

# Table of Contents

<b>CSF Schedule</b> .....	3
<b>Introduction</b> .....	4
<b>CHICKEN AND EGG</b>	
Eggs .....	5
Egg Centres.....	8
Eggs Poem .....	10
Parent Letter .....	11
My Science Journal .....	12
Making an Incubator.....	13
The Inside of an Egg .....	14
Making Little Books.....	15
Announcing... ..	19
Mini Book.....	20
Egg and Chick Shapes .....	22
<b>BUTTERFLIES AND FROGS</b>	
Life Cycles .....	23
Life Cycles Centres .....	26
Caterpillars and Tadpoles Poem.....	27
Life Cycle of a Butterfly .....	28
Life Cycle of a Frog .....	29
Parent Letter .....	30
Making Little Books.....	31
Which are Insects? .....	35
Caterpillar Counting Gameboard .....	36
Caterpillar Counting Game Cards .....	38
<b>CATERPILLARS AND BUTTERFLIES</b>	
A Butterfly's Secret Life .....	39
How to Make Do-Along Books .....	40
A Do-Along Book .....	41
All Kinds of Eggs.....	44
Butterfly Egg Shapes .....	46
Caterpillars are Insects, Too .....	47
Caterpillar Shape .....	48
Caterpillars Change Their Shapes .....	49
Class Calendar .....	51
Monarch Butterfly .....	52
A Butterfly is Here .....	53
Butterfly Shapes and Parts .....	55
Life Cycle of a Butterfly .....	56
Make a Butterfly Net .....	57
<b>EXTENDED ACTIVITIES</b>	
Extended Activities.....	58
Metamorphosis of a Frog .....	59
Growth of an Insect: The Life Cycle .....	60
Life Cycle of a Flower .....	61
An Ant Village .....	63
Make a Circle Book .....	64
Cycle Circles.....	65
<b>Bibliography and Related Resources</b> .....	66

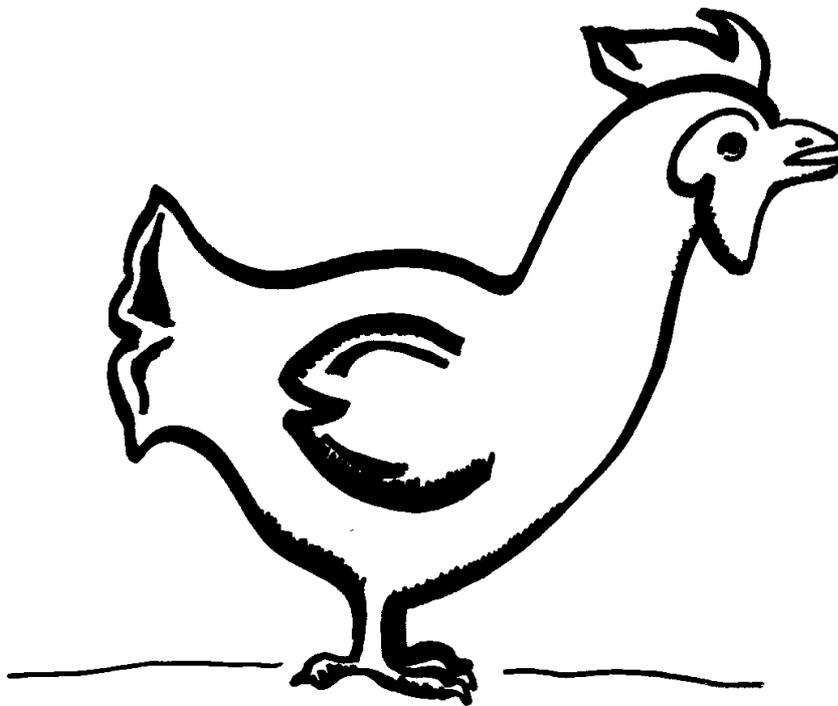
# Introduction

Life Cycles contains a fascinating thematic unit covering a variety of life cycles. It studies; caterpillars and butterflies, tadpoles and frogs and chickens and eggs. The final section has several extended activities to reinforce and expand the children's knowledge.

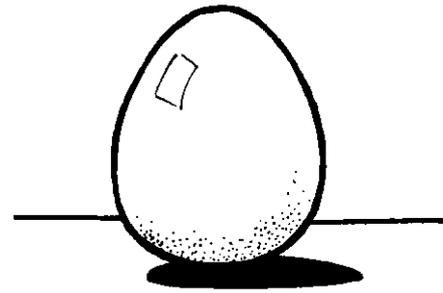
The book is filled with a large selection of lesson ideas and reproducible pages designed for use with students studying CSF Science level 2. The sessions cross the curriculum and include:

- Literature selections; a summary of the children's books with related sessions
- Ideas for writing
- Making little books
- Maths exercises
- Shared experiences to foster cooperative learning
- Research, observation and recording these observations in a science journal
- Art and games

These activities will encourage children to discover the role of life cycles in nature. Enjoy the book.



# Eggs



**Featured Literature:** *The Egg*

**Authors:** Pascale de Bourgoing and Gallimard Jeunesse.  
Illustrated by René Mettler

**Publisher:** Moonlight Publishing/ First Discovery

**Summary:** This is one book in a nonfiction series that has a unique feature. Some pages are plastic overlays which enable the reader to look ‘inside’ illustrations. This book shows the development of a baby chick as it grows inside an egg. Other animals who lay eggs are also discussed and the colours and sizes of many eggs are shown.

## Additional Literature:

*From Egg to Chicken* by Dr Gerald Legg, Illustrated by Carolyn Scrace (Franklin Watts)  
*Green Eggs and Ham* by Dr. Seuss (Random House, 1960)  
*Hatching Out* (Methuen Australia)  
*See How They Grow: Chicks* by Jan Burton (Dorling Kindersley, 1991)  
*The Chicken or The Egg* by Allan Fowler (Childrens Press)

## Session One

1. Before reading the featured selection to the class, cut a large egg shape out of cardboard. Write ‘What Hatches From Eggs?’ on it. Brainstorm with the class, what animals they think hatch from eggs. Write all answers on the egg shape with one colour marker. Put a question mark next to any the children are unsure about.
2. Read the story, drawing attention to the plastic overlays. Define the word ‘oviparous’, which means ‘hatches from eggs’. Go back to the large egg shape and put a star next to the animals mentioned in the book. Use a different coloured marker to add any new animals named in the book, but not on the original list. Cross out any animals that do not hatch from eggs (or do this later after researching answers). Save the list for future use.
3. Read the ‘Eggs’ poem on page 10. Enlarge the poem on chart paper to enable the class to see it.
4. Consider having a real hatching experiment. Obtain some chicken eggs, which hatch in about 21 days, from a farm supplier or university agriculture program. Gather supplies; incubator (preferably with an automatic turner), food, a water bottle and a brooder for the newborn chicks (see page 13).
5. Send home the parent letter (page 11) explaining the surprise egg activity. Attach a small plastic egg in a self-sealing plastic bag to each letter. Prepare a large plastic egg as a surprise egg for the classroom.
6. Tell the class they are going to keep a journal to record their observations of the eggs. See page 12 for a suggested journal format.

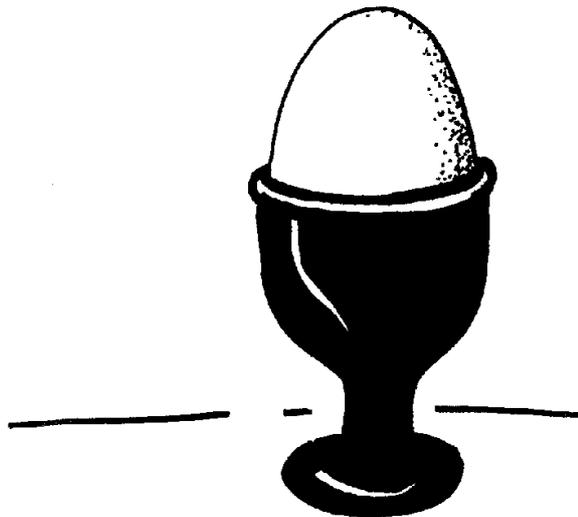
# Eggs (cont.)

## Session Two

1. Learn about the parts of an egg; shell, membrane, albumen, yolk and germ spot. Use the diagram found on page 14 to teach the children these new words. Working in small groups, crack open some real eggs into plastic bowls and find all the parts. Try some simple egg experiments, such as spinning an egg to find out if it is raw or hard-boiled. You might also try floating an egg in plain water and then in salt water (salt water makes the egg buoyant so it floats).
2. Recite to the class the rhyme, 'Humpty Dumpty'. This rhyme provides a great opportunity to talk about cause and effect. Read 'From Egg to Chicken' or 'The Chicken or the Egg' and see if you can add to your brainstorming list. Have the children draw or paint their favourite oviparous animal. These can be displayed with a sentence written underneath, such as 'A snake hatches from an egg'.
3. Another daily game for this unit is 'Who's Hatching Today?' Display a large egg shape and each day hide a picture of a different oviparous animal underneath. Give the children three clues about the animal and have them guess the animal of the day. The clues can be given orally or written next to the egg. Encourage children to write their guesses on the egg (laminated the egg shape and use a wipe-off marker).

## Session Three

1. Read the 'Eggs' poem again and have the children make the little book (see pages 15 to 18)
2. Select another book for shared reading and discussion.
3. Talk about the different ways that eggs are prepared as food. Make a picture graph of the children's favourite ways of eating eggs. Head each column with a picture of different kinds of eggs scrambled, fried, hard-boiled. Children can indicate choices by signing their name on an egg shape and placing it in the appropriate column.



# Making an Incubator

## Objective

To build an incubator and to incubate and hatch some chicken eggs.

## Materials

A heavy cardboard box with a lid, a sheet of glass smaller than the side of the box, masking tape, a sixty watt light bulb, a socket with a plug-in cord, a thermometer, a small pan of water and a number of fertilised chicken eggs (you can get these from a poultry supply house).

## Procedure

- Cut a hole in the side of the cardboard box slightly smaller than your piece of glass.
- Tape the glass in the box so that it covers the hole. The edges should be sealed so no air can escape.
- Wire the lightbulb socket into the back of the box (opposite the window).
- Tape up the holes so the box is airtight. Affix a thermometer to the back so that it can be seen through the window.
- Now you are ready to put the eggs in. Place the eggs on the bottom of the box with a pan of water beside them to keep the air moist.
- Put a sixty watt lightbulb in the socket and plug the socket in. This will keep the temperature between 39° and 41°C.
- Place the lid on the box. It should fit as tightly as possible, but don't seal it, because you will have to get into the box every day.

Each day you should check the temperature to make sure it is within the proper limits. If the temperature is too low, the lid is not tight and air is entering. You may also need a higher wattage bulb. If the temperature is too high, use a lower watt bulb.

You will have to turn the eggs at least once each day, but not more than twice. This turning action keeps the baby chicks from being deformed by having their heads or feet stick to the shell. You may sprinkle water over them periodically.

The eggs should hatch in 22 days

