## PRINCESS OLIVIA INVESTIGATES: THE WRONG WEATHER

LUCY HAWKING ILLUSTRATED BY ZOE PERSICO

## **LET'S INVESTIGATE!**

FIRST: What DIFFERENT types of weather can you think of? How can the weather go WRONG?

HINT: What weather types can you see in this iLLustration on the front cover of the book?



### Look out the window: what is the weather Like right NOW?

What do you think the weather will be like LATER TODAY? Note down clues that help you predict the weather.

If you have a copy of the book nearby, here are a few QUICK QUESTIONS for you to think about:

- · Can you spot the palace in the Kingdom of Alez on the cover?
- What are the key differences between the two illustrations of Alez?
- Do you recognise the surname of the author? Fun fact: Her father was a very famous scientist!
- What do you notice about Olivia? Does she Look Like a typical princess?

#### KNOWLEDGE & VOCABULARY CHECK:

YOU'RE NEARLY READY TO INVESTIGATE THE WRONG WEATHER. Before you begin - can you define some important vocabulary below?

THE EARTH'S ATMOSPHERE

CLIMATE CHANGE

**GLOBAL WARMING** 

CLIMATE

FOSSIL FUELS

CARBON FOOTPRINT

PRINCESS

**GREENHOUSE GASES** 



Create your own weather forecast by sketching your weather prediction for each day of the week! Think about what kind of weather we expect in the different seasons and why 

## FUN ACTIVITY 1: THE WATER CYCLE IN ACTION!

In the book, Olivia is shocked to find out that in Alez City. the water is not clean to drink from the tap and must be rationed. She begins to wonder why this is and what can be done about it, kick-starting her investigations!

DID YOU KNOW: Water is essential to Life. In fact, 70% of the Earth's surface is covered with water! Yet, only a tiny proportion of this is freshwater and with an evergrowing population, water shortages are a big problem. Pages 52–53

#### Step 1

Note down all the things you need water for in your daily life. Can you think of any easy ways of saving water? For instance, do you ever Leave the tap running? Do you sometimes overfill the bath?

#### Step 2

Do you know the journey water has travelled in order to get to your tap? Sort the steps of the water cycle below by numbering them in order from 1-5.

WATER FALLS AS RAIN OR SNOW FROM THE CLOUDS, BACK DOWN TO GROUND LEVEL.

WATER EVAPORATES INTO THE AIR, TURNING INTO WHAT WE CALL WATER VAPOUR.

RAINWATER IS TAKEN BACK TO THE SEA AFTER COLLECTING IN LAKES AND RIVERS.

THE SUN HEATS THE WATER.

WATER VAPOUR COOLS IN THE AIR, TURNING INTO CLOUDS.

See if you can LabeL and draw arrows on the picture to show the water cycle in action in ALez!

#### Step 3

Design an eye-catching poster explaining why water is so precious and what people can do to save water. Show your family and friends your poster to spread the word!

## FUN ACTIVITY 2: LEARNING ABOUT CLIMATE CHANGE!

With the help of Dr Mizuki and her classmates, Olivia Learns that the water shortages in Alez City are just one part of a much bigger problem – CLIMATE CHANGE!

DID YOU KNOW: The temperature worldwide has increased by about 1°C in the past 170 years. This is Largely due to trapped GREENHOUSE GASES heating up the Earth's ATMOSPHERE: we call this GLOBAL WARMING! It might not sound like much, but this change in climate has a big impact upon our planet! Page 194

#### Step 1

Read over the List of human activities below. Can you pick out which of them are responsible for global warming and which are not? Investigate any words you are unsure of!

| TRAVELLING BY PLA | NE MINING      | TRAVELLING BY | BICYCLE  | SAVING WAT    | ER |
|-------------------|----------------|---------------|----------|---------------|----|
| DEFORESTATION     | FARMING & AGRI | CULTURE RECYC | CLING    | PLANTING TREE | ES |
| BURNING FOSSIL    | FUELS USING    | SOLAR PANELS  | PRODUCTI | ON OF GOODS   |    |

#### Step 2

Look over the iLLustrations from the book. They show how climate change is affecting the planet. For each image, define what the negative impact is and how it affects the environment.









#### Step 3

Sketch a picture of your community working together to reduce their CARBON FOOTPRINT

(this is the amount of carbon released by a single person or group of people over a period of time.)

Think about how you could make changes in the following areas: transportation you use; things you buy; waste you create; food you eat; energy you use; and things you could grow.

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## FUN ACTIVITY 3: BECOME A SCIENTIST!

By the end of the story, Princess OLivia is determined to continue her investigations and become a scientist. She will help protect the planet from people like Jeremy Pont!

**KEY QUOTE**: 'Science,' said Dr Mizuki, 'is how we understand the world around us through theory, experiment and evidence ... People who do science are called scientists and it's their job to ask questions and find answers.' Page 75

#### Step 1

Think about what qualities and skills make a good scientist? Can you make a list? Can you think of any famous scientists who have changed the world and how we see it?

#### Step 2

It's your turn to be a scientist now and think of some questions you would like to find the answer to! You might have a question about the 'wrong' weather you have seen on the news? Or maybe you're curious about how a specific creature is affected by climate change?

Note down three questions you want to investigate about the world we live in

#### Step 3

Choose one of your questions from 'Step 2' and start your own investigation, just Like OLivia. Report on your findings using the ORHI tempLate below.

## OFFICE OF REAL HIGH INVESTIGATIONS

| QUESTION:              |    | / (1  |  |
|------------------------|----|-------|--|
| HYPOTHESIS:            | 11 |       |  |
| PREDICTION:            |    |       |  |
| EXPERIMENT & RESEARCH: | -  | 10-1- |  |
| RESULTS & CONLUSION:   |    |       |  |