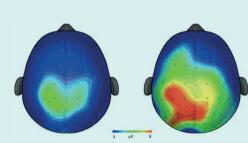


# What is Physically **Active Learning?**

An innovative teaching and learning approach which integrates movement into the learning experience.

## The Benefits of Physically **Active Learning (PAL)**

Children respond positively to an active learning environment. It can boost confidence and improve academic performance.



**Cognitive performance** 

After sitting quietly

After 20 minutes walk

Research by cognitive neurologists show that there is increased brain activity when tackling cognitive tasks following a period of being physically active.

Image courtesy of Charles Hillman, University of Illinois at Urbana-Champaign

#### Environment for learning



Children's confidence is enhanced through learning in an alternative environment which transfers back to the classroom.

Supports the recommended 30 minutes of in-school moderate-to-vigorous activity every day



### What is Maths on the Move?



Using physically active learning, MOTM enhances



### The Results

25

20

15

10

5

0

#### Maths Attainment Improved

Number of correct responses

Maths attainment performance improved over time for children in the MOTM condition. This was not found in children in the Control condition. No improvement was found in the maths addition and subtraction, speed and accuracy test in either condition.

#### мотм 18.1 11.2 • 10.7 9.66 Control **Baseline** Post

### **Activity Levels Increased**

Including a MOTM session in the school day allows 28% more children to achieve the government's guidance of 30 minutes of MVPA.



Physical activity thresholds of MVPA minutes, comparing MOTM day versus typical school day. (n=58)

minutes of moderate to vigorous physical activity ths on the

minutes of light physical activity aths on the M

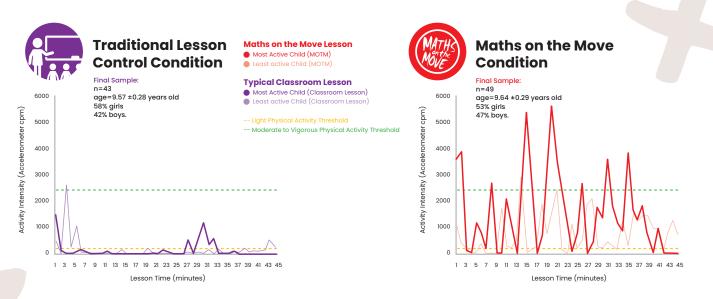
Comparing the activity levels during a MOTM lesson, above a traditional academic lesson, there was an additional 5 minutes of moderate-to-vigorous physical activity and an additional 5.7 minutes of light physical activity.

Maths on the Move

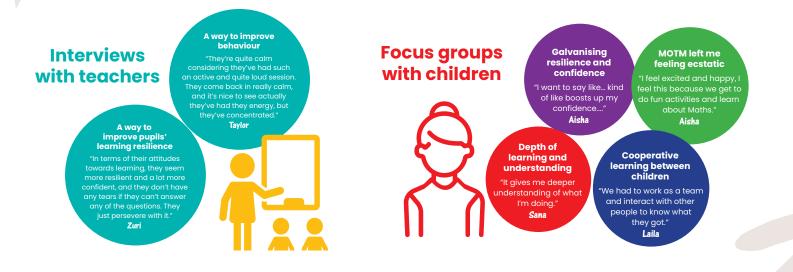


### The Impact of Physical Activity

Maths on



The two graphs showcase variable response to physical activity during a Maths on the Move lesson (left) and a classroom lesson (right) Moderate-to-vigorous physical activity levels ranged from 2 minutes to 13 minutes



### mathsonthemove.co.uk



Leeds Beckett Research Study prepared by Jade L Morris, Suzanne Bond and Dr Andy Daly Smith - March 2020