Queen of the Cosmos
Beatrice Tinsley

SCIENCE ACTIVITY

What you need:
- Coffee filters, any size, 2-6. (Iron them flat before using.)
- One large sheet black construction paper
- One large sheet of colored or white construction paper
- 3-coloured watercolour marker pens
- Water in a cup
- Plastic sheet to protect table
- Eye dropper or drinking straw
- Scissors
- Glue stick
- Blue (or other color) glitter (optional

What to do:
1. Draw colourful designs on the filters. Draw stars, planets, moons, and comets.
2. Spread out the plastic sheet to protect the table and lay the coffee filters on it. Use the straw or eye dropper to dribble a few drops of water on the filters. The water will make the colours run together.
3. Let the filters dry. When dry cut them into galaxy shapes. Make it into an oval shape like The Milky Way galaxy. Arrange the galaxies on the sheet of black construction paper and glue them down.

SCIENCE ACTIVITY

What you need:
balloon, stars stickers, glitter, glue, marker

What to do:
- Blow up the balloon and stretch it out.
- Deflate the balloon and add star stickers.
- Draw a squiggle to represent light waves.
- Glue patches around the balloon and sprinkle on glitter (to resemble space dust).
- Blow up the balloon a little bit and measure the space between stars. Then blow up the balloon some more and measure the space between. Do this several times until fully inflated.

What's the science?
As the balloon inflates, it appears that the stars are moving away from each other. As the universe expands, the distance between galaxies grows. The further a galaxy is from Earth, the faster it is travelling away from us. As the universe expands light waves (the squiggly lines) travelling through space get stretched out. Beatrice Tinsley theorised that the universe is continually expanding. See more here: rb.gy/trixif

MINDMAP

- Draw a mindmap.
- In the middle of the mindmap write 'Beatrice Tinsley's characteristics'.
- In each of the clouds, write her traits. For example, curious...
- Write a paragraph about similar characteristics you have and what that helps you achieve.