5:01 Test: Working Mathematically

1 : having difficulty
2 : developing understanding
3 : progressing well

Questions that could be used

Questioning

(1) What questions could you ask about this picture that would use addition, subtraction, multiplication, division or fractions to solve it?
(2) What questions could you ask to compare heights, masses or speed of objects?
(3) What other maths questions or problems could you ask about this picture?
(4) What 'What if . . .' questions could you ask?

Suggestion
Have the children place their text books so that the front and back covers are facing upwards. They could be asked questions relating to that cover.

Applying Strategies

(1) Estimate the height of the sail and the wave if Luke is your height.
(2) Luke is travelling at an average speed of 10 m/s. How long will it take him to reach the shore if he is 50 metres away from the shore?
(3) The sailboard is two point four metres. If a quarter is covered by water what length can be seen?
(4) What shapes have been used to make the buoy?
(5) Order the heights of animals from shortest to tallest. Estimate the heights if the koala is 70 centimetres.
(6) Using the scale, 1 cm = 1 m, how far is the penguin from the echidna?

Communicating

(1) Describe the features of the beach ball.
(2) Explain why the height of the cliff and the wave are drawn the same size in the picture but aren't in real life.
(3) Use chance words to describe the likelihood of Luke making it to shore.
(4) Describe how you could find the mass of the dophin.
(5) What do you think will happen to the penguin when it is hit by the wave?

Reasoning

(1) Luke is heading in a westerly direction. What direction is the wind blowing?
(2) Why do you think the bird is alarmed?
(3) What fraction of the tyre float would be underwater?
(4) If the water is part of the Pacific Ocean explain what areas of Australia this picture could represent.
(5) How is perspective shown in this picture?

Reflecting

(1) Describe some likely outcomes to the situation of the wave hitting Luke, Sandy, the penguin or the echidna.
(2) Explain the difference between the area and the perimeter of the board.
(3) Use percentages to describe the chance of the beach ball being punctured by the echidna's spikes.

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