Name:	Class:	Date given:
		Date due in:

Biscuit **Investigation**

Dominic carried out an investigation at home to see how quickly different biscuits would dissolve when dunked in a cup of tea.

Here is a photograph of the equipment he used.

1a. Draw a labelled diagram to show how you would conduct this investigation in a lab using scientific equipment.

1b. Choose three pieces of equipment you have included and explain why you chose each one.

1: _____

2: _____

3: _____

2a. What was the independent variable in Dominic's investigation?

2b. What was the dependent variable in his investigation?

Here are the results that Dominic has collected:

> Plain digestive biscuit took 35 seconds; rich tea took 2 minutes 19s; chocolate chip cookies took 46 secs; ginger nut biscuit took 2 min 13 sec; oat biscuit took 63 seconds.

3a. Present Dominic's data in a suitable table.

3b. What type of data is the time taken?

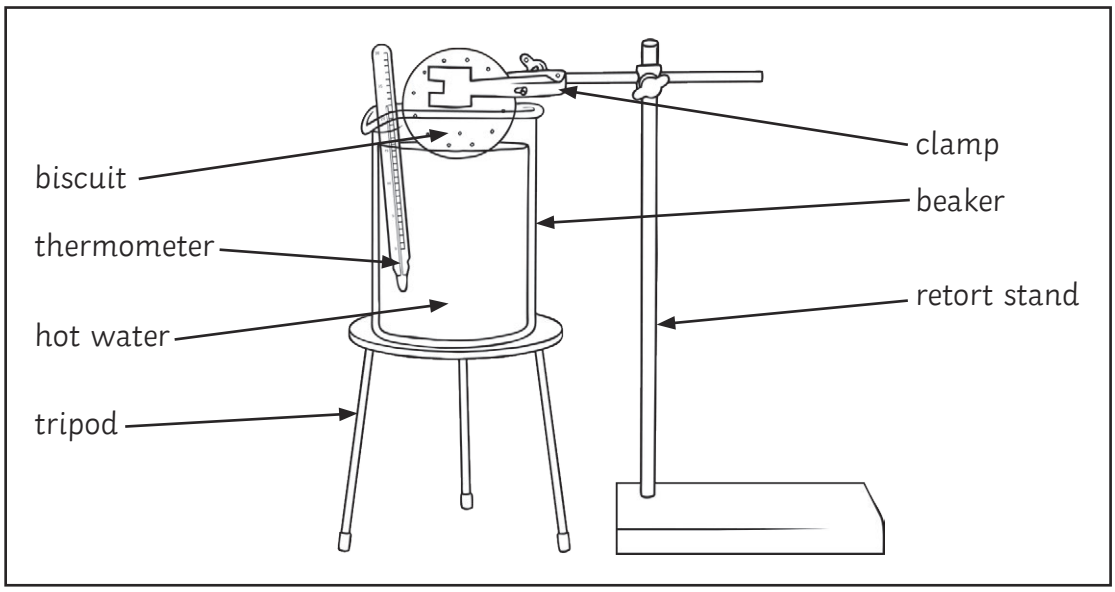
4. Draw a suitable graph of Dominic's results.

   Make sure you include:

   - Labelled axis with units
   - Appropriate scales
   - Accurately plotted data
   - A title

Biscuit Investigation **Answers**

1a. Draw a labelled diagram to show how you would conduct this investigation in a lab using scientific equipment.



1b. Choose three pieces of equipment you have included and explain why you chose each one.

1: **balance – to measure biscuit mass**

2: **thermometer – monitor the temperature of the water**

3: **timer – to record the time more accurately (milliseconds)**

2a. What was the independent variable in Dominic's investigation?

Type of biscuit

2b. What was the dependent variable in his investigation?

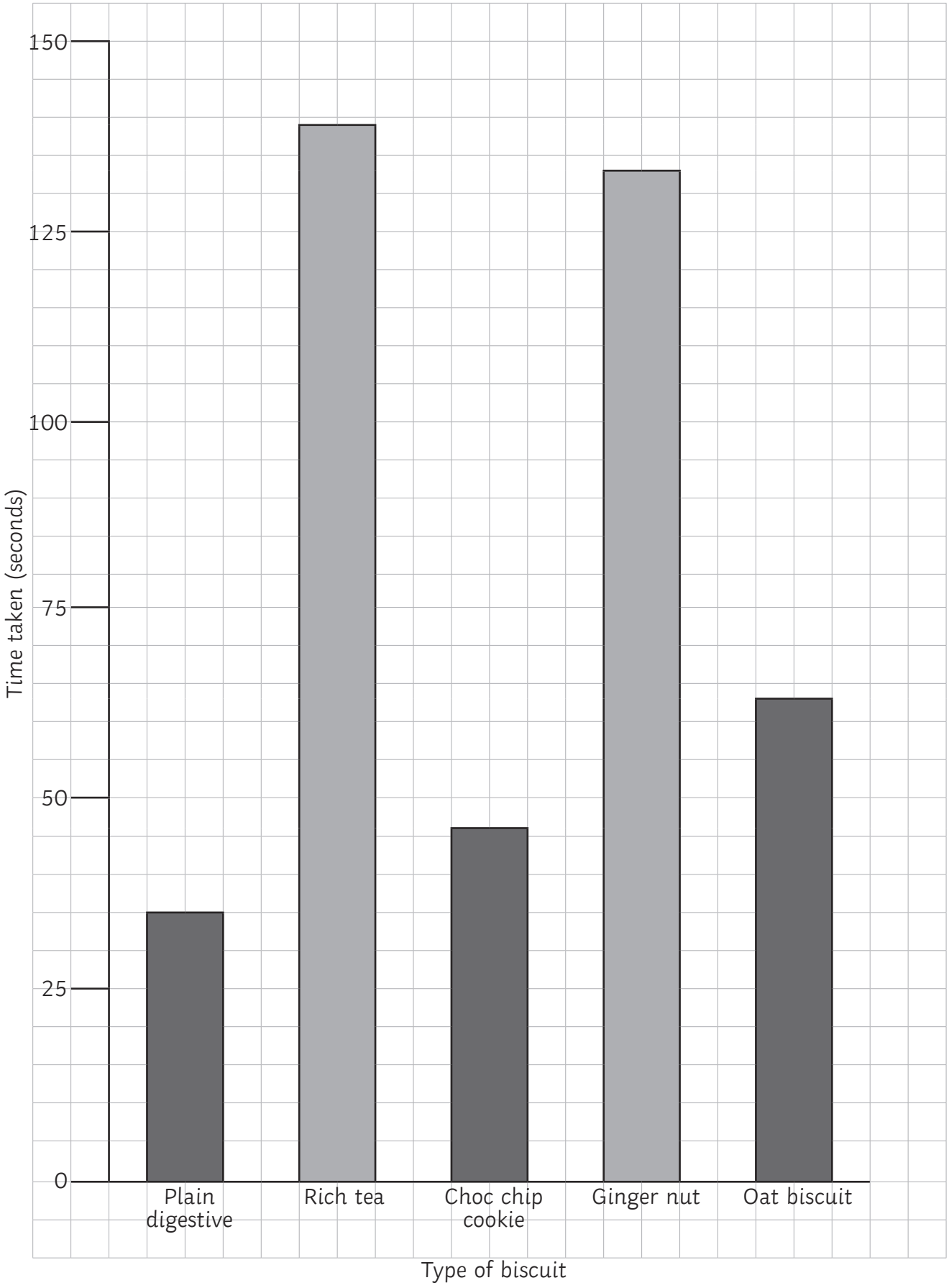
Time taken to dissolve into tea (break off)

3a. Present Dominic's data in a suitable table.

3b. What type of data is the time taken?

Continuous data

Type of biscuit	**Time taken (seconds)**
Plain digestive	35
Rich tea	139
Chocolate chip cookie	46
Ginger nut biscuit	133
Oat biscuit	63


150
125
100
75
50
25
0
Time taken (seconds)
Plain digestive
Rich tea
Choc chip cookie
Ginger nut
Oat biscuit
Type of biscuit