

## Role Cards

*(Copy and cut apart, one set of 4 cards for each group of 4 students.)*

### Pattern Pro

Carefully read the text with your fellow experts. Identify central ideas and record in your Science Notebook.

Identify and record patterns from the reading. Use 8.1.H4: Crosscutting Concepts for Middle School to help you think about this. Note (if possible) how long the pattern has been observed. Patterns in science often lead to identification of cause and effect relationships and questions. Feel free to annotate in the margin of your reading to help with your discussion.

Discuss with your group. As a group, choose three examples of patterns you find with evidence from the reading and record in your Science Notebook.

### Nature of Science Guru

Carefully read the text with your fellow experts. Identify central ideas and record in your Science Notebook.

Go back and analyze the text for nature of science themes. There are several factors that accurately describe the nature of science (what science is and how it is done):

- ☐ Scientific knowledge is based on evidence.
- ☐ Scientific knowledge is open to revision in light of new evidence.
- ☐ Science is a human endeavor.
- ☐ Scientists are often very creative in their attempts to solve problems.
- ☐ Scientists are influenced by their own personal beliefs and by society.

While reading, look for examples of these factors. Feel free to annotate in the margin of your reading to help with your discussion. Discuss with your group. As a group, choose three examples of these factors with evidence from the reading and record in your Science Notebook.

## Role Cards (continued)

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### Cause and Effect Analyst

Carefully read the text with your fellow experts. Identify central ideas and record in your Science Notebook.

Identify cause and effect relationships from the reading; use 8.1.H4: Crosscutting Concepts for Middle School Students to help you think about this. What does the reading suggest are the causes of various events discussed? What are examples of effects that may have more than one cause? How can cause and effect relationships be used to predict what is happening today? Feel free to annotate in the margin of your reading to help with your discussion.

Discuss with your group. As a group, choose three examples of these relationships with evidence from the reading and record in your Science Notebook.

### Legislative Analyst

Carefully read the text with your fellow experts. Identify central ideas and record in your Science Notebook.

Go back and reread the text with a very careful lens: what are examples of actions taken by organizations or government (look for language like, *U.S.* or *California*, which implies federal and state government) to place guidelines on what people can do.

What was the action? What was the action designed to protect? Feel free to annotate in the margin of your reading to help with your discussion.

Discuss with your group. As a group, decide on what you think are the three most important examples of these actions (the three that probably had the greatest impact on white sharks), with evidence from the reading, and record in your Science Notebook.