WATER IN DUPLO

A CHALLENGE FOCUSING ON FINE MOTOR SKILLS AND BALANCE.

AIM: To fill a DUPLO* stud with water without the water spilling over.

ITEMS NEEDED:

- A Selection of DUPLO bricks
- A container with water
- A dropper
- Towel (for an easy clean up)

This easy-sounding task is not as easy as it looks!

SET UP

Make sure the surface you use for this activity is level.

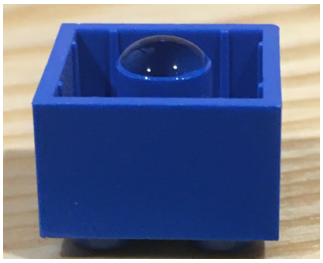
Place a paper towel or other towel under the area being used to make clean up easy.

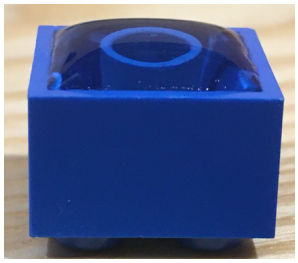
For younger students, model how to do this activity as there are many motions to go through from picking up the water in the dropper to holding the dropper in the right position to not overflow the hole.

ALTERNATIVES & EXTENSIONS

Try using different pieces of LEGO or DUPLO.

There are endless areas to be filled on this resource. There are the studs on top like DUPLO. There are the tubes underneath a LEGO brick. Then there is all the other area under any LEGO or DUPLO brick.





Add colour: Make a variety of bowls with different coloured water in them.

Change the dropper to something else: You can change up what students use to add the water. For example a syringe, straw, small water gun, teaspoon, or a small jug with a pouring lip.

Add a scent: Engage the sense of smell and add an essence such as vanilla, lemon, peppermint, raspberry, or other scent that is appropriate. We recommend a food essence as it is safe should children swallow it.

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AIM: To fill a DUPLO* stud with water without the water spilling over.

RICH EXPERIENCES

- **Concentration** - children need to focus on this activity so as to not overfill the spaces. This takes concentration and balance as they maintain their eye contact with the brick while squeezing the water out of the dropper.
- **Fine motor skills** - the number of muscles being worked in the hand during the activity is telling of the strength a child needs to control the dropper. As they squeeze the dropper when it is place they need to realise just enough tension only a small amount of controlled water will escape the nozzle. The fingers then need to shut off the flow when the water has reached it's desired level.
- **Writing** - The above fine motor skills explain the importance of doing activities such as these to help children strengthen the muscles between Their thumb and forefinger so they can successfully hold a pencil when it comes to learning to write. These muscles are imperative to forming the letters.

LINKS TO CURRICULUM

Te Whāriki

Mana aotūroa - Exploration

Children will gain confidence and control of their bodies, as they challenge themselves physically.

This links to the development and refinement of their fine motor skills as they control the dropper to place the water in the hole.

Children learn their play is valued as meaningful learning and the importance of spontaneous play is recognised.

This links to the knowledge that this fun activity has meaning behind it - not only will it help develop the muscles needed for writing but the practice of concentration, control of body, hand eye co-ordination, moving slowly all help them refine these skills. These attributes also contribute to other areas of a child's learning and development as they grow.

New Zealand Curriculum

Health and Physical Education

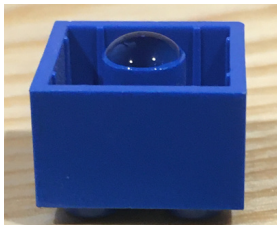
Students will develop a wide range of movement skills, using a variety of equipment and play environments.

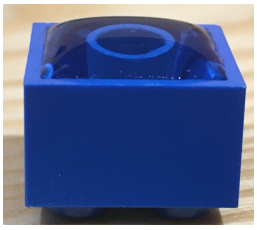
This links to students having fun while practicing their fine motor skills. Having a variety of tools to practice filling the LEGO* bricks with e.g. dropper, teaspoon, straw will add to the experience and challenge.

English

Students write most letters and number forms legibly when creating texts.

This links to the practice of holding items in a pincer grip such as the eye dropper. By building and strengthening these muscles in their hand, children are more likely to succeed in holding a pencil and therefore form legible letter and numbers.





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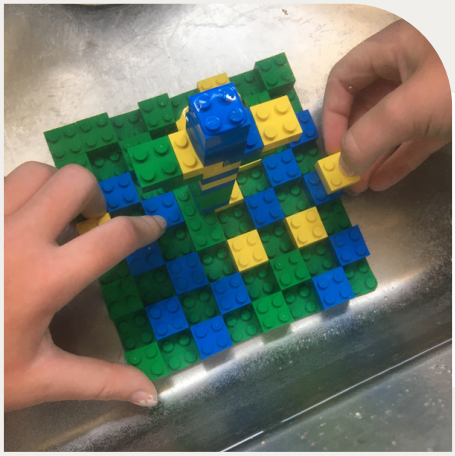

UNDER WATER

A CHALLENGE FOCUSED ON DEVELOPING FINE MOTOR SKILLS IN AN ALTERNATIVE MEDIUM

AIM: To make a creation while it is underwater

ITEMS NEEDED:

- A tub filled with water (add warm water if it is a cooler day)
- Base plates stuck to the bottom of the tub (do this before you add water)
- A variety of LEGO pieces added to the water or in containers beside the tub.
- Towel/paper towels

Set up:
Place a towel or paper towels beside this activity so students can dry their hands when they are complete (especially important if on vinyl or tiled surface so you avoid a slippery floor)

This activity could be set up on a soft grassy area outside or on a table inside or outside for students to stand at.

ALTERNATIVES & EXTENSIONS

For students that enjoy LEGO and water individually, this will hopefully come together for them as a relaxing combination of both activities.

NOTE: Ensure the temperature is right - not too cold otherwise students will lose interest as their hands become numb. Add just a little hot water to bring it to a pleasant tepid temperature.
To keep the resource and water relatively clean get students to wash their hands before joining in with the activity. (if the tub becomes dirty with sand or something else it will become unpleasant to participate in)

Alternative #1: Change up the LEGO that you use for this activity. Add just 1 colour. Add a combination of colours that match the season. Use DUPLO, or for the advanced builder use TECHNIC.

Alternative #2: Extend this activity for students that are able to follow plans. Provide them a tub with all the parts they need to make a set and get them to build it underwater. As the water moves, they will notice how their view of the LEGO changes making it more challenging than a regular build.

Alternative #3: Add bubbles! This will inhibit their view considerably, but how exciting will it be to see what they have created when it comes out of the water. Will it look like something that they can make a story about? How did they find it trying to locate pieces and figuring out how to place them without being able to clearly see what they were doing? This alternative will really encourage students to feel the piece they are holding to figure out how it can be used. Encourage them to try to discover this before bringing the piece above the bubbles so they can see it clearly.

HAPPY BONUS: The resource is now halfway to being clean having been in the water for some time. At the end of the day/session simply run the pieces under warm water, add dishwashing liquid (this acts as a degreaser), and give it all a quick scrub before placing it out on a clean dry towel for the night to dry out and be sparkling clean again.

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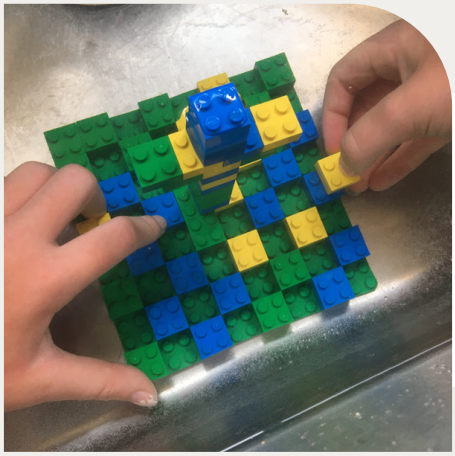

UNDER WATER

A CHALLENGE FOCUSED ON DEVELOPING FINE MOTOR SKILLS IN AN ALTERNATIVE MEDIUM

AIM: To make a creation while it is underwater

RICH EXPERIENCES

- **Sensory** - this activity is very tactile with the addition of water and later bubbles. The five senses are stimulated in different ways - touch: water and LEGO*, sight: objects magnified or distorted in the the water, hearing: the water splash, bubbles pop, smell: the bubble mixture may have a scent to it, taste: for those curious children who like to put things in their mouths or drink the water.
- **Following plans** - the challenge of following a plan using pieces found in the water. This really challenges children's dexterity and sensitivity to defining shapes and placement when things are moving to obscure their vision.
- **Calming** - for many children water is a soothly element which they can enjoy and helps them self regulate when in high brain function and need something to help calm them.

LINKS TO CURRICULUM

Te Whāriki

Mana reo - Communication

Children discover different ways to be creative and expressive.

This links to being creative with using a range of resources to learn and explore with. Presenting LEGO in this different way brings children to this activity who may not normally gravitate towards this resource.

Mana atua - Wellbeing

Children have their emotional wellbeing nurtured.

This links to the way this activity can help sooth children and give them that relaxing texture of water. It is a natural stimulant that can help lower anxiety, relax muscles and in general slow children down.

New Zealand Curriculum

Health & Physical Education

Students can practice movement skills and demonstrate the ability to link them in order to perform movement sequences.

This links to students moving the LEGO under the water to build a structure. Whether it is by freely building or following instructions or in an advanced build following a plan, all of these require sequencing the bricks as they are placed.

English

Students will construct text that demonstrates some awareness of the purpose and audience through appropriate choice of language with the expectation that their text will be be understood, responded to and appreciated by others.

This links to a student who can verbally express themselves using descriptive language to explain what they are feeling, how they are constructing under the water, and what they envision their build to look like when it is complete. The storytelling and descriptive language the children use will help build a picture for those listening and have other respond appropriately to the students commentary.

Nothing is softer or more flexible than water, yet nothing can resist it.

Quoted by Lao Tzu

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