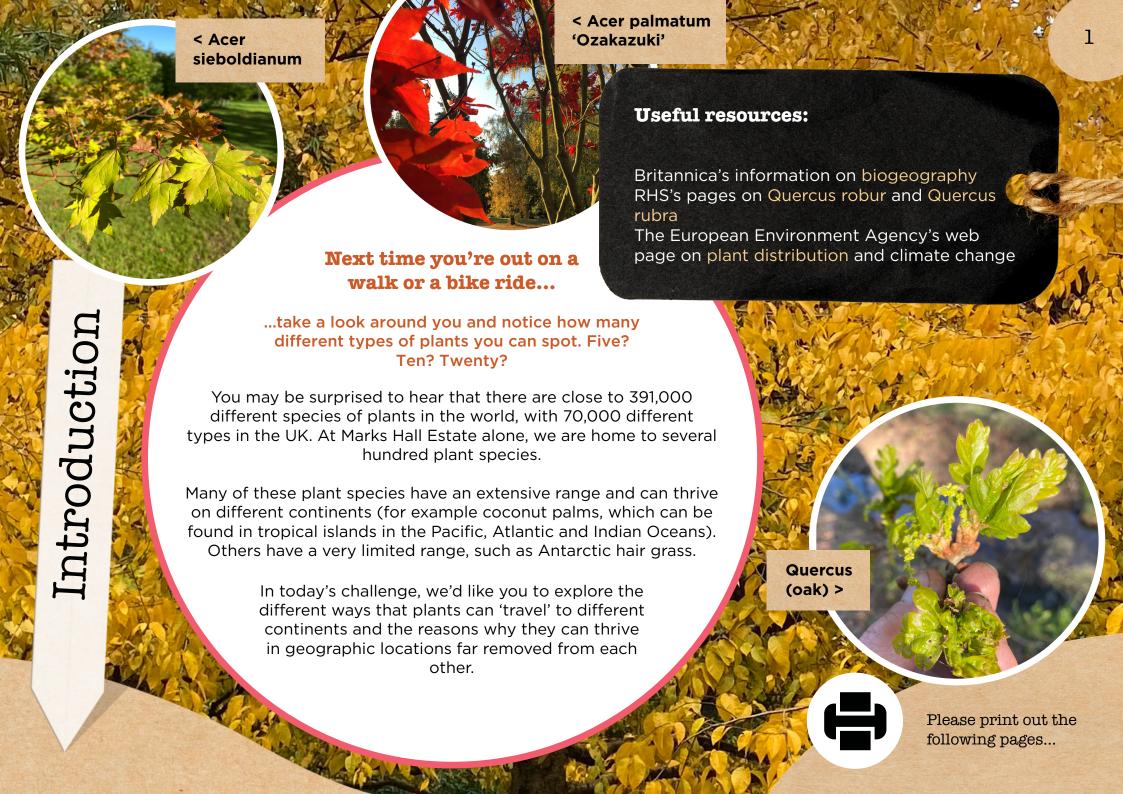


How plants can shift through continental drift



KEYSTAGE 3-4
GEOGRAPHY



Activity 1

How plants distribute cross continents

There are four main ways that plant species can be distributed across several continents. Take some time to research each one, explaining in your own words how it might contribute to plant 'travel'.

Please find an example on the following page and add your answers under each heading.

1. Continental drift

2. Oceans and river systems









3. Human introduction



4. Animal migration

Some plants rely on animals to spread their seeds or spores as part of their reproductive cycle. Depending on the behaviour of the animal, this can mean that the plants can travel quite a long distance, especially during seasonal migration. Many bird species migrate to warmer climates during the winter, and may take seeds back and forth across their journeys, leading to plant populations distributed between different continents.





At Marks Hall Estate we have many varieties of oak trees including Quercus robur (native to the UK, common name English oak) and Quercus rubra (native to North America, common name Northern Red Oak). Both oaks belong to the same family (Fagaceae). They grow in the Northern Hemisphere, but originate thousands of miles apart and have adapted to their individual natural habitats in order to thrive.

Can you research these two varieties of oaks and answer the following questions?



Tip: Refer back to the reasons for plant travel and decide which explanation you think is the most likely.



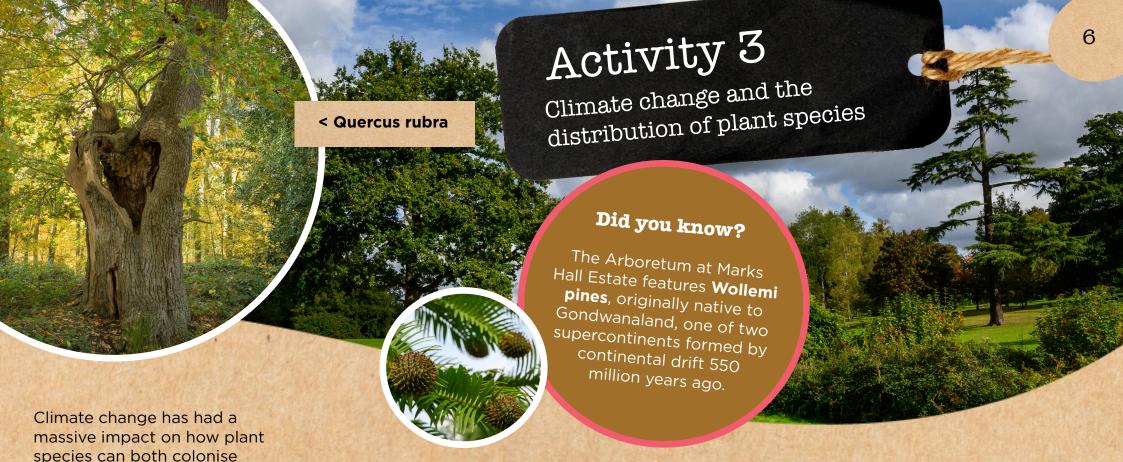


2. What similarities are there in these two environments?

Tip: Consider factors like climate, physical geography and soil types.

3. Suggest another environment where this plant may thrive, and why. Tip: Consider the 'biome' that oaks flourish in. Where else in the world is this type of biome?





new territories and survive
in their existing ones. At
Marks Hall Estate we're keen
to raise awareness about
the importance of plant
biodiversity - on a global
scale. Below we have listed
a few reasons why climate
change is affecting plant
biodiversity and we'd like you
to research these and, in each

instance, explain them in your own words, writing about the impact of these factors on

plant life.

Research and add an additional climate change factor affecting plant distribution. Out of all of these factors, which do you think has the greatest impact? What could we do to make this less of a problem?



Reason 1. Changes to growing conditions (temperature/sea levels/rainfall/soil type etc.)

Explanation

Impact

Reason 2. Animal/insect migration (food chain disruption)

Explanation

Impact

Reason 3. Previously harmless alien species becoming invasive

Explanation

Impact