

# World Biomes and Climate Zones



# Learning Objective

- To understand what biomes are and where they are located across the world.

# Success Criteria

- To identify where different biomes are located.
- To make links between biomes and climate zones.
- To implement this new knowledge in a piece of extended writing.

# What Are Ecosystems and Biomes?

An **ecosystem** is a system of plants and animals which are interconnected and working together.

Some ecosystems are found under a stone or in a pond and are very small, whereas others are very large and cover the majority of a continent.

An ecosystem covering a large area of a continent is called a **biome**.



# Types of Biomes

## alpine

Colder climates found at high altitudes in mountain ranges. Populated with coniferous trees such as firs and pines.

## chaparral

Hot and dry like a desert, but has more rain and therefore more plants and animals, including yucca, trees and cacti, coyotes, deer, lizards and jack rabbits.

## deciduous forest

Warm, wet and mild areas and dominated by deciduous trees (trees that lose their leaves in the autumn).

## desert

Deserts are dry; less than 25cm rain per year. They can be hot and sandy or cold and icy. Both hot and cold deserts can support life as long as it is well adapted, such as cacti and silver ants in hot deserts, and penguins in cold deserts.

# Types of Biomes

## desert scrub

Very dry areas of hot deserts populated with grasses, herbs and shrubs adapted to live in very arid areas.

## grasslands

Areas where a variety of grasses grow. There are few other trees or plants apart from near to water sources. The grasslands are very hot places in summer. Some become extremely cold in the winter.

## rainforest

Warm, wet and humid, rainforests are home to half of the world's species and are populated with dense vegetation and trees. Rainforest animals include sloths, howler monkeys and jaguars.

# Types of Biomes

## savanna

This is a mixture of grasslands and woodland. There are some trees but they are spread out enough to allow the sunlight to reach the ground and grasses in between. Animals that live here include zebras, giraffes and lions.

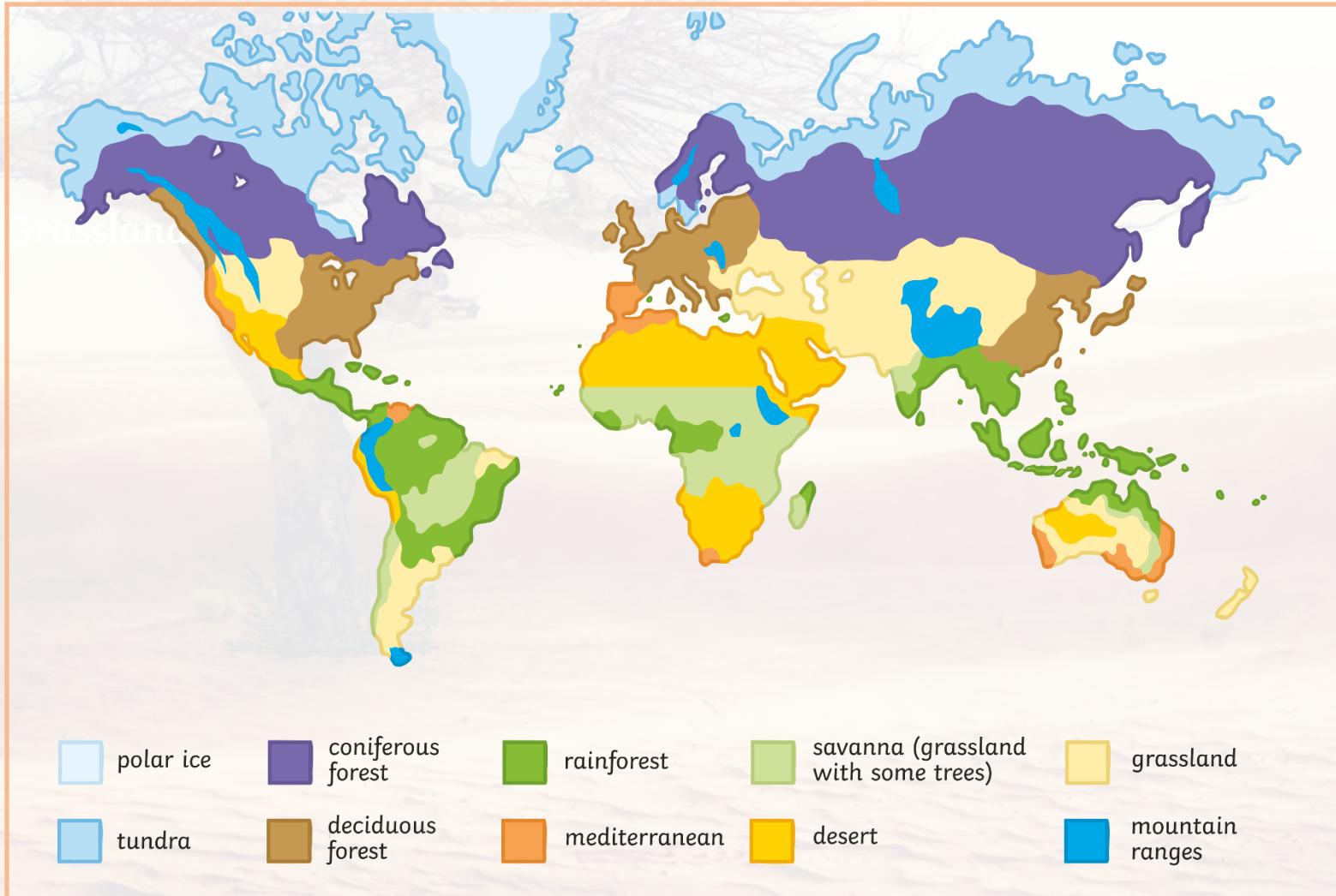
## taiga

Very wet and cold, receiving plenty of snow during the winter. Coniferous trees are evergreen and remain green all year round. The soil is not very nutritious and therefore, the variety of vegetation is limited.

## tundra

Cold, harsh and difficult for much vegetation to survive. Found at the top of mountains and the Poles. These areas are snow-covered and all life here is very hardy, including mosses, birds and mountain goats.

# Biome Locations

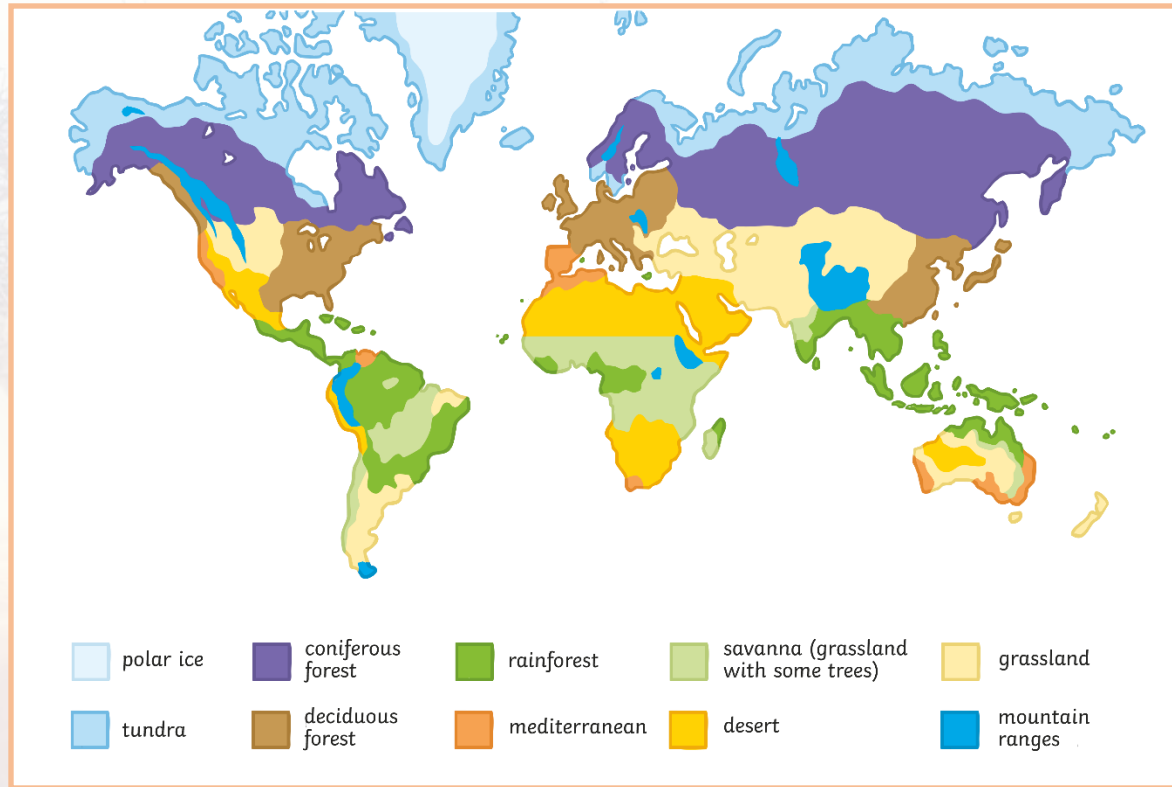


# Linking Biomes and Climates

Create this table in your books.

Area	Biome	Climate
North Africa		
Northern Russia		
India		
Central Australia		
Eastern USA		
UK		





Use an atlas to help you answer these questions.

**What is the biome in...**

North Africa?

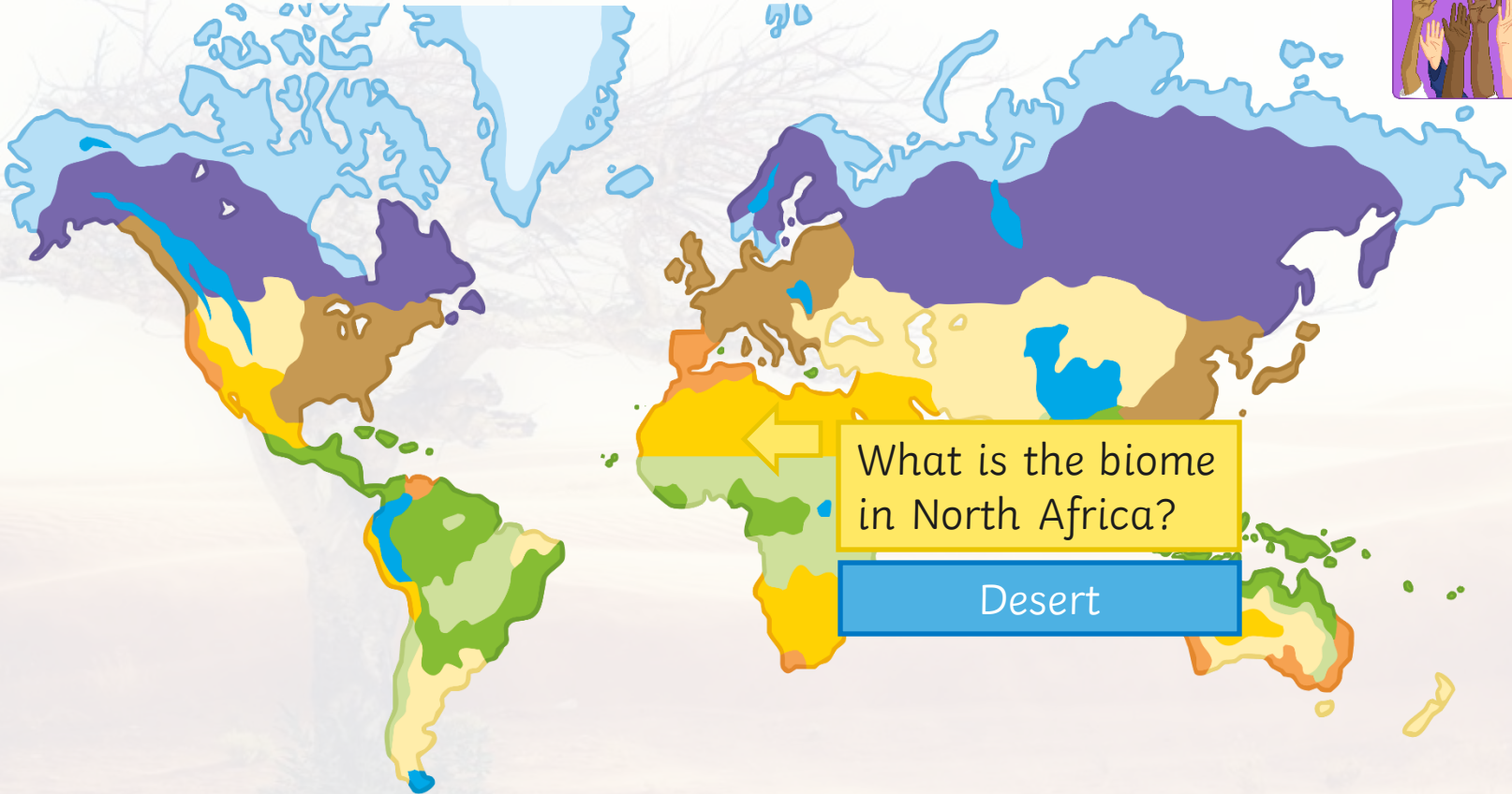
India?

Eastern USA?

Russia?











Central Australia?

the UK?



What is the biome in North Africa?











Desert

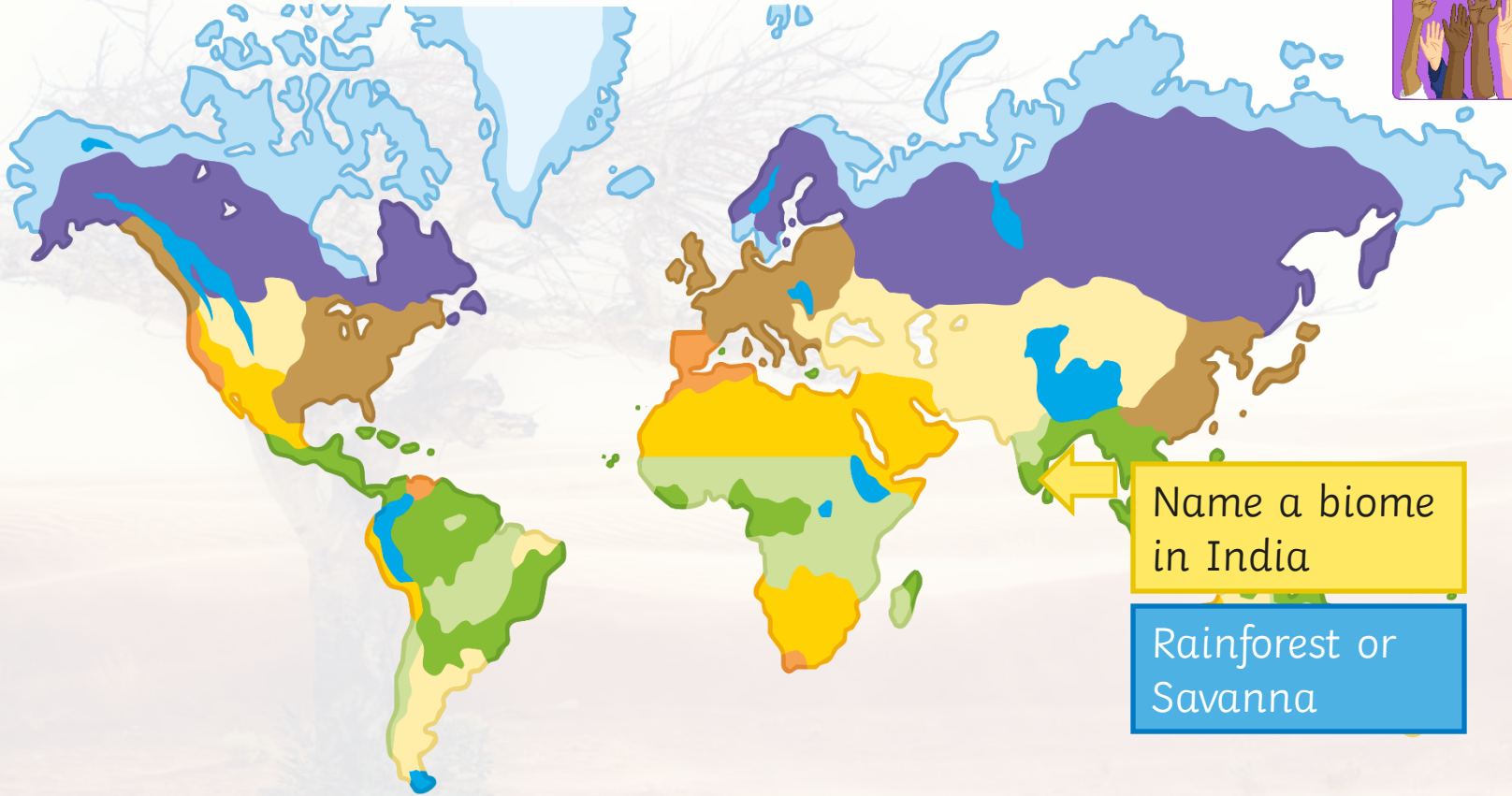
- |   |   |   |   |   |
|---|---|---|---|---|
|  polar ice |  coniferous forest |  rainforest    |  savanna (grassland with some trees) |  grassland       |
|  tundra    |  deciduous forest  |  mediterranean |  desert                              |  mountain ranges |



What is the biome in northern Russia?











Tundra

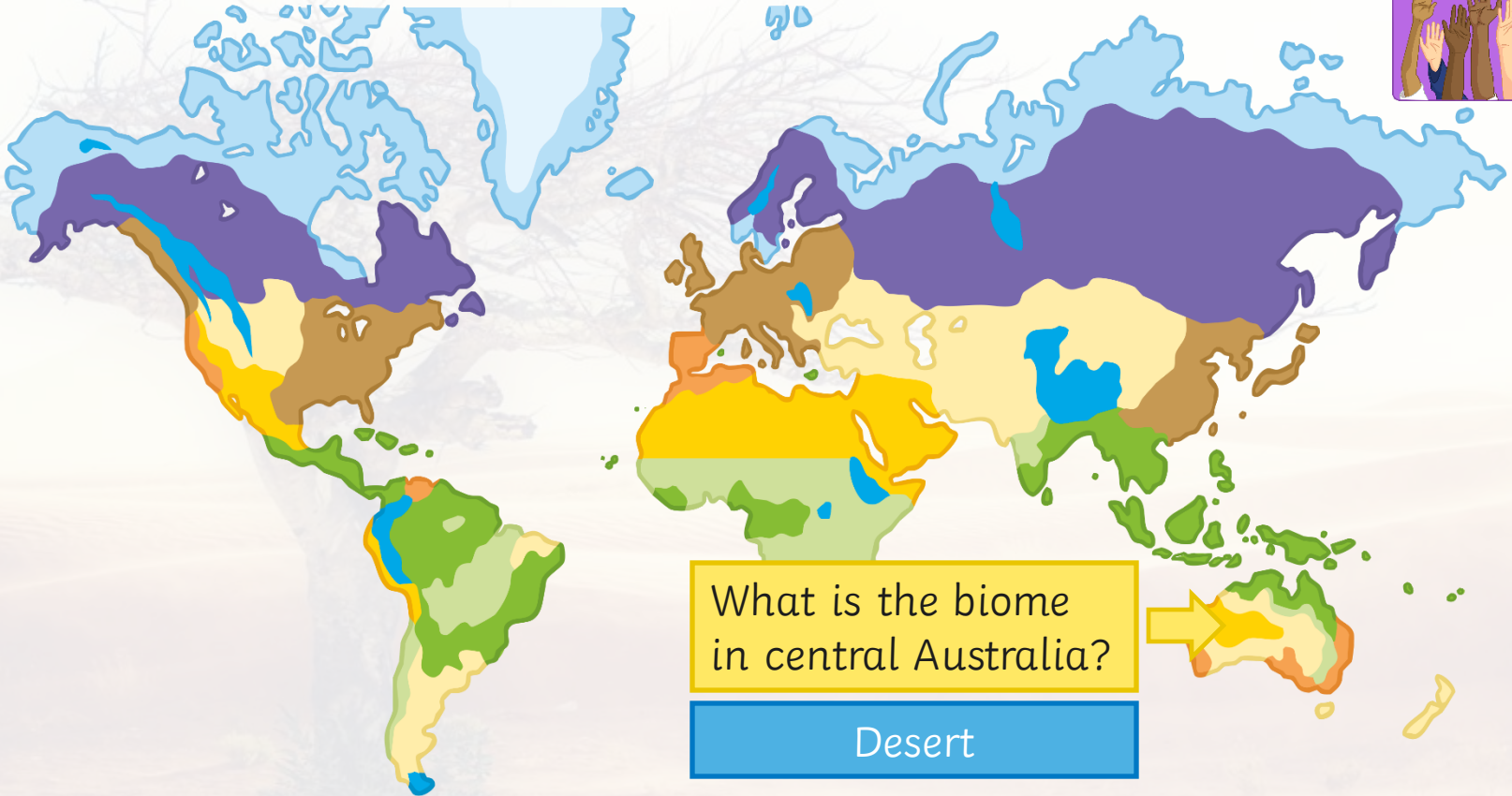
- |   |   |   |   |   |
|---|---|---|---|---|
|  polar ice |  coniferous forest |  rainforest    |  savanna (grassland with some trees) |  grassland       |
|  tundra    |  deciduous forest  |  mediterranean |  desert                              |  mountain ranges |



Name a biome in India











Rainforest or Savanna

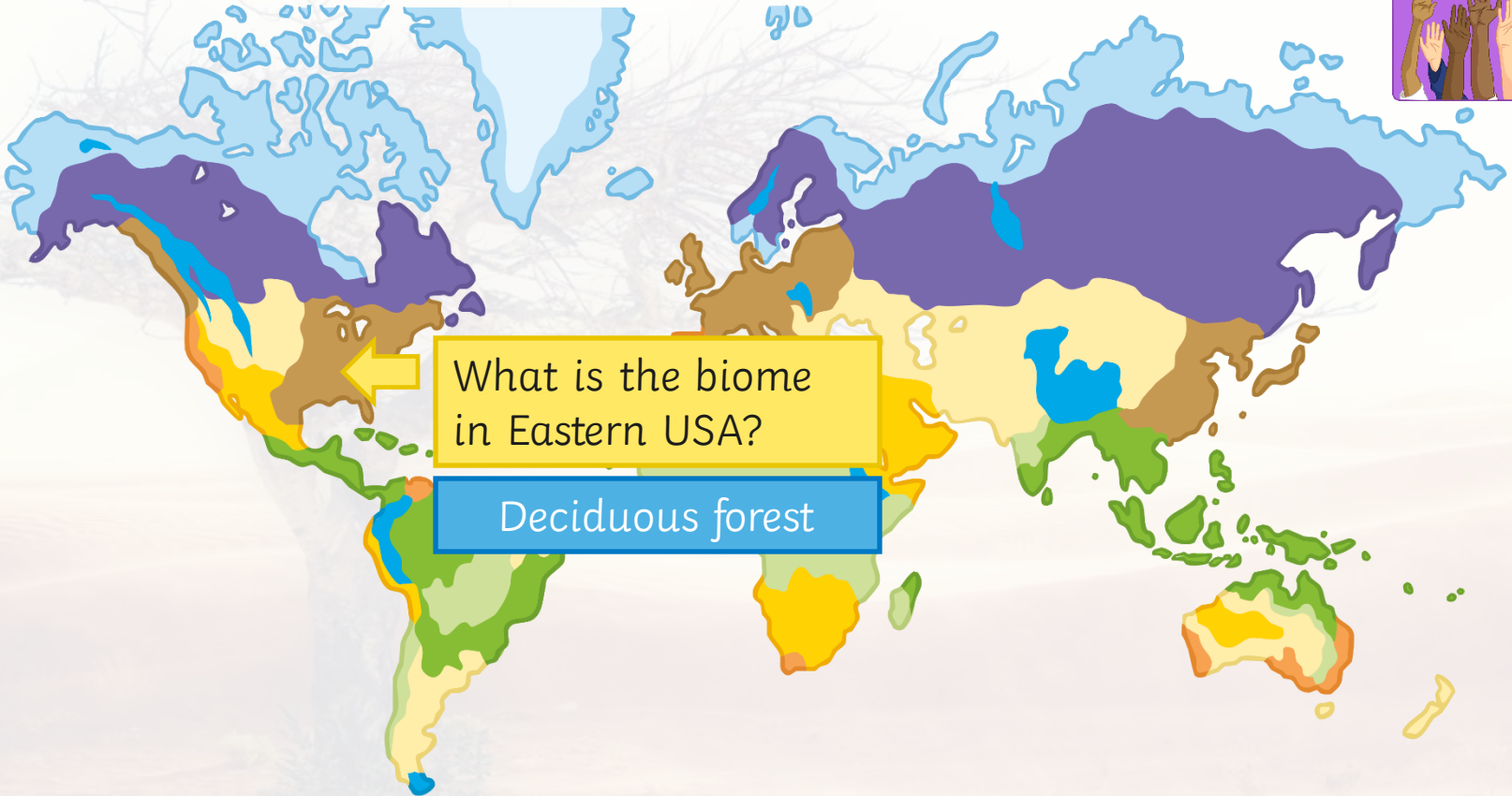
- |   |   |   |   |   |
|---|---|---|---|---|
|  polar ice |  coniferous forest |  rainforest    |  savanna (grassland with some trees) |  grassland       |
|  tundra    |  deciduous forest  |  mediterranean |  desert                              |  mountain ranges |



What is the biome in central Australia?











Desert

- |   |   |   |   |   |
|---|---|---|---|---|
|  polar ice |  coniferous forest |  rainforest    |  savanna (grassland with some trees) |  grassland       |
|  tundra    |  deciduous forest  |  mediterranean |  desert                              |  mountain ranges |



What is the biome in Eastern USA?











Deciduous forest

- |   |   |   |   |   |
|---|---|---|---|---|
|  polar ice |  coniferous forest |  rainforest    |  savanna (grassland with some trees) |  grassland       |
|  tundra    |  deciduous forest  |  mediterranean |  desert                              |  mountain ranges |



What is the biome in the UK?

Deciduous forest

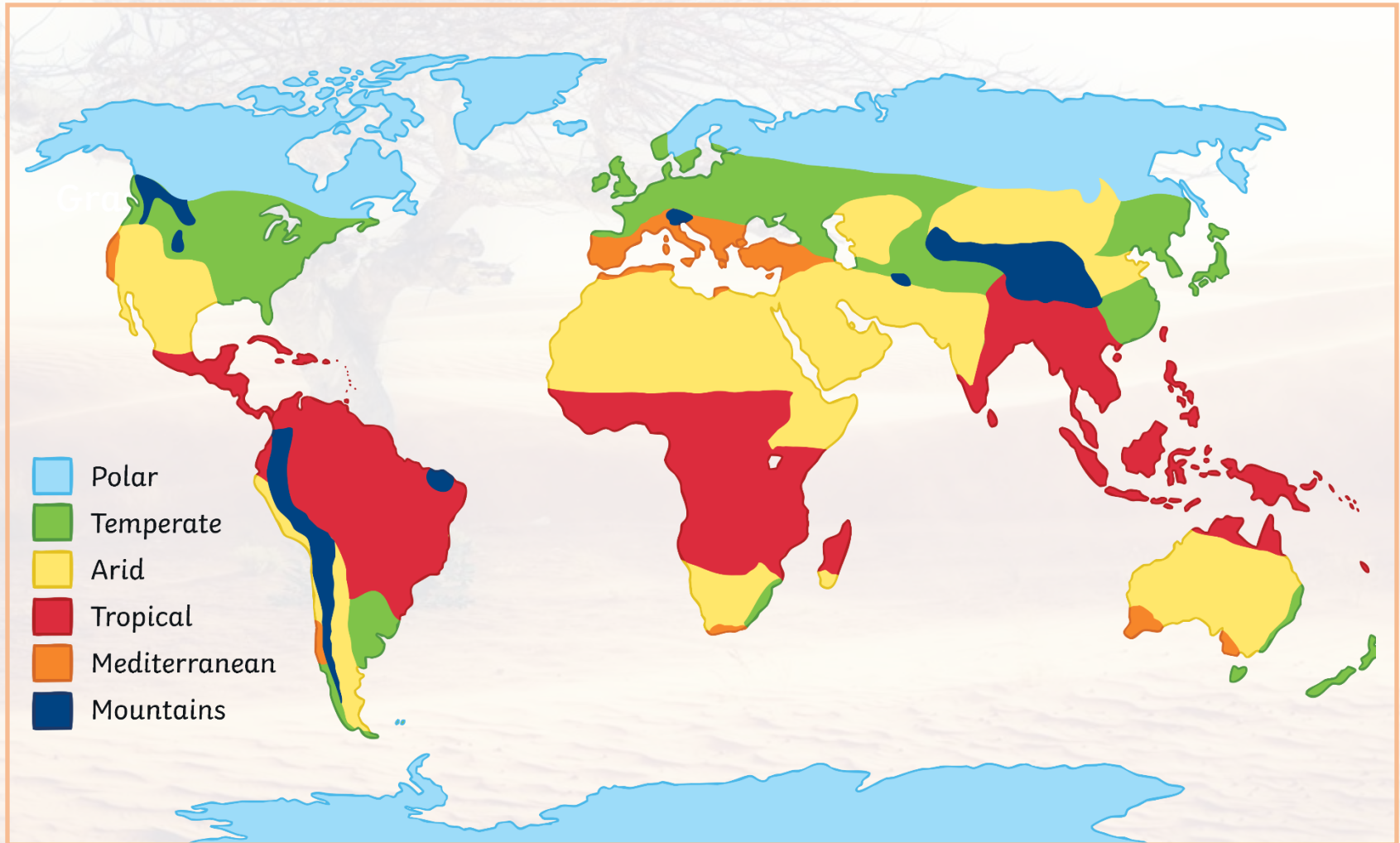
- |   |   |   |   |   |
|---|---|---|---|---|
|  polar ice |  coniferous forest |  rainforest    |  savanna (grassland with some trees) |  grassland       |
|  tundra    |  deciduous forest  |  mediterranean |  desert                              |  mountain ranges |

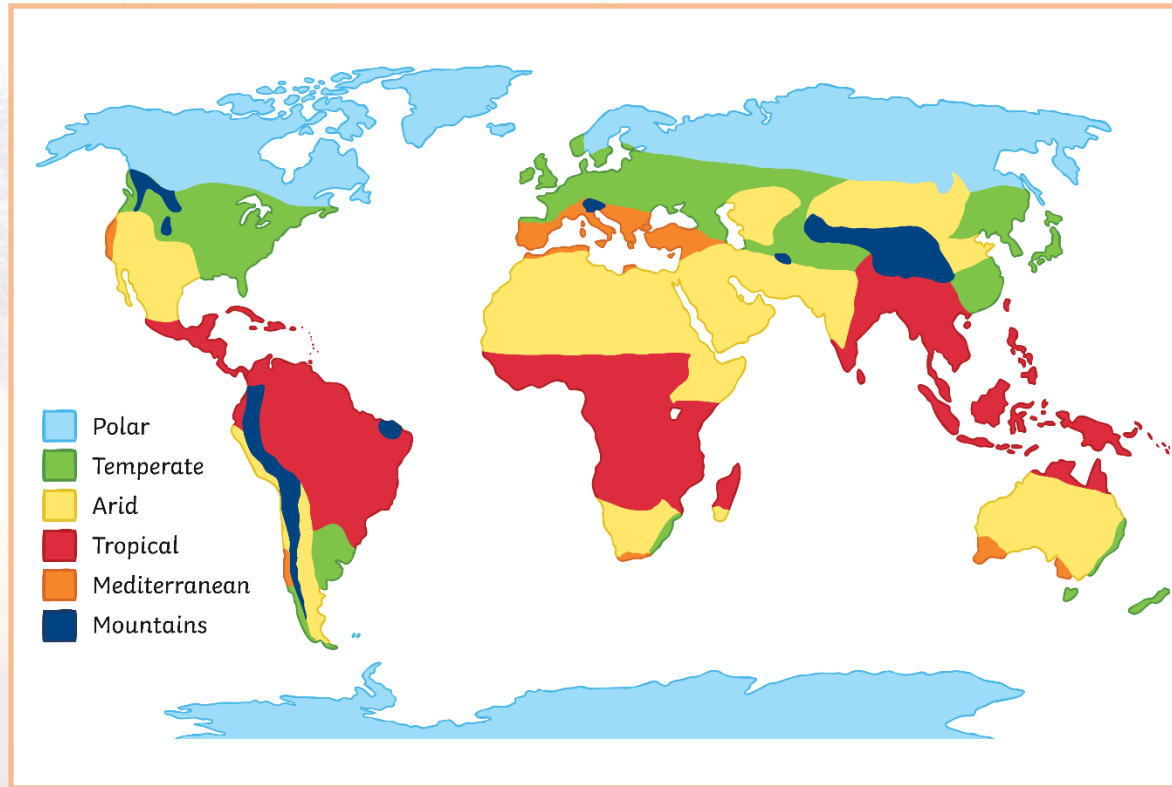
# Types of Climate Zone

Biome	Description	Example
<b>Polar</b>	Very cold and dry all year round	Antarctica
<b>Temperate</b>	Cold winters and mild summers	UK
<b>Arid</b>	Dry and hot all year round	Sahara Desert
<b>Tropical</b>	Hot and wet all year round	Brazil
<b>Mediterranean</b>	Dry, hot summers and mild winters	Spain
<b>Mountain</b>	Very cold, sometimes wet, all year	Himalayas



# Climate Zone Locations





Use an atlas to help you answer these questions.

**What is the climate in...**

North Africa?

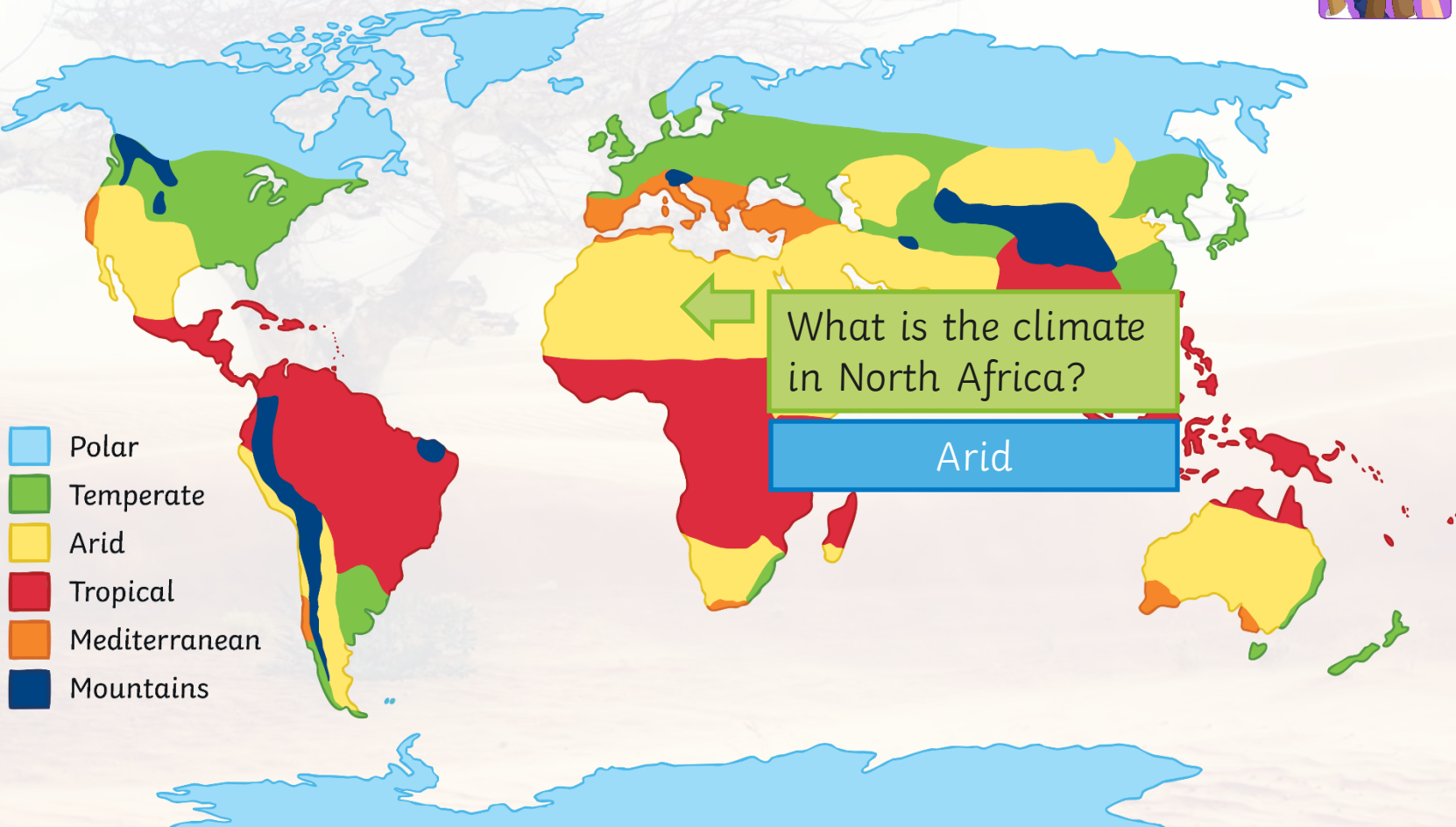
India?

Eastern USA?

Russia?

Central Australia?

the UK?



-  Polar
-  Temperate
-  Arid
-  Tropical
-  Mediterranean
-  Mountains

What is the climate in North Africa?

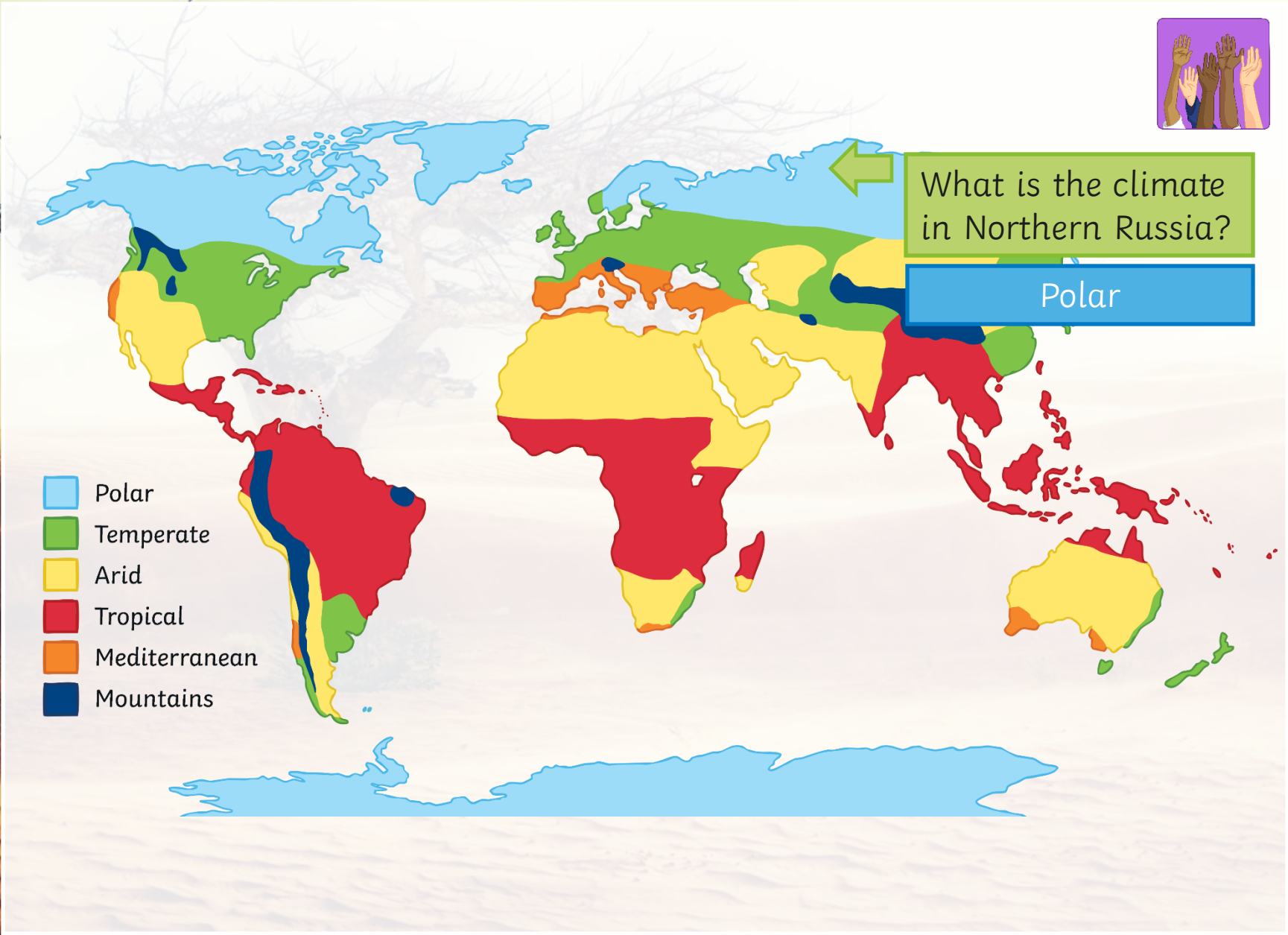
Arid

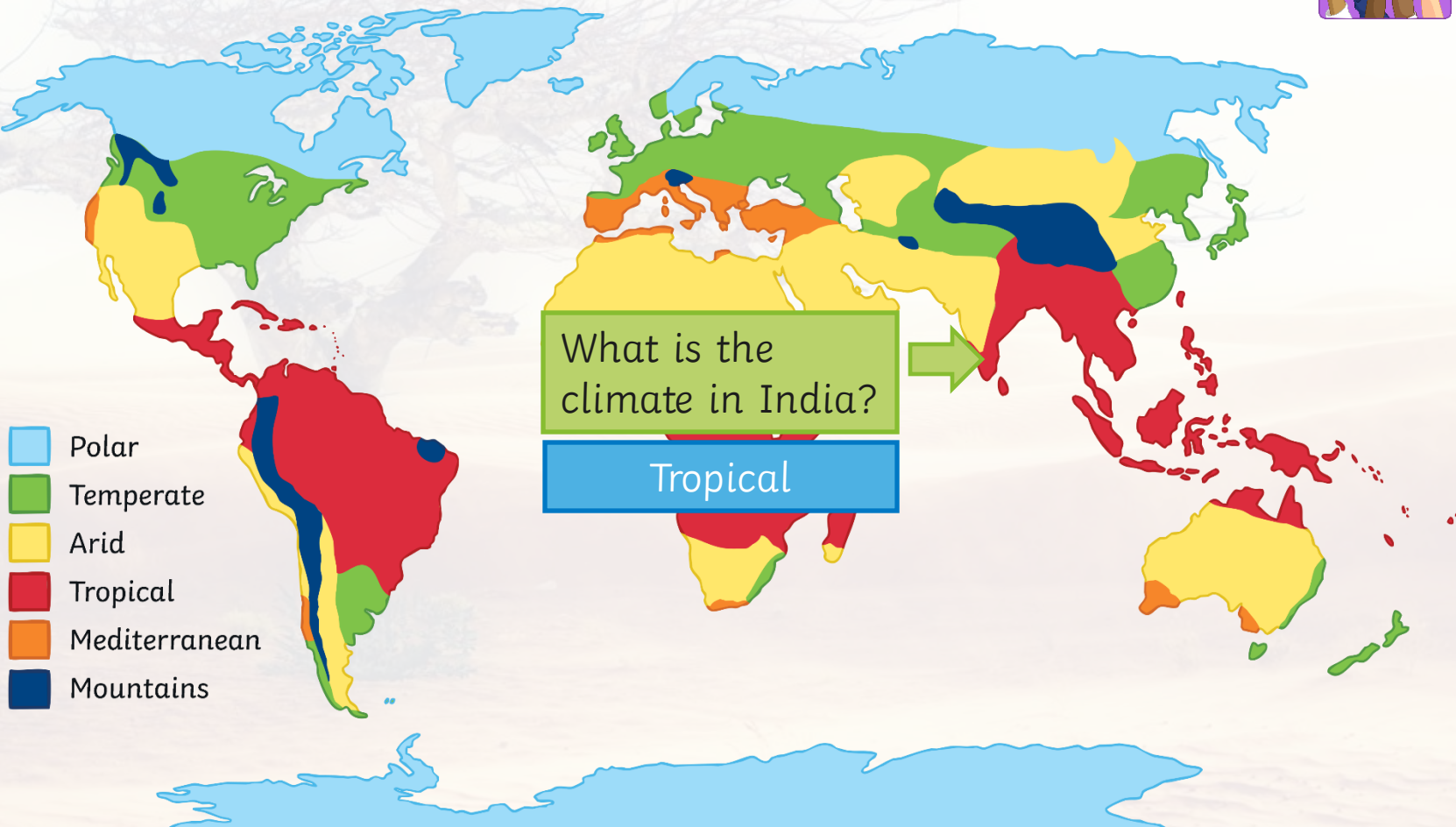


What is the climate in Northern Russia?

Polar

- Polar
- Temperate
- Arid
- Tropical
- Mediterranean
- Mountains





What is the climate in India?

Tropical

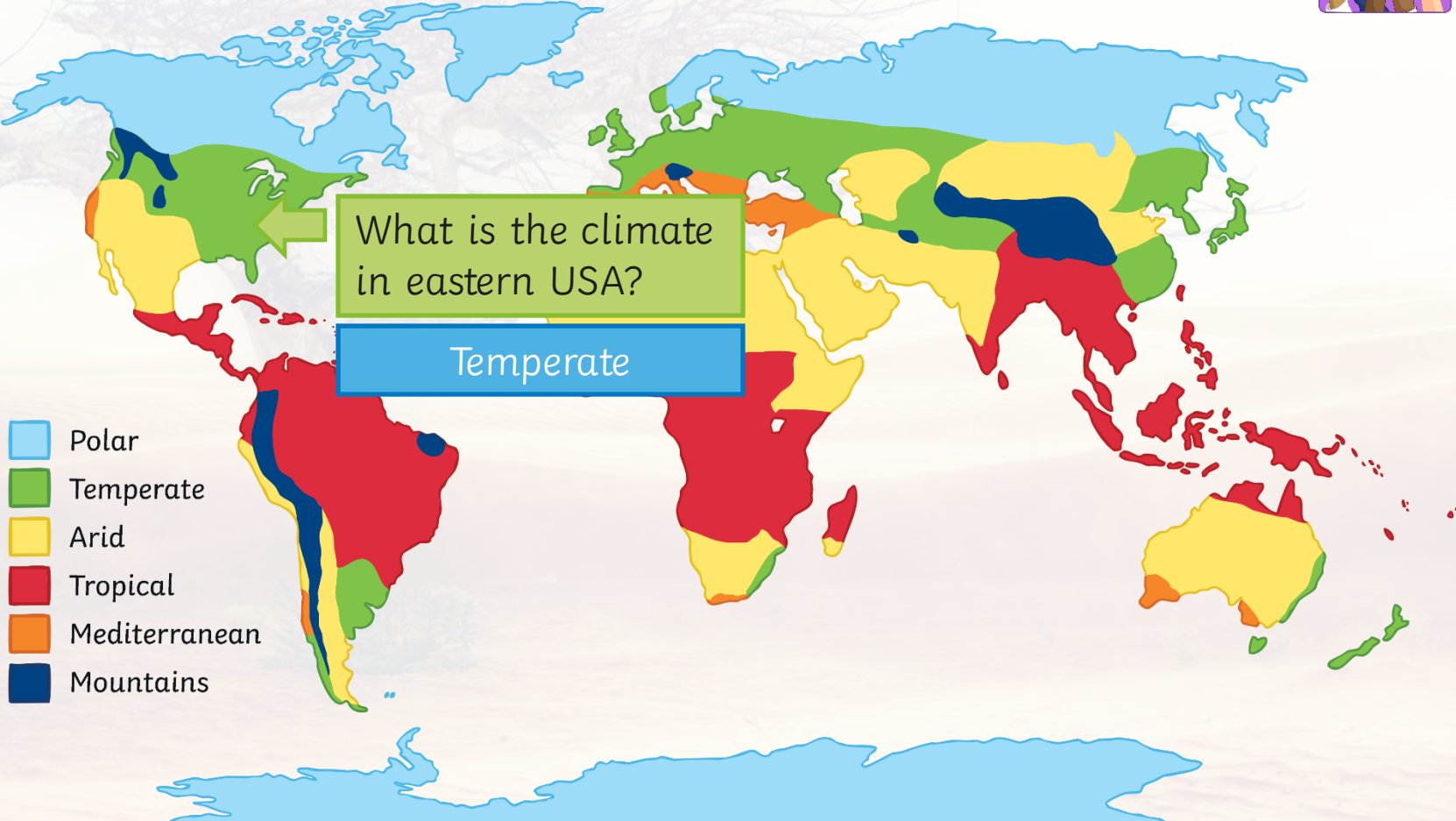
- Light blue square: Polar
- Green square: Temperate
- Yellow square: Arid
- Red square: Tropical
- Orange square: Mediterranean
- Dark blue square: Mountains



-  Polar
-  Temperate
-  Arid
-  Tropical
-  Mediterranean
-  Mountains

What is the climate in central Australia?

Arid



What is the climate in eastern USA?

Temperate

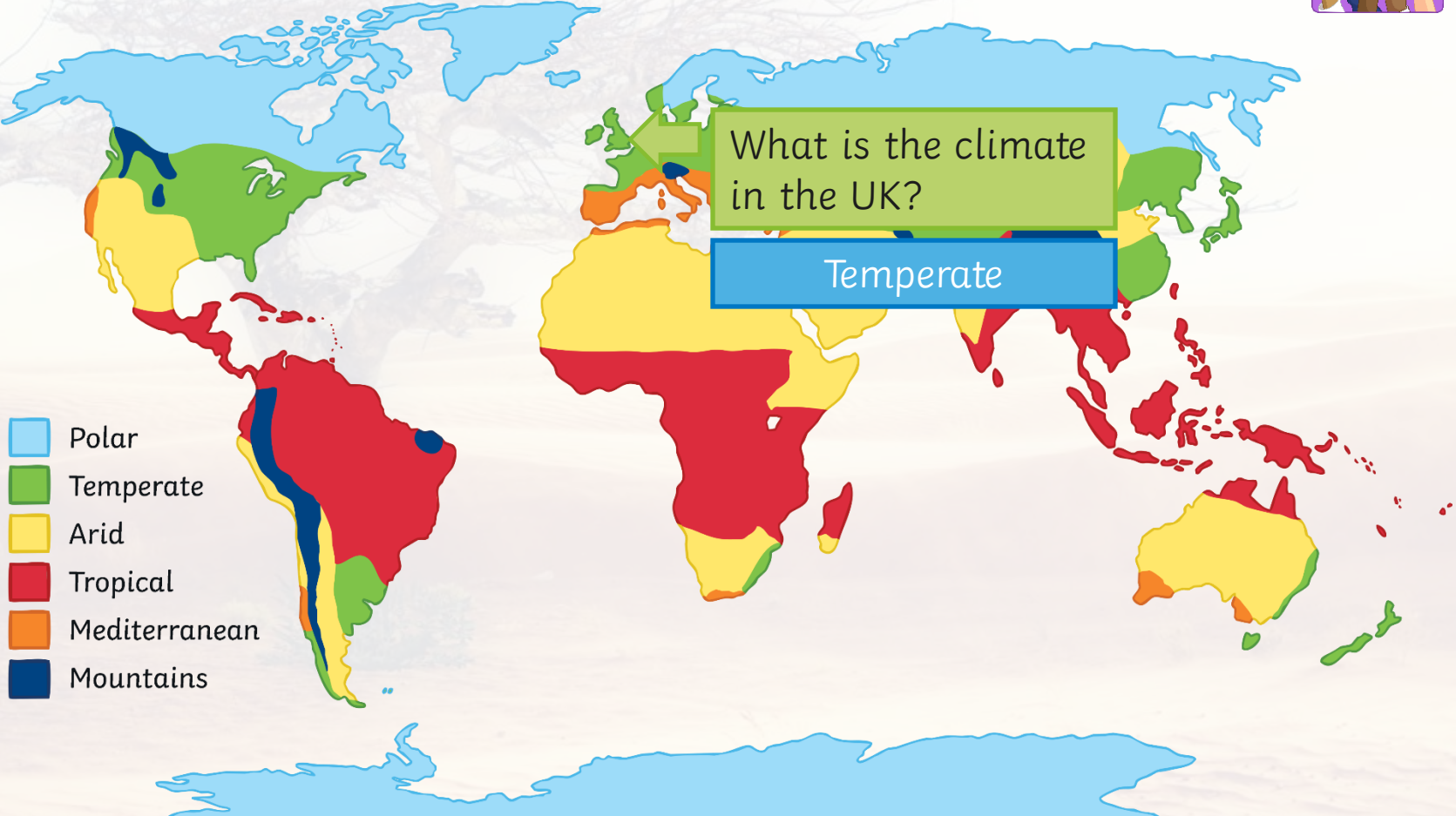
-  Polar
-  Temperate
-  Arid
-  Tropical
-  Mediterranean
-  Mountains



What is the climate in the UK?

Temperate

-  Polar
-  Temperate
-  Arid
-  Tropical
-  Mediterranean
-  Mountains





# Report It!

Imagine you are on holiday **anywhere** in the world!

Write a postcard, email or letter describing the climate and the landscape. You should include a description of the type of weather you are experiencing. You should describe the types of plants and animals you can see there.





twinkl