

Science Skills Year 7 booklet: 4

Cooling Water

Task 1 deadline (self-assessed):

Task 2 deadline (peer-assessed):

Task 3 deadline (teacher-assessed):

The tasks in this booklet relate to the investigation below. Read the following information before attempting any of the tasks.

Results:

	Temperature of Water (°C)	
Minute	Cup A	Cup B
0	90	
1	88	
2	86	
3	85	
4	83	
5	82	
6	81	
7	80	
8	79	
9	78	
10	77	
11	76	
12	75	
13	74	
14	73	
15	72	
16	71	
17	70	
18	69	
19	68	
20	67	

Task 1

Everyone to do- Match the key terms to the definitions:

Minute
Temperature
Insulator
Increase
Decrease

A unit of time
How hot or cold something is
A material which prevents loss of heat energy
To go higher/bigger
To go lower/smaller

Green: you will be tested on the spelling of the five key terms

Amber: you will be tested on the spelling and the definition of the key terms

Red: you will be tested on the spelling and definition of the key terms. You will also need to put each into a sentence

Killer: you will be asked for synonyms for the key terms (if there are any!)

Task 2

Green:

Define the following key terms and identify which type of graph you would use for each:

Continuous-

Discontinuous-

Peer assessment score:

Amber:

Identify the data below as continuous or discontinuous:

Time (min)

Distance (m)

Eye colour

Gender

Blood group

Height (m)

What type of data was our independent variable? What type of data was our dependent variable? Therefore, which type of graph should we plot?

Peer assessment:

STAR:

STAR:

WISH:

Red:

We started 2 cups. Cup A was insulated, cup B wasn't. Add in suggested results to the table on page 1 for cup B.

Peer assessment:

STAR:

STAR:

WISH:

Task 3:

Green: On a piece of graph paper, plot the results of this investigation. You should put time on the x axis (across the bottom) and temperature on the y axis (up the side). Use a line graph and your scale should be one square for one minute and one square for 10°C.

Amber: On a piece of graph paper, plot a graph of the results. Think carefully about your scale and remember that you should put time on the x axis (across the bottom) and temperature on the y axis (up the side).

Red: On a piece of graph paper, plot a graph of the results for both cup A and your suggested results for cup B.

Teacher assessment:

A2L = 1	Work is thorough, you have picked challenging tasks and have shown effort and understanding.
A2L = 2	Work has detail in most places, you have picked relevant tasks and have shown effort.
A2L = 3	Work lacks detail, there are some errors and shows some lack of preparation/understanding.
A2L = 4	Work is incomplete, there are errors throughout and a clear lack of preparation/understanding.

Teacher comment: