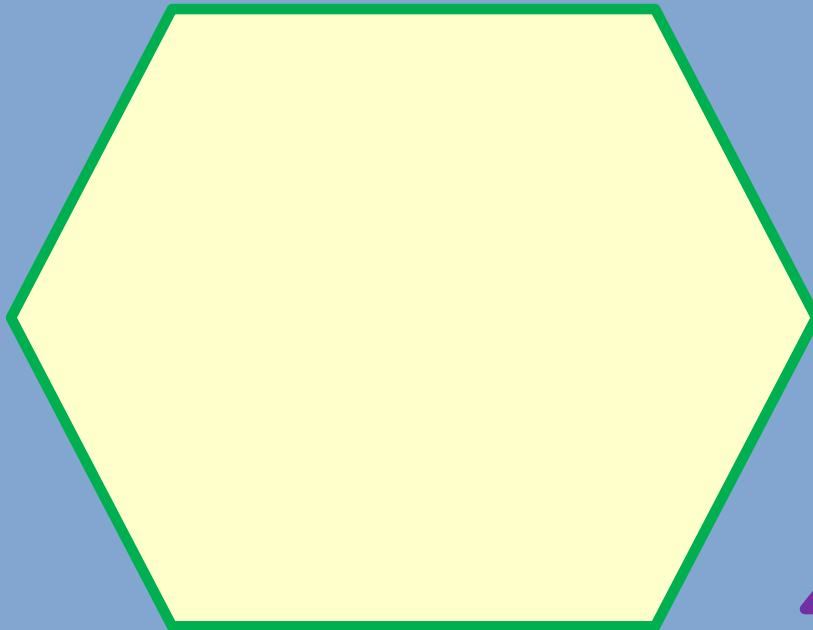
1oz.

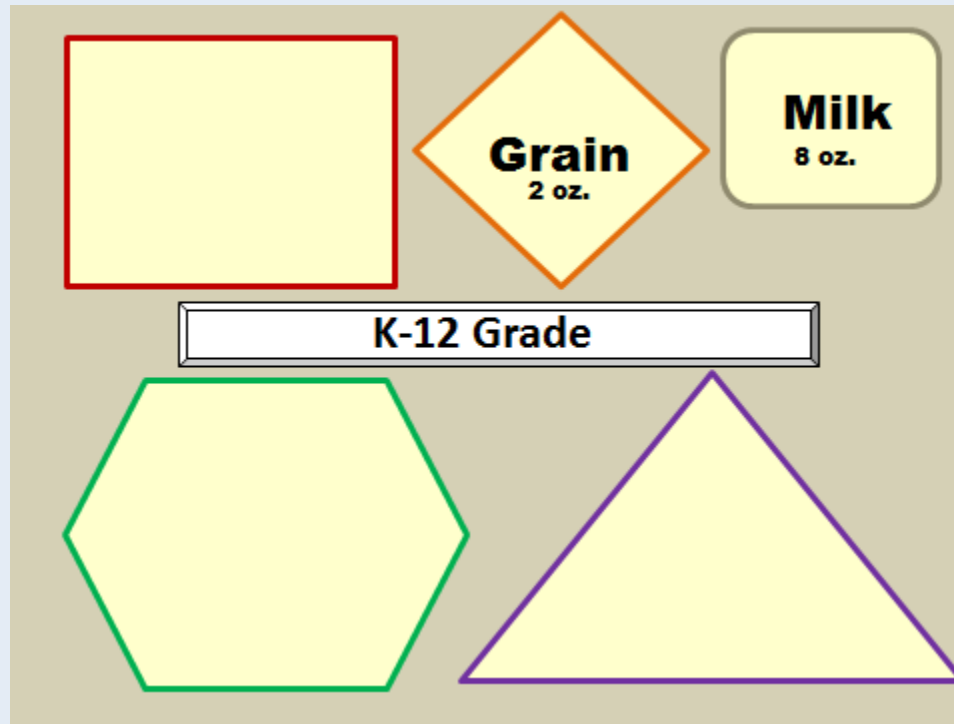
**NOT
required**

**Meat/
Meat
Alternate**



K-12 Grade Selection





No

Student selected:

3 items: $\frac{1}{2}$ cup fruit must be taken

- Grain (1st)
- Grain (2nd)
- Milk

Fruit

$\frac{1}{2}$ cup

Grain

1-2 oz.

Milk

8 oz.

K-12 Grade Menu

Vegetable

$\frac{1}{2}$ cup

**NOT
required**

1oz.

**NOT
required**

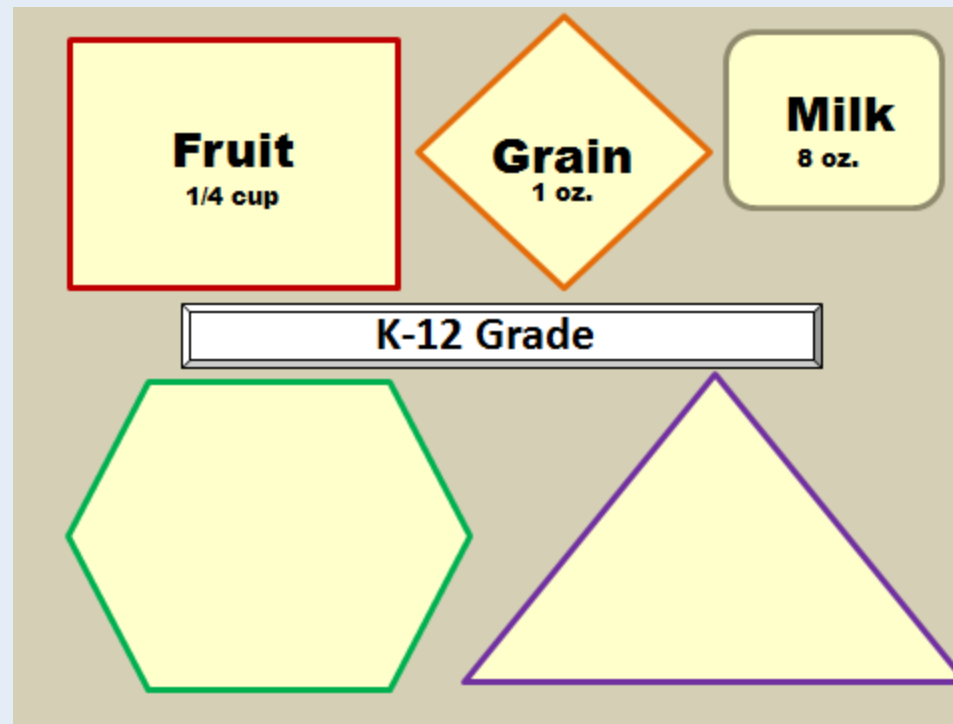
**Meat/
Meat
Alternate**

Fruit
1/4 cup

Grain
1 oz.

Milk
8 oz.

K-12 Grade Selection



No

- **Student selected:**
- 2 full components but no fruit too small portion:
- Grain
- Milk
- $\frac{1}{4}$ c fruit: $\frac{1}{2}$ cup fruit must be taken

Fruit

$\frac{1}{2}$ cup

Grain

1-2 oz.

Milk

8 oz.

K-12 Grade Menu

Vegetable

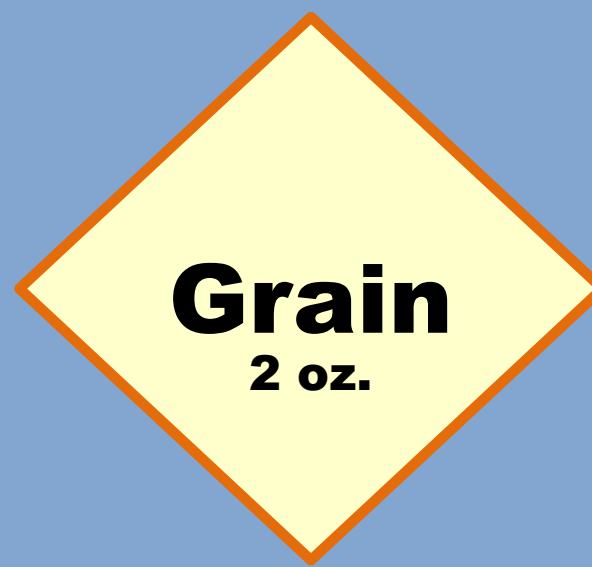
$\frac{1}{2}$ cup

**NOT
required**

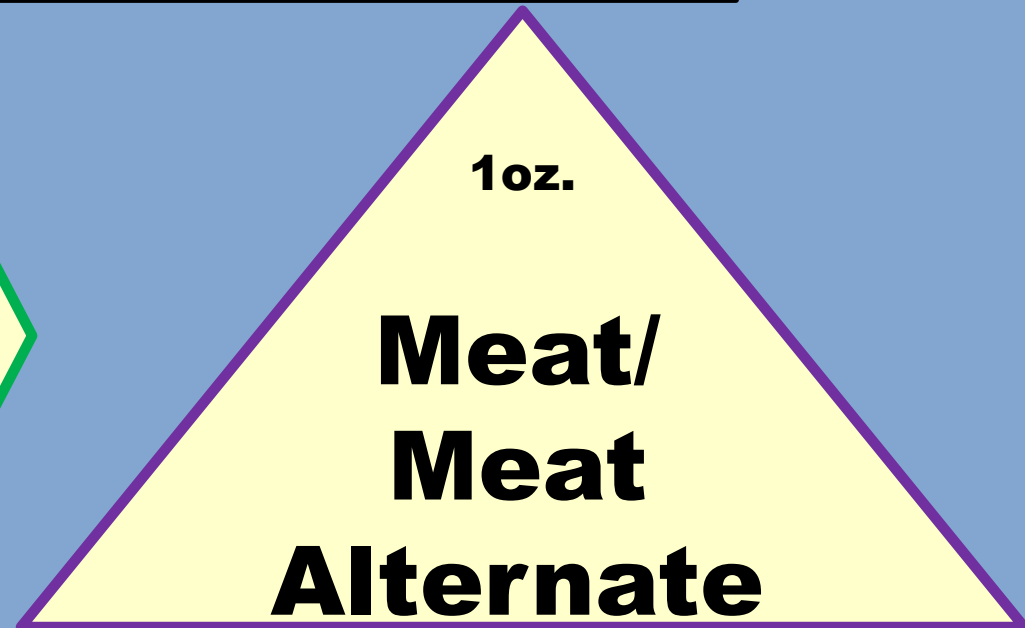
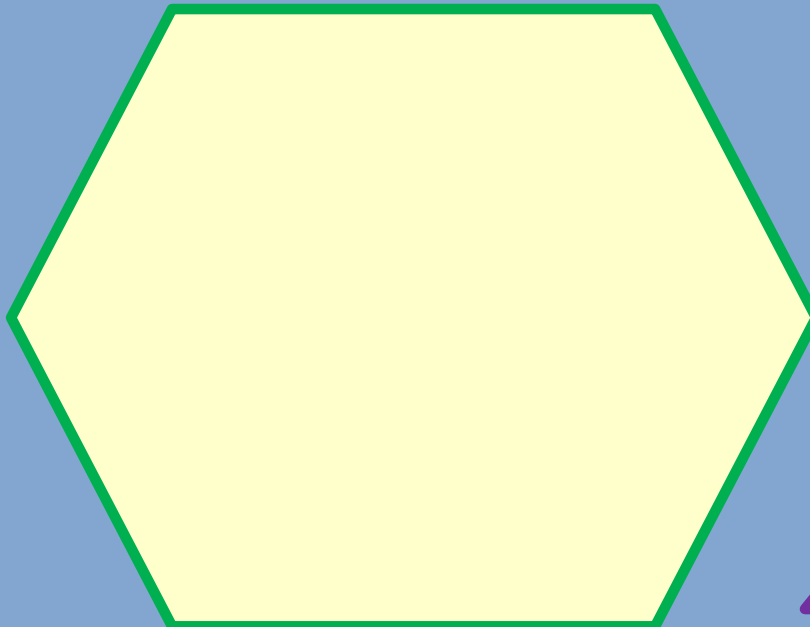
1oz.

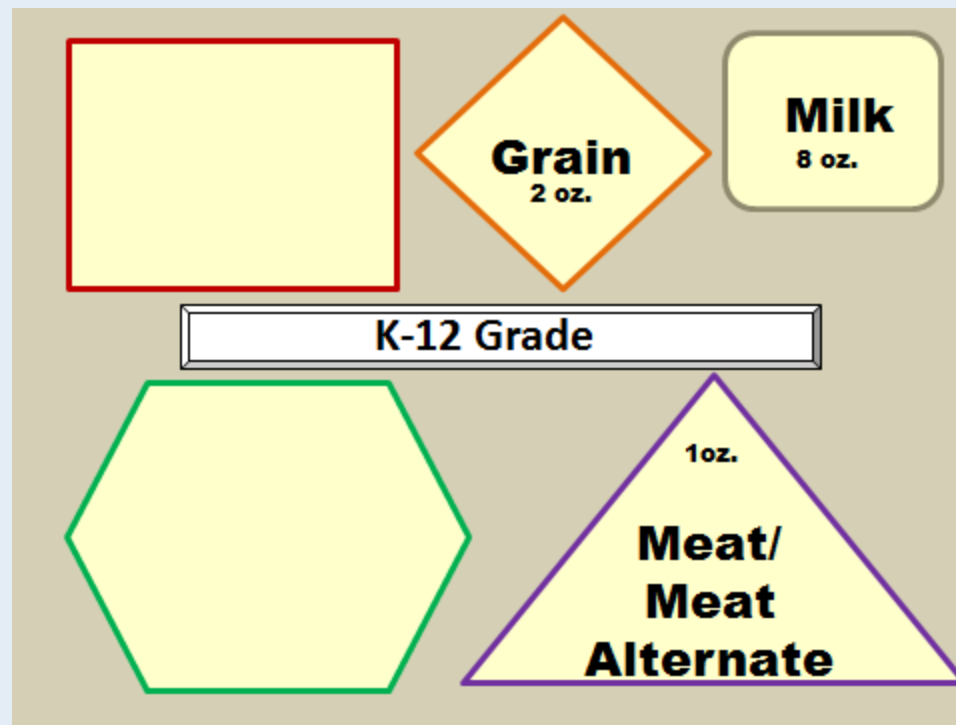
**NOT
required**

**Meat/
Meat
Alternate**



K-12 Grade Selection





No

- **Student selected:**
- 3 full component: $\frac{1}{2}$ cup fruit must be taken
- Grain (1)
- Grain (2)
- Milk
- Meat/Meat Alternate (optional additional item)

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1. Mail: U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410;

2. Fax: (202) 690-7442; or

3. Email: program.intake@usda.gov.

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Nutrition and Wellness Programs

Illinois State Board of Education

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