

National Numeracy Day

Numbers and Dancing

With Katya Jones



Katya Jones

Professional dancer from BBC's
Strictly Come Dancing
National Numeracy Ambassador

“ Let's have some fun dancing this National Numeracy Day. My dancing activities will help everyone to see that maths doesn't have to be scary. It's completely normal to find maths difficult. But just like dancing, if we break it down into manageable steps and keep practising, we can ALL get better. You can share your own dancing videos with me as #NationalNumeracyDay and tag me @katyajones. ”

Everyone can have fun dancing along with Katya and start thinking differently about maths by watching Katya's 'Numbers and Dancing' video on the National Numeracy Day website. ([click here](#))



Children 7 +

Talk about the questions below, did you know there was so much maths involved in dancing? Think about how you might answer the below.

The Waltz

In a waltz, the basic move is 3 steps.

A figure called a 'box step' has 2 waltzes. How many steps would that be?

If Katya danced 4 'box steps', how many steps would she do?

In a full dance, Katya may perform 20 'box steps' - how many steps would this be?

The Jive

When Katya choreographs dances on Strictly, the first thing she does is find out how many bars of choreography she needs to create.

A bar is a repeating group of beats.

Jive is danced to music that has 40 bars per 1 minute of a song.

The average dance on Strictly is about 90 seconds. So, Katya needs to work out how many bars of jive choreography she needs to create a full dance.

How many bars are needed for a 90 second jive dance?

The Cha-cha-cha

In a dance called the Cha-cha-cha, there are 4 beats of music:

1 - 2 - 3 - 4.

But the last beat is split into two, which makes it

1 - 2 - 3 - $\frac{1}{2}$ - $\frac{1}{2}$

or, as dancers say,

1 - 2 - 3 - cha cha.

Each 'cha' is half of a full beat. This means that the full beats are slower and the half beats are faster. As a dancer, you need to make sure you give the right amount of time to each beat.

If this pattern is repeated and a full dance contains 24 'cha's or half beats, how many beats of music are included in total?



Practice

Dance routines take a lot of practice to learn the steps and move smoothly. This takes perseverance and resilience when things go wrong. Dancers on Strictly can practise up to 14 hours a day.

If they practise 6 days a week, how many hours is that?

Strictly is on television for 13 weeks. How many total hours of practice might this be?