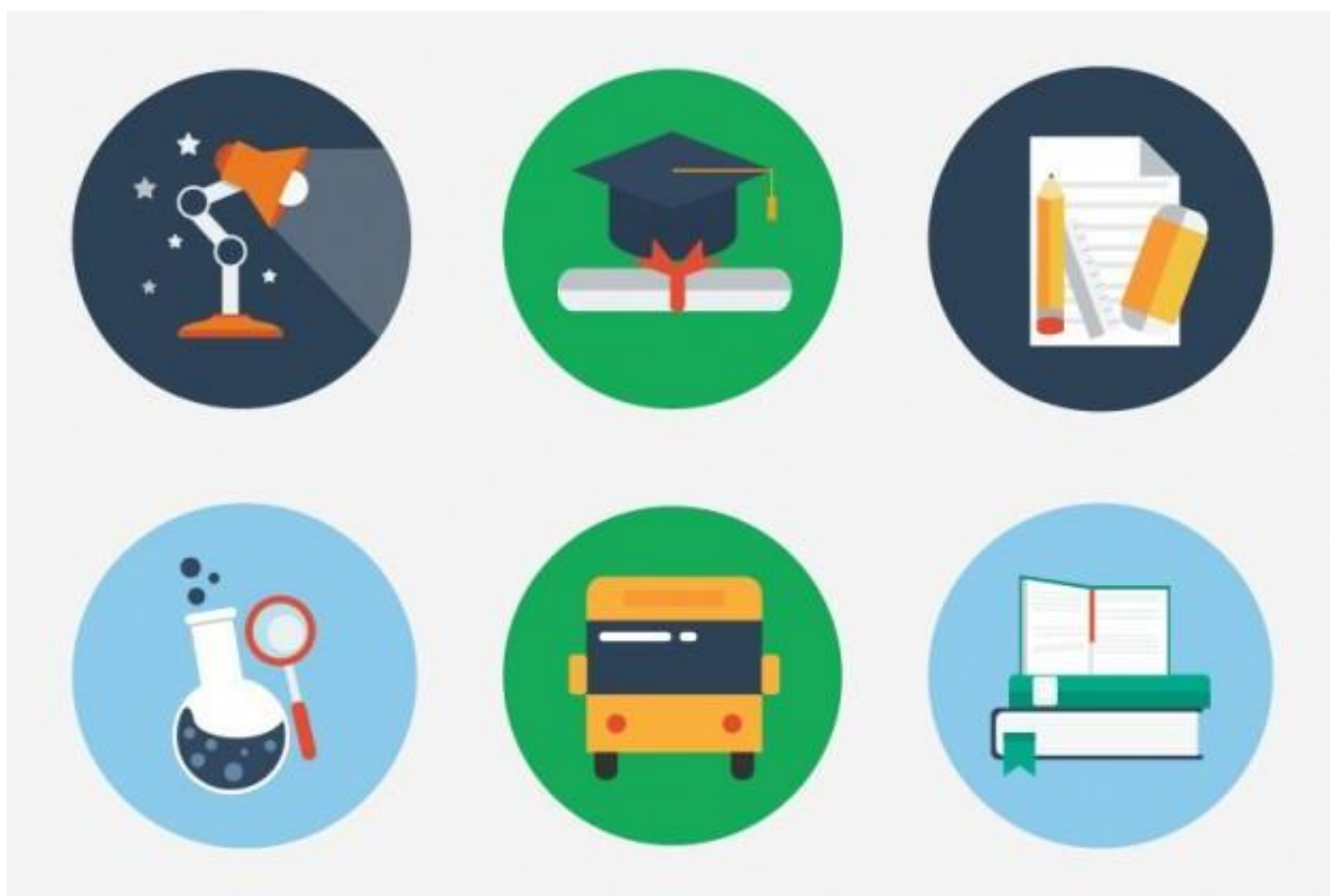


Independent Study Pack 9.5



Please work through this booklet so that it can be marked and feedback given.

- ✓ Use your own workbook to complete the tasks.
- ✓ Use the booklet to complete the tasks.

Name

VMG

Maths:

Complete 1 hour on Hegarty maths. Your teacher will be able to see what you have completed and give you feedback.



English – Pride and Prejudice by Jane Austen

Read the extract and then answer the questions in full sentence and in as much detail as possible.

It is a truth universally acknowledged that a single man in possession of a good fortune must be in want of a wife.

However little known the feelings or views of such a man may be on his first entering a neighbourhood, this truth is so well fixed in the minds of the surrounding families, that he is considered the rightful property of someone or other of their daughters.

"My dear Mr. Bennet," said his lady to him one day, "have you heard that Netherfield Park is let at last?"

Mr. Bennet replied that he had not.

"But it is," returned she; "for Mrs. Long has just been here, and she told me all about it."

Mr. Bennet made no answer.

"Do you not want to know who has taken it?" cried his wife impatiently.

"*You* want to tell me, and I have no objection to hearing it."

This was invitation enough.

"Why, my dear, you must know, Mrs. Long says that Netherfield is taken by a young man of large fortune from the north of England; that he came down on Monday in a chaise and four to see the place, and was so much delighted with it, that he agreed with Mr. Morris immediately; that he is to take possession before Michaelmas, and some of his servants are to be in the house by the end of next week."

"What is his name?"

"Bingley."

"Is he married or single?"

"Oh! Single, my dear, to be sure! A single man of large fortune; four or five thousand a year. What a fine thing for our girls!"

"How so? How can it affect them?"

"My dear Mr. Bennet," replied his wife, "how can you be so tiresome! You must know that I am thinking of his marrying one of them."

"Is that his design in settling here?"

"Design! Nonsense, how can you talk so! But it is very likely that he *may* fall in love with one of them, and therefore you must visit him as soon as he comes."

"I see no occasion for that. You and the girls may go, or you may send them by themselves, which perhaps will be still better, for as you are as handsome as any of them, Mr. Bingley may like you the best of the party."

"My dear, you flatter me. I certainly *have* had my share of beauty, but I do not pretend to be anything extraordinary now. When a woman has five grown-up daughters, she ought to give over thinking of her own beauty."

"In such cases, a woman has not often much beauty to think of."

"But, my dear, you must indeed go and see Mr. Bingley when he comes into the neighbourhood."

"It is more than I engage for, I assure you."

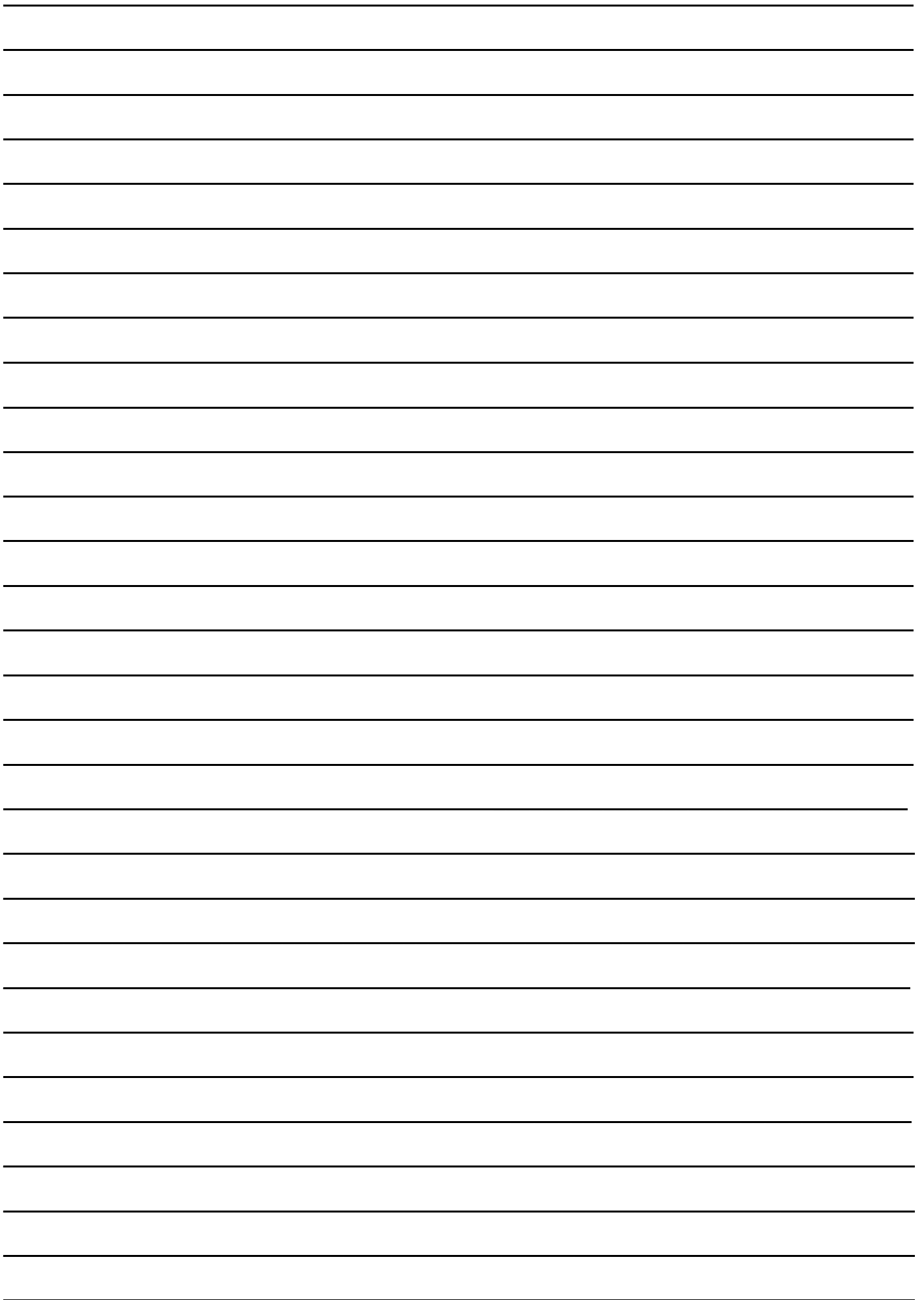
"But consider your daughters. Only think what an establishment it would be for one of them. Sir William and Lady Lucas are determined to go, merely on that account, for in general, you know, they visit no newcomers. Indeed you must go, for it will be impossible for *us* to visit him if you do not."

"You are over-scrupulous, surely. I dare say Mr. Bingley will be very glad to see you; and I will send a few lines by you to assure him of my hearty consent to his marrying whichever he chooses of the girls; though I must throw in a good word for my little Lizzy."

"I desire you will do no such thing. Lizzy is not a bit better than the others; and I am sure she is not half as handsome as Jane, nor half as good-humoured as Lydia. But you are always giving *her* the preference."

Answer the questions in the space below:

1. How is Mrs Bennett portrayed when we first meet her in *Pride and Prejudice*?
2. How is Mr Bennett portrayed at the beginning of the novel?
3. What does the opening tell us about life in 19th Century England?
4. Even though we do not meet Lizzie, what relationship does she have with her parents?
5. What is the role of a single man in 19th century England? How do we know this?



NUMERACY NINJAS

5 MINUTE SKILL CHECK

WEEK 8 SESSION 1 - Answer as many questions as you can in 5 mins

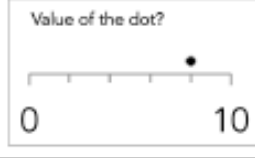
MENTAL STRATEGIES -
do these in your head

TIMESTABLES -
do these in your head

KEY SKILLS - you may use written calculations
for these questions

Q	Question	Answer
1	$8 + 2$	
2	What is double 4?	
3	What is half of 33?	
4	$174 + 70$	
5	$57 + 58$	
6	$68 + 11 = 68 + 2 + \square$	
7	$5 + 822$	
8	$79 + 52 = 79 + 50 + \square$	
9	$152 + 10$	
10	$44 - 10$	
Total out of 10		

Q	Question	Answer
1	$6 \times 7 = \square$	
2	$2 \div 2 = \square$	
3	$10 \times \square = 90$	
4	$2 \div \square = 1$	
5	$4 \times 5 = \square$	
6	$45 \div 9 = \square$	
7	$\square \times 6 = 42$	
8	$\square \div 2 = 3$	
9	$9 \times 1 = \square$	
10	$7 \div 7 = \square$	
Total out of 10		

Q	Question	Answer
1	List the first 4 multiples of 5	
2	What is 65% of £100?	
3	$4890 \div 5$	
4	$8 + 4 \div 1$	
5	$5.4 \div 2$	
6	100×0.97	
7	$26.93 - 4.83$	
8	Simplify $3/18$	
9	$(-7) + 2$	
10	Value of the dot? 	
Total out of 10		



What's your **NINJA** Score?
Fill in your scores in the boxes
and calculate it now!

MY **NINJA** BELT:

MENTAL
STRATEGIES:

TIMESTABLES:

KEY SKILLS: +

NINJA SCORE:

MFL

Which language do you study? You are going to create a visual dictionary for the following keywords. Look up the foreign word and add a picture.

Monday		
Tuesday		
Wednesday		
Thursday		
Friday		

Saturday		
Sunday		
Tennis		
Football		
Hockey		
Cricket		

Why do we need plants?

BIG IDEAS

You are learning to:

- Explain how plants make food by photosynthesis
- Describe how a leaf is adapted to photosynthesis
- Plan investigations from ideas generated



Nutrients needed

In the plant there are several organs that are important in the process of making food.

The roots are important for the uptake of water. The **leaves** trap light energy and take in carbon dioxide. The stem transports water to the leaves.

- 1 Describe what a leaf looks like.
- 2 How do leaves from different plants differ from each other?

FIGURE 1: Why do the branches of trees spread out?



Absorbing light

The leaf is adapted to trapping **light energy**. It has a large surface area to absorb light. It is thin so the light can reach the cells. It has a waxy layer to stop water loss.

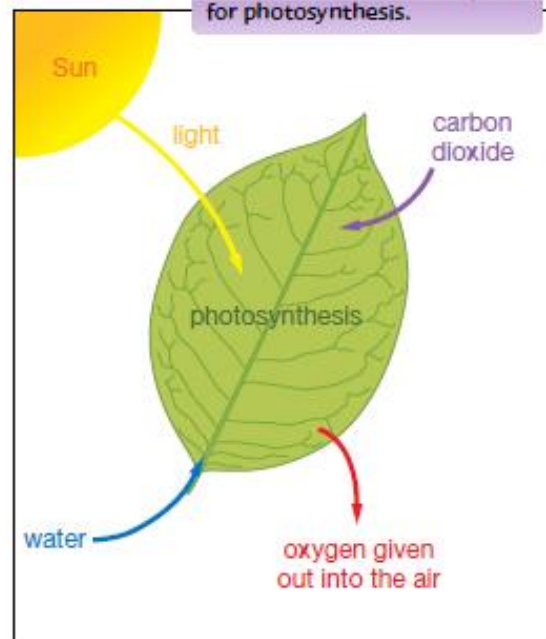
- 3 Why is the leaf green?
- 4 The leaf has veins. Explain what they are for.

How Science Works

Scientists use a technique called chromatography, in which a leaf is ground up and the pigments are separated using a solvent. The pigments found are not just green but different shades of yellow as well.



FIGURE 2: Leaves are adapted for photosynthesis.



Photosynthesis

Did You Know...?

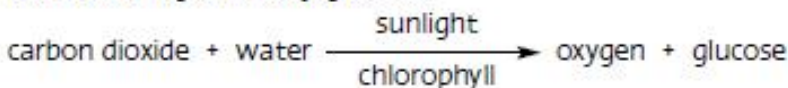
A microscopic 'plant' found in all the areas of water on the planet, called a diatom, is responsible for providing a fifth of the oxygen added to the environment by plants.



FIGURE 3: These trees are giving out oxygen. Why is this important to us?

The Amazon Rainforest is sometimes described as the 'lungs of the planet'. This is because the trees are giving out oxygen into the air.

The trapping of light energy by plants to make food and oxygen is called **photosynthesis**. In this process **chloroplasts** in the leaves trap light energy and use it to combine water with carbon dioxide to make a sugar (usually glucose).



The glucose is stored by the plant as starch. It is used for new growth or for respiration. The oxygen passes out of the leaf in the daytime.

Study the word equation for photosynthesis. How might you carry out tests to show a plant photosynthesising? Work with a partner to develop ideas in a poster.

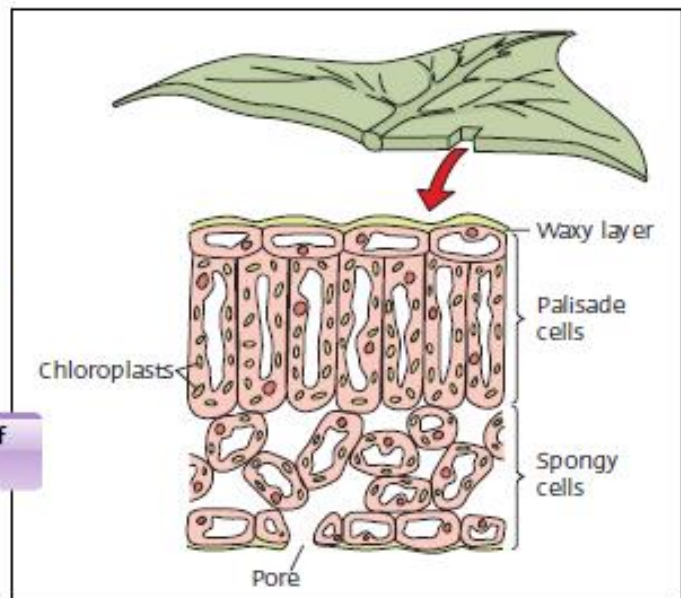
- 5 Why does photosynthesis not occur at night?
- 6 Why do animals need plants?



Study Figure 3 carefully. Make sure you understand it shows the leaf is made of cells.

- 7 Explain how the palisade cells are adapted to trap light energy.
- 8 The pores allow gases to move in and out. Explain which gases move out in the daytime and which move in.

FIGURE 4: This is what a slice of leaf looks like under a microscope.



- 9 What energy transfers take place in a leaf?
- 10 Describe the movement of particles through a green leaf.

