**Teacher Professional Development**



*(Hutt Science in association with Capital City Science Educators)*

**Karakia Ko Te Pū:**

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| --- | --- |
| ko te pū te more te weu te aka te reaKo te waonuite kunete whēte Korete pōKi ngā tāngata Māori Nā Rangi rāua ko PapaKo tēnei te tīmatanga o te ao (x2) | It is the kernalthe taprootthe fibrous rootsthe shootthe offshootsIt is the canopythe budsthe rustling of the leavesthe void of potentialthe nightFor MāoriDue to Rangi and PapaWe have the beginnings of life on earth |

**Kawakawa & Lavender Balm Recipe**



This nourishing Kawakawa infused balm comes in handy for basically everything. Keep it on hand to soothe cuts, scrapes and burns, also comes in handy for itchy skin or pesky bee stings.

**Ingredients:**

1 cup olive oil or coconut oil
10 Kawakawa leaves\*
3 tbsp grated beeswax
10 drops lavender essential oil

**1.** Place the kawakawa leaves in a thermos. Gently heat the olive oil in a saucepan over medium heat for about one minute. You want the oil to be almost steaming, not overly hot.

**2.** Pour the oil over the leaves, and then screw the top on your thermos. Infuse for at least 8 hours. Once cool, you can remove the kawakawa leaves. \*\*\*\*\* **Ensure you put the used leaves back in the bush**

**3.** Combine the infused oil and beeswax together over a double boiler. Stir until melted together and then stir in the essential oils.

**4.** Pour the mixture into tins or small jars, and allow to set, about 20 minutes. Makes about 4 small jars.

\*Kawakawa is native to New Zealand, and is known to have wonderful healing qualities.

**Karakia Rongoā**

*(karakia from Whaea Viv Body, used before the making of rongoā.)*

Tāne te maramatanga

Tāne te pūkenga

Tāne te hinengaro

Whakarongo mai, whakarongo mai

I tohia koe e Io, te urutapu o rongo

Nau I tiki ngā kete e toru o te wānanga

Nau I whakamana te tangata

Whakamārama mai, whakamārama mai

Nau I poupou te marama te po

Ko koe te hā o te ora

Ko koe te āhua o te tangata

Ko koe, ko au

Ko au, ko koe

Haumie! Hui e! Taiki e!

**Useful Links**

<https://www.landcareresearch.co.nz/publications/te-reo-o-te-repo/>  this is a downloadable book on wetlands from a Maori perspective.

<https://www.taupofortomorrow.co.nz/worksheets-factsheets>

**Connected Series – Mātauranga Māori Links:**

|  |  |  |
| --- | --- | --- |
| Connected | Article | Science links |
| https://lh4.googleusercontent.com/gbxhUkgosGf44FqvzBevS-fLSSOqZtuhH8ncXnPgUd4tphjRcZ23BZceLacKAalpnky41MZ0piCCzCAlwC8_AHh3JLA5U1C6jsg0y21M4pBfh1xFiVJEwxQJuSk4yHqzbbs_uS9Qt8Y2020Level 3 | [Te Tapa Ingoa](https://docs.google.com/presentation/d/1zvq5C6WnWT9CgpwkxSw7CFZ1q7mpq6ylhzm2X2G1fFg/present?slide=id.p) | How early Māori went about naming and grouping the plants and animalsMataurangaComparisons with the Linnaean system for naming and grouping organisms |
| https://lh5.googleusercontent.com/gVoipNmi0AZSRZ7Ha49v2Ap6HEyF1JQ_8YwZpulBbn55IMr4gmyWiHAeQ9oWH_hGHm1CAw_q-DoRjmMpQVUqoVOl8j-l4wL4uH6cn_lJ5c5l8Zbgc4d_RLZmMyGCiISccRfuGZ7ln6o2020Level 2 | [Whakaotirangi and her Kete of Kūmara](https://docs.google.com/presentation/d/19ANhKapLrZagEn4QWfMHye05MKxWns0uzoHXB_p1iKY/present?slide=id.p) | Traditional techniques for planting and storingMatauranga |
| https://lh5.googleusercontent.com/2SUwZybu0cPdplayCsWSoiXaFtBpEYfOVwT29yGJbocos1D7keU4htMKgCLprL1Y5K02zQVgf3B1xwJPRWrt1lWKNpZL1AxWv8xmJHrpn_s8SzrR1ODVhWukmjOfFTxNRfbk26crCrM2018Level 3 | [Listening to the land](https://docs.google.com/presentation/d/1hOLxtZY1wzEFRokzS2bAk0OvApyvJXh5896JgnDOt-k/present?slide=id.p) | Mātauranga MāoriMaramataka - the Maori CalendarSeasonsCaring for the landClimate changeScientists in the field |
| https://lh5.googleusercontent.com/yelqW0uZufttMELRkor9LhJNLP2MSNFxEVTgfY8be8cLYBi1_2vtdpU9dVxegfRtspKQ_hlGDW3nFUR4WfrLMn9oCrREsD_aaMWgAy_PZ1tAEIiEwkCDnsRJfJY2OJRJPMUjxWMtENY2015Level 3 | [The Science of Rongoa](https://docs.google.com/presentation/d/1rn910Pg8x4oktS1dIS0ZrosFkDhU-tyizG3Tbrnj97Q/present?slide=id.p) | Rongoa - Maori MedicineKawakawaCritiquing evidence |
| https://lh3.googleusercontent.com/5VGSI49x2mu9Q5v4PRh8JknE6l3VHRyRbxxWz7jPWfSSRlKRXHPuzma27SdrRXtdGXNhlA7acRqH1W-avH_be1nBMOZ2nn1iK8j5Ige6gzVoyGrqgrxnbEMi7IcLSvBZTB3_QJ8oi4M2015Level 2 | [Learning from the Tangata Whenua](https://docs.google.com/presentation/d/1F0hyjQHUhDMaoyxWeD1QCA27pO4PyVeKYzkBXODULSw/present?slide=id.g52d1e44f8_028) | SustainabilityTe Pūtaiao MāoriConservation |
| https://lh4.googleusercontent.com/IYzpUZzYKX6P7NMX1_9-JzR9D7HfSZLqsv7YI6d7AsMiw7PGRFnrBHe3K5Rq3kuo2-IgNzMR-KTN3ws2NudcNudi7oQCL_H3u2T3w3re3z8OYqqryHNcAVdD2AfH710jGTQFl1rSD3s2014Level 4 | [Black is Back](https://docs.google.com/presentation/d/1c2q4FRJ6mwIrfxO7K0JvIUMHq04z0fPgJwYWNhiH024/present?slide=id.p) | Materials fibresMaori fabricsPiupiu, Harekeke (flax) dyeingAcid / AlkalineChemistry |
| https://lh6.googleusercontent.com/YsKjuPsMsmZI0NB8Dl0JqGjDkvrbShJOsbjzs8_Uvhkkgmu50vbXNz24B-WwYHbL_z8If86n5-gzecCSRhOp8ikR0vnWHDc4gRqpKEL-pjewGbE8_5SafP7GkBWvgHwCKEg1olVuZ8ALevel 42013 | [After the Spill](https://docs.google.com/presentation/d/1rfi6LJFwd8eAitdvD5F5Qm8i0bDrc276Vuub7BkL0m4/present?slide=id.p)(Rena Oil Spill)[Audio narration](https://googledrive.com/host/0B_SqFR7YFUrZNVgxeEpOZmMxOHc/After%20the%20Spill%2C%20Connected%20-%20Audio%20narration%20%28Small%29.mp4) | PollutionOilMātauranga MāoriMarine environmentFilter feedingFood webs[Oil Spill teaching resource](https://cdn.boprc.govt.nz/media/116370/oil_spill_teacher_unit_plan.pdf) |
| https://lh5.googleusercontent.com/9nFIV8v1UmJvzE7cnbvCCNmNIAcTuQ-m51jHfXSnVZDT9MTAyvhoFkg9DHLnFeqYDrzgn9sXHHElK2q2nyTr3pgnrCATjVY-NbLwN7OufU1bWxY5JUg0sgYnr64MDu-nrrZOUPRknbg2013Level 3 | [Why is the Moon upside down?](https://docs.google.com/presentation/d/144JsC71SbNDVE3UFhzf53u2EVhY_ZiXWIJ_hxxHCFAA/present?slide=id.g177c7371f_0126)[Audio narration available](https://googledrive.com/host/0B_SqFR7YFUrZeXRiUWN4ZGdmZ1k/Why%20is%20the%20Moon%20Upside%20Down%2C%20Connected%20-%20Audio%20narration%20%28Small%29.mp4) | Gather and interpret dataQuestioningObservationsThe Moon- viewed from Southern and Northern hemispheresPhases of the MoonInvestigationsTeacher Support materialRona and the MoonMaramataka, or Māori lunar calendar |