

Making maths simple for kids thru origami

By S. SURESH

Coimbatore, April 10: Papers and circles! What is the connection? The sector of the circle can be found easily by a particular fold of the paper.

The art of folding papers is called 'origami'. Originating in China, where paper was invented, this paper-folding technique moved to Japan. The Japanese cultivated it and this art got its present name from the Japanese words 'oru' (meaning to fold) and 'kami' (meaning paper).

Origami is not just a hobby, where a sheet of paper is merely folded into different animals or birds. It is now used by architects, engineers, mathematicians and people from all walks of life. Even a building model can be prepared with the help of a few sheets of paper!

Origami is slowly entering the educational arena also. A three-day origami workshop concluded today at the Isha



Home School, where Prof. Ravindra Keskar on a fellowship from the Central Govern-

ment imparted his special knowledge of using origami to make Mathematics simple.

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Mathematics is a 'devil' to so many young children. It was also a nightmare for this Ele-

ctronics Engineer, who is currently a visiting professor at St. Xavier's Institute of Engineering, Mumbai. Says Keskar: "I had a fear for Mathematics. So when I came across origami, I decided to teach Mathematics through it."

When asked to cite an example, he showed TNIE the model of a watertank made out of a single sheet paper. Normally we think that the volume of a square would be the same at all heights, when the same amount of material is used. But Keskar proved it wrong with simple folding of papers. When the height is at the one-thirds level of the maximum, the volume is at the maximum. At all other heights, the volume is less. This mathematical calculation might take lot of resources to come to a conclusion, but for Keskar origami is an easy way to prove.

He in fact feels that our country is wasting a lot of resource because of people's lack of

awareness on calculating and Mathematics. Says Keskar: "We can use origami in Mathematics and make calculations look simple and aesthetic."

The teachers at the Isha Home School also think the same. R Gayathri, who is a Mathematics teacher for children between 9-14 years, found this idea of incorporating origami in the syllabus an interesting one. "I never thought Mathematics and origami will have any connection. I think the use of Origami is going to make a big difference in my teaching," she says.

For Shanthi Sekar, it is a wonderful medium to teach children of 5-6 years. "I can introduce these tiny toys to the various parts of the circle even at this young age. The origami models are very useful in helping the children identify and explore," she says.

For E Chandru, the physics and chemistry master, origami is the best way to approach chi-

ldren. Says Chandru: "When we talk of alternative education, origami is an excellent tool. It helps even to teach history, where the ancient things can be reproduced using the paper folds."

Origami doesn't stop being the tool to teach children. It also helps them to use their fingers to the maximum potential. Says Gayathri: "Now the children can feel the subject matter apart from thinking about it."

Keskar says, "The ten fingers of the two hands occupy 80 percent of that portion of the brain that is meant for controlling voluntary actions. This art offers interesting exercises to restore the flexibility and suppleness of fingers."

With government supporting the art of origami and people like Keskar making it a life passion, it looks India is on a right path in utilising the value of origami, which in America is called Mathematicians' hobby.