Lesson Plan: Comparing Weather and Drought in Johannesburg and Hawarden

Learning Objective:

Students will compare and contrast the weather patterns of Johannesburg, South Africa, and Hawarden, Wales, focusing on temperature and rainfall over the last 12 months. They will understand how these patterns affect the occurrence of droughts and the overall climate.

Resources:

- World map
- Graph paper or chart paper
- Markers or coloured pencils
- Internet access for up-to-date weather data (if available)
- Printouts of climate data for Johannesburg and Hawarden

1. Introduction to Geography and Climate (15 minutes)

- Begin with a brief discussion on geography and climate. Explain what weather is and how it can vary in different parts of the world.
- Show Johannesburg and Hawarden on the world map. Highlight their locations and explain the general climate zones they are in (e.g. temperature for Hawarden, subtropical for Johannesburg).

2. Understanding Drought (10 minutes)

- Explain what a drought is and how it affects the environment and human activities.
- Discuss the importance of rainfall and how a lack of it can lead to drought conditions.

3. Data Research (20 minutes)

- With a learning partner, pupils will research up-do-date weather data to show the temperature and rainfall for Johannesburg and Hawarden over the last 12 months. Pupils will begin recording this data in a table and will then produce line graphs to show their continuous data.

Month	Mean Rainfall Hawarden	Mean Rainfall Johannesburg	Mean Temperature Hawarden	Mean Temperature Johannesburg
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

4. Activity: Graphing and Analysis (30 minutes)

- Create graphs showing the monthly average temperatures and total monthly rainfall for both Johannesburg and Hawarden.
- Compare the graphs as a class. Discuss the differences and similarities in temperature and rainfall.

5. Plenary: Discussion and Critical Thinking (15 minutes)

- Ask students to think about how the weather patterns they have graphed affect daily life in Johannesburg and Hawarden. Consider aspects like agriculture, water supply, and living conditions.
- Discuss which region is more likely to experience drought and why, based on the data they have examined.

By the end of the lesson, students should be able to understand and explain the differences in weather patterns between Johannesburg and Hawarden and how these patterns influence the occurrence of droughts. This will help them appreciate the diversity of climate across the globe and the importance of weather in our daily lives.