

AFRICAN INSTITUTE FOR MATHEMATICAL SCIENCES

SCHOOLS ENRICHMENT CENTRE (AIMSSEC)

AIMING HIGH

METRE MEASURES

Can you find some objects that are about a metre long? How many hand-spans make a metre?

For this activity you need lots of old newspapers, and some sticky tape.



Make 1 metre length sticks using newspaper. Mark them to make measuring sticks.



Tightly roll 8 large sheets of newspaper, 4 and 4, place as in the photograph so that the length of the stick when the paper is rolled up will be 1 metre. Follow the instructions given below.

INDIVIDUAL OR GROUP ACTIVITIES

Find things that are longer than a metre. Find things that are shorter than a metre.

Can you find something that is exactly one metre in length?

How many hand-spans make a metre? How many footsteps make a metre?

Stretch your arms out wide. Is it a metre from fingertip to fingertip or more or less than a metre? Think of other body measurements you could explore.

Are the other people in your house shorter than, taller than or exactly one metre in height? Who is the tallest person in your house? Who is the shortest person in your house? What about your Mum; is she shorter than, taller than or exactly one metre in height? Draw a picture of everyone in your house standing in a line in order of height making the heights

in your drawing correspond to the heights of the people.

MEASURE THE BIGGEST ROOM IN YOUR HOUSE

Estimating activity

"How many metre sticks do you think you need, to get from one end of the room to the other?"

Keep this idea in your head.

Start measuring the room with your metre stick, one metre at a time until you reach about halfway.

Do you want to change your estimate? How many MORE sticks will be needed to reach the far wall? Then finish measuring.

Your room probably does not measure an EXACT numbers of metres. How would you measure the length of the 'extra bit'.

Is the length of the room the same along the other walls?

Measure all the walls of the room and draw a plan of the room.

What else can you measure in this way?

HOW TO MAKE NEWSPAPER STICKS



You need 8 large sheets of newspaper. Arrange the paper to make it very slightly over 1 metre wide by placing 4 sheets on the left and 4 on the right overlapping in the middle. You want to roll the paper as tightly as possible into a stick so that the length of the stick when the paper is rolled up will be 1 metre.



The best way to do this is to fold the newspaper in three before you start rolling so that the edges of the newspaper are inside the roll. That way the final roll will be neater.

Roll the paper tightly. You might find it helpful to work with a partner to do this.

Use sticky tape to secure the roll. Trim the end to make the stick exactly one metre long.

Mark the stick into 10 centimetre lengths using a short ruler or a tape measure.

Then mark one section into 1 centimetre lengths so that objects can be measured in centimetres.

HELP

It is difficult to make a newspaper metre measuring stick on your own. One person should roll the paper and hold the roll tight while the other person secures it with sticky tape.

It is also helpful to have 2 people to make marks for: 0 cm, 10cm, 20cm, ... 80 cm, 90 cm, 1 m.

Whatever you measure, if two people do it independently, then they can check each other's measurements.

NEXT

Mark one 10 centimetre section of your stick into millimetres and measure some objects in centimetres and millimetres. Use the facts below and write millimetres and centimetres as decimal fractions of a metre.

10 millimetres = 1 centimetres

100 centimetres = 1 metre

1000 millimetres = 1 metres

In craft work, and building, millimetres are often used instead of centimetres.