

Tall Stories

Time: 1 hour

Introduction Penguins are one of the most popular creatures in our world. But do the children know how big they actually are? This activity will help them to understand. At the end of the activity, the class can make some cardboard cut-outs of the penguins to show their actual size. They might want to decorate them, too, or simply put them up as silhouette shapes.

Learning Objective:

To measure and calculate the average height of a group. To convert penguin heights from inches to centimetres. To compare and contrast the average heights of children with penguins.

Resources:

1. Pictures of penguins from the www.2041.com image bank or Google Images
2. Tape measure for each group
3. Tall stories worksheet for recording results (available on www.2041.com)

- 1 Tell the children that today they will be comparing their height to the height of penguins and calculating average heights. Split the class into teams of five or six. Explain how to calculate the mean average of a group by adding up the heights and dividing the sum by the number of people in the group.
- 2 Using measuring tapes and working in their teams, ask the children to measure each member of their team and record the results very accurately. Who is the tallest? Who is the shortest? What is their group's average size? Use the Tall stories worksheet to record the results.
- 3 If you want to extend this activity, the groups could then work out average heights in other year groups by measuring a cross section of five or six children and finding the mean average. Check with other class teachers first!
- 4 Next, ask the children to find out the heights of penguins in centimetres. Penguins also come in a variety of sizes! Explain to the class that the heights on the sheet are in inches so they will need to convert them to centimetres and then see how the penguins compare to them. To convert the sizes, the children will need to multiply the inches height by 2.5.

To convert these penguin sizes into centimetres, you will need to multiply the inches height by 2.5

Type of Penguin	Height (inches)	Height (centimetres)
Emperor	45 inches	112.5cm
Adelie	28 inches	70cm
Gentoo	30 inches	75cm
Chinstrap	28 inches	70cm
King	38 inches	95cm
Little	16 inches	40cm

What is the mean average for the penguins? Add the up six answers in centimetres and divide by six to find out.

What is the difference between the largest and smallest penguin?

What is the difference between the mean average of the children's group and the penguins?

Now can the children do an outline silhouette of their group's mean average, using the person closest to that mean, and one of the average penguin size. If they need a silhouette outline to guide them, go to:

www.atozteacherstuff.com/pages/4045.shtml

Differentiation

Ask the class if they can find out any more fascinating facts about penguins and write their ideas onto a penguin outline. You can find one at www.atozteacherstuff.com/pages/4044.shtml

Success Criteria

1. The children are able to measure accurately using measuring tapes and can work out differences and mean averages of heights.
2. The children can appreciate the real height of a penguin compared to a child.