

Independent Study Pack 8.5



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 – Tenses

Past tense

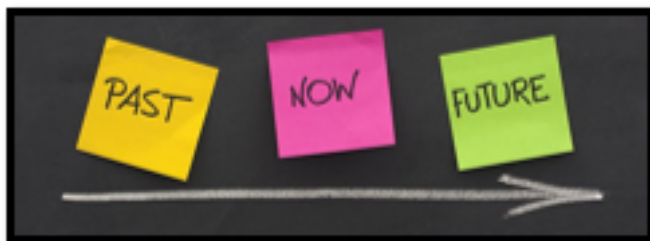
We use the **past tense** to talk about things that have already happened.

Present tense

We use the **present tense** to talk about things that are happening now.

Future tense

We use the **future tense** to talk about things that are going to happen.



What are the rules?

These are the basic ones, but like with all rules, there are exceptions.

Key: **Past tense** **Present tense** **Future tense**

Present to past

When changing a verb (a doing word) into the past tense you need to add an -ed on the end.

Want + ed = wanted

Present with subjects

In the present tense verbs can also change with different subjects (the person or thing in the sentence).

We add an **s** to the word when the subject is **he**, **she** or **it** or a **single noun** (person, place or thing).

For example; I **love** chocolate. We **love** chocolate. They **love** chocolate but, Sara **loves** chocolate.

Exceptions, or more formally - irregular verbs

Is	Are
Eat	Ate
Do	Did
Go	Went
Have	had

There are three different ways to write in the future tense.

1. Future tense = *Will* or *shall* + verb
2. Present continuous = where plans about the future are being discussed. (Verb + ing)
3. 'going to' + verb = when you are talking about making a decision

Future tense

We use the **future tense** to talk about things that are going to happen.

Examples

1. I will go to the cinema tomorrow.
2. What time are you leaving tomorrow? I am leaving at 7am.
3. I'm going to watch a film on TV.

Task



Which version of the future am I?

Underline the key part of the sentence that tells me this.

Example, Tomorrow <u>I shall eat a whole chicken at Nandos.</u>	1
I am going to have a bath and go to bed.	
She will run a marathon next week.	
She is getting married in 2 months time at 3pm.	
They're determined to eat carrots every day until they can see in the dark.	
I shall dance at the ball until my feet can't take anymore.	



Recap: In term 1 we looked at what a verb is. Explain here what you can remember about them:

Task 1: highlight all the verbs in the sentences below.

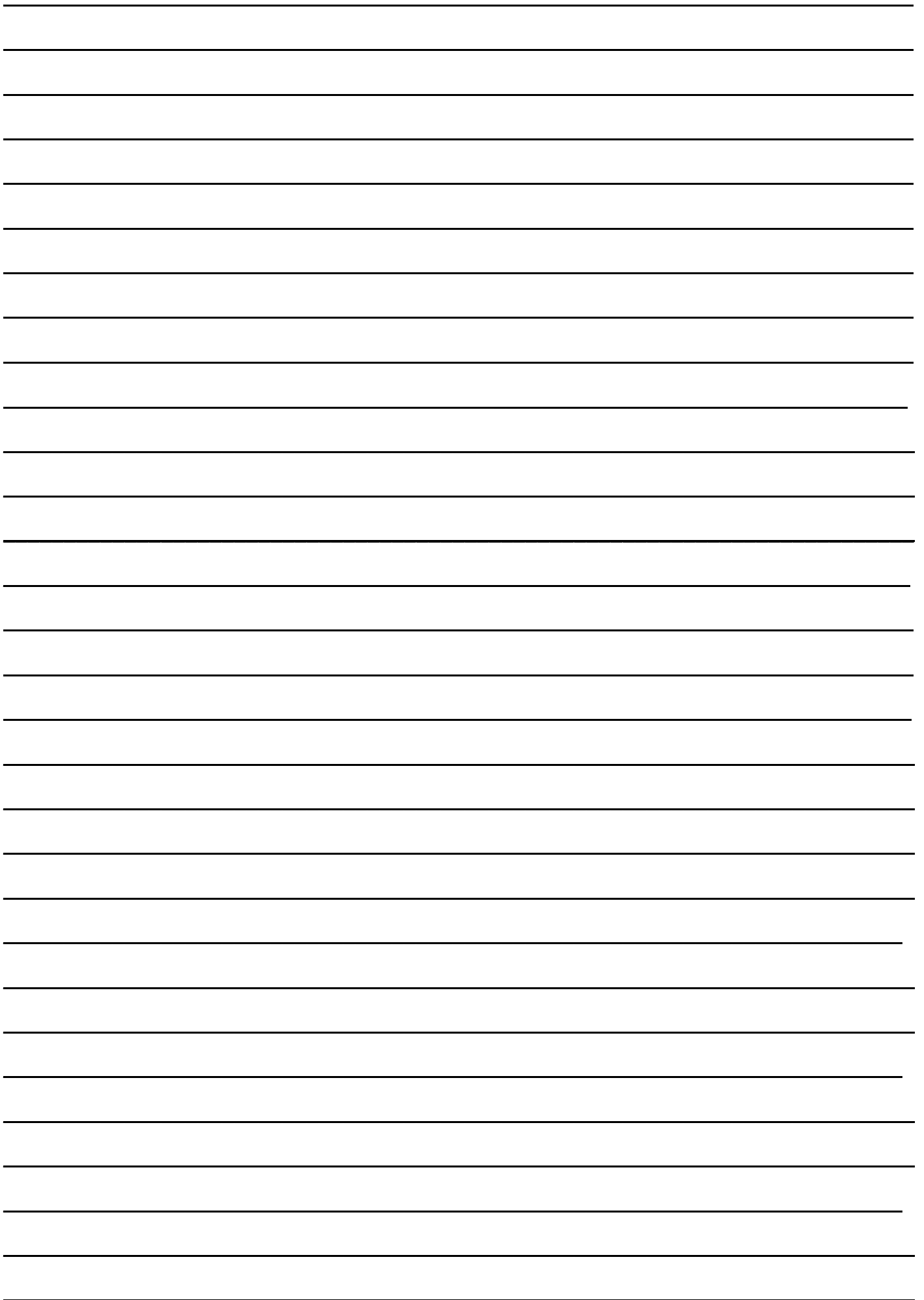
Task 2: convert these sentences into past / present /future tense.

Past tense

Present tense

Future tense

	1. The gate creaks in the wind.	
2. We went to the fish and chip shop and it was delicious.		
	3. Jo is wearing jeans.	
		4. James will be playing in a band. .
		5. Cassandra will be walking to school tomorrow .
6. Barbara went shopping.		
	7. I am very hungry.	
8. They ate lunch very quickly.		



Maths:

NUMERACY NINJAS

5 MINUTE SKILL CHECK

WEEK 7 SESSION 4 - 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	$4 + 1$	
2	$\square + 78 = 100$	
3	Halve 6	
4	$165 - 10$	
5	$116 + \square = 130$	
6	$66 = 20 + \square$	
7	$186 - 182$	
8	$7 \times 5 = 35$, so $35 \div 5 = \square$	
9	Write 12:10 pm in 24 hour clock format	
10	1:57 am is how many minutes after 1:13 am?	
Total out of 10		

Q	Question	Answer
1	$3 \times 4 = \square$	
2	$36 \div 9 = \square$	
3	$8 \times \square = 80$	
4	$15 \div \square = 5$	
5	$6 \times 1 = \square$	
6	$16 \div 8 = \square$	
7	$\square \times 10 = 60$	
8	$\square \div 10 = 3$	
9	$3 \times 3 = \square$	
10	$24 \div 4 = \square$	
Total out of 10		

Q	Question	Answer
1	Is 10 a factor of 36?	
2	What is $\frac{2}{4}$ of 4?	
3	2×344	
4	$18797 - 9492$	
5	5×1.6	
6	$0.56 = \square\%$	
7	$15 + 0.47$	
8	$12 \div (-4)$	
9	If $a = 1$ $b = 4$ and $c = 9$, what is the value of $c^2 - b^3$	
10	$(-10) - (-9)$	
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:

NUMERACY NINJAS

5 MINUTE SKILL CHECK

WEEK 7 SESSION 5 - Answer as many questions as you can in 5 mins

MENTAL STRATEGIES -
do these in your head

Q	Question	Answer
1	$\square + 3 = 5$	
2	$15 + 85$	
3	Halve 2	
4	$196 - 10$	
5	$188 + \square = 260$	
6	$62 = 32 + \square$	
7	$604 - 601$	
8	$8 \times 4 = 32$, so $32 \div 4 = \square$	
9	Write 05:48 in 12 hour clock format	
10	From 22:06, how many minutes until 22:28?	
Total out of 10		

TIMESTABLES -
do these in your head

Q	Question	Answer
1	$4 \times 4 = \square$	
2	$8 \div 4 = \square$	
3	$8 \times \square = 16$	
4	$5 \div \square = 1$	
5	$6 \times 8 = \square$	
6	$9 \div 3 = \square$	
7	$\square \times 6 = 24$	
8	$\square \div 2 = 10$	
9	$7 \times 6 = \square$	
10	$70 \div 10 = \square$	
Total out of 10		

KEY SKILLS - you may use written calculations
for these questions

Q	Question	Answer
1	What is the highest common factor of 29 and 22?	
2	What is $\frac{3}{4}$ of 40?	
3	6×564	
4	$14786 - 8106$	
5	9.4×7.4	
6	$\frac{2}{10}$ as a decimal number	
7	$34.53 + 6.2$	
8	$(-1) \div 1$	
9	If $a = 4$ $b = 1$ and $c = 2$, what is the value of $3a / 2$?	
10	$1 - (-2)$	
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.

Sister		
Mother		
Father		
Brother		
Baby		

Swimming pool		
Beach		
Library		
School		
Hospital		

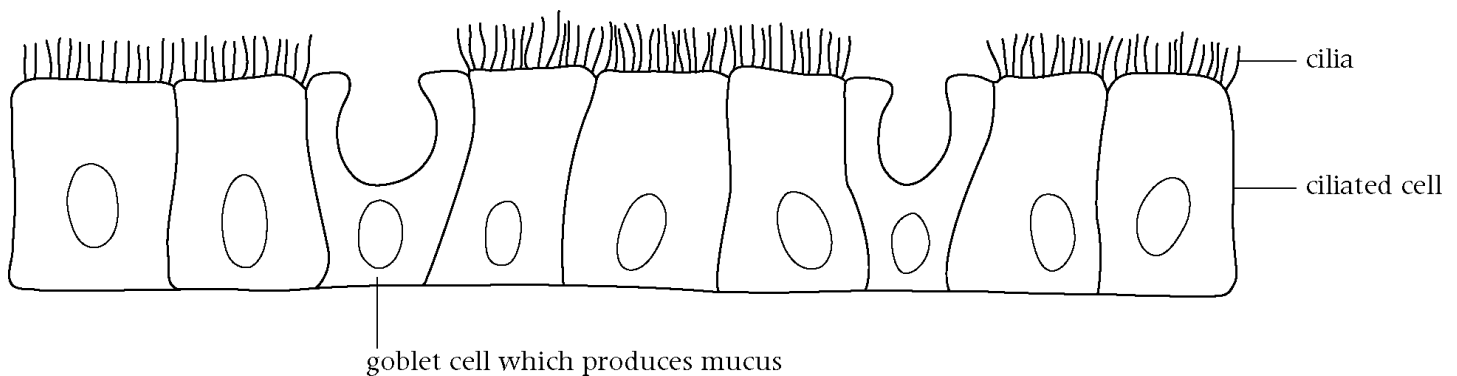
Police station		
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Science – Healthy lungs

The breathing (or respiratory) system has various adaptations to prevent microbes, which might cause an infection, from entering the lungs.

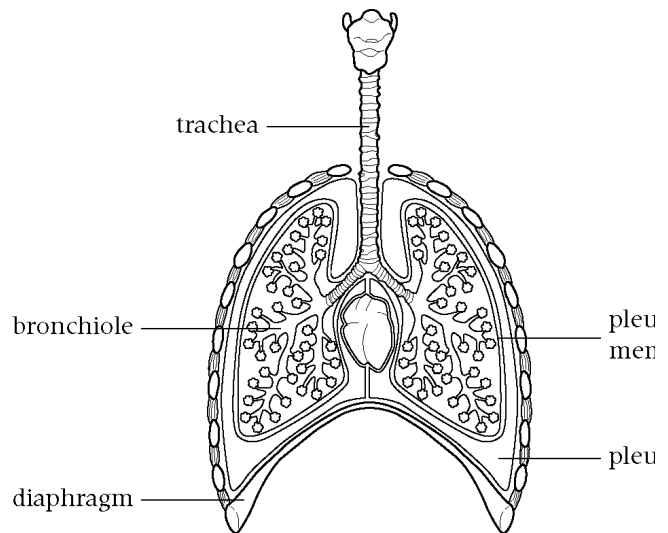
In the nose, hairs filter out dust, and microbes are trapped in a sticky fluid called **mucus**. We usually swallow the mucus or get rid of it by sneezing. The mucus also contains a chemical that kills microbes.

Once air enters the trachea and bronchi it passes over more mucus that is produced by special cells called **goblet cells**. This traps even more microbes. To prevent a build up of 'dirty' mucus in the air passages, which might cause an infection, there are tiny hairs called **cilia** lining the trachea and bronchi. These are constantly moving and they waft the mucus up and out of the lungs to the back of the throat where it is swallowed. If a large object is accidentally inhaled it is usually expelled quickly by coughing.



Despite these mechanisms we all suffer from infections of the respiratory system from time to time. Any part of the system can become infected. For example, **laryngitis** is when the **larynx**, or voice box, becomes swollen and inflamed. This is often associated with a loss of voice and sore throat. **Tracheitis** is inflammation of the trachea. **Bronchitis** is when the bronchial tubes become inflamed. This can make it difficult to breathe because these tubes are fairly narrow and any swelling will partially block them. All these infections are associated with an increased production of mucus that also blocks the airways. For this reason coughing is usually another symptom of a chest infection.

Surrounding each lung are two delicate membranes called the **pleural membranes**. One membrane lines the chest cavity and the other covers the lung. Between them is a fluid, which acts as a lubricant so that the lungs can move easily when you breathe in and out.



Pleurisy is an infection of the pleural membranes. They cannot slide over each other easily and this makes breathing very difficult and painful.

Many people today suffer from **asthma**. This is when the muscles in the walls of the tiny tubes, called bronchioles, contract making them become even narrower. This makes breathing difficult. Asthma sufferers must always carry an inhaler. This contains a drug that makes the muscles relax, so the tubes widen again.

Tuberculosis, or **TB**, is a very serious lung disease caused by a bacterium that destroys the lung tissue and causes fever and weight loss. TB used to kill many people. Nowadays it is rare because most people are **immunised** against it.

Lung cancer is a major killer disease today. It is when cells in part of the lung grow and divide uncontrollably. Eventually a large lump forms which blocks some of the airways. If it is left untreated it grows bigger and bigger making breathing more and more difficult. Some of the cancer cells may break off and get carried to other parts of the body where they can cause another cancer to form. This is called a secondary growth. People who smoke are at a much greater risk of developing lung cancer than non-smokers.

1 List the ways in which the body is adapted to prevent microbes from entering the lungs.

2 a What is the proper name for the voice box?

b What is an infection of the voice box called?

c What are the symptoms of this disease?

3 Why do you often cough when you have a chest infection?

4 Describe what pleurisy is.

5 a Why do asthma sufferers find it hard to breathe?

b How do inhalers help them to breathe?

6 a Why is it rare for someone to catch tuberculosis today?

b Find out what tuberculosis used to be called.

7 Describe what happens when lung cancer develops.

Use the internet to research the effects of smoking on the lungs and create a poster on the effects below:

