# *Spinning tops of Aboriginal and Torres Strait Islanders* Digital content

### Interactives

**These web-based interactive activities may be used to support conceptual understanding of pushing and pulling forces. They require Flash and so won't work on the Apple iPad.**

‘Push or Pull’, TinyTap website, <https://www.tinytap.com/activities/g29po/play/push-or-pull> . This is an interactive quiz game where students view an object moving, and vote whether it has been pushed or pulled.

‘Pushing and pulling’ HWB Digital learning for Wales website, <http://resources.hwb.wales.gov.uk/VTC/push_pull/eng/Introduction/default.htm>. This is a series of interactives to help build conceptual understanding of pushing and pulling.

‘Kindergarten Science Learning Game: Push or Pull’, *Learning Lift Off* website, <http://www.learningliftoff.com/kindergarten-science-learning-game-push-pull/#.V0EsRL42uis>. This is a two-player game where the push or pull action has to be correctly identified by the player in order for them to score their square.

### Further lessons and activities

Australian Academy of Science. 2012. *Push-Pull Year 2 Physical sciences*, *PrimaryConnections*, <https://primaryconnections.org.au/resources-and-pedagogies/curriculum-units/push-pull>

‘A year in year 2’, Blogspot, <http://yearinyear2.blogspot.com.au/2012/10/marvellous-mammandurs.html>. 2012 Class blog (Brisbane school) featuring photographs and Mammandur spinners made in a Year 2 class.

‘Kolap Spinning Tops celebrated at the return of Saylor Park’, *Creativemove* website, <http://creativemove.com.au/news/kolap-spinning-tops-celebrated-at-the-return-of-saylor-park/> The pictures could be used as a provocation for a design technologies extension activity. This website shows large modern sculptures inspired by a cultural spinning top or kolap from the eastern islands of Zenadh Kes that have been erected in Saylor Park in Wickham in Western Australia’s far north.

‘Pushes and Pulls’, Victoria Department of Education and Early Childhood Development website, <http://www.education.vic.gov.au/school/teachers/teachingresources/discipline/science/continuum/Pages/pushespulls.aspx>

### PowerPoint presentations

[Mystery at the museum](http://assist.asta.edu.au/sites/assist.asta.edu.au/files/Mystery_at_the_museum.pptx)

[Push and pull forces](http://assist.asta.edu.au/sites/assist.asta.edu.au/files/Push_or_pull.pptx)

### Articles

**The following articles have reference to and information about a number of games or technologies used by Australian Aboriginal and Torres Strait Islander peoples, including examples of spinners.**

* Edwards, K. 2012. *A Bibliography of the Traditional Games of Australian Aboriginal and Torres Strait Islander Peoples*, University of Southern Queensland (USQ) ePrints website, <http://eprints.usq.edu.au/24914/13/Edwards_2012_PV.pdf>
* **Queensland Museum Network.** 2012. *Science Principles in Traditional Aboriginal Australia,* Queensland Museum Network Blog,<https://blog.qm.qld.gov.au/2012/08/01/science-principles-in-traditional-aboriginal-australia/>