

Activity 6.1: Hydrate our hapori

STEM superstars, your hapori needs you! Get ready to make waves in the final competition.

Join a rōpū with another challenge scenario. Then, combine your two wai networks to hydrate the entire hapori!

Do your networks have what it takes to connect your hapori with wai to care for the tāngata and whenua?

You'll need:

- Your final wai networks
- Extra pipes and connectors from the "hydrate your hapori" set
- 1000ml of wai
- Measuring jugs
- Resources to support wai network stability (boxes, tape, bulldog clips)
- 4 x containers that can hold 1000ml of wai

You will not include your treatment plant or wai paru for this activity.

Connect your networks

Step 1

Working with your partner rōpū, come up with a plan to connect your two networks together.

Remember to consider:

- Pipe size, length and shape
- Number of connectors
- Gravity and flow
- How you'll connect each hapori with the right ratio of wai
- How you'll protect the mauri of wai

Step 2

Connect your networks, using any extra resources you have available.

Step 3

Close all taps and check all connections.

Step 4

Place a labelled container at all four hapori connection points – fire station, whare, school, hospital.

Step 5

Measure out 500ml of wai in two measuring jugs.

Step 6

Slowly pour the wai into your water reservoir, one jug after the other.

Step 7

When you're ready, open the tap and watch the wai flow!

Try to include the same wai from previous tests or from your rain gauge.

Analysis

How did your combined network perform? Why?

Did you solve your challenge scenario?

Did you meet your challenge goal? How?

Is there anything you would do differently next time?

Conclusion

E hoa mā, you've collected heaps of data, learned lots of new things, and made a splash with your wai networks. It's now time to use this information to answer our challenge pātai.

I wonder how water reaches us?