

## Echo Effects



**Question Book:**  
Year 3, pages 16-17

**Author / Source:**  
John Clark

**Genre:**  
Non-fiction — reference text

**Cross-curricular links:**

- Science (sound)
- PSHE (technology)

### Introduction

*Light and Sound* is part of the *Mad About Science* series, written by John Clark. The series is designed to help Key Stage Two pupils develop an understanding of and interest in science. This extract looks at echoes and how they are used in sonar and ultrasound. Before reading the extract, ask pupils to suggest some places that are good for creating echoes. Ask them if these places have anything in common with each other.

### Answers

1. E.g. Because it helps readers to imagine how echoes work. Most people will have seen how light reflects off mirrors, so this makes it easier to understand how sound reflects off hard surfaces.
2. To spot their enemies and to find their prey in the dark.
3. c. a verb
4. E.g. Ships send out ultrasound pulses and crew members record how long the pulses take to reach the seabed and bounce back up. This tells them how far away the seabed is.
5. E.g. Because they are hard.
6. Any appropriate answer. E.g. I think using ultrasound to scan a person's body is more useful because it can help to detect important medical problems. Measuring the depth of the sea doesn't help ill people.

