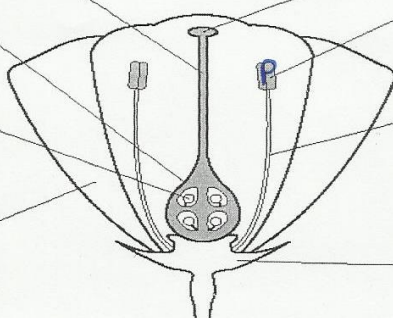


Science Grade 5 (blog worksheet 2)

Q1. Answer these questions.

- Seeds only need water and warmth to germinate. What other things do you think healthy plants need? *nutrients, light and soil.*
- What do you think sepals do? *protects the flower before it opens.*
- Why do plants need insects to visit their flowers? *For pollination*

Q2. Tick the boxes on the picture to show what each part is called.



<input checked="" type="checkbox"/> ovary	<input type="checkbox"/> stigma	<input checked="" type="checkbox"/> stigma	<input type="checkbox"/> brush
<input type="checkbox"/> ovum (egg)	<input checked="" type="checkbox"/> style	<input type="checkbox"/> stoma	<input type="checkbox"/> sepal
<input type="checkbox"/> sepal	<input type="checkbox"/> filament	<input type="checkbox"/> stolon	<input checked="" type="checkbox"/> anther
<input checked="" type="checkbox"/> ovum (egg)			<input type="checkbox"/> pollinator
<input type="checkbox"/> oovaroo			<input checked="" type="checkbox"/> filament
<input type="checkbox"/> style			<input type="checkbox"/> style
<input type="checkbox"/> anther			<input type="checkbox"/> petal
<input type="checkbox"/> lapel			<input checked="" type="checkbox"/> sepal
<input checked="" type="checkbox"/> petal			<input type="checkbox"/> loaf

- Mark a 'P' on the picture to show where you think pollen is made.
- Name two ways in which pollen can be carried from flower to flower.

- Wind*
- Insects*

- Complete the following sentences using words from the box.

When pollen is moved from one flower to another it is called pollination

Part of the pollen joins with the ovum. This is called fertilisation

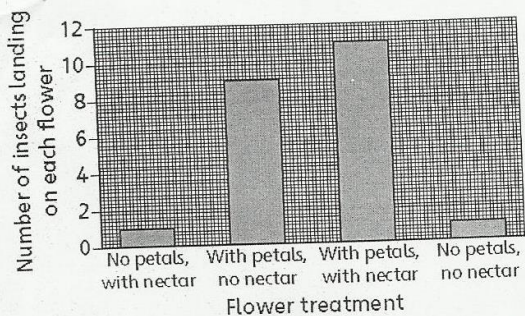
After this a ~~fruit~~ seed can form.

fertilisation ovary ovum pollination seed stigma

Pollination and fertilisation

Plants that are pollinated by insects need to attract insects to their flowers. To do this they often have brightly coloured petals, have a smell and produce nectar for the insects to eat.

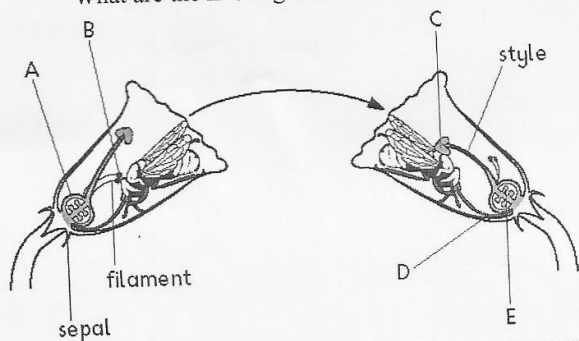
Some scientists were trying to find out if insects were more attracted to petals or to nectar. Their prediction was that the amount of nectar in a flower was more important than the flower having petals. They removed the nectar from all the flowers and added fake nectar to some. They removed the petals of some flowers. The bar chart shows their results.



- Q3. a What do the results show? *If there will be no petals or nectar insects would not visit the flowers.*
- b Did the results match the scientists' prediction? *No.*
- c Why do insects want nectar? *Food.*
- d The scientists needed to do a fair test. What factors should they have kept the same?
- e Name another factor they could have investigated.

Q4. Look at the picture.

What are the missing words A to E? Choose from this list.



anther	ovary	ovum	petal	stigma
<i>B</i>	<i>A</i>	<i>E</i>	<i>D</i>	<i>C</i>

Q5. What does each of these parts do?

- a *the anther makes pollen* b ~~the sepal~~ c *the stigma pollen lands on stigma (refer to Q4 picture)*

Q6. a What process does the whole picture show? *Cross pollination*

b This happens in a different way in some plants like grass. How does it happen in grass? *Self pollination.*

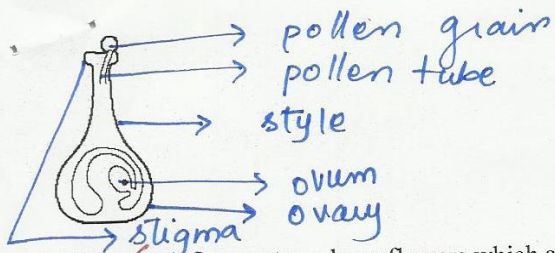
c Do you think grass flowers smell nice? Explain why or why not. *No, because they donot need to pollinate.*

Q7. Seeds are formed after fertilisation. What happens during fertilisation? *pollen grows a tube through style to any ovum. The pollen goes to that ovum and joins with it to fertilise.*

Q8. Why do plants need insects to visit their flowers? *For pollination*

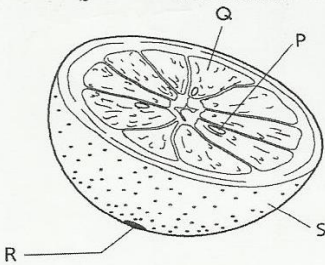
Q9. The diagram shows a pollen grain on the top of the female organ of a flower.

- a What is the female organ called? *carpel*
- b Make a copy of the drawing and label its parts. *(see Q2. for reference)*
- c Complete the drawing to show what happens before fertilisation occurs.

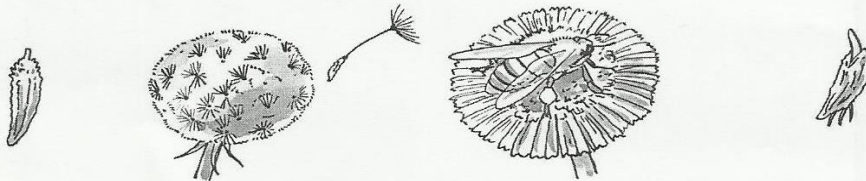


Q10. Orange trees have flowers which are visited by insects. The flowers will eventually form fruits. Here is an orange tree fruit.

- a Which letter shows the part that grows into a new plant? **P**
 b Which letter shows the fruit? **S**



Q11. a Write the phrases from the box underneath the correct drawings.



- 1 dandelion seed 2 seed dispersal 4 Pollination 3 germination
 pollination germination seed dispersal a dandelion seed

b Write numbers in the boxes to show the order that these things happen. The first one has been done for you.

Q12. Fill in this table to compare orange trees and dandelion plants.

	Orange	Dandelion
Pollination by ...	insects	wind
Seed dispersal by ...	birds droppings	wind