

Support worksheet – Chapter 9

- 1** The table below shows the number of stomata found on the upper and lower surfaces of two types of leaves.

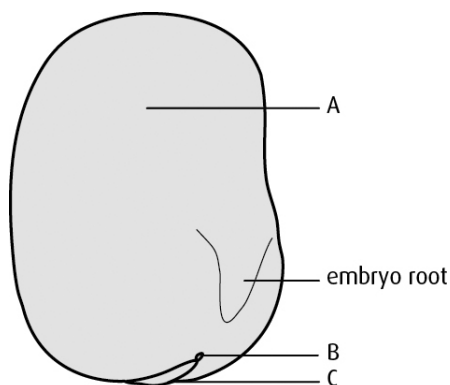
Species	Average number of stomata per unit area	
	Upper surface	Lower surface
X	750	2631
Y	5250	5794

- a** Which of the two species is likely to be a monocotyledon, and why? (2)
- b** Which of the two species will survive better in dry conditions? Explain your answer. (2)
- 2** Copy and complete the following paragraph, filling in the spaces with the appropriate terms. (10)
- Female reproductive organs in a flower are the _____, _____ and _____ . Male reproductive organs are the _____ and _____ . The transfer of pollen from the _____ to the _____ is known as _____. If pollen from one plant is transferred to a different plant, the process is called _____. This process promotes _____, which may affect the evolution of the plant.
- 3**
- a** Define the term ‘tropism’. (1)
- b** What is the importance of phototropism to a plant? (3)
- c** Explain how temperature affects the rate of transpiration in a typical plant. (3)

- 4 In an experiment to investigate the germination of small seeds, five test tubes were set up as described below.

Tube	A – control	B	C	D	E
Treatment	tube left open	tube left open	tube sealed with stopper	tube left open but kept in dark box	tube left open but kept in dark box in the fridge
Contents	<ul style="list-style-type: none"> •cotton wool •water •seeds 	<ul style="list-style-type: none"> •cotton wool •seeds 	<ul style="list-style-type: none"> •cotton wool •water •seeds •pyrogallate to absorb oxygen 	<ul style="list-style-type: none"> •cotton wool •water •seeds 	<ul style="list-style-type: none"> •cotton wool •water •seeds

- a For each tube, say whether germination would occur. (5)
- b Summarise the conditions that the experiment shows are necessary for germination. (3)
- c What is the purpose of tube A (control) in this experiment? (1)
- 5 Seeds found inside fleshy fruits such as an apple have a hard seed coat.
- a Suggest **two** functions of the seed coat. (2)
- b The diagram shows the external structure of a broad bean seed. What do labels A, B and C show? (3)



- c What is the cause of structure C? (1)