

Friction - literacy task

Look at the poem below and think about the science behind it

Granma's hands

My Granma's 72

She say's she's getting old

My Granma's 72

She say's her hands are cold.

My Grandma stands at the bus-stop
in all kinds of weather

My Grandma stands at the bus-stop
rubbing her hands together.

'I'm always rubbing me hands,' she says

'when i'm running from pillar to post'

'I'm always rubbing me hands,' she says

'ohh, they're warm as toast'.

What does Granma do to keep warm?

Why do you think this help to keep her warm?

Friction

- Friction is the force created by two surfaces moving against each other.
- When two objects are rubbed against each other, heat is produced as a by-product. This is because energy is being used to overcome the friction and some of this energy is released as heat.
- Friction is a force that opposes movement but can either ease or hamper the movement of objects and materials.
- Without friction everyday movements become impossible, for example: friction occurs when writing with a pen or pencil on a piece of paper; a rolling ball slows down or stops because of friction.
- The surface does not have to be a solid. Friction also occurs through movement in both liquids and gases.
- All solids have tiny irregularities that catch and hinder movement. If the surface is lubricated these irregularities are easier to resist and friction is reduced.

Task

- ① Draw a flow diagram to show what is happening when granma is rubbing her hands together. Use the information above to help you.
- ② List other examples of where friction can be seen.