# WESTMINSTER INTERNATIONAL SCHOOL

## HOLIDAY WORK

## CAMBRIDGE IGCSE

## ENGLISH LANGUAGE 1123

## Form 2

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**INSTRUCTIONS**

1. **Answer All questions.**
2. **Dictionaries are not allowed.**

**INFORMATION**

**1. The number of marks for each question or part question is shown in brackets [ ]**

**NB: THIS SHOULD BE WRITTEN IN YOUR HOMEWORK BOOKS.**

## Aerial photography: past and present

If you're a flying enthusiast and enjoy taking your own photographs from the best view in the world, have you ever wondered when aerial photography first started? As it happens, snapshots from the skies had their early beginnings long before the first planes took off.

### Hot air balloons

The oldest aerial photo still in existence was taken by James Wallace Black in 1860 from a hot air balloon above Boston on America's east coast, but this is not the first aerial image ever taken. Gaspard-Felix Tournachon, also known as 'Nadar', is credited with that achievement. He photographed Paris in 1858 from a height of about 500 metres from a balloon tethered to the ground.

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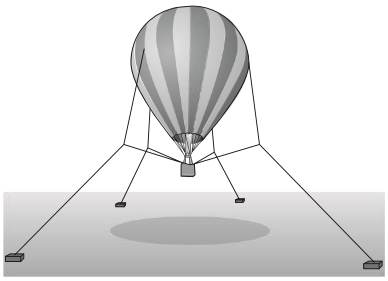

Both men had to develop the photos using a darkroom[1] in the baskets of their balloons, as photography was in its infancy at this time. Nadar reportedly said, "We are not yet in the blessed time when our descendants will carry a laboratory in their pocket." But once the dry-plate process was invented, heavy darkroom equipment did not need to be transported on board the balloons. Therefore, the first photo taken from a free-flying balloon was in 1879.

### Kites

Photographic technology continued to advance and within a decade, it was possible to attach cameras to unmanned airborne objects, such as kites. In 1888, French photographer Arthur Batut attached a timer so that the camera was set to take a photo within a few moments of launching the kite. His book on kite aerial photography appeared in 1890.

When San Francisco was hit by an earthquake and raging fires in 1906, the devastating scenes were caught on camera by George R. Lawrence using a system of 17 kites outfitted with a heavy camera just over 600 metres above the ground. His large-format camera and film plate produced huge panoramic images, some of which remain the largest photos ever taken from the air.

### Rockets

In 1904, the German engineer Albert Maul patented a rocket which, when it reached 600–800 metres, automatically triggered the shutter[2] to take an aerial picture. The camera was then ejected and a photograph was taken when it descended to the ground. As war approached, Maul had improved his design and produced sharper images from the camera, but by then airplanes were more useful in taking aerial photographs.

## Pigeons

In the first decade of the twentieth century, a certain Dr Neubronner developed a camera which was fitted to his own homing pigeons so he could take overhead shots from the sky. Although the images taken depended on the uncontrollable movements of the pigeons, the military decided to develop the technique. During World War I (1914–18), pigeons were entrusted to obtain a literal 'bird's eye view' behind enemy lines using a miniature camera which took images every 30 seconds. Despite military modifications, pigeon photography was not without its problems: the training and handling of the birds, and the limited control over the pigeons' position, direction and speed when the photographs were taken. Sometimes these cameracarrying birds were shot down by hungry troops looking for their next meal.

## Aeroplanes

Not long after the Wright Brothers made their first flight in 1903, the first aerial photograph was taken from an aeroplane. In 1908, a French cinematographer took the first-known photo from an aeroplane piloted by Wilbur Wright over a town in France. By World War I, maps created from aerial photos taken from aircraft were used for military operations. Cameras were now specifically designed for airborne use, but poor stability and shutter speed still produced lessthan-perfect images. Near the end of the war, Sherman M. Fairchild produced a camera with the shutter located inside the lens, which significantly improved image quality.

After World War I, aerial photography really took off. Fairchild took a series of overlapping pictures to create an aerial map of part of New York City. Aerial mapping became a huge commercial success in other parts of the world, as aerial surveys were superior and cheaper than mapping from the ground. During World War II, aerial photography was commonplace and 90% of cameras used in the war were from Sherman's designs. Aerial images of the war appeared regularly in newspapers and magazines, and aerial film footage was often used to create cinema newsreels and propaganda.

Fairchild's camera designs continued to be used for aerial photography for the next 50 years. Before he died in 1971, his cameras were used on the Apollo 15, 16 and 17 missions to map the astronauts' view of the moon.

## Drones

Drone photography technology has exploded in popularity in recent years. Drones can be programmed to follow a precise flight path or remote controlled to take a photo or video at any time during its flight.

Nowadays, high-quality digital aerial photography has commercial, industrial and agricultural uses. In the past, a professional photographer had to hire a plane, helicopter, or glider to take an aerial photograph. However, now that drone tech has decreased in price and size, hobbyists can enjoy capturing their own aerial photographs without ever leaving the ground.

Glossary

[1] darkroom: a room for developing photographs from which normal light is excluded [2] shutter: part of a camera that opens to allow light in

## Section A: Reading

*Spend 35 minutes on this section.*

Read the **text**, an article about the history of aerial photography, in the insert, and answer Questions 1–9.

**1** Look at the first paragraph (lines 3–5).

**(a)** Give a phrase that means the same as 'aerial photographs'.

..... [1]

**(b)** The writer is surprised that aerial photography has been going on for so long. Give a phrase that tells the reader this.

..... [1]

**2** Look at the second and third paragraphs (lines 7–16).

**(a)** Why does the writer use inverted commas ( ' ' ) in line 9?

..... [1]

**(b)** What contrast does the writer make between the balloon used in 1879 and the one used in 1858? Tick (✓) **one** box.

| | |
|---|---|
| one succeeded in taking a photo but the other didn't | ☐ |
| one carried two men, while the other only carried one | ☐ |
| one could travel about, the other stayed fixed in the same place | ☐ |
| one had a larger darkroom for developing photos than the other | ☐ |

[1]

**(c)** The writer tells us *photography was in its infancy*. Explain what photography is being compared to and why.

.....

..... [2]

**3** Look at the fourth and fifth paragraphs (lines 18–26).
What technological development was necessary before kites could be used to take aerial photographs? Tick (✓) **one** box.

a photographic plate large enough to capture the view ☐

a system for controlling many kites to lift the camera ☐

a mechanism to operate the camera automatically ☐

a method of publishing photographs in books ☐

[1]

**4** Look at the sixth paragraph (lines 28–32).
How are the verbs in the second sentence of this paragraph different from the verbs in the first and third sentences?

.....

[1]

**5** Look at the seventh paragraph (lines 34–42).
Why does the writer use the word *literal* in this paragraph?

.....

[1]

**6** Look at the second, third, fourth, fifth, sixth and seventh paragraphs (lines 7–42).

**(a)** Complete the timeline with dates from the text.

| Date | Event |
|---|---|
| ..... | first aerial photograph taken from a balloon |
| ..... | first aerial photograph taken from a solo kite |
| 1904 | first aerial photograph taken using a rocket |
| ..... | kites used to take aerial photograph of a natural disaster |
| 1900–1910 | camera invented that could be carried by birds |
| 1914–1918 | pigeons used by the military to take aerial photographs |

[3]

**(b)** Using the information in the timeline, write a summary of the early history of aerial photography. Use up to **50 words**.

.....

.....

..... [2]

**7** Look at the information about Sherman M. Fairchild (lines 44–60).

Draw a line to match each piece of information to the correct number from 1 (the earliest) to 5 (the latest). One example has been done for you.

| | |
|---|---|
| 1 | In the post-war years, Sherman's cameras are regarded as the best. |
| 2 | Sherman's cameras take aerial photos used to inform the public about the war. |
| 3 | To take better aerial photographs, Sherman invents a new type of camera. |
| 4 | Sherman's cameras are used to take photographs in lunar orbit. |
| 5 | Photographs of urban areas are taken using Sherman's cameras. |

[3]

**8** Look at the eleventh and twelfth paragraphs (lines 62–68).
The writer begins the last sentence with *However*. What contrast between the past and present does this emphasise?
Tick (✓) **one** box.

how the cost of taking aerial photos has changed ☐

what different ways people use aerial photography ☐

where a photographer can be to take aerial photos ☐

why aerial photography has become more popular ☐

[1]

**9** Look at the whole text.

**(a)** The information in the text has been organised into paragraphs. Give **two** other ways that the information is organised.

- .....
- .....

[2]

**(b)** The language in the first paragraph is more informal than the rest of the text. Give **two** quotations from the first paragraph and explain how each one is informal.

Quotation: .....

Explanation: .....

Quotation: .....

Explanation: .....

[4]

**(c)** Why has the writer chosen to write the first paragraph in an informal style?

..... [1]