

Bears' moving day

Children make an open cube in the context of a story.

Skill practised:

- Recognising the faces of a cube

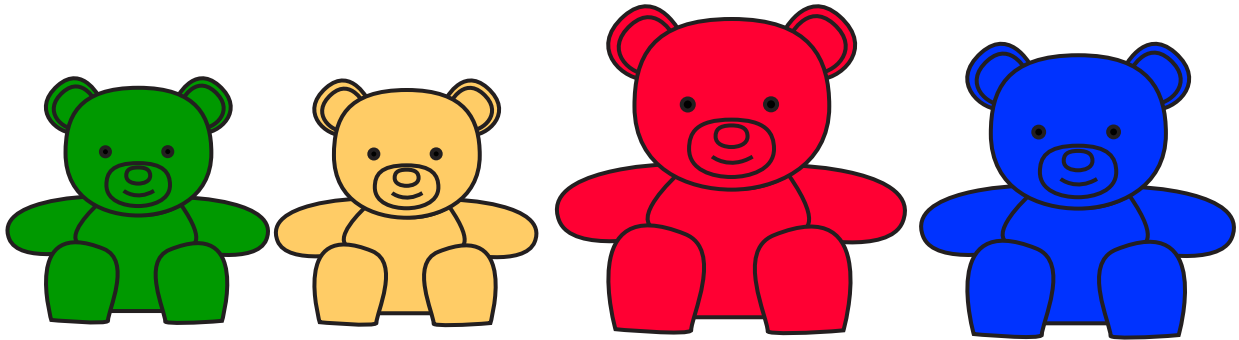
Conjecture: *It is possible to make an open cube from paper to fit four counting bears.*

What to do:

Children work individually or in pairs.

Children need four counting bears (one large, one medium and two small bears), plenty of scrap paper, scissors and sellotape®.

1. Show a large bear, a medium bear and two small bears.
Say that a family of bears are moving today from one part of the wildlife sanctuary to another. Their keeper needs to make a crate for their short journey. It needs to be big enough so that they don't feel squashed, but not so big that they slide about, as that makes them frightened. It also needs to be cube shaped as that is easy to make. Show children a solid cube to remind them what a cube looks like.



2. The children's task is to make a crate from paper for their four bears.
Say that there is plenty of scrap paper so that they can experiment and discover how best to make the cube crate for the bears.
3. Allow children to experiment with drawing the base and making the flaps to fold up to form the sides of the crate. They are unlikely to draw a net of five squares to begin with, but let them fold up the flaps of their nets to find out if they work, and discover for themselves what shape and height they need to be as they adapt their design.
Don't tell them that all the faces need to be squares but let them find this out for themselves.
4. Children test to check that their four bears fit in the crate snugly.

What do you notice about the shapes you have cut out to make your cube crate?

Children could make cuboid crates for other groups of toy animals you have available.

Aims:

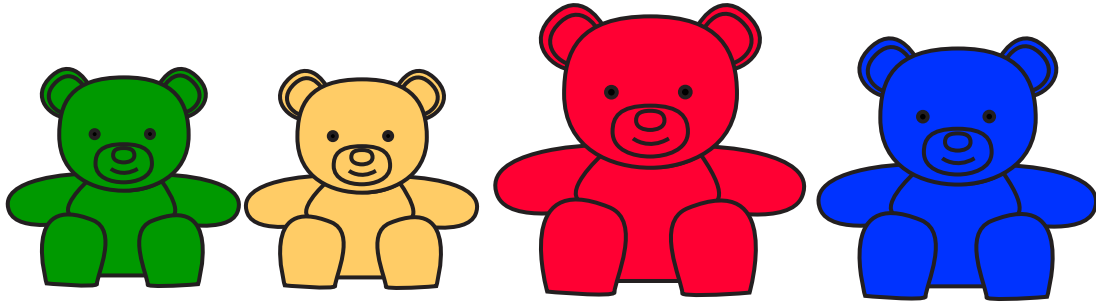
- To make an open cube through trial and improvement
- To discover the net of an open cube

Minimum number of calculations expected

N/A

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1. A family of bears are moving today from one part of the wildlife sanctuary to another. Their keeper needs to make a crate for their short journey. It needs to be big enough so that they don't feel squashed, but not so big that they slide about, as that makes them frightened. It also needs to be cube shaped as that is easy to make.



2. Your task is to make a crate from paper for the four bears. Use scrap paper to experiment and discover how best to make the cube crate for the bears.
3. Try drawing the base and making the flaps to fold up to form the sides and the top of the crate. (Remember your crate must have a top, or else the bears might hop out!)
4. Check that your four bears fit in the crate snugly.

What do you notice about the shapes you have cut out to make your cube crate?

Make some more cuboid crates for other groups of toy animals.