

CER TECHNIQUE

for Primary Science

The CER technique is an effective answering technique for primary science open-ended questions.

By Janet Sim, bestselling author

If your child has issues answering primary science open-ended questions in their practices and tests, they are not alone. Due to the amount of information pupils must carefully process in order to answer open-ended science questions, it is common for many to miss out on key details and submit incomplete answers, usually with missing keywords.

To effectively tackle this, we can employ the CER technique, which systematically prompts pupils to gather evidence from the question and formulate fully fleshed-out explanations based on the evidence found. By structuring responses step by step, pupils can thereby ensure they do not miss any important details or keywords to score.

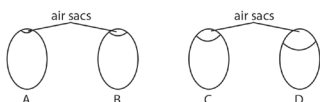
What is CER?

C: Claim	A direct statement that answers the question, without explanation or evidence
E: Evidence	Evidence from data or information provided
R: Reasoning	Explanation for how the evidence supports the claim and may involve a rule or scientific concept

Now, let us apply the CER technique to this question:

5. We can place eggs in water to determine if they are fresh. Fresh eggs will sink because their air sac is small and does not trap much air. Eggs that are not fresh will float. The floating is due to the bigger air sac that traps more air. The size of the air sac increases as the egg ages.

Lucy observes the air sacs of four chicken eggs of similar size. She sketches the diagrams as shown below.



Which egg (A, B, C or D) is the freshest? Explain. [2]

- C** Egg _____
E It has the _____
R _____

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Using the CER technique, pupils should organise their responses in this manner to score full marks:

Claim: Put forth the claim that egg A is the freshest.

Evidence: Support with evidence that egg A has the smallest air sac.

Reasoning: Deduce that the size of the air sac increases as the egg ages, and hence egg A is the freshest.

To put theory into practice, pupils can opt for assessment books that incorporate the CER technique. **Primary 3 Science Notes & Practice** (\$15.90), for instance, uses a guided approach comprising topical study notes with questions to spark reflection and thinking processes, while **Primary 3 Science Practice** (\$15.90) comprises multiple-choice and open-ended questions with varying difficulty levels and highlighted keywords in the answers for ample practice. To add, **Primary 3 Science Tests** (\$13.50) provides higher-order thinking questions, experiment-centred questions, and *Complete-It-Yourself* notes to reinforce the learning of science concepts.

With detailed answer schemes and explanations to aid pupils in refining answers, these books aim to hone pupils' scientific inquiry skills and elevate their learning experience. We strongly believe that learning goes beyond the classroom and hope that pupils can bring the knowledge they acquire with them wherever they go as they develop into holistic and creative young adults.

