Ocean photo detectives

PHOTO STUDY 1 • Look closely before you explain

Birds above the sea



A flock occupies the air and water surface.

Discuss: Which birds can be counted confidently?

Ages 6–8: Point to three birds you can see clearly.

Ages 9–12: Agree on a counting rule. Record a minimum count and uncertain shapes separately.

Photographs: Troy Mayne • _TLM3758.JPG

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PHOTO STUDY 2 • Look closely before you explain

Jellyfish in open water





Jellyfish have bell-shaped bodies with trailing structures beneath them.

Discuss: Which parts are easier to see against the different backgrounds?

Ages 6–8: Trace the outline of a jellyfish with your finger.

Ages 9–12: How do the background and light change what you can see?

Photographs: Troy Mayne • in009(1).jpg, in027.jpg

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PUPIL WORKSHEET • Write, draw or discuss your answers

Name: _____ Date: _____

1. Choose one photograph. Write or draw three things you can actually see.

2. Write one possible explanation. Begin: "I think … because …".

3. What can the picture not tell you? Write a question and a way to investigate it.

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TEACHER NOTES • Suggested answers and sources

Learning goal: Separate an observation from an explanation, and describe what a photograph cannot tell us.

Time: 25–35 minutes. **You need:** the photo pages, the worksheet and pencils. Project the photographs or share printed copies; print only page 3 for each pupil.

Teach: Observe quietly, compare ideas in pairs, then discuss as a class. Younger pupils can point, draw or dictate. Older pupils should explain their evidence and identify uncertainties.

Photo discussion

Page 1: Set a class rule for clear outlines, record a minimum confirmed count and note uncertain shapes separately. Use repeated observations to investigate changes over time. One crowded image is not a population survey.

Page 2: Compare bell edges, pale tissue and trailing structures. Visibility changes with contrast and lighting. These photographs show body shapes; they do not measure transparency or establish whether the two animals are the same species.

Worksheet guidance

Accept precise descriptions of visible shapes, positions and numbers. A minimum bird count should include only individuals that meet the agreed rule; different justified counts may be reasonable.

An explanation goes beyond what is directly visible. A still photograph cannot prove a population size, a movement sequence or a jellyfish species identification without further evidence.

Check learning: Ask each pupil for one observation, one explanation and one question still to investigate.

Useful words: observation: something noticed or measured; inference: an explanation based on evidence; uncertainty: what we do not yet know.

Sources and photograph record

Adapted from Troy Mayne's WRG teacher manuscript, photo studies B01, N06. The original photographs are reproduced in full.