

# TEACHER NOTES

## Mathematics: Number

### Estimation & Data Use

## Contextual Summary

This is an on-site and post-visit maths resource that engages students with their visit to Robin Hill Country Park.

The resource task enables them to practise estimation and measuring skills as well as researching and recording data.

Students are asked to estimate and research data for animals using their experiences at Robin Hill as their stimulus material.

The task is designed to appeal to students in lower and upper key stage 2.



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ROBIN HILL  
COUNTRY PARK

### SUBJECT

Mathematics

### UNIT

Number (Estimation) & Data

### OPPORTUNITIES FOR USE

- ✗ Pre-Visit
- ✓ On-Site Activity
- ✓ Post-Visit

Peripheral Task

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The post-visit tasks can be integrated into lessons throughout the academic year as a revision tool or maths practice.

It is anticipated that students will have an enriched experience as they will be actively involved during the visit when estimating the size of the animals, and will be able to use their school visit activities in a practical way, thus reinforcing these all-important skills.

## Ability Levels

This resource is suitable for students in lower and upper key stage 2.

There are 4 variants of the resource: one resource for lower ability students in both lower and upper key stage 2, and one resource for higher ability students in both lower and upper key stage 2.

Teachers could adapt the content for students' needs by simplifying instructions where appropriate, or adding more complex tasks. They can use the worksheets for the key stage above or below, as desired.

### Key skills practised in this unit:

- ▶ Estimation of measurement to the nearest half metre or metre
- ▶ Estimation of measurement in cm or the nearest 10cm up to 50cm
- ▶ Measuring height and length using a metre length
- ▶ Researching numerical data (possible conversion of units for high ability)
- ▶ Ordering numbers with decimal places
- ▶ Recording data on a bar chart.

## Relationship to Curriculum

The above skills are required to be taught and practised as per the National Curriculum, for key stage 2, Mathematics.



P4-P7

### CURRICULUM / SYLLABUS

- ✓ National Curriculum 2014
- ✓ Curriculum for Excellence

Applies to Resource numbered:

1	0	5	2	7	1
1	0	5	2	7	2
1	0	5	2	7	3
1	0	5	2	7	4



## Learning Opportunities

### Pre-Visit

- ▶ Before the visit, students should understand how to estimate to the nearest half a metre (upper KS2) or metre (lower KS2) with estimation to nearest 10cm, or closer, up to 50cm. This can be practised around the classroom. They will need to understand ways of recording this i.e. as mixed number fractions, decimals (0.50m) or to the nearest 50cm. Depending on their level of understanding, pupils should be aware of how they will be expected to record their estimates when on the visit.
- ▶ Students could also be asked to mark on a high wall the estimated heights and lengths of some of the animals. They should not be accessing the actual measurements at this stage otherwise the on-site estimation task will lose its value.

### During the Visit

- ▶ Completion of the Maths resource/s linked to this document: *African Adventure Challenge!*  
**Resource ID:** **105271** (KS2L lower ability) **105272** (KS2L higher ability)  
**105273** (KS2U lower ability) **105274** (KS2U higher ability)

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- ▶ The answers of the on-site activity are included in the pack and it is suggested that they are given out before returning home. A prize could be awarded for the most correct or the closest answers.

[www.edudest.uk](http://www.edudest.uk)

### Post Visit

- ▶ In class, students should be given an opportunity to review the estimations of animal heights they made prior to the visit. More accurate measurements could be made and recorded on the wall.
- ▶ Students will then move on to investigate data regarding the animals seen during their visit. Once collected, this data should be ordered highest to lowest and then recorded on a chart e.g. a bar chart.

### Useful links include:

- ✓ <https://www.tes.co.uk/teaching-resource/Handling-Data-African-Animal-Maths-6335510>
- ✓ <http://oddstuffmagazine.com/top-10-largest-land-animals-in-the-world.html>

## Enrichment Opportunities

- ✓ They will use their visit to practise working mathematically.

## Learning Outcomes

- ✓ Students will demonstrate their thinking, estimating, and measuring skills.
- ✓ They will demonstrate evidence of research skills and various skills in the handling of data.

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