

# A storm of bubbles!

... said Lilou as she waved her bubble wand vigorously to produce hundreds of tiny ngā mirumiru – bubbles.

The precise spherical shape and beautiful, swirling colors of a bubble make it a true wonder of science and we all know that bubbles are SO much fun!

## Social and Emotional

- Bubbles can be enjoyed by all ages, alone or with others regardless of ability. This can foster communication and social skills as children blow and catch bubbles together, sharing their joy and excitement.
- Mastering the necessary skills to blow a bubble successfully is satisfying. The motivation to persist is rewarded by a glossy bubble!

## Physical

- Spatial awareness – reaching and jumping up to catch bubbles
- Hand eye coordination – to lift wand to their face (and not their eye) and tracking a bubble as it floats in the air
- Developing muscles in jaw and mouth for blowing/not sucking
- Fine motor development – holding and controlling different sized wands
- Body awareness – the bubbles are on your hand/hair etc
- Learning how successfully blow a bubble by moderating their breath

## Cognitive

### Maths:

- Shape. The first shape children usually recognise is a circle or a sphere. Infants first see round shapes in their mother's breast and people's heads. They soon

start to recognise circles and spheres in other places.

- Mathematical language i.e lots, many, big, large, huge, small, tiny, little, clusters, hundreds.

### Science:

- Air pressure and force – children see that when they first blow, the bubble starts out long, but as it separates from the wand, it forms itself into a perfect sphere, because the air pressure outside the bubble is the same as the air pressure inside, so no matter what shape the wand is, the bubble will always be a sphere.
- Children experience the viscosity of the bubble mixture. The surface tension can be seen on the bubble wand as the air is carefully blown onto the soapy film.
- Mixing elements and understanding proportions of soap with glycerine.

## Language

- children narrate the look, feel and action of the bubble
- positional language i.e. runga – up, teitei – high, raro – down
- verbs: pāto – pop, pākara – burst, tere – floating
- adjectives: nui – big, āniwaniwa – rainbow, iti – little, pīataata – shiny



## Links to Te Whāriki:–

### Mana atua – Wellbeing

#### – Children gain:

- an increasing ability to determine their own actions and make their own choices;
- a respect for rules about harming others and the environment and an understanding of the reasons for such rules.

### Mana tangata – Contribution

#### – Children:

- are encouraged to learn with and alongside others, using a range of strategies and skills to play and learn with others.

### Mana aotūroa – Exploration

#### – Children develop:

- confidence in control of their bodies;

- working theories for making sense of the natural, social, physical and material worlds;
- the knowledge that trying things out, exploration, and curiosity are important and valued ways of learning;
- strategies for actively exploring and making sense of the world by using their bodies, including active exploration with all the senses, and the use of tools, materials, and equipment to extend skills;
- an understanding of the nature and properties of a range of substances, such as sand, water, ice, bubbles, blocks, and paper.

### Mana reo – Communication

#### – Children develop:

- verbal and non-verbal communication skills for a range of purposes;
- responsive and reciprocal skills, such as turn-taking and offering;
- an increasing understanding of nonverbal messages, including an ability to attend to the non-verbal requests and suggestions of others;
- an ability to express their feelings and emotions in a range of appropriate nonverbal ways.

## Learning Dispositions

Playfulness – harikoa

Hiringa – persisting with uncertainty and challenge

Haututū – curiosity – pataitai –

taking an interest – participating and contributing  
Being involved – managing self  
Māia – confidence and competence  
Māramatanga – developing understanding

## Bubble set up

- Offer different implements (not just traditional “wands”)
- Provide children with florist wire to create different shaped wands; can you make a star shape bubble?
- For best results set up just after it's rained. The air humidity makes the bubbles last longer

## Safety

- Have a bucket of water and towel handy. Bubble mix can easily be transferred onto children's faces and into their eyes.
- Encourage children to blow the bubbles away from other people.
- Supervise!

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