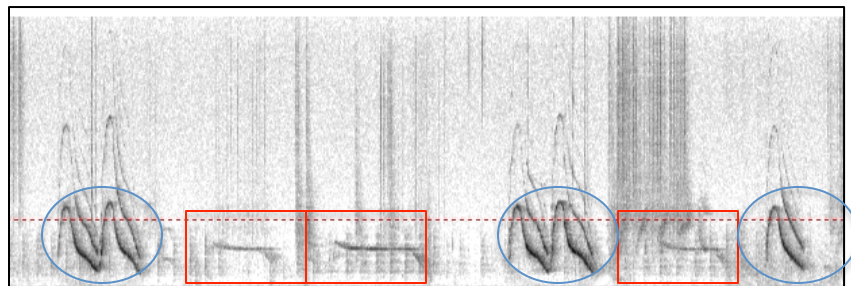


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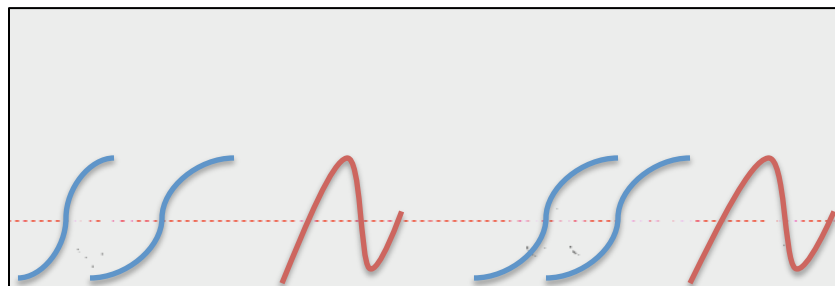
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### How to “read” dolphin

Dolphins may very well have their own names called ‘signature whistles’. Scientists cannot easily hear the differences between whistles so they use pictures called *spectrograms* to see the sounds. As a dolphin whistles, a line is drawn on a graph. If the dolphin makes a high squeaky sound the line goes up. If the dolphin makes a low deeper sound the line goes down. As time moves on the line that is drawn makes a shape. Scientists call this a *contour*. Here are examples of a real dolphin signature whistles drawn using spectrograms.



- 1) These are two dolphins making their signature whistles back and forth. Can you circle one of the dolphin’s whistles and box the other dolphin’s whistle?



- 2) Your turn to speak dolphin. Use the graph above to make your own signature whistle. Have a classmate make their signature whistle in reply.

Various answers. Possible sequence given above

- 3) Do your whistles look similar or different? How do you think dolphins avoid confusion over which whistle belongs to which dolphin?

Part 1. Various answers. Part 2. Dolphins make their whistles distinct from their podmates to avoid confusing each other.

- 4) What do you think your whistle would sound like if a dolphin made it?

Various Answers would be acceptable. Students should be able to relate the picture they drew to sound as a way of visualizing data.