Sample assessment task	
Year level	3
Learning area	Science
Subject	Chemical Sciences
Title of task	Runny treats
Task details	
Description of task	Students will develop an investigation in response to the scenario provided by the teacher. All students will be given the same instructions and be required to individually develop an investigation.
Type of assessment	Summative
Purpose of assessment	This task will be used at end of the unit of work to assess the student's inquiry skills and understanding of heat and its effect on materials.
Assessment strategy	Short answer responses
Evidence to be collected	Completed task
Suggested time	1 hour lesson
Content description	
Content from the Western Australian Curriculum	**Science understanding** A change of state between solid and liquid can be caused by adding or removing heat **Science inquiry skills** With guidance, identify questions in familiar contexts that can be investigated scientifically and make predictions based on prior knowledge Use a range of methods including tables and simple column graphs to represent data and to identify patterns and trends Compare results with predictions, suggesting possible reasons for findings Reflect on investigations, including whether a test was fair or not Represent and communicate observations, ideas and findings using formal and informal representations
Task preparation	
Prior learning	Students have developed knowledge around the behaviour of heat and its effect on materials. Students are familiar with the investigation process and the relevant terms.
Assessment differentiation	Teachers should differentiate their teaching and assessment to meet the specific learning needs of their students, based on their level of readiness to learn and their need to be challenged. Where appropriate, teachers may either scaffold or extend the scope of the assessment tasks.
Assessment task	
Assessment conditions	Students to complete the task individually.
Resources	Worksheet

Title: Runny treats

Canteen staff at Treenbrite Primary School have decided to sell ice cream over summer.

Can you plan a science activity that will help staff choose the best way to serve the ice cream?

1. What are you trying to find out?

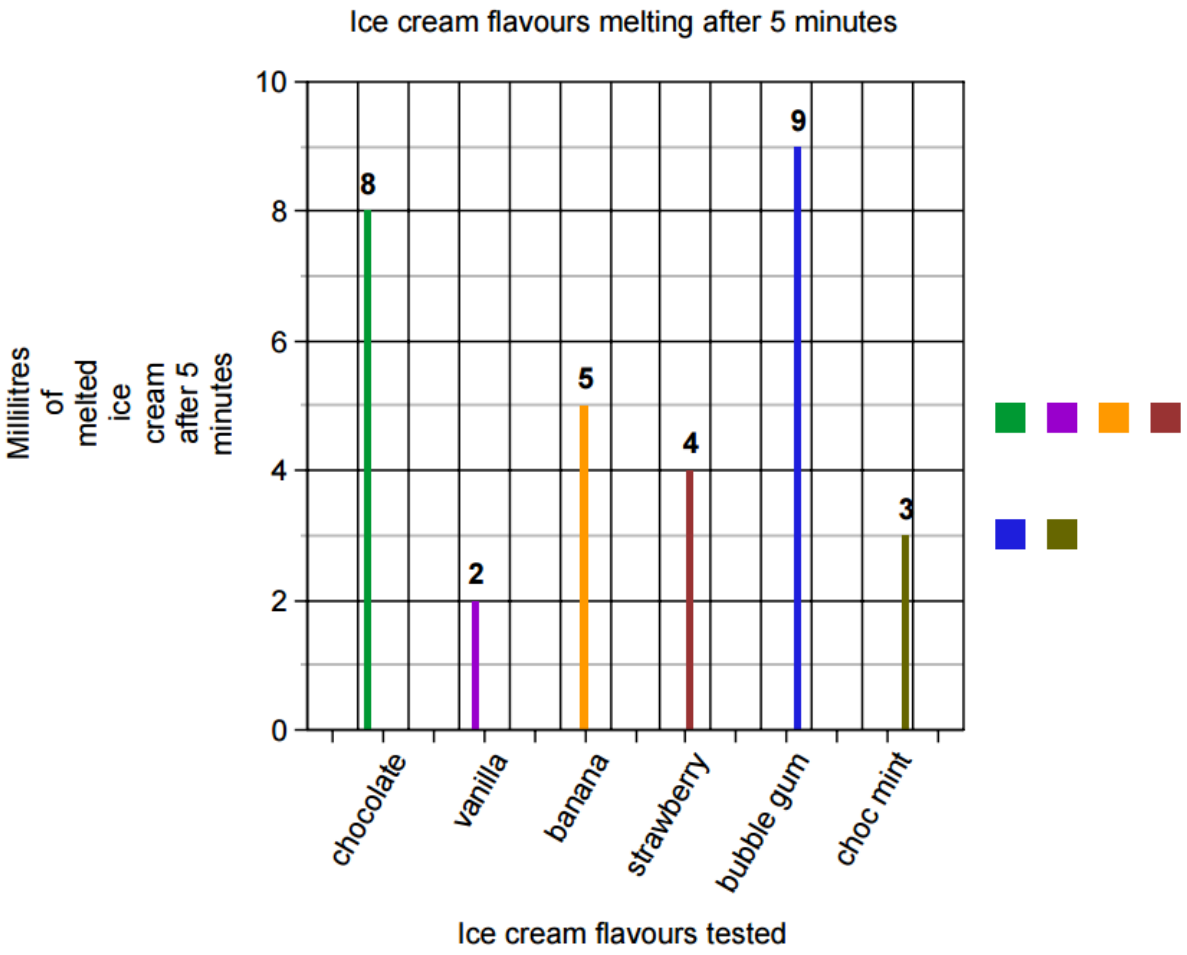
2. What do you think might happen?

3. Could we get hurt doing this activity? How can we prevent this?

4. What are the steps you will take to do this activity?

5. Draw a picture of what you think this science activity may look like.

6. At a different school, students tested icecream flavours and which ones melted far too quickly. What does this graph tell you about different flavours?



7. Did these students conduct a fair test?

Instructions for teachers

Verbal prompting

1. I am going to tell you about a science challenge at a school. This means they have a problem to solve that we can help them with using our science skills. We are going to use our science language and science thinking skills today.
2. Scenario
   At Treenbrite Primary School, the canteen staff have decided to sell ice cream over summer.
   The question they are trying to answer is;
   - Which container will be the best for serving ice cream?

   Teacher to record all answers provided on the board and make available for students. Answers may include but not limited to; cone, plastic cup, paper cup, ceramic plate, metal plate, wooden plate.

3. You are going to work through this task independently.
4. I will read the questions to you as a class. Teacher to read questions allowed (see teacher input below).
5. I will reread any questions to you that you cannot read. Remember we are doing science so be sure to use science knowledge and science language.

Hand out task

Optional (explicit teacher instruction)

Question 1.
Think carefully about what we are trying to find out. Remember the problem that the canteen staff is trying to solve.
- Which container will be the best for serving ice cream?

Question 2.
Think about what might happen. This is making a prediction.

Question 3.
Is there a chance we could get hurt performing this activity? How can we prevent this and make it safe?

Question 4.
Write out a step by step explanation of what you will need to do to test your idea.

Question 5.
Draw a picture of what this activity may look like. Make sure you include any labels that are needed.

Question 6.
At a different school, students tested the icecream flavours. They wanted to see which ones melted too quickly and made a mess. What does this graph tell you asbout the different flavours?

Question 7.
Can you tell me if these students conducted a fair test and why or why not?

Allow students to commence independent work

Teacher may re-read, and/or reword questions, to clarify student understanding.

Sample marking key

Description	Marks
Question 1, 2	
Identifies the container as the variable to be changed. Identifies melting ice cream as the variable to be measured. Details a prediction related to the investigation.	3
Identifies variables to be changed. Makes a general prediction about what may happen.	2
Requires guidance to identify the variables.	1
Subtotal	**3**
Description	**Marks**
Question 5	
Communicates ideas using a detailed diagram, labels and/or text.	3
Communicates ideas using diagram/s and some text.	2
Communicates ideas using a simple diagram.	1
Subtotal	**3**
Description	**Marks**
Question 6	
Accurately interprets the information, identifies patterns, and provides a plausible reason for the results. States whether the test was fair or not, gives plausible reasons and examples.	4-5
Interprets the information and makes general statements about the results. States whether the test was fair or not.	2-3
Identifies vanilla as the slowest melting and/or bubble gum as the fastest melting.	1
Subtotal	**5**
Total	**11**

ACKNOWLEDGEMENTS

Ice cream image
Efraimstochter. (2014). [Photograph of melting icecream]. Retrieved August, 2017, from https://pixabay.com/en/ice-ice-cream-cone-ice-cream-374148/

Questions 6–7

Graph on page 5 created using Create a Graph: https://nces.ed.gov/nceskids/createagraph/