



A Publication of *Alpha Omega Institute*  
 May/June 2000  
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### EGG-MAZING

Which came first, the chicken or the egg? The Bible has the answer! *And God said, Let the waters bring forth abundantly the moving creatures that hath life, and fowl that may fly above the earth in the open firmament of heaven... And God blessed them, saying, Be fruitful, and multiply, and fill the waters in the seas, and let fowl multiply in the earth.*

(Genesis 1:20,22) The chicken was created first with a way to reproduce its own kind. That way was with an egg.

Now the egg may seem like an ordinary, common item, but just looking at how an egg is formed shows it to be a marvelous creation. Let's look at a female chicken (**hen**) to see how an egg is made before it is laid.

Inside the hen is a reproductive organ called an **ovary** which contains thousands of tiny cells called **ova** (only one of these cells is called an **ovum** -the word "egg" will be used for the final product; shell, white, and yolk). These ova are half of the beginning of life for a baby chick. The ovum is contained in a very thin envelope called the **follicle**, which is attached to the ovary by a slender stalk.

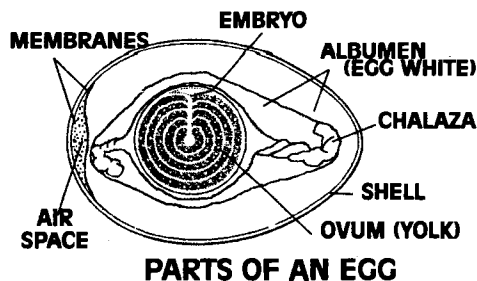
The follicle has a very important job. The liver builds the materials for making **yolk** and puts it into the blood. The cells of the follicle collect this yolk material (yellow part of an egg) from the blood and adds it to the ovum. The follicle cells continue to add layers of yolk as the ovum grows. At the right time

the follicle breaks open and the yolk is freed from the ovary. This is called **ovulation**. The ovum then moves into a long tunnel-like organ called the **oviduct**.

The first part of the oviduct is where the ovum is fertilized with a single cell called a **sperm**. The sperm cell is made in the body of the male chicken (**rooster**). The rooster sends thousands of sperms into the body of the hen, and they move up through the oviduct, where a single sperm cell fertilizes the ovum. The sperm cell is the other half of the beginning of life for an **embryo** (baby chick). The part of the egg that will grow to become a chick is a small white cloudy spot on the surface of the yolk. If no sperm is present, no baby chick will develop.

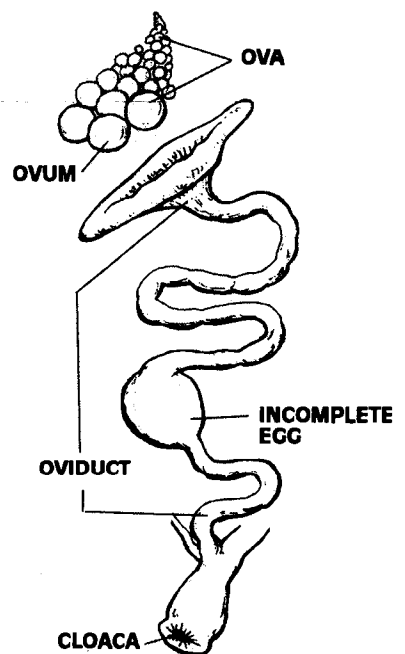
Next the ovum moves down the oviduct where it receives the **albumen (egg white)**. Here in the oviduct are folds which spiral. The ovum is slowly rotated and the first layer of thick egg white is twisted. These twisted ends, called **chalazae**, holds the yolk in the center of the egg at all times and begins to give the egg its shape. The ovum continues down the oviduct where more albumen is put on in layers.

Then two very thin, tough, clear layers called **shell membranes** are formed around the albumen. The two membranes touch each other at all but one point, the blunt end of the egg, and the space between them forms an **air space**.



PARTS OF AN EGG

The egg passes into the **uterus (shell gland)**. Here the egg will stay for eighteen to twenty hours where it will be gently kneaded and shaped as **calcium** is gradually deposited making the **eggshell**. The eggshell is a very complex design, made of several layers. The last and outer one may contain color.



REPRODUCTIVE ORGANS OF A CHICKEN

Now the egg, magnificently complete, is laid through the **cloaca**. If the egg is fertile, the yolk and albumen will provide food and water for the growing chick or embryo. The shell and membranes will protect the delicate new life until it has grown strong enough to come out into the world.....but that is a story for the next issue of *Kids Think and Believe Too*....

Evolution teaches that the chicken and the egg evolved at the exact same time and it all happened by chance and accident. But both the design of a chicken and the egg could never have happened by chance and accident. The chicken and the egg demands a Creator!

### WORD SEARCH

Look for the words hidden in the puzzle below from words in the word list. The hidden words might be up and down, sideways, or slanted (not backwards). All words are from "Egg-mazing."



L	E	G	G	C	E	N	I	E	C	R	A	O	E	M	B	R	O
I	U	E	O	F	E	I	C	N	O	R	C	L	O	A	C	A	L
V	E	T	W	M	G	A	A	H	L	V	E	O	V	U	M	S	N
E	S	I	U	W	P	F	L	R	O	R	U	A	H	T	E	E	R
R	U	B	H	S	T	H	T	A	H	O	O	L	T	N	D	M	L
C	L	T	R	C	H	A	L	A	Z	A	E	O	A	O	E	M	H
A	K	I	E	S	B	M	S	T	A	L	K	R	S	T	R	S	E
L	A	C	C	R	D	H	Y	T	E	O	B	L	E	T	I	R	N
C	F	O	A	H	U	R	J	C	M	M	L	L	F	E	E	O	T
I	O	E	A	I	A	S	U	U	E	E	C	H	O	A	C	R	N
U	S	C	R	V	H	D	R	M	C	I	D	C	V	B	T	S	E
M	T	S	O	T	O	O	L	R	L	A	N	N	I	N	A	T	D
W	S	N	L	R	I	L	U	L	A	A	E	A	D	T	Y	B	S
S	R	D	P	N	E	L	O	S	H	K	K	D	U	B	D	H	Y
P	B	E	N	H	Y	F	E	I	C	L	I	A	C	I	A	I	A
E	R	L	S	T	N	I	R	I	O	A	Y	T	T	S	A	L	K
R	D	E	L	C	T	P	H	Y	L	S	W	E	Q	O	C	H	U
M	T	O	D	E	T	C	S	S	H	E	L	L	G	L	A	N	D

### WORD LIST (not in alphabetical order):

OVARY, OVUM, FOLLICLE, YOLK, OVULATION, OVIDUCT, ROOSTER, EMBRO, ALBUMEN, CHALAZAE, SHELL MEMBRANES, UTERUS, SHELL GLAND, CALCIUM, EGG, HEN, CLOACA, CREATOR, CHICKEN, FERTILE, LAID, AIRSPACE, SPERM, REPRODUCE, CELLS, STALK, LIVER, BABY.

### EGG YOLKS (JOKES)

A. What kind of eggs does a wicked chicken lay?

B. Where do tough chickens come from?

C. Why does a chicken lay an egg?

D. If an egg came floating down the Mississippi River, where did it come from?

E. Is it better to say, "The yolk of an egg is white," or "The yolk of an egg are white?"

F. If you cross a dog and an egg, what would you get?



### ANSWERS

A. Deviled eggs. B. Hard-boiled eggs. C. If she dropped it, it would break. D. A chicken. E. Neither. An egg yolk is yellow. F. A poached (poached) egg.



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L	E	G	G	C	E	N	I	E	C	R	A	O	E	M	B	R	O
I	U	E	O	F	E	I	C	N	O	R	C	L	O	A	C	A	L
V	E	T	W	M	G	A	A	H	L	V	E	O	V	U	M	S	N
E	S	I	U	W	P	F	L	R	O	R	U	A	H	T	E	E	R
R	U	B	H	S	T	H	T	A	H	O	O	L	T	N	D	M	L
C	L	T	R	C	H	A	L	A	Z	A	E	O	A	O	E	M	H
A	K	I	E	S	B	M	S	T	A	L	K	R	S	T	R	S	E
L	A	C	C	R	D	H	Y	T	E	O	B	L	E	T	I	R	N
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M	T	O	D	E	T	C	S	S	H	E	L	L	G	L	A	N	D

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