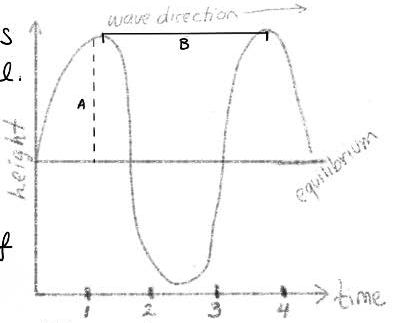
Season 2
Ep 3 · Calls from the Deep

NICE GENES!

a podcast by Genome BC

Just like you, whales communicate with SOUND. Sound travels in waves, which transport kinetic energy without transporting matter.

Identify the following terms and calculate using formulae.



1. **Wavelength λ:** distance between two waves
   A or B

2. **Amplitude** height above or below line of equilibrium
   A or B

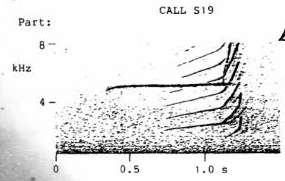
3. **Frequency** number of waves over time
   $f = \frac{\#\ of\ waves}{time\ (s)}$

4. **Hertz (Hz)** similar to frequency but standardized to number of waves per second.
   $Hz = \frac{\#\ waves}{1\ s}$

psst. Just count the wave peaks

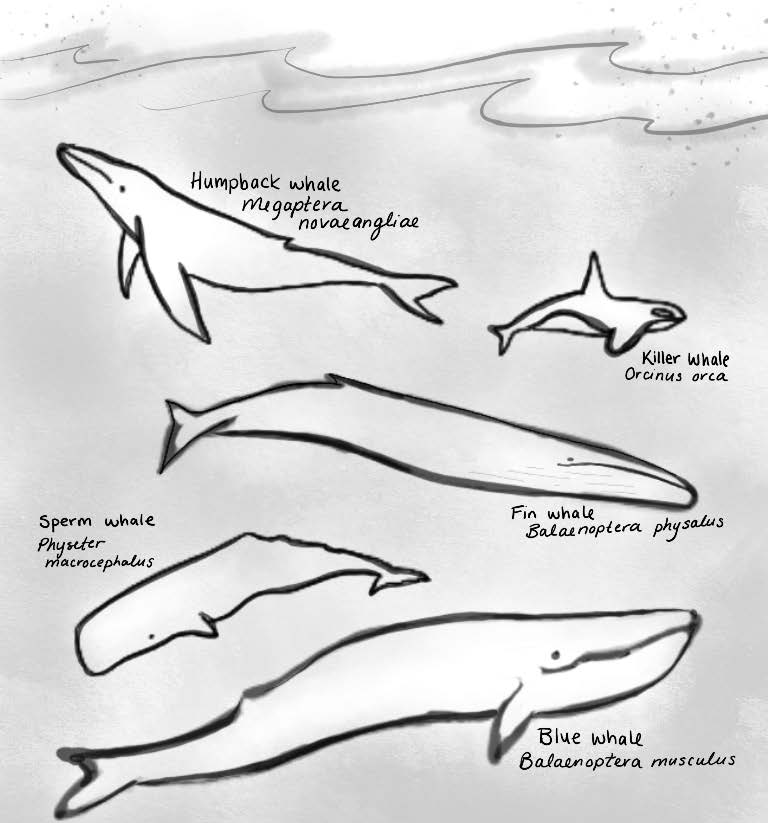
=

=



Try and sing L-pod's favourite call!
Listen to more orca sounds at
orcasound.net

doooo yooooouuuu speeeaaak whaaaale?



CETACEA

dolphins, porpoises & whales

The Lonely Whale

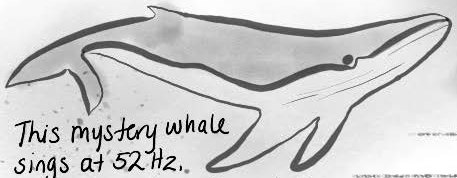
The normal range for whale calls is usually 100-7000Hz.

How do scientists know this whale exists despite never seeing it?

Why are hypotheses important in science and how do they differ from a theory?

Hello? Is anybody out there?

The lonely whale might be a hybrid! What does that mean?



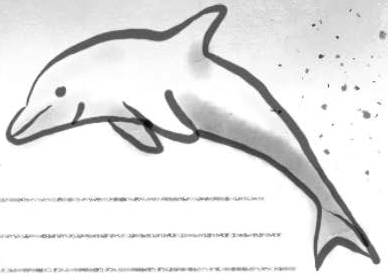
This mystery whale sings at 52 Hz, much lower than other whales.

What is the happy ending to the Lonely whale story?

How have toothed whales (like sperm whales or killer whales) evolved differently than baleen whales in their communication?

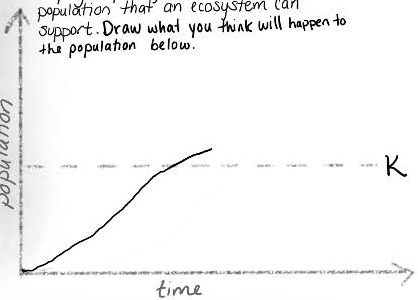
HOW

do dolphins hear differently than you? why did they evolve this way?



What factors of the marine ecosystem could affect K?

Carrying Capacity (K) - the maximum population that an ecosystem can support. Draw what you think will happen to the population below.



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- make your own DNA bracelet!
- make some edible DNA!

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