Name: _____ School: _____

Class: _____ Date: _____

Set 2 Question Paper: Seed Germination

Answer all questions. Use the information in each question carefully.

6 The table shows observations from three trays of seeds.

tray	cotton wool	temperature	observation
1	wet cotton wool	20 °C	seeds germinated
2	wet cotton wool	4 °C	seeds did not germinate
3	dry cotton wool	20 °C	seeds did not germinate

Choose from the list to complete the conclusions.

water appropriate temperature germination light soil

(a) Tray 2 shows that seeds need an

.....

(b) Tray 3 shows that seeds need

.....

(c) Tray 1 shows that these conditions can allow

.....

[3]

7 A student says, "Seeds only germinate when it is hot."

Explain why this statement is not accurate. Use the term **appropriate temperature**.

1 .....

2 .....

[2]

Name: _____ School: _____

Class: _____ Date: _____

8 Which of these statements about seeds are true and which are false?

Tick (✓) the correct box next to each statement.

statement	true	false
Germination is the start of growth of a seed into a new plant.	☐	☐
Seeds, in general, require water to germinate.	☐	☐
A seed can always germinate at any temperature if water is present.	☐	☐
Many seeds can start to grow when water and a suitable temperature are provided.	☐	☐

[4]

9 A student wants to find out whether water is needed for germination. **[3]**

Complete the plan using words from the list.

dry wet water light soil

The student should keep one group of seeds

..... .

The student should keep another group of seeds

..... .

Both groups should be kept at the same appropriate temperature. If only the wet seeds germinate, this supports the conclusion that

..... is required for germination.

[3]

Name: _____ School: _____

Class: _____ Date: _____

10 The same type of seeds were kept moist at different temperatures for five days.

temperature	number of seeds germinated out of 10
5 °C	0
20 °C	8
35 °C	3

(a) Which temperature was most appropriate for germination in this investigation?

temperature .....

(b) Describe the pattern shown by the results.

1 .....

2 .....

(c) What conclusion can be made about temperature and germination?

conclusion .....

[4]