



## **Antarctica Video Answers**

**Thursday 6 November**

### **1. The Benthic Community**

Meet Sal Genovese and find out more about the unique animals that live on the sea floor below the sea ice in McMurdo Sound.

1. What does benthic mean and what sorts of animals live in the benthic community?
  - Benthic means on the sea floor and some examples of these animals include sea stars, nemertean, anemones, soft corals, sponges...
2. What do sessile (non-moving) creatures tend to eat?
  - Often they are suspension or filter feeders and feed on particles of different sizes
3. What types of feeders are sea urchins compared with sea stars?
  - Sea urchins are grazers while sea stars are scavengers

Next step learning: How do you think the animals that make up the benthic community have adapted to life in Antarctica. How do you think climate change could affect these animals and how could you test your theory.

### **2. Sampling the Sea Floor**

See how the scientists are taking and recording samples of what's living on the sea floor.

1. What are the scientists trying to work out?
  - How many organisms there in a set unit area (e.g. per metre squared or quarter metre squared)
2. How are results recorded?
  - By photographing what is covered by the quadrat and then counting the number of organisms to come up with a population density per unit area
3. What can Sal and his team do to improve the accuracy of their results?
  - Record more samples in more sites

Next step learning: Get involved in the [Marine Metre Squared](#) programme to help survey the animals living on your local sea shore.

### **3. Ice Fishing**

Come out on to the sea ice to meet Rebecca McMullin and discover how she has been catching fish from under the sea ice and what she will be using these fish for.

1. How does Rebecca catch fish from under the sea ice?
  - She has to dig away the snow and then drill a hole through the ice that she can then drop a line down through to fish
2. What does Rebecca use to attract the fish?
  - Red or white lures and a strobe light
3. What does Rebecca want to find out from these fish?



- Where their food comes from and whether that food source relies on sea ice algae and how the growth and age of the fish are affected by what they are eating

Next step learning: Find out more about the otoliths which are sometimes called fish air bones or earstones that Rebecca talked about.