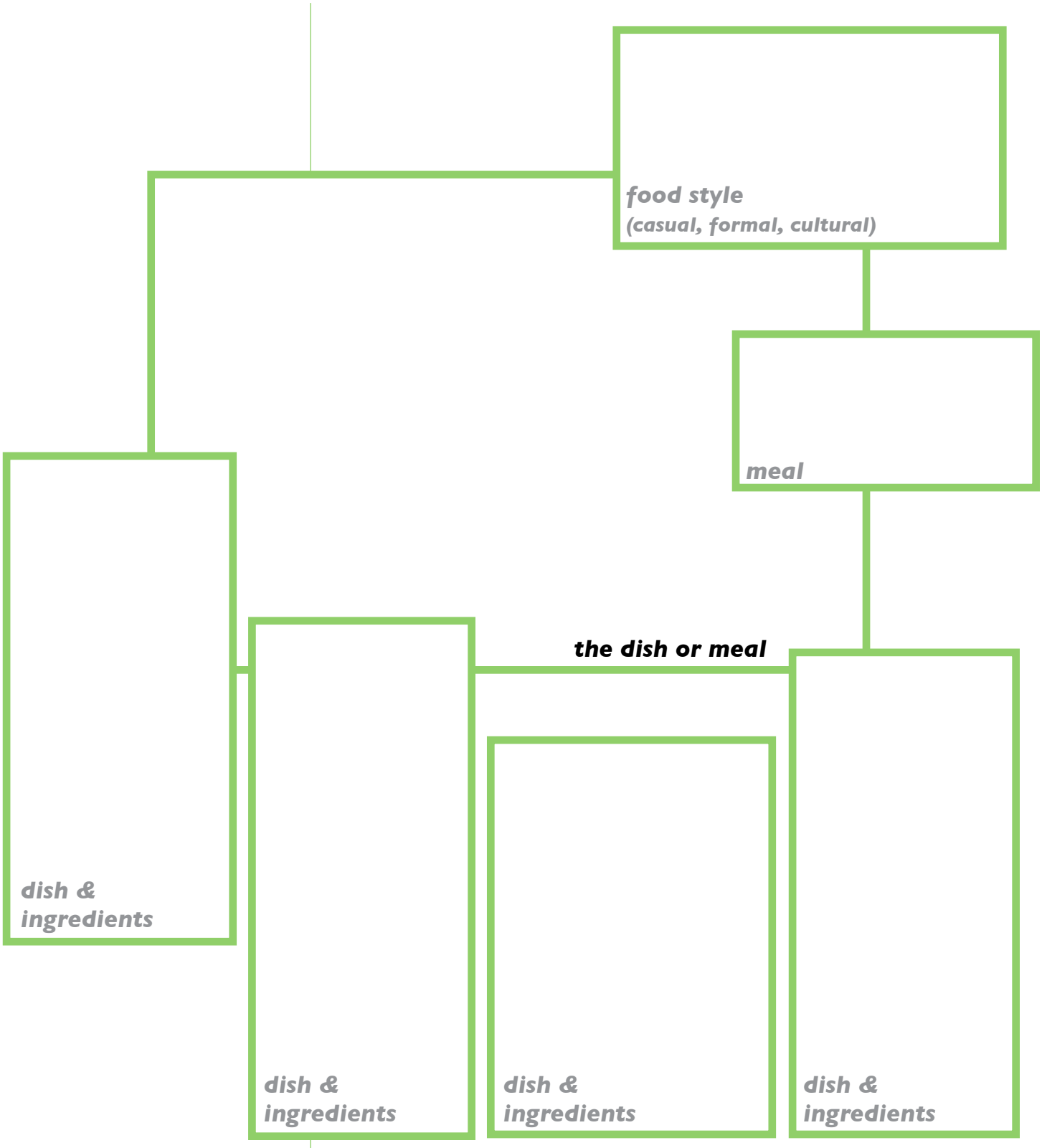
1 Select & compare



What makes this meal appealing?

This is a fast, casual mid-week meal that has all four food groups.

food style
(casual, formal, cultural)

the dish or meal

Dinner

meal

Basmati rice

dish & ingredients

Chicken with peanut butter sauce

Canola oil
Chicken
Onion
Garlic
Ginger, cumin & chili flakes
Peanut butter
Soy sauce
Buttermilk
Lemon juice
Water
Cornstarch

dish & ingredients

Steamed veggies

Broccoli & butter

dish & ingredients

Cold glass of milk

dish & ingredients

What makes this meal appealing?

The combination of different foods, flavours and colours of the peanut butter sauce and broccoli is appealing.

Some people may avoid milk products and eggs in their diets. They may be allergic to egg or milk protein, have an intolerance to lactose, choose to follow a vegetarian diet or simply not like the taste of these products.

Lactose is a sugar found in milk and milk products. It is also added to some processed and prepared foods, such as salad dressings. An enzyme called lactase is needed for your body to break down, or digest, lactose.

Lactose intolerance happens when your body does not have enough lactase. Without this enzyme, or enough of this enzyme, your body does not break down all the lactose into smaller parts for digestion and absorption. The undigested lactose goes into your large intestine where it is fermented by bacteria. It can cause symptoms such as:

- Bloating
- Gas
- Cramping
- Nausea
- Diarrhea
- Weight loss (in children).

Lactose intolerance can sometimes happen for a short time if you have stomach flu or are taking some medications.

Lactose intolerance can be managed with strategies:

- Have small servings of milk, such as ¼ to ½ cup (60 to 125 ml), throughout the day instead of a whole glass at one time.
- Try chocolate or other flavoured milk. They are digested more slowly by your body.
- Drink milk with meals or snacks, not by itself.
- Drink lactose-free milks such as Lactaid™ or Lacteeze™. You'll find these milks in the dairy case at grocery stores.
- Ask a pharmacist for "lactase" tablets or drops such as Lactaid™, Lacteeze™ or a generic brand. They work to break down the lactose in milk for you. Be sure to follow package directions when using these products.
- Try yogurt. It contains live bacteria that help break down lactose.
- Try Mozzarella and aged cheeses like cheddar, Swiss, blue and Brie. They contain almost no lactose.

Studies show that most adults with lactose intolerance can drink up to 2 cups of milk in a day, especially if taken with food, or in small amounts throughout the day.

Consider your own eating habits and preferences at ***www.nourishmovethrive.ca/assessments/assess-your-eating-habits/***. Do you have to adapt to any specific dietary considerations?

Find a diagram that shows how lactose intolerance affects digestion on the Avonmore website at **www.avonmorelactosefree.ie/assets/images/lactose_intolerance_diagram.jpg**.

What dietary adjustments should be made by people who are lactose intolerant or have an allergy to milk products or eggs?

Why should people make these adjustments?

Lactose intolerance is not an allergy to milk. **Allergens** are substances – usually proteins mistakenly identified by the body as harmful – that trigger the body's immune response. Severe allergens can be life threatening and anaphylactic. Milk and eggs are both common food allergies.

Even trace amounts of these foods can cause a severe or life-threatening reaction in some people. There is currently no cure for any food allergy. The only way to prevent a reaction is to avoid the specific food totally.

Health Canada has compiled the following list of priority food allergens which are the top food allergens known to cause 90 percent of reactions in sensitive individuals:

- Eggs
- Mustard
- Seafood *(fish, crustaceans, shellfish)*
- Sulphite
- Wheat
- Milk
- Peanuts
- Sesame seeds
- Soy
- Tree nuts *(almonds, Brazil nuts, cashews, hazelnuts, macadamia nuts, pecans, pine nuts, pistachios, walnuts)*

Canada's 2012 food allergens labelling requirements indicate that labels must clearly identify priority allergens using their common names, even if they are a component of another ingredient. These allergens must be listed in the ingredient list or in a "contains" statement immediately after the ingredient list.

It is a personal choice to be a **vegan** or follow some form of a **vegetarian diet**. Vegetarian diets can vary, and may include:

- Vegan – avoids all meats and animal products
- Lacto-ovo – includes milk and eggs
- Pescetarian – includes fish.

Fortified milk products and eggs can provide a good alternative source of protein, calcium, vitamin D and omega-3 fatty acids in vegetarian diets.

Find out more about different dietary considerations on the following weblinks:

- *Milk and lactose intolerance* at **www.moreaboutmilk.com/media/dairy_nutrition_section/lactose_intolerance_resource.pdf**
- *Milk products, bone health and osteoporosis* at **www.moreaboutmilk.com/research-navigation/milk-products-bone-health-and-osteoporosis/**
- *Vegetarian diets* from the Heart and Stroke Foundation at **www.heartandstroke.ab.ca/site/pp.aspx?c=lqIRL1PJJtH&b=3651127&printmode=1**
- *All about eggs – Allergies* at **www.eggs.ab.ca/about-eggs/allergies**
- *Food Allergies* at **www.hc-sc.gc.ca/fn-an/securit/allerg/fa-aa/index-eng.php**

What role do milk products and eggs play in each of these different dietary concerns or choices? Select **two** and summarize their role.

NUTRITIONAL CONSIDERATIONS IN SELECTING MILK AND MILK PRODUCTS

Milk products are foods that are produced from the milk of cows. Milk products include fluid milk as well as buttermilk, creams, yogurts, sour cream, condensed milk, butter and cheese.

Milk products contain 16 nutrients that are essential for health. Calcium, vitamin D and protein are some of the nutrients in milk products that keep the body functioning properly and can help reduce the risk of certain diseases.

Milk products provide six important bone-building nutrients, which include calcium, vitamin D, protein, vitamin A, phosphorus and magnesium. Vitamin D improves the absorption of calcium and phosphorus, nutrients that promote strong bones and healthy teeth.

Milk is an important part of a healthy diet. But 83 percent of girls and 61 percent of boys in Canada between the ages of 10 and 16 get less than the minimum number of recommended daily servings of milk and alternatives. This is of concern since 40 percent of our bones are built during adolescence.

Garriguet, D. (2008) "Overview of Canadians' Eating Habits." *Nutrition: Findings from the Canadian Community Health Survey 2004:* Statistics Canada.

Milk product consumption is recognized as a key factor in **bone health** and in the prevention of **osteoporosis**. There is very good evidence that calcium and vitamin D, two essential components of milk, play important roles with respect to attaining peak bone mass and preventing osteoporosis and fractures.

What does the photo tell you about the overall nutritional value of milk products?

Milk products contain 16 nutrients that are essential for health, keep the body functioning properly and help reduce the risk of certain diseases.

www.moreaboutmilk.com/resources/nutrients-milk-products/
Courtesy of Dairy Farmers of Canada

Recommended Number of Food Guide Servings per Day

	Children			Teens		Adults			
	2-3	4-8	9-13	14-18 years		19-50 years		51+ years	
	Girls and Boys			Female	Male	Female	Male	Female	Male
Vegetables and fruit	4	5	6	7	8	7-8	8-10	7	7
Grain products	3	4	6	6	7	6-7	8	6	7
Milk and alternatives	2	2	3-4	3-4	3-4	2	2	3	3
Meat and alternatives	1	1	1-2	2	3	2	3	2	3

Eating Well with Canada's Food Guide: Health Canada. **www.hc-sc.gc.ca/fn-an/food-guide-aliment/basics-base/quantit-eng.php**

Yogurt naturally contains over 10 essential nutrients including calcium, phosphorus, thiamine, riboflavin and vitamin B12. Currently, vitamin D is added only to milk. However, some brands of yogurt are made from fortified milk and, therefore, also provide vitamin D. Labels provide this information and should be checked.

There is a wide variety of cheeses on the market, with various levels of fat content – labels provide nutritional information that can help make the best choice.

As with all other milk products, cheese is a natural source of several essential nutrients. Cheddar, Mozzarella and Swiss cheeses contain as many as nine, including calcium, vitamin A, niacin and vitamin B12.

The nutrients found in cheese support healthy bone and tooth development, maintenance of night vision, normal growth and red blood cell formation, among other benefits.

Food guide servings help you understand how much food is recommended every day from each of the four food groups. For example, one milk and alternatives serving can be 250 ml (1 cup) of milk, 175 grams (¾ cup) of yogurt or 50 grams (1½ oz) of cheese.

What benefits are provided by a single food product, such as fluid milk, that has a wide range of nutrients?

The Role Of 16 Essential Nutrients in Milk

Calcium aids in the formation and maintenance of strong bones and healthy teeth.	**Folate** aids in red blood cell formation.	**Magnesium** is a factor in bone and teeth health, conversion of food into energy and tissue formation.	**Niacin** aids in normal growth, and is a factor in the conversion of food into energy and tissue formation, including bones.
Pantothenic acid is a factor in the conversion of food into energy and tissue formation, including bones.	**Phosphorus** is a factor in the formation and maintenance of strong bones and healthy teeth.	**Potassium** aids in the correct functioning of nerves and muscles.	**Protein** helps build and repair body tissues, including muscles and bones, and builds antibodies which fight infection.
Riboflavin is a factor in the conversion of food into energy and tissue formation.	**Selenium** is a factor in the correct functioning of the immune system, due to its antioxidant effect.	**Thiamine** releases energy from carbohydrate and aids normal growth.	**Vitamin A** aids bone and tooth development, while aiding in the maintenance of night vision and healthy skin.
Vitamin B_6 is a factor in the conversion of food into energy and tissue formation, including bones.	**Vitamin B_{12}** aids in red blood cell formation.	**Vitamin D** (added to milk) enhances calcium and phosphorus absorption, on which strong bones and teeth depend.	**Zinc** is a factor in tissue formation, including bones, and converting food into energy.

Dairy Goodness: Dairy Farmers of Canada. ***www.dairygoodness.ca/getenough/benefits-of-milk-products#nutrients***

NUTRITIONAL CONSIDERATIONS IN SELECTING EGGS

Eggs are an excellent source of protein and a solid source of 14 essential nutrients. Over the last few years, many researchers have done further studies on the benefits of eggs. Consistently, the findings indicate that eating eggs every day does not increase levels of "bad" cholesterol in the blood.

Cholesterol is essential for life. It is produced naturally in our bodies and forms a basic part of all our cells. Cholesterol helps to regulate our hormones, helps us utilize vitamin D and helps us digest food.

About 80 percent of the cholesterol in our body is produced in the liver. Only about 20 percent is affected by what we eat. If you eat more cholesterol than you need, your body accommodates by producing less.

There are two types of cholesterol. High-density lipoprotein, or HDL, is "good" cholesterol and is healthy. Low-density lipoprotein, or LDL, is "bad" cholesterol and can cause fatty deposits that clog arteries and don't allow blood to flow properly.

Recognizing the nutritional value of eggs, *Canada's Food Guide* includes 2 eggs as one serving under the meat and alternatives food group. Eggs are a nutrient-dense food. This means that, for their low calorie content (only 70 calories in one large, 50 g egg), they provide a high proportion of nutrients for good health. Eggs contain 14 essential nutrients.

There are two basic types of eggs available in Alberta grocery stores – eggs in their shell and processed eggs. Go to the *All About Eggs* page on the Egg Farmers of Alberta website at **www.eggs.ab.ca/about-eggs/egg-types** to find out more about each type.

Write a description of each type of egg product.

Find out more about types of eggs in *Eggs… so many choices* at **www.eggs.ca/assets/ResourcePDFs-/Educators/Eggs-so-many-choices-EN.pdf**.

The Role Of 14 Essential Nutrients in *Eggs*

Calcium aids in the formation and maintenance of strong bones and healthy teeth.	**Folate** aids in red blood cell formation.	**Thiamine** releases energy from carbohydrate and aids normal growth.	**Niacin** aids in normal growth, and is a factor in the conversion of food into energy and tissue formation, including bones.
Pantothenic acid is a factor in the conversion of food into energy and tissue formation, including bones.	**Phosphorus** is a factor in the formation and maintenance of strong bones and healthy teeth.	**Zinc** is a factor in tissue formation, including bones, and converting food into energy.	**Protein** helps build and repair body tissues, including muscles and bones, and builds antibodies which fight infection.
Riboflavin is a factor in the conversion of food into energy and tissue formation.	**Selenium** is a factor in the correct functioning of the immune system, due to its antioxidant effect.	**Vitamin A** aids bone and tooth development, while aiding in the maintenance of night vision and healthy skin.	**Vitamin D** enhances calcium and phosphorus absorption, on which strong bones and teeth depend.
Vitamin E is an antioxidant that plays a role in maintaining good health and preventing disease.	**Vitamin B_{12}** aids in red blood cell formation.		

Food guide servings help you understand how much food is recommended every day from each of the four food groups. For example, one meat and alternatives serving can be 2 eggs, 125 ml (½ cup) of cooked fish or poultry or 30 ml (2 tbsp) of peanut butter.

Why do you think eggs are considered to be part of the meat and alternatives food group in *Canada's Food Guide*?

MILK ALTERNATIVES

Fortified soy beverages can be used as an alternative to milk. Vitamins and minerals are added to the soy beverage to make it a nutritionally adequate alternative. The word "fortified" on the label indicates that these nutrients have been added.

Some rice, potato and almond beverages are fortified with calcium, vitamin D and other nutrients. However, these types of beverages do not contain the level of protein found in milk or fortified soy beverages.

Although some orange juices are sold with added calcium and vitamin D, they also do not provide protein and other important vitamins and minerals found in either milk or fortified soy beverages.

These other beverages are not a nutritionally adequate replacement for milk and not part of the milk and alternatives food group in *Canada's Food Guide*.

Compare the **three** nutrition tables for 2% milk, fortified soy beverage and almond beverage.

What are **two** nutritional similarities you observe between milk and either of the two milk alternatives?

What are **two** nutritional differences you observe between milk and either of the two milk alternatives?

2% Milk Nutrition Facts
Per **1 cup (250 ml)**

Amount	% Daily Value
Calories 130	
Fat 5g	8%
Saturated 3.5g + **Trans** 0.1g	18%
Cholesterol 15mg	6%
Sodium 400mg	6%
Carbohydrates 12g	4%
Fibre 0g	0%
Sugars 11g	
Protein 9g	
Vitamin A 10%	**Vitamin C** 6%
Calcium 30%	**Iron** 0%

Fortified Soy Beverage, Unsweetened Nutrition Facts
Per **1 cup (250 ml)**

Amount	% Daily Value
Calories 80	
Fat 3g	5%
Saturated 0.4g + **Trans** 0g	2%
Cholesterol 0mg	0%
Sodium 120mg	6%
Potassium 380mg	11%
Carbohydrates 7g	2%
Fibre 1g	4%
Sugars 5g	
Protein 6g	
Vitamin A 10%	**Vitamin C** 4%
Calcium 30%	**Iron** 8%

Fortified Almond Beverage, Sweetened Nutrition Facts
Per **1 cup (250 ml)**

Amount	% Daily Value
Calories 60	
Fat 2.5g	4%
Saturated 0g + **Trans** 0g	0%
Cholesterol 0mg	0%
Sodium 150mg	6%
Carbohydrates 8g	3%
Fibre 1g	4%
Sugars 7g	
Protein 1g	
Vitamin A 10%	**Vitamin C** 0%
Calcium 30%	**Iron** 2%

EGG SUBSTITUTES

People who have egg allergy cannot identify the proteins in eggs correctly. Eggs have two allergenic components with different properties – the yolk and the white. The egg white is the component which causes the most severe reactions. However, it makes little difference which part of the egg a person is allergic to. It is very difficult to separate the white from the yolk without having some parts of each combine. Extremely small amounts can sometimes trigger severe reactions.

People with egg allergies must adapt their diet in two ways. They must avoid eating anything with eggs in it and they have to find egg substitutes for cooking. Food labels are important in identifying foods that contain eggs.

Egg substitutions do exist! The following substitutions are designed for only 1 or 2 egg recipes. For each egg called for in a recipe, substitute **one** of the following:

- 5 ml (1 tsp) baking powder, 25 ml (1½ tbsp) water and 25 ml (1½ tbsp) oil
- 5 ml (1 tsp) baking powder, 15 ml (1 tbsp) water and 15 ml (1 tbsp) vinegar
- 5 ml (1 tsp) yeast dissolved in 50 ml (¼ cup) warm water
- 1 packet of unflavoured gelatin, 30 ml (2 tbsp) of warm water. Do not combine until ready to use.
- ½ large mashed banana

Commercial egg substitutes are also available. However, some may have traces of egg whites in them and must be carefully used.

How do you think **one** of the suggested egg substitutes differs nutritionally from eggs?

Select at least **five** different milk or egg products. Analyze each product by completing each column in the data chart below.

Product	Food group	Top two nutrients	An important processing or manufacturing step	How to handle or use when cooking	Storage requirements

comparison chart

	Criteria				
Products	*Flavour*				

2 Prep

jazzberyylicious smoothie

Get equipment

Blender

Prepare ingredients

1 cup (250 ml) milk

¾ cup (175 ml) blueberry yogurt

¼ cup (60 ml) pomegranate or cranberry juice

1 cup (250 ml) blueberries, fresh or frozen

Handful of crushed ice

Follow recipe steps

1. ADD all ingredients to a blender.
2. Use the puree setting to BLEND ingredients until smooth.
3. POUR into serving glasses.

Preparation time is 5 minutes
Makes 750 ml (3 cups)

From Alberta Milk *Smoothies*

Smoothies are made by processing a whole fruit or vegetable with added juice, milk and/or yogurt. A smoothie can provide fibre, protein, carbohydrate and vitamin C.

If a smoothie is made by combining citrus fruits, berries or pineapple with a dairy product like milk, and /or yogurt, the mixture can curdle if left to stand for a while. This is caused by the reaction of the acids or tannins in fruit with the protein in milk. Blueberries contain **tannins**, which are a tart or bitter tasting substance, called polyphenol, found in plants. Tannins can cause milk to **coagulate**, or thicken and solidify, and curdle.

Smoothies should be served as soon as they are prepared so the milk products and fruit do not separate or lose eye appeal.

Watch a video that demonstrates how to make smoothies and look for similarities and differences on the Dairy Goodness website at www.dairygoodness.ca/recipes/any-day-any-time-smoothies?v=v.

What kitchen skills are needed for this dish?

How does the protein content in milk products, including the yogurt, affect the preparation of this recipe?

Get equipment

Large frying pan

Whisk & stirring implements

Prepare ingredients

1 tbsp (15 ml) butter

1 cup (250 ml) finely chopped onion

1 cup (250 ml) thinly sliced mushrooms

2 tbsp (25 ml) all-purpose flour

14 oz (796 ml) diced tomatoes, with juice

2 tbsp (25 ml) light sour cream

Salt and pepper to taste

Follow recipe steps

1. MELT butter in a large frying pan over medium high heat. ADD onion and COOK for about 5 minutes or until softened.
2. ADD mushrooms and COOK for about 3 minutes or until softened.
3. STIR in flour and COOK for 1 minute.
4. STIR in tomatoes, salt and pepper. Reduce heat to medium low. SIMMER for about 5 minutes or until slightly thickened. STIR in sour cream.

Preparation time is 10 minutes
Cooking time is 15 minutes
Serves 6

Creamy sauces are used to enhance the taste and appearance of foods. There are three basic types of ingredients in most sauces: a liquid, the thickening agent and flavours or seasonings.

Milk is often used in sauces. Most sauces are thickened with a starch, such as flour or cornstarch. The thickener gives the sauce its appearance. A sauce thickened with flour is opaque while a sauce thickened with cornstarch is clear.

Another common way to thicken a cream sauce is to make a **roux**. A roux is made with equal quantities of butter and flour. Melt the butter over a medium low heat, whisk in the flour and cook until it's well blended. Roux will help prevent curdling as starch stabilizes milk and cream. **Curdling** occurs when the protein in milk is exposed to acid, tannins, enzymes or salt. A **vegetable puree**, such as the broken tomatoes in this recipe, can also work as a thickener. However, the tomatoes will act as an acid when mixed with milk.

The "cream" in cream sauces can be light cream, half-and-half, or whole or partially skimmed milk. Tomatoes are acidic and when milk or cream are added, curdling can occur. Fresh milk or cream with a higher fat content decreases the chance of curdling.

What could potentially cause curdling in this creamy tomato sauce?

What strategies are used in this recipe to avoid curdling the milk?

Adapted from Alberta Milk *Creamy Tomato Sauce*
www.moreaboutmilk.com/recipes/recipe/cheesy-meatballs-with-creamytomato-sauce/

Get equipment

Saucepan

Stirring implements

Prepare ingredients

¼ cup (60 ml) butter

¼ cup (60 ml) all-purpose flour

2½ cups (500 ml) warm milk (1%, 2% or 3.25%)

Salt and white pepper to taste

Follow recipe steps

1. MELT butter in a heavy bottom saucepan over medium low heat. Ensure that the butter does not brown.
2. ADD flour and STIR until fully mixed. The butter and flour mixture should bubble up slightly.
3. ADD about ½ cup of the warm milk slowly, STIRRING to keep the mixture smooth.
4. ADD the remainder of the warm milk slowly, STIRRING constantly.
5. HEAT to just a gentle rolling simmer, STIRRING constantly. COOK for 6 to 8 minutes until desired consistency, and flour is cooked.
6. SEASON to taste with salt and white pepper.

Preparation time is 5 minutes
Cooking time is 10 minutes
Serves 4

White sauces are sauces thickened by a starch. It is used as a base for other types of sauces and as a part of many dishes, such as macaroni and cheese.

High temperatures, tannins, acids, enzymes and salt can cause milk proteins to coagulate and curdle, causing clumps in a sauce or dish. Curdling can be prevented by cooking with low temperatures, fresh milk and constant, gentle stirring during cooking.

Scorching can be caused by the lactose in milk. Like any sugar, lactose can turn brown and develop a bitter taste. When milk is heated, the milk proteins will coagulate and coat the sides and bottom of the pan. Lactose is a sugar that will caramelize if the milk is scorched. A low heat will prevent scorching.

A **roux** is used as the thickening agent in this recipe. You can also use a slurry to make a lower fat white sauce. A **slurry** is made by combining skim or partially skimmed milk and flour in a covered container and blending or shaking until mixed. The slurry is then cooked in a saucepan over medium heat until it is thickened and the flour is cooked.

Watch a video that demonstrates this recipe on the moreaboutmilk website at www.moreaboutmilk.com/recipes/recipe/easy-mac-and-cheese-with-basic-white-sauce/.

What **two** important principles of protein cookery are applied in this recipe?

What **two** other recipes do you think these principles can be applied to?

Adapted from Alberta Milk *Basic White Sauce*
www.moreaboutmilk.com/recipes/recipe/easy-mac-and-cheese-with-basicwhite-sauce/

Get equipment

Pot

Colander

Stirring implements

Prepare ingredients

2 cups (500 ml) elbow macaroni

1 cup (250 ml) cheddar cheese, grated

1 recipe Basic White Sauce

Follow recipe steps

1. COOK the elbow macaroni according to the package instructions. Make sure it is not overcooked. **Al dente**, or cooked until it is firm but not hard, is best.
2. DRAIN the macaroni but do not rinse it.
3. ADD the grated cheddar cheese gradually to the hot white sauce, 125 ml, or ½ cup, at a time. MIX well.
4. FOLD the cooked macaroni into the prepared cheese sauce.

Preparation time is 15 minutes
Cooking time is 20 minutes
Serves 4

Cooked milk and cheese dishes, such as macaroni and cheese, combine ingredients such as milk and cheese with other foods.

Cheese will melt when combined with liquid that is at a temperature hot enough to melt the fat. This causes the cheese to blend smoothly. However, if the temperature is too hot, the proteins in the cheese will become tough.

Cheese acts like an acid so it must be added slowly and consistently to prevent clumping. When acid foods are added to milk, such as a white sauce, the milk should be thickened first. This is why the cheese is added last. A cheese sauce kept on a low heat will help prevent curdling or scorching.

Processed cheese blends more easily than natural cheese because of the emulsifiers it contains. A cheese sauce made with processed cheese is smooth and less likely to curdle. However, real cheese is more nutritious than processed cheese. Cheddar cheese does not blend as smoothly, but has a stronger cheese flavour.

Watch a video that demonstrates this recipe on the moreaboutmilk website at www.moreaboutmilk.com/recipes/recipe/easy-mac-and-cheese-with-basic-white-sauce/.

What types of adjustments do you think should be made if you use different cheese products?

Velveeta cheese

Mild cheddar

Old cheddar cheese

Adapted from Alberta Milk *Easy Mac and Cheese with Basic White Sauce* ***www.moreaboutmilk.com/recipes/recipe/easy-mac-and-cheese-with-basic-white-sauce/#***

Get equipment

Saucepan

Stirring implements

Serving dishes

Plastic wrap

Prepare ingredients

½ cup (125 ml) sugar

¼ cup (50 ml) cocoa powder

1/3 cup (75 ml) flour

1 cup (250 ml) milk

1 cup (250 ml) 10% cream

Follow recipe steps

1. COMBINE sugar, cocoa and flour.
2. Slowly ADD milk and cream. MIX well.
3. POUR mixture in a saucepan. COOK and STIR over medium heat until mixture boils and thickens.
4. POUR mixture into pudding dishes, COVER dishes with plastic wrap and refrigerate approximately 20 minutes until set.

Preparation time is 10 minutes
Cooking time is 10 minutes
Set time is 20 minutes
Serves 4

Cooked milk dishes, such as a pudding, illustrate how milk can be used as a thickening agent.

Puddings should be cooked with moderate cooking temperatures to avoid scorching and excessive coagulation of both milk products and eggs. Excessive coagulation can result in a thick and tough texture.

Starch particles or granules should be separated before cooking a pudding. The sugar in this recipe is mixed with the flour to separate the starch particles and keep them from lumping together when mixed with milk products and cooked.

Puddings can be cooked over heat or baked in the oven. Puddings that are baked in the oven are often placed in a hot water bath during baking. This protects from over-coagulation of the milk or egg proteins.

Some pudding recipes may require **scalded milk**, which means milk heated to just below the boiling point. With pasteurization, scalded milk is no longer a necessary step for cooked milk dishes.

Search the internet for videos on "how to make a cocoa pudding" and compare the steps to those in this recipe.

Why is it important to separate starch particles in thickened, cooked milk dishes?

Why is plastic wrap used to cover the cooked pudding?

From *What's New in Dairy and Eggs? Winter 2006*

Get equipment

Fondue pot

Tabletop burner

Stirring implements

Prepare ingredients

1 large garlic clove, cut in half

1 cup (250 ml) apple cider

12½ oz (375 g) Emmental cheese, diced

Lemon juice

1 tbsp (15 ml) cornstarch

¼ cup (60 ml) cherry syrup (syrup from canned cherries in heavy syrup)

Pepper to taste

Grated nutmeg

1 dried bread loaf, cubed

Follow recipe steps

1. PREPARE fondue pot by rubbing its inside with garlic.
2. POUR apple cider into pot and bring to a boil.
3. Reduce heat and ADD Emmental cheese.
4. STIR continuously in a figure-eight pattern to avoid lumps. ADD drops of lemon juice, as necessary, if the cheese does not blend easily.
5. MIX syrup with cornstarch. ADD it to the melted cheese.
6. SEASON with pepper and nutmeg while continuously stirring melted cheese.
7. Place fondue pot over tabletop burner and serve with bread.

Preparation time is 10 minutes
Cooking time is 10 to 15 minutes
Serves 4

Melted cheese dishes, such as cheese fondues, lasagna or raclettes, often require a specific type of cheese. These different dishes can illustrate how the melting properties of cheeses will vary.

Cheese is a concentrated form of milk and is, therefore, a good source of protein. If cheese is cooked at a high temperature or for too long a time, the protein will coagulate. This results in the texture becoming rubbery, the consistency becoming tough and the fat in the cheese separating and making the dish oily.

Cheese can be combined with liquids in dishes like soups, sauces and fondues. However, the temperature must be hot enough to melt the fat so the cheese blends smoothly. The temperature must be low enough so the proteins do not over-coagulate and toughen. Shredded or grated cheese will blend more quickly and require a shorter cooking time.

Cheese can also be cooked in a microwave. It must be watched carefully so it does not overcook or separate. Some cheeses will melt easier than others.

Watch a video that demonstrates different steps for making a cheese fondue on the Dairy Goodness website at www.dairygoodness.ca/cheese/all-you-need-is-cheese/recipes/kids-favourite-cheese-fondue.

Why is a medium-hard cheese like Emmental used in cheese fondues?

Why do you think shredded or grated cheese requires a shorter cooking time in a melted cheese dish?

Recipe courtesy of Dairy Goodness: Dairy Farmers of Canada *Cheese Fondue*
www.dairygoodness.ca/recipes/cheese-fondue

Get equipment

Colander

Cheesecloth

Large stockpot

Stirring implements

Prepare ingredients

8 cups (1.9 L) 3.25% milk

¼ cup (60 ml) lemon juice

Follow recipe steps

1. In a large saucepan, bring milk to a BOIL, stirring frequently. Remove from heat.
2. ADD lemon juice. Stir until the milk curdles and SEPARATES into curds, or spongy white chunks and whey, a milky water.
3. LINE the colander with doubled cheesecloth and set in sink.
4. POUR the mixture into the colander and gently rinse with cool water. Take ends of cheesecloth and twist the ball of cheese to squeeze out excess whey. Hang the cheesecloth and let drain for an extra 5 minutes.
5. Fold cheesecloth to compact the ball of cheese and set on a plate. Put another plate on top and PRESS by setting a heavy pot or weight.
6. REFRIGERATE for about 20 minutes. Remove cheesecloth and serve or use in a dish such as palak paneer.

Preparation time is 5 minutes
Cooking time is 15 minutes
Setting time is 25 minutes
Yields 355 g (12 oz) of cheese

Fresh or unripened cheese, such as paneer or cottage cheese, can be made by curdling whole milk and separating the curds, the milk solids, from the whey, a watery liquid. Paneer is a staple ingredient in many Indian dishes.

The acid in lemon juice causes the milk proteins to coagulate and separate from the whey.

If the milk does not separate, more lemon juice can be added and more heat applied to the mixture. The milk should then separate. The mixture should be stirred in a way that keeps the curds together rather than breaks them up.

Search the internet for videos on "how to make paneer" and compare the steps to those in this recipe.

What happens when an acid is added to milk?

How does this recipe illustrate the basic steps in cheese making?

Get equipment

Mixing bowl

Baking tray

Prepare ingredients

1 lb (500 g) extra lean ground beef

1 lightly beaten egg

½ cup (125 ml) dry whole wheat bread crumbs

⅓ cup (75 ml) finely grated carrot and shredded onion

1 tbsp (15 ml) Worcestershire sauce

½ tsp (2 ml) pepper

Follow recipe steps

1. PREHEAT oven to 400° F (200° C).
2. Lightly COMBINE all ingredients.
3. FORM meat mixture into about 28 one-inch (2.5 cm) balls.
4. BAKE on a lightly oiled foil-lined baking tray for 15 minutes, until digital rapid-read thermometer inserted into centre of several meatballs reads 160° F (71° C).

Preparation time is 15 minutes
Cooking time is 15 minutes
Serves 4

Mixed or coated food products such as meatballs or coated fish sticks, zucchini or chicken fingers, illustrate how eggs can be used as a binding or coating agent.

Eggs help hold mixed foods together and prevent them from falling apart when they are cooked. Eggs act as binders in foods such as meatballs, hamburgers, meatloaf, fish cakes and croquettes.

Eggs act as a coating agent in breaded products such as chicken or fish fingers, coated meat cutlets or pieces and coated vegetables.

The proteins in eggs coagulate when they are baked. This provides structure and stability to many food products. Eggs also provide moisture and tenderness.

Watch a video that demonstrates how to make a variation of baked meatblalls on the Dairy Goodness website at www.dairygoodness.ca/recipes/cheddar-stuffed-meatballs-with-rosemary.

How do eggs affect the texture and appearance of baked meatballs?

Get equipment

Glass measuring cups

Whisk

Prepare ingredients

½ cup (125 ml) butter

3 egg yolks

1 tbsp (15 ml) lemon juice

Salt, cayenne pepper and dry mustard to taste

Follow recipe steps

1. MICROWAVE butter for 50 to 60 seconds on high in a 2-cup (500 ml) glass measuring cup, until melted.
2. WHISK together egg yolks, lemon juice and seasonings in a 4-cup (1 L) glass measuring cup.
3. WHISK melted butter gradually into egg yolk mixture, BEATING constantly.
4. MICROWAVE on medium for 20 to 30 seconds, until sauce thickens. WHISK halfway through and at the end of cooking to produce a smooth sauce. SERVE warm.

Preparation time is 5 minutes
Yields 8 servings of 30 ml each

Egg-based sauces, such as a Hollandaise, illustrate how eggs are used as an emulsifying agent. An **emulsion** is a mixture of two substances, such as oil and water, that do not mix together. The mixture is referred to as **immiscible**. An **emulsifying agent** helps the substances mix together.

Oil-based and water-based liquids can be mixed by shaking or blending them together, but will not stay that way. Eggs create an emulsion between the lemon juice and butter in this recipe.

The protein in egg yolk has some amino acids that repel water and some amino acids that attract water. When egg proteins are mixed with oil-based and water-based liquids, one part of the egg protein sticks to the water and the other part sticks to the oil.

Lecithin is another important emulsifier found in egg yolk. This molecule establishes a barrier that keeps the fat molecules from recombining and separating from the water molecules.

Watch a video that demonstrates how to make a Bechamel sauce on the Dairy Goodness website at www.dairygoodness.ca/recipes/bechamel-sauce.

How does an emulsifying agent also stabilize a mixture?

Egg Farmers of Alberta *Hollandaise Sauce*
www.eggs.ab.ca/recipes-1/eggs-benedict-with-hollandaise-sauce

Get equipment

Medium saucepan

Stirring implements

Bowls

4-cup (1 L) soufflé or casserole dish

Prepare ingredients

2 tbsp (30 ml) butter

2 tbsp (30 ml) all-purpose flour

½ tsp (2 ml) salt

Pinch of ground pepper

¾ cup (175 ml) milk (1%)

4 eggs

2 egg whites

¼ tsp (1 ml) cream of tarter

Follow recipe steps

1. PREHEAT oven to 375° F (190° C).
2. MELT butter over low heat in medium saucepan. STIR in flour, salt and pepper. COOK, stirring constantly, until mixture is smooth and bubbly.
3. STIR in milk all at once. Continue stirring until mixture boils and is smooth and thickened.
4. SEPARATE eggs. BEAT yolks well and add ¼ cup (50 ml) of warm sauce mixture to egg yolks.
5. COMBINE yolk mixture with remaining sauce, BLENDING thoroughly. If desired, ADD finely chopped filling ingredients and seasoning, stirring into the white sauce until well blended. Set sauce aside to cool slightly.
6. In a large bowl, BEAT egg whites and cream of tartar until stiff but not dry. FOLD some of the egg whites into the sauce to make it lighter, then gently but thoroughly fold the sauce into the remaining egg whites.
7. Carefully POUR into a 4-cup (1 L) soufflé or casserole dish.
8. BAKE for 20 to 25 minutes until puffed and lightly browned. Serve immediately.

Preparation time is 10 minutes
Cooking time is 25 minutes
Serves 4

Soufflés illustrate the use of eggs as a leavening agent. A **leavening agent** increases the volume of a food product and lightens its texture.

Eggs act as a leavening agent in dishes like soufflés, pancakes, muffins, cakes, omelettes and meringues.

Beaten eggs are a leavening agent because they incorporate air into a mixture, which expands and rises when baked. As the mixture is heated, the protein coagulates around the air cells and the product maintains its volume.

Search the internet for videos on "how to make a cheese soufflé" and compare the steps to those in this recipe.

Why is a small amount of the warm butter and flour mixture first added to the egg yolks?

What is the role of cream of tartar in the soufflé?

Adapted from Egg Farmers of Canada *Basic Soufflé*
www.eggs.ca/recipes/basic-souffle

Get equipment

Baking sheet

Parchment paper or cooking spray

Electric mixer

Wire racks

Prepare ingredients

6 egg whites

¼ tsp (1 ml) cream of tartar

1½ cups (375 ml) sugar

1 tsp (5 ml) vanilla extract

Follow recipe steps

1. PREHEAT oven to 275° F (140° C).
2. LINE baking sheet with parchment paper or SPRAY with cooking spray.
3. BEAT egg whites in large bowl with electric mixer until frothy.
4. ADD cream of tartar and BEAT until soft peaks form.
5. Gradually BEAT in sugar, 1 to 2 tbsp (15 to 30 ml) at a time, until sugar is dissolved and stiff glossy peaks form.
6. BEAT in vanilla.
7. PIPE or DOLLOP about 2 tbsp (30 ml) meringue per cookie on baking sheet.
8. BAKE in preheated oven until firm, about 30 to 35 minutes.
9. COOL completely on wire racks.

Preparation time is 20 minutes
Cooking time is 35 minutes
Yields 48 servings

Meringues are used as a topping for desserts, like pies, or as pastries or cookies. Meringue is a mixture of stiffly beaten egg whites and sugar.

A meringue is a **foam**, or gas suspended in a liquid or semi-solid. Foams are made using proteins such as eggs or milk and by incorporating air, agitation or through a sudden release in pressure, such as in an aerosol can.

Examples of foams include meringues, marshmallows, whipped cream and bread. Over agitation of a meringue will cause clots to form.

When egg whites are beaten to make meringues, the protein is unraveled or untwisted. The long strands of protein that form are too large to dissolve in water anymore.

These protein strands surround the air bubbles beaten into the raw egg whites, and trap them, forming a white foam. If you continue to beat the foamy egg white, this will destabilize the foam by fully straightening out the protein molecules. The structure of the foam will not be as strong and it will not have a good volume.

In a meringue, sugar is beaten into frothy egg whites. Sugar acts as a stabilizer. Too much sugar too soon can deflate the whites. The amount of sugar will also determine whether the meringue is hard or soft. Cream of tartar helps prevent overbeating. Eggs that are overbeaten can sometimes by fixed by whisking in another egg white by hand.

Search the internet for videos on "how to make a meringue" and compare the steps to those in this recipe.

If the egg whites in a meringue do not attain enough volume, what is likely the cause?

Adapted from Egg Farmers of Canada *Hard Meringues*
www.eggs.ca/recipes/hard-meringues

Evaluate a **cooked milk dish** by filling in information and checking the descriptors that apply. Then, answer the questions that follow.

Nutrient value

Check the nutrients that you think are in this milk product dish.

- ❑ Fat
  - ❑ Saturated
  - ❑ Trans fat
- ❑ Cholesterol
- ❑ Sodium
- ❑ Carbohydrate
- ❑ Fibre
- ❑ Sugars
- ❑ Protein
- ❑ Vitamin A
- ❑ Calcium
- ❑ Vitamin C
- ❑ Iron

Select one milk product ingredient in your dish. Use the product card or ***www.eatracker.ca*** to fill in the nutrient table for this milk product.

Nutrition Facts

Amount

Fat ☐ g
Saturated ☐ g
+ Trans ☐ g
Cholesterol ☐ mg
Sodium ☐ mg
Carbohydrate ☐ g
Fibre ☐ g
Sugars ☐ g
Protein ☐ g

Cooking method

Presentation

Sensory properties

Describe the characteristics of the dish.

Type of food

- ❑ Spicy
- ❑ Fishy
- ❑ Savoury
- ❑ Sweet
- ❑ Other

Taste profile

- ❑ Sour
- ❑ Bitter
- ❑ Sweet
- ❑ Salty
- ❑ Mild
- ❑ Strong
- ❑ Other

Texture

- ❑ Crispy
- ❑ Crunchy
- ❑ Creamy
- ❑ Silky
- ❑ Other

Culinary uses

- ❑ Main dish
- ❑ Side dish or salad
- ❑ Soup or cream
- ❑ Sauce, dip or spread
- ❑ Appetizer or snack
- ❑ Beverage
- ❑ Dessert or sweet
- ❑ Other

Evaluate the results.

Appearance

- ❑ Good colour
- ❑ No scum
- ❑ No fat on surface
- ❑ Watery
- ❑ Gray
- ❑ Off colour
- ❑ Skin on surface
- ❑ Film of fat
- ❑ Other

Consistency

- ❑ Firm but not thick
- ❑ Thick
- ❑ Stiff
- ❑ Watery
- ❑ Thin
- ❑ Other

Texture

- ❑ Smooth
- ❑ Curdled
- ❑ Lumpy
- ❑ Greasy
- ❑ Sticky
- ❑ Other

Palatability

- ❑ Good flavour
- ❑ Well-seasoned
- ❑ Salty
- ❑ Raw
- ❑ Flat
- ❑ Starchy
- ❑ Scorched
- ❑ Hot
- ❑ Cold
- ❑ Warm
- ❑ Other

▶ **Denaturation** occurs when the protein breaks down. This usually happens when protein is heated, agitated or when another substance is added to it. **Coagulation** occurs when protein forms clots. How do these two processes apply to this dish?

▶ Identify which of the following cooking processes are used in this dish:

- ❑ Beating
- ❑ Folding
- ❑ Mixing
- ❑ Whipping
- ❑ Stovetop heating
- ❑ Baking
- ❑ Freezing
- ❑ Microwaving
- ❑ Melting
- ❑ Other _____

▶ Which of the following protein reactions are involved in this dish?

- ❑ Heat
- ❑ Blending with acidic ingredients
- ❑ Blending with tannins and/or salt

Explain the effect of the reaction on the milk in this dish.

Evaluate a **cooked cheese dish** by filling in information and checking the descriptors that apply. Then, answer the questions that follow.

Nutrient value

Check the nutrients that you think are in this cheese product dish.

- ❑ Fat
  - ❑ Saturated
  - ❑ Trans fat
- ❑ Cholesterol
- ❑ Sodium
- ❑ Carbohydrate
- ❑ Fibre
- ❑ Sugars
- ❑ Protein
- ❑ Vitamin A
- ❑ Calcium
- ❑ Vitamin C
- ❑ Iron

Select one cheese ingredient in your dish. Use the product card or **www.eatracker.ca** to fill in the nutrient table for this cheese ingredient.

Nutrition Facts

Amount

Fat ☐ g
Saturated ☐ g
+ Trans ☐ g
Cholesterol ☐ mg
Sodium ☐ mg
Carbohydrate ☐ g
Fibre ☐ g
Sugars ☐ g
Protein ☐ g

Cooking method

Presentation

Sensory properties

Describe the characteristics of the dish.

Type of food

- ❑ Spicy
- ❑ Fishy
- ❑ Savoury
- ❑ Sweet
- ❑ Other

Taste profile

- ❑ Sour
- ❑ Bitter
- ❑ Sweet
- ❑ Salty
- ❑ Mild
- ❑ Strong
- ❑ Other

Texture

- ❑ Crispy
- ❑ Crunchy
- ❑ Creamy
- ❑ Silky
- ❑ Other

Culinary uses

- ❑ Main dish
- ❑ Side dish or salad
- ❑ Soup or cream
- ❑ Sauce, dip or spread
- ❑ Appetizer or snack
- ❑ Beverage
- ❑ Dessert or sweet
- ❑ Other

Evaluate the results.

Appearance

- ❑ Satiny
- ❑ Dull
- ❑ Brown around the edges
- ❑ Other

Consistency

- ❑ Thick
- ❑ Thin
- ❑ Watery
- ❑ Uniform
- ❑ Separated
- ❑ Curdled
- ❑ Other

Texture

- ❑ Smooth
- ❑ Curdled
- ❑ Lumpy
- ❑ Greasy
- ❑ Sticky
- ❑ Creamy
- ❑ Grainy
- ❑ Rubbery
- ❑ Stringy
- ❑ Other

Palatability

- ❑ Mild
- ❑ Cheesy
- ❑ Sweet
- ❑ Spicy
- ❑ Sharp
- ❑ Delicate odour
- ❑ Sharp odour
- ❑ Pungent
- ❑ Sweet odour
- ❑ Warm
- ❑ Hot
- ❑ Cold
- ❑ Scorched
- ❑ Other

▶ Identify the type of cheese used in this dish. *Check the product cards for information on different cheeses.*

❑ Fresh ❑ Soft ❑ Firm ❑ Hard

❑ Light ❑ Semi-soft ❑ Veined

What are the cooking and melting properties of this cheese? How is it added to the dish?

▶ **Denaturation** occurs when the protein breaks down. This usually happens when protein is heated, agitated or when another substance is added to it. How does this process apply to this dish?

▶ **Coagulation** occurs when protein forms clots. Why is coagulation important to cheese making? When does coagulation result in curdled or stringy cheese?

▶ Identify which of the following cooking processes are used in this recipe:

❑ Beating ❑ Stovetop heating ❑ Microwaving ❑ Broiling

❑ Folding ❑ Baking ❑ Cubing, shredding or grating ❑ Melting

❑ Mixing ❑ Freezing ❑ Other

_____

Evaluate an **egg dish** by filling in information and checking the descriptors that apply. Then, answer the questions that follow.

Nutrient value

Check the nutrients that you think are in this egg product dish.

- ❑ Fat
  - ❑ Saturated
  - ❑ Trans fat
- ❑ Cholesterol
- ❑ Sodium
- ❑ Carbohydrate
- ❑ Fibre
- ❑ Sugars
- ❑ Protein
- ❑ Vitamin A
- ❑ Calcium
- ❑ Vitamin C
- ❑ Iron

Select the egg ingredient in your dish. Use the product card or ***www.eatracker.ca*** to fill in the nutrient table for this egg ingredient.

Nutrition Facts

Amount

Fat ☐ g
Saturated ☐ g
+ Trans ☐ g
Cholesterol ☐ mg
Sodium ☐ mg
Carbohydrate ☐ g
Fibre ☐ g
Sugars ☐ g
Protein ☐ g

Cooking method

Presentation

Sensory properties

Describe the characteristics of the dish.

Type of food

- ❑ Spicy
- ❑ Fishy
- ❑ Savoury
- ❑ Sweet
- ❑ Other

Taste profile

- ❑ Sour
- ❑ Bitter
- ❑ Sweet
- ❑ Salty
- ❑ Mild
- ❑ Strong
- ❑ Other

Texture

- ❑ Crispy
- ❑ Crunchy
- ❑ Creamy
- ❑ Silky
- ❑ Other

Culinary uses

- ❑ Main dish
- ❑ Side dish or salad
- ❑ Soup or cream
- ❑ Sauce, dip or spread
- ❑ Appetizer or snack
- ❑ Beverage
- ❑ Dessert or sweet
- ❑ Other

Evaluate the results.

Appearance

White

- ❑ White
- ❑ Shiny
- ❑ Dull
- ❑ Grey
- ❑ Porous
- ❑ Wrinkled
- ❑ Other

Yolk

- ❑ Bright
- ❑ Dull
- ❑ Green ring
- ❑ Flat
- ❑ Broken
- ❑ Centred
- ❑ Not centred
- ❑ Other

Consistency

White

- ❑ Firm
- ❑ Solid
- ❑ Jiggly
- ❑ Watery
- ❑ Other

Yolk

- ❑ Firm
- ❑ Soft
- ❑ Sticky
- ❑ Crumbly
- ❑ Watery
- ❑ Other

Texture

- ❑ Tender
- ❑ Smooth
- ❑ Tough
- ❑ Mealy
- ❑ Rubbery
- ❑ Soft
- ❑ Greasy
- ❑ Lumpy
- ❑ Sticky
- ❑ Other

Palatability

- ❑ Pleasing
- ❑ Watery
- ❑ Sulfury
- ❑ Strong
- ❑ Off-flavour
- ❑ Warm
- ❑ Hot
- ❑ Cold
- ❑ Scorched
- ❑ Other

▶How are the eggs added to, or used, in this dish?

▶What function do the eggs perform in this dish? How do they perform this function?

❑ Main source of protein ❑ Thickening ❑ Emulsifying

❑ Leavening ❑ Binding or coating ❑ Glazing

▶**Denaturation** occurs when the protein breaks down. This usually happens when protein is heated, agitated or when another substance is added to it. **Coagulation** occurs when protein forms clots. How do these two processes apply to this dish?

▶Identify which of the following cooking processes are used in this recipe:

❑ Moist heat cooking (poaching, boiling)

❑ Dry heat cooking (baking, frying)

❑ Beating

❑ Separating

❑ Blending

❑ Coating

❑ Whipping

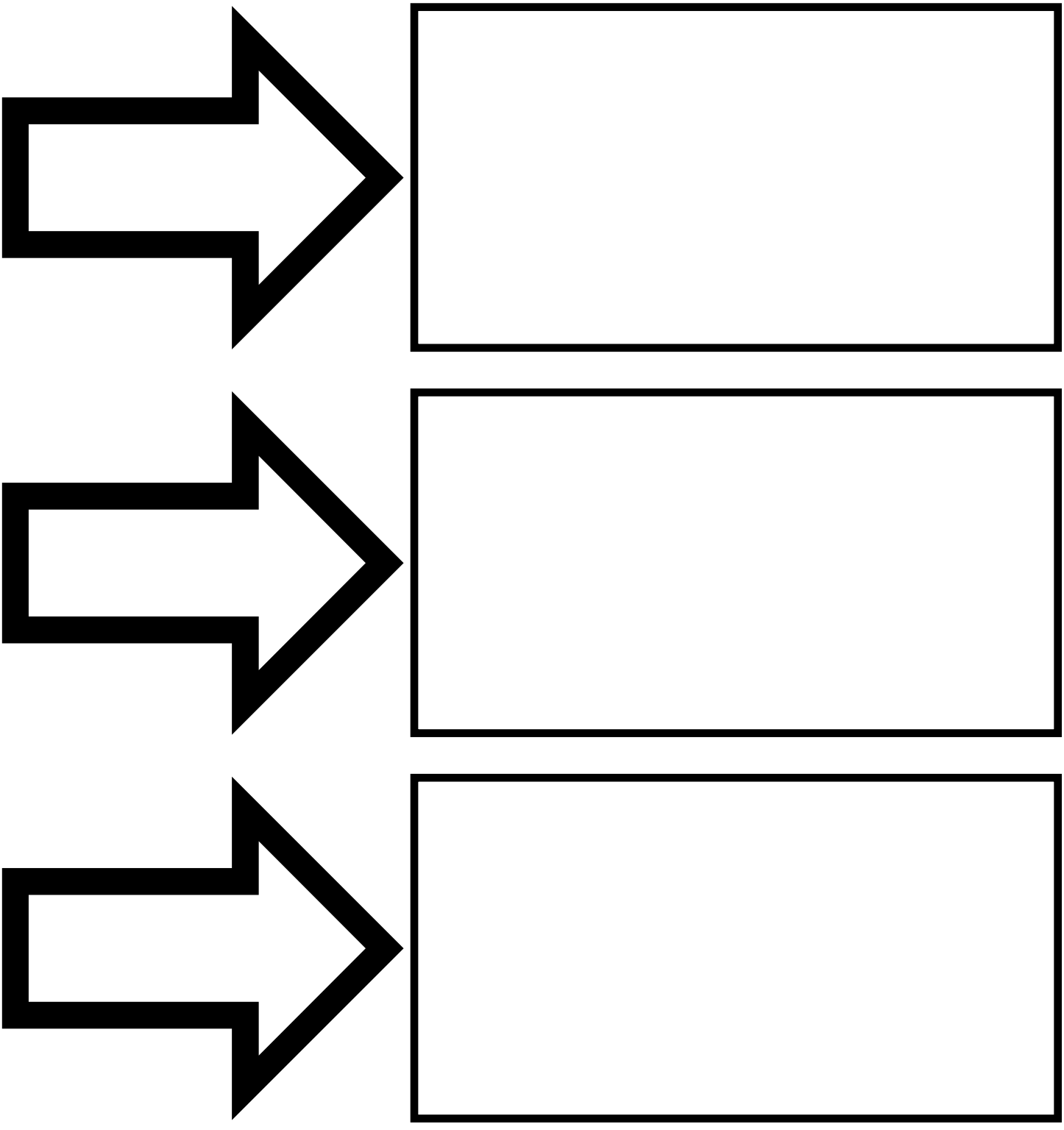
❑ Freezing

❑ Microwaving

❑ Other _____

triple t-chart

if/when-then chart



3 Cook

The Recipe	Ingredients & Equipment	Observations
A cooked milk dish		
A cooked cheese dish		
An egg dish, in which eggs are used as a thickening, leavening, emulsifying, coating, glazing or binding agent		
An ethnic dish or one that accommodates special dietary restrictions		
A dish for a meal that includes more than one milk product and eggs		

the dish	Ingredients

Nutrient value

Check the nutrients that you think are in this dish.	Select one milk product or egg ingredient. Use the product card or **www.eatracker.ca** to fill in the nutrient table for this ingredient.

- ❑ Fat
  - ❑ Saturated
  - ❑ Trans fat
- ❑ Cholesterol
- ❑ Sodium
- ❑ Carbohydrate
- ❑ Fibre
- ❑ Sugars
- ❑ Protein
- ❑ Vitamin A
- ❑ Calcium
- ❑ Vitamin C
- ❑ Iron

Nutrition Facts

Amount

Fat ☐ g
Saturated ☐ g
+ Trans ☐ g
Cholesterol ☐ mg
Sodium ☐ mg
Carbohydrate ☐ g
Fibre ☐ g
Sugars ☐ g
Protein ☐ g

Cooking methods

Presentation

Sensory properties

Comment on the characteristics of your finished dish.

Type of food	Taste profile	Texture	Culinary uses

Evaluate your results.

Appearance	Consistency	Texture	Palatability

Challenge yourself by planning a balanced meal that includes your dish.

Power Up! checklist

I can...	I have...
select & compare	❑ Analyzed food ingredients and milk product and eggs in meals or dishes
❑ Identify a range of milk products and eggs in dishes and meals	❑ Identified my personal milk product and egg food preferences
❑ Assess food choices and dietary considerations	❑ Identified a range of milk product and eggs that are part of daily food choices
❑ Analyze nutritional values	❑ Assessed dietary choices, limitations and alternatives
❑ Explore processing, handling and storage tips	❑ Compared characteristics of milk products, cheese and eggs
	❑ Assessed milk products and eggs for nutritional value, processing and storage and handling requirements
	❑ Explored information provided on food labels
prep	❑ Identified cooking processes applied to dishes with milk products and eggs
❑ Survey personal experiences and cooking processes	❑ Participated in demonstration recipes that illustrate how milk products react to tannins or salt
❑ Explore principles of protein cooking, including issues associated with temperature and cooking time, potential problems when milk is exposed to tannins, acids and salts	❑ Participated in demonstration recipes that illustrate how milk reacts with acids
	❑ Participated in demonstration recipes that illustrate how milk can act as a thickening agent
❑ Identify functions of eggs in cooking	❑ Participated in demonstration recipes that illustrate how to avoid scorching milk and skin formation
❑ Complete process evaluation forms for three or four different cooking techniques	❑ Participated in demonstration recipes that illustrate the principles of protein cookery with cheese and/or a milk product
	❑ Participated in demonstration recipes that illustrate the whipping and thickening properties of cream
	❑ Participated in demonstration recipes that illustrate the emulsifying properties of butter
	❑ Participated in demonstration recipes that illustrate the thickening properties of egg yolks
	❑ Participated in demonstration recipes that illustrate eggs as an emulsifier or binding/coating agent
	❑ Participated in demonstration recipes that illustrate eggs as a leavening agent when separated
	❑ Participated in demonstration recipes that illustrate eggs as a leavening agent

Power Up! checklist

I can...	I have...
cook ❑ Select a range of at least five presentation dishes that include milk product and egg ingredients ❑ Cook and demonstrate each dish through in-class participation, video or photographic evidence ❑ Individually evaluate at least one of the presentation dishes cooked for nutrition, preparation time and tasks, cooking processes and quality standards ❑ Demonstrate safe and sanitary kitchen practices	❑ Prepared and presented one cooked milk dish ❑ Prepared and presented one cooked cheese dish ❑ Prepared and presented one egg dish ❑ Prepared and presented one ethnic or special dietary restricted dish ❑ Prepared and presented a dish that incorporates various milk products and eggs into a meal ❑ Applied safe and sanitary kitchen practices ❑ Demonstrated appropriate use of kitchen equipment and implements ❑ Demonstrated proper storage and handling of milk products and eggs

Criteria statements	Performance	Comments
select & compare Identify similarities and differences in a range of milk products and eggs	❑ Exceptionally ❑ Competently ❑ Simply ❑ Requires more support	
select & compare Describe the use of milk products and eggs, including nutritional value and dietary concerns	❑ Exceptionally ❑ Competently ❑ Simply ❑ Requires more support	
prep Describe the role of milk in different cooking applications	❑ Exceptionally ❑ Competently ❑ Simply ❑ Requires more support	
prep Describe the role of cheese in different cooking applications	❑ Exceptionally ❑ Competently ❑ Simply ❑ Requires more support	
prep Describe the role of eggs in different cooking applications	❑ Exceptionally ❑ Competently ❑ Simply ❑ Requires more support	

Criteria statements	Performance	Comments
cook Prepare and present one cooked milk dish	❑ Exceptionally ❑ Competently ❑ Simply ❑ Requires more support	
cook Prepare and present one cooked cheese dish	❑ Exceptionally ❑ Competently ❑ Simply ❑ Requires more support	
cook Prepare and present one egg dish	❑ Exceptionally ❑ Competently ❑ Simply ❑ Requires more support	
cook Prepare and present one ethnic or special dietary restricted dish	❑ Exceptionally ❑ Competently ❑ Simply ❑ Requires more support	
cook Prepare and present a dish that incorporates various milk products and eggs into a meal	❑ Exceptionally ❑ Competently ❑ Simply ❑ Requires more support	
all Demonstrate proper storage and handling of milk products and eggs	❑ Always ❑ Consistently ❑ Usually ❑ Seldom ❑ Not observed	

Criteria statements	Performance	Comments
all Demonstrate safe and sanitary kitchen practices	❑ Always ❑ Consistently ❑ Usually ❑ Seldom ❑ Not observed	
all Demonstrate appropriate use of kitchen equipment and implements	❑ Always ❑ Consistently ❑ Usually ❑ Seldom ❑ Not observed	
all Apply communication and thinking skills to problems and challenges	❑ Always ❑ Consistently ❑ Usually ❑ Seldom ❑ Not observed	
all Demonstrate teamwork skills	❑ Always ❑ Consistently ❑ Usually ❑ Seldom ❑ Not observed	

Criteria	Great	Yes	Almost	Not yet

Criteria	Great	Yes	Almost	Not yet
Identify a range of milk products & eggs in dishes and meals	Creates a **well-designed**, **balanced** and **nutritious** meal that includes milk products and eggs	Creates a **functional** and **nutritious** meal that includes milk products and/or eggs	Creates a meal that **combines one or more** milk products or eggs	Creates a meal with **minimal** food combinations and ingredients
Assess food choices and dietary considerations	Combines **interesting** dishes that **creatively** use milk product and egg ingredients in the meal	Combines **appropriate** dishes that **include** milk product and egg ingredients in the meal	Selects **limited** dishes for the meal	Provides **limited** dishes with **few** ingredients for the meal
Analyze nutritional values	Makes **accurate** comparisons between the nutritional value of **more than** two main food ingredients in the meal	Makes **adequate** comparisons between the nutritional value of **at least** two main food ingredients in the meal	Provides **limited** information about nutritional values of a food ingredient	Provides **little or no** information about nutritional values
Demonstrate basic competencies	Demonstrates ability to **effectively** organize, summarize and synthesize information to reflect a balanced meal with a range of milk product and egg choices	Organizes information **appropriately** to reflect a balanced meal with milk product and/or egg choices	Provides **limited** information that includes milk products or eggs as food choices for a meal	Includes **little** information about milk product or egg food choices in a meal

Criteria	Great	Yes	Almost	Not yet
Identify cooking processes involved in a recipe	Identifies **all** cooking processes involved in recipe	Identifies **most** cooking processes involved in recipe	Identifies **some** cooking processes involved in recipe	Identifies **few or no** cooking processes involved in recipe
Apply principles of protein cooking (temperature and cooking time, potential problems when milk is exposed to tannins, acids and salts)	Describes **multiple** causes and effects related to protein cookery with a milk product, **accurately** linked to **more than one** cooking process involved in the recipe	Describes a **relevant** cause and effect related to protein cookery with a milk product, **accurately** linked to **at least one** cooking process involved in the recipe	Identifies a **basic** cause and/or effect related to protein cookery with a milk product or **simple** cooking process involved in the recipe	Provides **limited** descriptions of causes and/or effects related to protein cookery with a milk product
Apply understanding of functions of eggs in cooking (as a thickening, leavening, emulsifying or binding/ coating agent)	Describes **multiple** causes and effects related to egg cookery, **accurately** linked to **more than one** cooking process involved in the recipe	Describes a **relevant** cause and effect related to egg cookery, **accurately** linked to **at least one** cooking process involved in the recipe	Identifies a **basic** cause and/or effect related to egg cookery or **simple** cooking process involved in the recipe	Provides **limited** descriptions of causes and/or effects related to egg cookery
Demonstrate basic competencies	Demonstrates ability to **effectively** organize, summarize and synthesize information about principles of protein and/or egg cookery	Organizes information **appropriately** to describe principles of protein and/or egg cookery	Provides **limited** evidence of organizational skills	Includes **little** evidence of organizational skills

Criteria	Great	Yes	Almost	Not yet
Demonstrate principles of protein cooking (temperature and cooking time, potential problems when milk is exposed to tannins, acids and salts)	Demonstrates **accurate** and **skillful** application of protein cooking processes	Demonstrates **functional** application of protein cooking processes	Demonstrates **limited** application of protein cooking processes	Provides **minimal** demonstration of protein cooking processes
Demonstrate understanding of functions of eggs in cooking (as a thickening, leavening, emulsifying or binding/coating agent)	Demonstrates **accurate** and **skillful** use of eggs as a thickening, leavening, emulsifying and/or binding/coating agent	Demonstrates **functional** use of eggs as a thickening, leavening, emulsifying and/or binding/coating agent	Demonstrates **limited** use of eggs as a thickening, leavening, emulsifying and/or binding/coating agent	Demonstrates **minimal** use of eggs as a thickening, leavening, emulsifying and/or binding/coating agent
Evaluate at least one of the presentation dishes cooked for nutrition, cooking processes and quality standards	Makes **accurate** assessment of product's nutritional value and quality standards	Makes **adequate** assessment of product's nutritional value and quality standards	Provides **limited** assessment of product's nutritional value and quality standards	Provides **little or no** assessment of product's nutritional value and quality standards
Demonstrate safe and sanitary kitchen practices	Provides **thorough** evidence that safe and sanitary kitchen practices were applied in preparation of product	Provides **adequate** evidence that safe and sanitary kitchen practices were applied in preparation of product	Provides **limited** evidence that safe and sanitary kitchen practices were applied in preparation of product	Provides **little** evidence that safe and sanitary kitchen practices were applied in preparation of product