



# Small Mammals Calculating Averages



## Maths Activities for Children

By Susanna Ramsey & Derek Crawley





# Small Mammals



**Pygmy Shrew**



**Common Shrew**



**Water Shrew**



**Harvest Mouse**



**Wood Mouse**



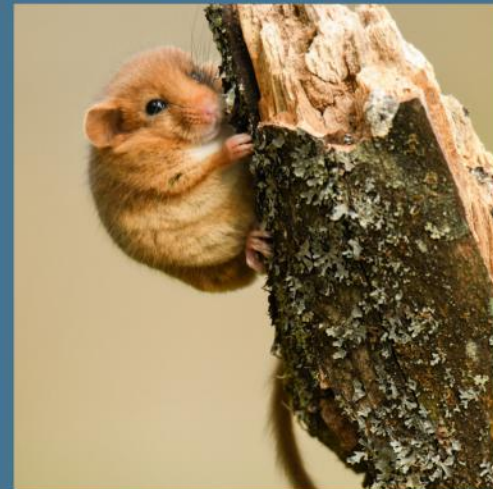
**House Mouse**



**Bank Vole**



**Field Vole**



**Hazel Dormouse**



The Nature Collection

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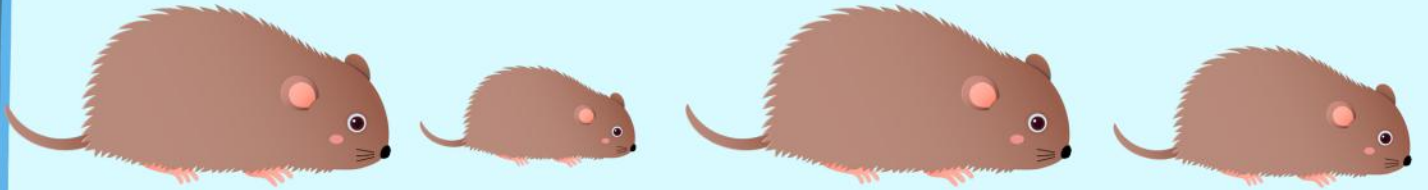


Water Shrew

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Harvest Mouse



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# Small Mammals

## Calculate Averages



Pygmy Shrew



Harvest Mouse

### Average Sizes: Introduction

Humans are different sizes. We have larger and smaller people. Males are often bigger than females. In the same way, other animals can be large or small, even if they are from the same species.

A house mouse, for example, may be a small, underfed female or a well-grown male, in his prime. To compare one species with another, we need to work out one number to use for each species. So, we calculate an average.

To do this, we take the smallest and biggest size which that particular animal can be, add them together and divide by two. To keep it simple, we round to the nearest whole number.

We can do this for all kinds of measurements such as body length and mass, as well as foot size, wing span (bats) or tail length.

#### Example:

Pygmy shrew:

Minimum body length is 4 cm, Maximum is 6 cm

Average body length is  $4 + 6 = 10$ ,  $10/2 = 5$  cm







Common Shrew



Pygmy Shrew

# Activity 1

## Average Body Length

1. Using the data on Page 6 for **Minimum and Maximum Body Length**, calculate the Average body length for these small mammals.

Work out your answers on the **Work Sheet**.

Fill in **Average Body Length** column in the table.

**Example: Shrews**



Big shrew



Little shrew



Average shrew

Go to the **Small Mammal Size & Mass Activity Set** and create a **Bar Chart** for this data.

**Note: "Small mammals" can be defined as animals which can be caught, for monitoring purposes, in a Longworth trap. So, they are small enough to fit into one!**





Pygmy Shrew

# Small Mammals Average Body Length Answer Sheet



Field Vole

**Example: Pygmy shrew**  
Add Minimum and Maximum length:  $4 + 6 = 10$   
Divide by 2:  $10/2 = 5$  Round to nearer half: = 5

Species	Minimum Body Length (cm)	Maximum Body Length (cm)	Average Body Length (cm)
Pygmy Shrew	4	6	5
Common Shrew	4.8	8	
Water Shrew	6.7	9.6	
Harvest Mouse	5	7	
Wood Mouse	8.1	10.3	
House Mouse	7	9	
Field Vole	10	12	
Bank Vole	9	10	
Hazel Dormouse	6	9	





**Water Shrew**

# Work Sheet



**Hazel Dormouse**

A large, empty rectangular area with a blue border, intended for writing or drawing.



# Small Mammals Average Body Length Answers



House Mouse



Hazel Dormouse



Species	Minimum Body Length (cm)	Maximum Body Length (cm)	Average Body Length (cm)
Pygmy Shrew	4	6	5
Common Shrew	4.8	8	6
Water Shrew	6.7	9.6	8
Harvest Mouse	5	7	6
Wood Mouse	8.1	10.3	9
House Mouse	7	9	8
Field Vole	10	12	11
Bank Vole	9	10	9
Hazel Dormouse	6	9	7







Wood Mouse

# Activity 2

## Average Mass



House Mouse

2. Using the data on Page 9 for **Minimum and Maximum Mass**, calculate the Average mass for these small mammals.

Work out your answers on the **Work Sheet**.

Fill in **Average Mass** column in the table on page 10.

**Example: Mice**



Big mouse



Little mouse



Average mouse

Go to the **Small Mammal Size & Mass Activity Set** and create a **Bar Chart** for this data.



Water Shrew

# Small Mammals Average Mass Answer Sheet



Common Shrew

**Example: Pygmy shrew**

Add Minimum and Maximum mass:  $2.4 + 6.1 = 8.5$

Divide by 2:  $8.5/2 = 4.25$  Round to nearer half: = 4

Species	Minimum mass (g)	Maximum mass (g)	Average mass (g)
Pygmy Shrew	2.4	6.1	4
Common Shrew	5	14	
Water Shrew	12	18	
Harvest Mouse	4	6	
Wood Mouse	13	27	
House Mouse	12	30	
Field Vole	20	40	
Bank Vole	14	40	
Hazel Dormouse	15	26	







**Bank Vole**

# Work Sheet



**Field Vole**

A large, empty rectangular area with a blue border, intended for a worksheet or drawing.

# Small Mammals

## Average Mass

### Answers



Hazel Dormouse



Wood Mouse



Species	Minimum mass (g)	Maximum mass(g)	Average mass (g)
Pygmy Shrew	2.4	6.1	4
Common Shrew	5	14	9
Water Shrew	12	18	15
Harvest Mouse	4	6	5
Wood Mouse	13	27	20
House Mouse	12	30	21
Field Vole	20	40	30
Bank Vole	14	40	27
Hazel Dormouse	15	26	20





Field Vole

# Further Research



Water Shrew

Click on this link to [The Mammal Society website](#) to find out more about UK mammals.



Mountain hare

## The Mammal Society: Full Species Hub

The British Isles are home to around 90 species of mammal in the land, sea and air. Click on the hare photo to access the Hub and discover more about these mammals.

Click on this link to [discover more resources and activities on the Mammal Youth Hub](#).



Harvest mouse

## The Mammal Society: Mammal Youth Hub

If you are a mini mammalogist or a teacher inspiring your class about the wonderful world of mammals, take a look at the resources on the Mammal Youth Hub! Click on the harvest mouse photo.

Click on this link to [The Nature Collection](#).



Mouse skull

## The Nature Collection

If you want to learn more about all kinds of UK animals, looking in particular at their skulls and skeletons, click on the mouse's skull photo.

