

**Ihumanea Pāngarau
Te Tukutuku Porowhita
MĀ TE KAIAKO**

Kia Mōhio te Ākonga ki:

- ngā koki matua, tae atu ki te 360°
- te tikanga o te takirua raupapa hei whakaatu pūwāhi ki te tukutuku

Kupu Matua:

tukutuku, porowhita, koki, putu (tākiri), takirua raupapa

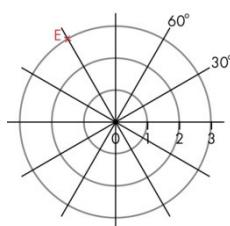
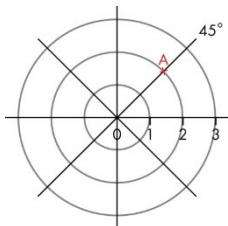
Whāinga Paetae:

Taumata 3, Te Ine me te Āhuahanga

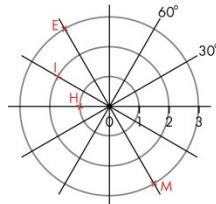
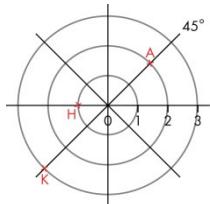
1. Ka whakaoti rapanga whaitake e whai wāhi mai ana te koki.
10. Ka hanga, ka whakamahi pūnaha ki te: whakaatu taunga; whakaatu ahunga; whakamārama huarahi.

Hei Mahi:

Titiro ki ēnei tukutuku porowhita. Ko te takirua raupapa ($2,45^\circ$) hei tohu i te pūwāhi A. Ko te ($3,120^\circ$) hei tohu i te pūwāhi E.



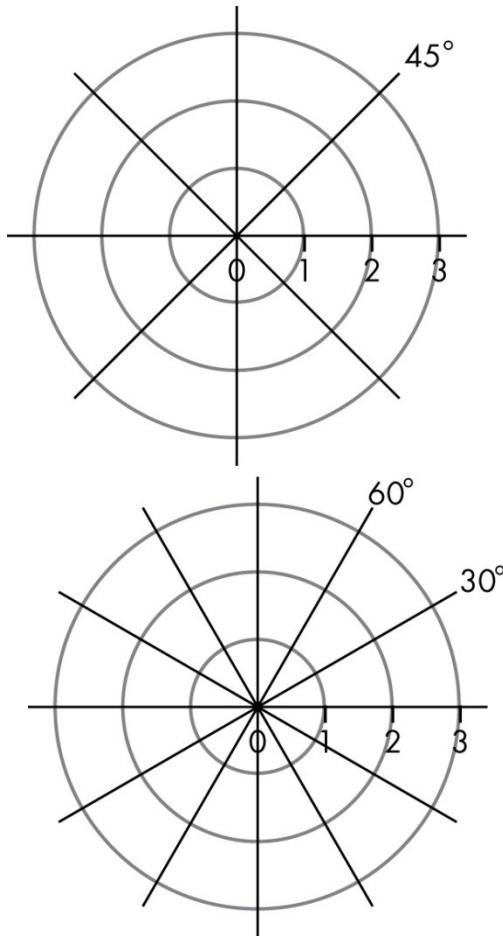
1. Whakaaturia ēnei pūwāhi ki ngā tukutuku porowhita kei runga ake nei:
 $H = (1,180^\circ)$ $I = (2,150^\circ)$ $K = (3,225^\circ)$ $M = (3,300^\circ)$



2. Tuhia ēnei pūwāhi ki ngā tukutuku:
 - N: He rahi ake i te 240° te koki.
 - Ng: Ko te 0° te koki.
 - O: He rahi ake i te 360° te koki.

He maha ngā whakautu e taea ana. Me whakawhitiwhiti kōrero.

3. Kimihia he hoa mōu, ka tākaro ai i tēnei kēmu:
- Kōwhiria tētahi o ngā tukutuku porowhita kei raro iho nei.
 - Tīkina ētahi pene e rua, kia rerekē te tae ki ia kaitākaro.
 - Ka tohua e te kaitākaro tuatahi tētahi pūwāhi i te tukutuku, ā, ka kōrerohia te takirua raupapa. Mēnā e tika ana te takirua raupapa, ka tuhia he X ki taua wāhi i te tukutuku porowhita.
 - Ka pērā hoki te kaitākaro tuarua.
 - Ka whai tētahi i tētahi ki te tohu pūwāhi i te tukutuku porowhita.
 - Ko te kaitākaro tuatahi kia 4 āna ‘X’ e noho rārangi mai ana, ko ia te toa. E pai ana mēnā e rārangi mai ana i tētahi o ngā rārangi torotika, i tētahi o ngā rārangi porowhita rānei.



4. Tuhurangia tēnei kēmu mēnā e whā ngā porowhita o te tukutuku. He māmā ake, he uaua ake rānei kia toa i tēnei kēmu?
Me whakawhitihitī kōrero.
5. He aha te rautaki e toa ai koe i tēnei kēmu?

Me whakawhitihiti kōrero.