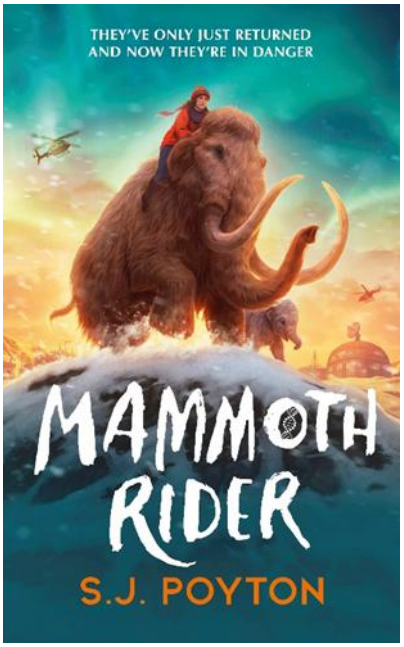
Mammoth Rider Theme for Earth Day

MAMMOTHRIDER.COM **EARTHDAY.ORG**

1. Introduction & Context



Conservation and global warming themes run throughout *Mammoth Rider*. The story explores real scientific ideas, including de-extinction and rewilding, and how these could help slow global warming by interrupting the Arctic Carbon Cycle. This makes it a strong starting point for Earth Day learning, linking story with real-world environmental science.

Discuss:

- What is Earth Day about?
- Why might stories be a useful way to explore real-world problems?

2. Exploring the Story

Mammoth Rider is set in an alternative version of today, where mammoths have been brought back to help combat climate change. Pupils begin by exploring the text and identifying its key ideas and themes.

- Read the blurb and a short extract
- Explore the non-fiction section at the back
- Study the cover

Questions:

- What feels different about this world?
- Why might mammoths be important?
- What themes can you identify?

3. The Science Behind the Story

The book is based on the idea that mammoths could be released into the Arctic tundra. By moving across the land, they would trample snow, reduce insulation, and help keep the ground frozen. This is important because frozen ground (permafrost) contains trapped gases, which are released when it thaws, contributing to global warming.

Use the Arctic Carbon Cycle resource on https://MammothRider.com/resources

Questions:

- What happens when permafrost thaws?
- How do mammoths change what is happening in this environment?
- Is this a natural solution, a human solution, or both?

4. Rewilding in the Real World

The ideas in the book connect to real-world projects where animals are reintroduced to restore ecosystems.

- **Pleistocene Park, Siberia:** Scientists are reintroducing species like musk oxen, Bactrian camels to help stabilise Arctic environments
- **Dudhwa, India:** Rhinos help manage vegetation, reduce wildfire risk, and improve soil, supporting plant growth and carbon capture
- **Patagonia, Argentina:** Rhea spread seeds and fertilise soil; puma control grazing animals, helping ecosystems recover

Questions:

- How do animals change the environments they live in?
- Why is balance in an ecosystem important?

5. Thinking Deeper

Mammoth Rider explores the idea of rewilding not just with animals that still exist today, but with species that have become extinct. This concept, sometimes called de-extinction, looks at whether bringing back lost species could help restore ecosystems more quickly or effectively.

- **Woolly rhinos:** could play a similar role in the Arctic tundra, helping manage vegetation and maintain frozen ground
- **Thylacine (Tasmanian tiger):** could act as a predator, controlling grazing animals and preventing damage to plant life

Questions:

- How is this different from reintroducing animals that already exist?
- Why might extinct animals have a bigger or faster impact?
- What challenges might there be in bringing these animals back?

Ethics support can be found at https://MammothRider.com/resources

6. Apply & Reflect

Pupils apply their learning by imagining how rewilding might work in practice, linking science, storytelling, and problem-solving.

Activity: Rewilding Story

- Choose an ecosystem (Arctic, India, Argentina, Australia)
- Choose an animal (real or extinct)
- Write a short story about its reintroduction

Include:

- How the animal helps the ecosystem
- Challenges it might face
- How humans might protect or monitor it

Reflection:

- Why are ecosystems important?
- What role do humans play in protecting them?
- How does this link to Earth Day?

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