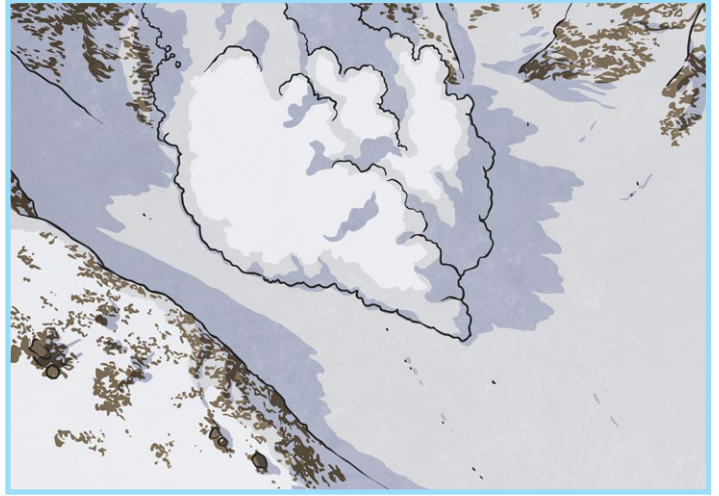


Avalanche Experiment

You will need:

- Chopping board or other long, flat board
- Coloured washing powder
- White sugar
- Brown sugar
- Flour
- Piece of cardboard or ruler
- Protractor



Method

1. Place a pile of the white sugar towards the end of the board.
2. Use a piece of cardboard or ruler to pat it down and push the sides into a square shape.
3. Add a pile of brown sugar on top of the white sugar and use the cardboard or ruler again to pat down and straighten the sides.
4. Repeat the process by making a layer with the flour and then the washing powder.
5. Finally, add another layer of brown sugar and then flour to the top. It should look a bit like a layered cake.
6. Now, tilt the board up slowly, lifting the end at which you have placed the ingredients and see what angle it takes for the avalanche to begin.

Modifications:

You could add soil, mud, small rock or sand to the layers. Try pouring some water to your board like rain and see if you can create a landslide.

Explanation:

In nature, avalanches mostly happen on slopes steeper than 25 degrees. As the board is tilted on a high angle, the sideways stress increases. Finally, one of the layers will give way. Friction with all the other layers eventually causes the rest of the 'snow' to come tumbling down, just like a real avalanche.