

Osprey Nest Data Handling



Ospreys build nests made of sticks with a lining of moss. The nests are very large, at least 1m across but can be as big as a bed!

It takes a pair of ospreys a very long time to build a nest, so once established, they like to use the same one year after year. You can see lots of images on the website:

www.lrwt.org.uk/rutland-ospreys

Nest Building Fun

- 1 With your class mates, collect lots of sticks which have fallen off the trees. Do not break any trees or bushes.
2. Do not collect anything too big, remember that an osprey has to carry it and fly so sticks should be under 500g!
3. Measure the mass of each of your sticks, and record the mass in a suitable table.

Don't forget a **title** , **column heading** and **units**

Use your data table to work out the following.....

My group collected _____sticks.

Total mass of my group's sticks collected = _____

My whole class collected _____sticks.

Total mass of class' sticks = _____

For the class data above calculate the **mean** (average) **mass** of a stick (show your working)

ACTIVITY With your class, use all the sticks to build a nest on a suitable square board as a base. Lay the sticks in a circular pattern so they overlap and lock together.

How heavy is the finished nest?

How far did the osprey fly to build its nest?

As you can see in the picture above, each stick requires one return journey by the osprey to fetch the stick.

If the nest was 200m from the wood where the bird could find the sticks how far would the bird have to fly to construct your nest? Show how you worked this out:

How far do you travel to school? _____

How many times would an osprey have to fly from your house to school to make the nest that you made? _____



Extension

All that flying to make a nest takes a lot of energy. All animals get their energy by eating food, ospreys only eat fish. Use the following information to calculate how many fish an osprey would have to eat in order to build the nest you made.

An average fish (caught by an osprey) = 200g

The average energy content of fish = 400kJ per 100g of fish

An osprey would use around 20kJ to fetch one stick from the wood 200m away from its nest.

Show your working in the space below.

Would the amount of energy used to fetch a stick vary? Other than weight of the stick, suggest how THREE other factors would affect the amount energy needed to fetch a stick.

1. _____
2. _____
3. _____

