

Year 9- Food

What are eggs?

Eggs are a versatile food source rich in protein, vitamins, and minerals.

Why are eggs important in our diet?

Eggs are an important part of many diets for several reasons:

Nutrient-Rich: Eggs are a good source of high-quality protein, containing all nine essential amino acids. They also provide important nutrients like vitamins A, D, E, B12, riboflavin, and folate, as well as minerals like iron and selenium.

Healthy Fats: Eggs contain healthy fats, including omega-3 fatty acids, which can contribute to heart health and support brain function.

Satisfying: High in protein and fat, eggs can help promote a feeling of fullness, which may assist with weight management by reducing overall calorie intake.

Affordable: Eggs are generally an inexpensive source of high-quality protein compared to other animal products.

What are the different types of eggs available?

There are several types of edible eggs from various animals, each with unique flavours, textures, and culinary uses.

Chicken Eggs: The most widely consumed eggs, available in various sizes and colors (white, brown). They are versatile and used in countless recipes.

Duck Eggs: Larger than chicken eggs with a richer flavor and higher fat content. They are often used in baking and can be found in gourmet dishes.

Quail Eggs: Small and speckled, these eggs have a delicate flavor and are often used in appetizers, salads, or as garnishes.

Goose Eggs: Much larger than chicken eggs, they have a richer taste and are less commonly used but can be great for baking.

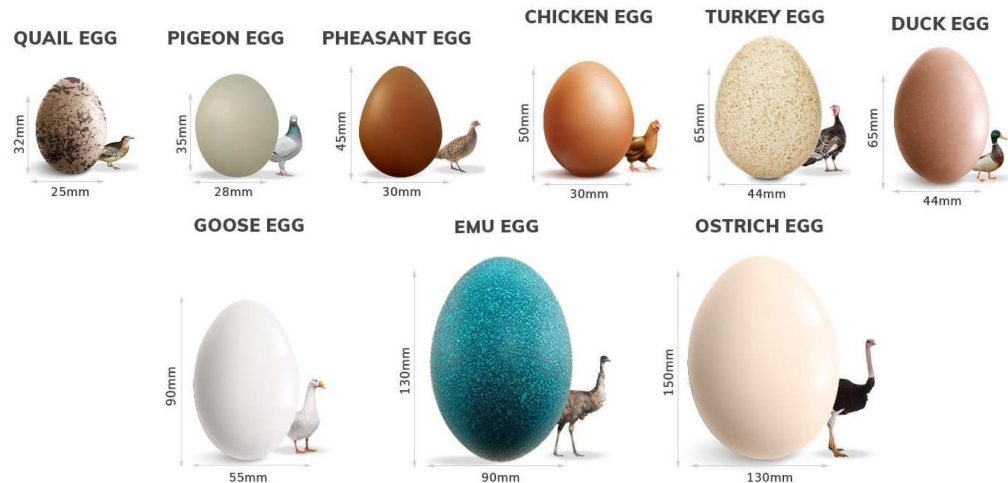
Turkey Eggs: Similar to chicken eggs but larger and less common in the market. They have a rich flavor and are used in various dishes.

Ostrich Eggs: The largest of all bird eggs, one ostrich egg is equivalent to about two dozen chicken eggs. They are rare and often used for novelty purposes or in large dishes.

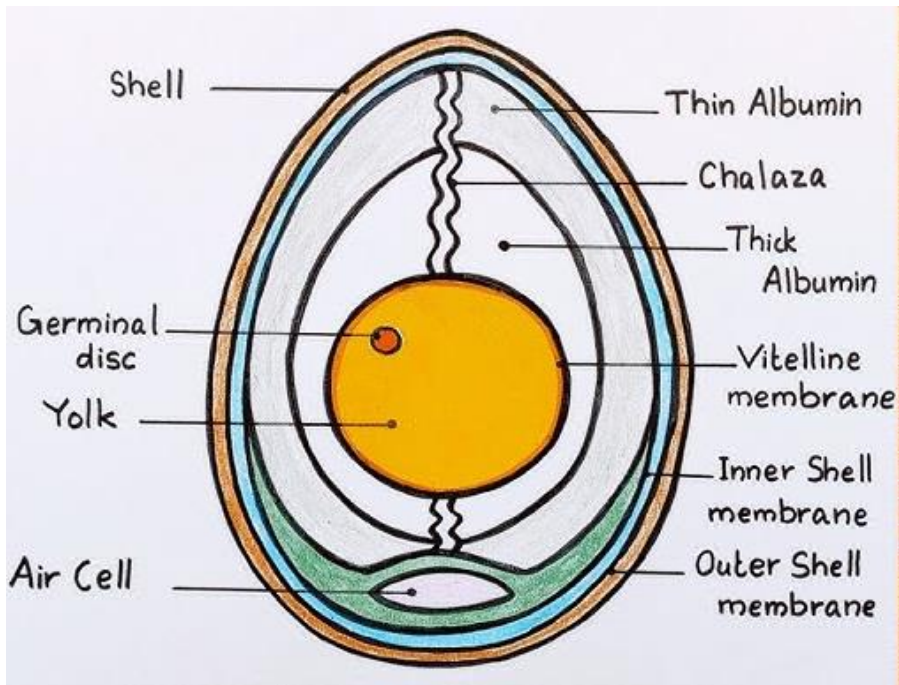
Fish Eggs (Caviar): Delicacies made from fish roe, particularly from sturgeon, salmon, and other fish. Caviar is prized for its flavor and is often served as an appetizer or garnish.

KEY WORDS

Biodegradable	A material that can break down in the environment without destroying nature
Coagulation	This is when protein denatures and forms a solid structure
Blanch	Put fruit or vegetables into boiling water for 2 minutes then plunged into iced water
Curing	When meat is treated with chemicals like sodium nitrite to preserve it for a longer period of time
Emulsification	The property of fat that allows it to be mixed with a liquid after the addition of an emulsifier such as egg yolk
Marinate	To soak meat in a weak acid solution ie lemon juice to denature the protein and make it more tender
Reduction	When the water is allowed to evaporate from a sauce or liquid concentrating the flavours
Processed	Changes made to a raw food to make it more edible
Radiation	Happens in grilling and microwaving when infra-red waves or microwaves pass through and heat the surface of the food, giving the molecules energy
Unleavened bread	Flat not risen



What is the structure of an egg?



Shell	Protects the egg and is covered in small holes which let water pass out of the shell and air to enter over time.
Shell membrane	This is on the inside of the shell and slows down the loss of water evaporating from the egg and helps prevent the entry of bacteria. Air can move through the membrane to take up the space of the water that is lost.
Air sac	As an egg becomes older, the water from the egg evaporates through the shell and the air sac becomes bigger.
Yolk	The yellow oily part at the centre of the egg. This would feed the developing chick if the egg was fertilised.
Germinal disc	circular area on the surface of an egg where fertilisation occurs
Yolk membrane	This surrounds the yolk, keeping it separate from the egg white.
Chalazae	Twisted protein strands at either end of the egg yolk to hold it in place in the centre of the egg.
Thick and thin white	This surrounds the yolk. As the egg gets older it becomes thinner and more watery.

How can egg be prepared?

Fried



Scrambled



Poached



Hard or Soft Boiled



How can we use eggs?

Eggs have many functional properties: this means they can carry out important jobs when making different food products for example cakes, sauces and desserts.

Aeration

Air can be whipped into the egg white to form a foam. When heated slowly the protein sets and the foam holds its shape.



Coating

Foods for frying need a protective layer on the outside which sets and holds the food together.



Garnishing

Hard-boiled eggs sliced and chopped, can be used to decorate and finish a dish.

