

# Pink Lakes - formation

## Aim and introduction

The Pink Lakes of Oman are a type of salt lake where a type of algae produces a pink pigment in salty water. They are special features formed in warm, dry climates. This is the first lesson of two has been designed to help pupils understand how processes have created these landforms.

It is anticipated that this lesson will take between 45 and 60 minutes.

## Curriculum links

Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.

Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.

## Learning goals

- Describe the location of the pink lakes in Oman.
- Sequence the formation of the pink lakes in Oman.
- Interpret digital maps to identify human and physical features surrounding the pink lakes of Oman.

## Learning outcomes

Greater depth: pupils will be able to clearly locate the pink lakes in Oman as well as selecting relevant human and physical features to add onto their map using digital sources provided. They will be able to hypothesise how the pink lakes were formed and why they are located where they are using evidence given as well as their own knowledge. Pupils will be able to synthesise and summarise information on the formation of the lakes and present their understanding in a clear sequence. They will be able to reflect upon and adjust their hypotheses based on additional evidence.

Expected level: pupils will be able to locate the pink lakes in Oman as well as relevant human and physical features to add onto their map using digital sources provided. They will be able to formulate questions on the creation and location of the pink lakes using evidence given and/or drawing on their own knowledge. Pupils will be able to summarise information on the formation of the lakes and present their understanding in a sequence. They will be able to reflect upon the formation of the pink lakes based on the evidence presented in class.

Working towards: with guidance, pupils will be able to locate the pink lakes in Oman as well as some relevant human and physical features to add onto their map. They will be able to formulate some questions on the creation and location of the pink lakes, these may not be accurate. With guidance, pupils will be able to summarise information on the formation of the lakes and present their understanding mostly in a relevant sequence.

Produced for, and in association with

Support: with guidance, pupils will be able to locate the pink lakes in Oman as well as identify some of the human and physical features to add onto their maps, these might not be relevant. With guidance, they will be able to formulate some questions on the creation and location of the pink lakes, these may not be accurate. Pupils will be able to produce a summary of the formation of the lakes, this might be inaccurate and not in sequence.

### **Key terms**

- Salt lake
- Algae
- Pigment
- Ecosystem
- Tourism
- Conservation

### **Learning resources**

- Pink Lakes – Formation\_ Teacher presentation
- Map of Oman with sequence boxes (ideally printed in A3).
- [StoryMap from KS2 \(7-10\) Resources](#)

### **What you will need**

- Atlases (digital or physical) showing the physical landscape of Oman (optional).

### **Challenge and support**

Support pupils by scaffolding some example questions from the '5Ws' and identifying key points in the process of the formation of the pink lakes in the teacher presentation. Challenge pupils by encouraging them to draw upon their knowledge to think about the formation of the lakes in a hypothesis.

### **Starter**

Show images of pink lakes and ask pupils to write down one question they have about the images. They could use the 5Ws for structure if they need it.

Discuss questions to come up with what they think they will be learning about today. Teacher picks a few questions (which they know will be answered by the end of the lesson) that can be used as a whole class 'what I want to know' at the start and a 'what I know now' task at the end of the lesson.

### **Main 1**

Hand out a copy of the blank map of Oman and open the StoryMap on the board showing the location of the one of the pink lakes. Pupils then draw on the location of them on their own map as well as any other human and physical features they notice i.e. roads, nearby settlements, Arabian Sea etc.

If you would like your pupils to see what the place looks like from ground level, then an application such as Street View on Google Maps is useful. If you are using this application or another similar to it, then use 'Ra's ar Ru'ays' in the search to find the lakes.

Once the features have been added, pupils can either write or discuss what the landscape is like and, based on the information gathered.



**Main 2**

Teacher presentation on the formation of the salt lakes. Pupils use the key terms to create a brief sequence of the formation at the top of their maps. This can be in written and/or drawn.

**Plenary**

Look back at the questions chosen at the beginning of the lesson to traffic light confidence on the answers from the class.

As an extension task, pupils could write a story about their visit (real or imaginary) to the pink lakes focusing on what they saw and how they felt when they saw it. Alternatively/additionally, pupils could research other pink lakes around the world and compare those to the ones in Oman.