

# **FREEZE POINT**

## **• INVESTIGATING SCIENTIFICALLY •**



**CURRICULUM AREA:** Science

**TARGET YEAR LEVEL/S:** Years 5 – 7

**CLASS TIME:** 60 minutes over 2 days

### **LESSON BACKGROUND**

Chris & Clark will brave temperatures as low as minus 20 degrees, Celsius (-20C). The freezing point of water is 0 degrees C. They will carry food that may be affected by the low temperatures. In this lesson, students will gain an understanding of which foods used by Chris & Clark will be most affected by low temperatures.

### **OUTCOMES**

- When given a focus question and a familiar situation, contributes elementary ideas about variables and procedures, collects and makes limited records of data and can say whether what happened was expected.

### **PREPARATION**

- Samples of the foods (on plates) that travelers might take .
- Science books
- Access to an EMPTY freezer.
- Cup with frozen ice in it (ready-to-hand prior)
- Timer

### **STUDENT ACTIVITY**

- 1) Discuss with students the idea of FREEZE POINT. Use WATER as an example, explaining that it has a freeze point of 0°C, and as soon as it leaves the confines of a freezer and experiences temperatures higher than 0°C, it begins to melt.
- 2) Show students different samples of foods. Ask them to predict which ones would have a freeze point similar to water.
- 3) Ask them to predict which ones would freeze first. Which ones would freeze last?
- 4) Students to plan and set out a procedure for figuring out the answers to the preceding focus questions.
- 5) Data collection is important, so make sure students check on foods regularly (such as every 5 minutes).
- 6) After the experiment is done, discuss with students what types of food they feel C&C could have brought with them that may not have been too badly affected by temperature.

### **EXTENSION**

With more advanced fridges, students can investigate the actual FREEZE POINT of the foods