



HOME LEARNING Mammoths

Subject: English Year 11 - Mrs North – Lesson 1

Time: 1 hour approximately

Learning Objective: I can read, understand and analyse the text. I can write a summary of the text.

Task 1: Watch the clip about Mammoths.

This a clip about Mammoths to help give you an understanding of them before reading the texts. To watch this clip you can click on the link https://www.youtube.com/watch?v=9Gex_weJ8QQ or search [The Giant Mammal From The Past](#) in YouTube.

Task 2: Read the text Project Mammoth

Text A: Project Mammoth

This text is an article about a new scientific project.

Of all the incredible possibilities presented by controversial new scientific techniques, perhaps the most intriguing are efforts to bring animals back from extinction. Candidates for 'de-extinction', as the process is known, include species like the passenger pigeon (the last one died in captivity in 1914) and the dodo (last seen in 1662).

These projects are not just distant dreams.

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Scientists working on such projects estimate that a variation of the first new woolly mammoth (which disappeared some 4 000 years ago) may soon be born. They hope these animals will play a role in slowing or reversing the effects of climate change.

The basic idea behind how it would work is that scientists would first retrieve DNA from the remains of a woolly mammoth that had been preserved for centuries in the frozen tundra¹ and use that to alter the DNA of modern Asian elephants. According to scientists, the two species are so closely related that if mammoths were alive today they could successfully breed with elephants. Tweaking the Asian elephants' DNA to more closely resemble that of their ancient relatives could mean elephants might be able to give birth to a furrer, fatter hybrid.

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Scientists say this work is decidedly not about creating Mammoth Park – the creature would not be a perfect copy of a mammoth anyway. The hope is that these mammoth-like Asian elephants will be more resistant to cold and will repopulate the tundra and coniferous forest in Eurasia and North America. Scientists feel that this will help to protect endangered Asian elephants and revive an ancient grassland in the tundra, which could prevent the melting of Siberia's permafrost.

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The project is not without its critics who claim the idea is no more than a gimmick, seducing scientists into thinking they are saving the world and distracting us from guaranteeing our planet's biodiversity for future generations with promises of being able to fix mistakes later.

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Scientists defending the idea explain, 'We're just bringing DNA back from the past to improve modern survival and diversity. The Asian elephant faces threats to its existence – it's going extinct, just like the mammoth did, and mainly because of humans. Bits of mammoth DNA can give them a better chance of survival.'

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¹ **tundra:** a vast treeless plain in the Arctic where the subsoil is permanently frozen

Task 3:

Can you answer the following questions about the Text A?

(a) Give two examples of extinct species (other than the mammoth) according to the text.

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- [1]

(b) Using your own words, explain what the text means by:

(i) 'candidates for "de-extinction"' (line 2): [2]

(ii) 'not just distant dreams.' (line 5): [2]

(c) Re-read paragraph 3, ('Scientists working on such projects ... climate change.').

Give two reasons why scientists might be excited by the possible birth of a woolly mammoth.

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- [2]

(d) Re-read paragraphs 4 and 5, ('The basic idea ... Siberia's permafrost.').

(i) Identify two main tasks that scientists will need to complete in order to breed the hybrid.

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- [2]

(ii) Explain why Asian elephants were chosen for Project Mammoth.

..... [3]

(e) Re-read paragraphs 6 and 7, ('The project is not without ... chance of survival.').

Using your own words, explain why some people disagree with Project Mammoth.

..... [3]

Task 4: Read the text Waking the Baby Mammoth.

Text B: Waking the Baby Mammoth

This text is a review of a television programme called 'Waking the Baby Mammoth'.

Only a handful have been found before. But none like her. Her name is Lyuba. A one-month-old baby mammoth, she walked the tundra about 40000 years ago, then died mysteriously. Discovered on a riverbank in Siberia, she's the most perfectly preserved woolly mammoth ever discovered. Lyuba has mesmerised the scientific world with her arrival – creating headlines across the globe.

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'Waking the Baby Mammoth', a new television programme, tells the tale of this single accidental discovery of a frozen baby mammoth in the Siberian tundra and how the discovery has enriched our understanding of these extinct magnificent beasts.

The programme begins with the incredibly fortunate discovery of Lyuba by a reindeer herder who feared that disturbing the remains of the dead might lead to a curse. Too often with such findings, the preserved creature would be dug up and sold, leading to irreversible decomposition and the loss of a treasure trove of valuable information. However, the herder had enough foresight to contact authorities, and scientists began the careful retrieval process. Everyone wanted to know how Lyuba had died. What could she tell us about life during the Ice Age and the Earth's changing climate?

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The programme follows the scientific process and the hurdles in understanding where Lyuba came from and what she can tell us about her Pleistocene¹ life. That being said, apart from specific experiments involving high-tech bone scans, tissue extraction and dental examinations, the programme does not delve too far into the intricate data. We are left wondering whether scientists will be able to extract her DNA, and what secrets that might uncover. It's impossible to watch the work on Lyuba without sharing the anxiety the scientists must have felt to get it right.

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The programme succeeds brilliantly in bringing drama to a quite amazing story. We are presented with stunning 3D animations of Lyuba and her mother. In cinematic form, Lyuba is brought to life as an active furry baby mammoth, bouncing along next to scientists as they contemplate the frozen carcass's secrets. The visuals are beautiful – light shines off the baby's fur and her shadows dance in just the right way to really make her come alive.

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The programme has truly woken the baby mammoth within our minds and hearts.

¹ **Pleistocene**: the Ice Age, which lasted over 2.5 million years and ended about 12000 years ago

According to Text B, **what made Lyuba such a remarkable and precious scientific specimen and what did scientists hope to discover by studying her?**

You must use continuous writing (not note form) and use your own words as far as possible.

Your summary should not be more than 120 words.

Up to 10 marks are available for the content of your answer and up to 5 marks for the quality of your writing.

