

Take This

Consider:
Keeping Ourselves Safe
KOS
Egg-minding task



Years 3-4



GEOMETRY

Shape

Have students draw accurately and name 2D shapes. Highlight and have students write about the oval: its 'squashed circle' appearance, no corners, one continuous side, longer than wide, and its other name, ellipse (students do not need to know this). Together name and identify features of common 3D solid shapes including egg shape (ellipsoid). Place shapes in a feely bag. Play what's my shape? Students take turns to feel a shape, describe it to others who guess shape by given attributes. Make overt the connection between plane (2D) shapes that make up the faces of the 3D shapes. eg. 4 faces of square based pyramid are triangles. Together, talk about the continuous face of the ellipsoid, no edges, no corners. Discuss clever packaging of egg carton. Provide construction material. Have students design and make a container to hold and nestle the curves of their hard-boiled golden egg.

GEOMETRY

Rotational symmetry

Explain. Students will create a design to decorate their egg. Provide small paper 'sticky' squares, Students draw simple, identical pattern on each. Combine these to make one big square, $\frac{1}{4}$ turning each to create rotationally symmetrical design, order 4. Transfer to top and bottom of egg using felt pens.

MEASUREMENT

Mass, capacity, time

Make available egg cartons with different grades (5,6,7,8), and each containing some eggs, have 1 full carton. Before opening the cartons ask, what do the numbers mean?

Discuss. Explain that egg 'sizes' are decided by weight. Discuss standard measure, 1kg. Use scale to show 1000g = 1kg. Find this on regular kitchen scales. Predict weight of 1 carton of eggs. $>< 1\text{kg}$? Together calculate 1 egg. Prove on scales. Introduce electronic scales. Students in pairs, weigh, sort, grade a mixed selection of eggs according to grading scale: *Minimum weight for each grade: Jumbo (8) 68g, Large (7) 62g, Standard (6) 53g, Medium (5) 44g.* With support, have students make a table and record findings.

Apply measuring skills to make pikelets, pancakes, (similar recipe, using egg/s).

Cook 'golden' hard-boiled eggs. (Put onion skins into boiling water to make shells turn golden). List and monitor time carefully for soft, medium, hard.

STATISTICAL INVESTIGATIONS AND LITERACY

State an assertion for investigation: eg. Children in our class know a lot about chickens and eggs. Plan an investigation. Agree that to find out what someone knows you ask questions. List questions: Where do eggs come from? Why are some eggs different colours? What are free-range eggs? Why do eggs have yolks? Where do hens come from? Where do hens live? Where does the chicken we eat come from? Etc. List each 'useful' question on a separate line on the questionnaire, leaving space for brief answers. Copy, and circulate to class members to complete individually, recording their own ideas. Cut response sheets, giving the responses to one question to each student pair. (Consider the number of questions needed in the questionnaire.)

Student pairs sort the data into categories, display the data using a tally chart, dot plot, or bar graph and present findings, making statements about the data that connect with the original assertion.

It is probable that answers will vary, and a conclusion will be reached that the class should **research** answers to their questions, in order to prove/disprove the assertion. **Research chickens and eggs**, using local sources, Google, etc. List official answers, and additional information. Make egg/chicken posters.

NUMBER AND ALGEBRA

As part of the ongoing numeracy programme, pose **contextual** problems that require students to apply basic facts knowledge, partitioning strategies to addition and subtraction problems, simple multiplication, and equal sharing strategies to find fractions of sets.

Eg. Using grade sizes or the table below, pose:

- I have $\frac{2}{3}/5$ etc. eggs that together weigh Xg. What could the grades (sizes) of the eggs be?
- You need 8 Jumbo eggs for a recipe, You have 5 large and 5 standard eggs. Have you enough?
- Mum has put 3 eggs the same size, into an omelette pan. How many grams could be in the pan?
- So far I've used 4 eggs for baking. That's $\frac{1}{3}$ of all my eggs. How many eggs do I have?

Standard (6)	Large (7)	Jumbo (8)
1	1	1
2	2	2
3	3	2
5	4	3
6	5	4
7	6	5

Eg. Instead of 6 Standard eggs, you can use 5 Large or 4 Jumbo

Have students record, and explain their thinking and solutions using appropriate symbols, expressions and diagrams. Have them explain number patterns they notice.