



吉娃斯愛科學繪本

噶瑪蘭族語

第04集  
不倒的勇士

翻譯/配音  
tuwaq masud  
杜佻克·瑪蘇筮

# 本書多功能點讀筆使用說明

## 點讀故事步驟



## 錄音步驟



## 聽取錄音內容



## 改變播放速度



# 吉娃斯愛科學

第04集 不倒的勇士

## 噶瑪蘭族語



族語全文朗讀



華語全文朗讀



英語全文朗讀



吉娃斯

ipay

飛奔

bawki

乃奈(猴子)

angaw

里昂

siyang

比亞

kudaw

比路(機器人)

budi

Ryuk(太空站)

Reyuk

斯娜決(女孩)

uqis

馬凱瑟(男孩)

abang



metaRuz ay Rayngu mesuRaw



不倒的勇士



The Warrior Never Falls

慢

原







ta taykungcanan, masulun ti ipay tu qaniyau meniz mundu. ta taykungan  
maduna mesiyun ya uRat na izip.



太空站內,吉娃斯跟大家一起運動。在太空中身體的肌肉很容易流失。



Giwas and the others are exercising together at the space station. People  
lose muscle mass easily while living in the space station.

慢

原









ta kiya ay uRat na qenazinneqan, maduna Rayngu melikeneng ti bawki ta taykungsunan, senazau meduna minanamaw.



在微重力的情況下,飛奔常常無法維持與太空船相對靜止,因此動不動就會飄走。



Under the microgravity condition, Behuy often struggles to maintain a stable position relative to the spacecraft, so he often drifts away.

慢

原







mulepun ti mundu nani, qasengat pa ti matiw sa damu na zana simau ay bungut. dedden tangi nani, satuqazan ni abang tu ibabaw ay selal!



運動完就要出發前往花環部落。今天是馬凱瑟晉階的大日子!



After exercising, it's time to set out for Flower Wreath Village. Today is the big day when Makeser graduates from the Trakuban Boys House into the next level of his training.

慢

原







tasaw tangi wan ma ti abang paqenanem aizipna temuqaz, melaydaw qaniyau meniz timaizipana qanengi kemazaw tu saqazawan ni.



今年只有馬凱瑟一個人晉階,大家擔心他是否能承受壓力。



This year, Makeser will be the only person to graduate, so everyone worries about whether or not he' ll be able to handle the pressure.

慢

原







paqeinengat ti abang tu qaniyau tu lanas zau. yau anem na metaRuz maska tu tasu ay sapaskan.



馬凱瑟要大家放心。他有勇氣和決心迎接新的挑戰。



Makeser wants everyone to relax. He has the courage and determination to face this new challenge.

慢

原









ngid qalabu tu siwRatan na sabasabasayan na pinuyumayan ti siyang manmu ti abangan.



里昂想要加入卑南族青少年會所幫忙馬凱瑟。



Leon wants to join the Puyuma Trakuban to help Makeser.





競走

摔角

野外求生

狩獵

服務

服從



taRni na qatennesan utatani tasaw sinanam qawka qanengi melabu, tumqez ti ti siyang kasianem tu lanas zau.



沒想到卻要從頭接受很多年的訓練,讓里昂打消念頭。



But he gives up on the idea when he learns it requires years of training just to get to that point.

慢

原







semanu ti ipay ti abangan, amawaR ti qawka temuqaz, mangay paqenanem isu mepilay, metaRaw ti.



吉娃斯勸說馬凱瑟下一次再晉級,免得一個人累倒了。



Giwas urges Makeser to wait until the next year to graduate so he doesn' t exhaust himself by doing it all alone.

慢

原







sikawma ti abang, “azu tu siwRatan na sabasabasaan aiku, Rayngu iku mesuRaw!”



馬凱瑟卻說：「我和青少年會所一樣，是不會倒的！」



Yet, Makeser insists: “Just like the Trakuban, I will never fall!”

慢

原









nazauan na ni abang sikawma, iwaliw paqelaydaw ti ipayan tu azu maken mesuRaw ti ya siwRatan na sabasabasayan i?



馬凱瑟這麼說,反而讓吉娃斯開始擔心萬一青少年會所倒下。



Instead of feeling comforted by his words, Giwas starts to worry that the Trakuban might actually fall.

慢

原







ta unayan deddan mawtu ti ya baged sa damu na bungut na simau,  
melaydaw ti ti ipay.



那一天花環部落颱風來襲,吉娃斯真的擔心了。



A typhoon is heading toward Flower Wreath Village that day and Giwas is  
really worried.

慢

原







melaydaw qaniyau tu qenaqezqezan na siwRatan na sabasabasayan.



大家很擔心青少年會所的穩定性。

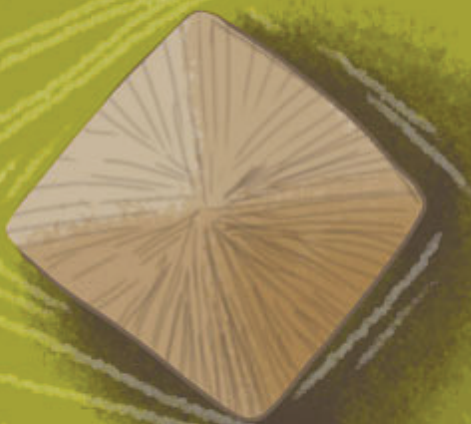


They all worry about how stable the Trakuban is.

慢

原







sikawma ti ya kikay lazat ti budi paqesuppaR tu qaniyau qemezqez ay tenapan ya senataqan ay Ribang, yau qaya naqunian na papesisiliw tu uRat na bali.



機器人比路向大家解釋圓柱體是一種穩定的結構,還有如何分流風力。



Biru the robot explains to everyone that a cylinder is a stable structure which can distribute the force of the wind.

慢

原









senataqan ay siwRatan na sabasabasyon nani, nengi qaya temabal tu niRapsian na baged.



圓柱體的青少年會所,也能有效地抵禦颱風的侵襲。



The cylindrical structure of the Trakuban Boys House is able to effectively withstand the force of a typhoon.

慢

原







melaziw ti ya baged, manna semani ya siwRatan na sabasabasayan zin na ni ipay, ngid ti kingkiw tu siwRatan.



颱風過後,吉娃斯懷疑青少年會所有其他秘密,決定進一步研究。



After the typhoon passes, Giwas suspects that the Trakuban must hold some other secrets, so she decides to take a closer look.

慢

原







pamemeng mutuz ti, Raya utuz, maytis ti ipay paqeseR pemaRu tu taqan.



突然發生了大地震,吉娃斯害怕地緊緊抱住柱子。



Suddenly, there' s a large earthquake! A terrified Giwas holds on tightly to the pillar.

慢

原







unayan nani, makasianem na ti laututuz ma ya zuma ay leppaw tu siwRatan na sabasabasaan.



這時她發現其他的房屋都搖晃得比青少年會所更嚴重。



She notices that other buildings are shaking more than the Trakuban Boys House.

慢

原









melazuk ti ti ipay seRay kaput na matiw sa nengi ay qizuanan.



吉娃斯和夥伴們緊急撤離到安全地點。



Giwas and her friends quickly run to find somewhere safe.

慢

原







manna senazau?



這到底是為什麼呢?



What can explain what happened?







sikawma ti siyang, yau ussiq zinneq ay nisepawan bettu ta liyaban na siwRatan na sabasabasayan Raqana senazau.



里昂說一定是因為青少年會所底下的有一個裝有很重石頭的裝置。



Leon says it must be because the Trakuban Boys House has a heavy rock device underneath the Trakuban Boys House.

慢

原





Pakaarekedr



zinneq ay bettu zau nisepawan na nani, “pakaalekel” zin na, temabal tu niRapsian na utuz.



這個很重的石頭裝置叫做pakaarekedr,可用來防止地震的災害。



This heavy rock device is called “pakaarekedr.” It is used to prevent damage during earthquakes.

慢

原





反向作用力







mutuz nani, laututuz ti ya leppaw, laututuz ti pakaalekel qaya. wannay pasazui ti suzingay ya leppaw nani, yau ninanaman na pakaalekel, mengasan ti pasazui suzingay, Raqana liwaliw ti pasazi suzingay. nazau nani, yau ti batqudi ay uRat na tumbes tu senuzingay na leppaw pasazui, senazau Rayngu Raya nilaututuzan na leppaw, qanengi paqezqez tu leppaw.



當房子因為地震搖晃的時候，pakaarekedr 會跟著搖晃，但是當房子往另一邊搖晃時，pakaarekedr 因為慣性而延遲往另一邊搖晃，這就對房子往另一邊的搖晃產生反向的作用力，使得房子不會劇烈搖晃，因此穩住房子。

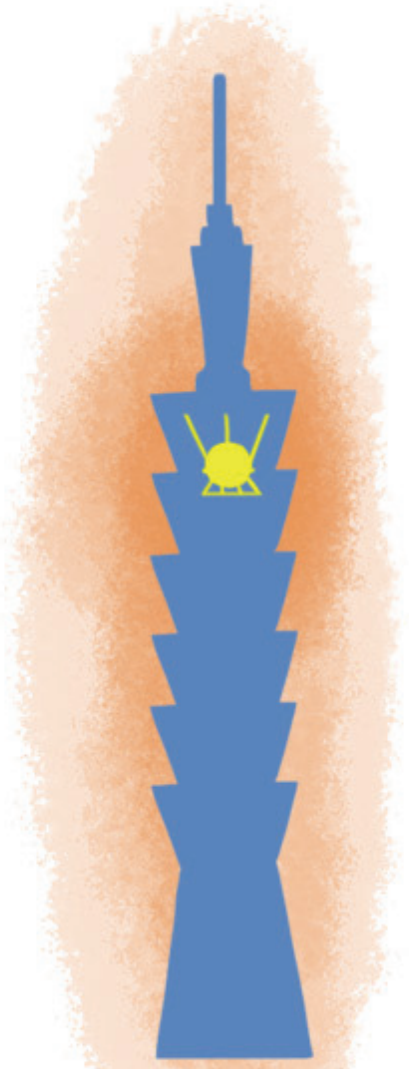


When a building shakes in an earthquake, the pakaarekedr also sways, but when the building sways in one direction, the pakaarekedr sways in the opposite direction due to inertia, which exerts a reverse force on the house in the opposite direction to the movement, preventing the house shaking violently and keeping the structure stable.

慢

原





阻尼器



Pakaarekedr



siniwaway na pakaalekel nani, maiyung qaya ta setangi ibabaw ay leppaw, yau “sapaqezqezan” tu leppaw satabalan tu utuz. yau ussiq “sapaqezqezan” na 101 leppaw na taypak.



pakaarekedr 的原理也被應用在現代很多高樓的「阻尼器」防震裝置。台北101 大樓就有一個「阻尼器」。



The principle behind the pakaarekedr is also used in the “Tuned Mass Dampers” installed in many modern skyscrapers to prevent shaking. Taiwan’s tallest building, Taipei 101, has a Tuned Mass Damper too.

慢

原







Raya ti ti abang sikawma, “maken nisanu ku haw! Rayngu qasuRaw ya siwRatan na sabasabasyon!”



馬凱瑟驕傲地說：「跟我說的一樣，青少年會所是不會倒的！」



Makeser proudly states, “It’s just like I said! The Trakuban will never fall!”

慢

原







makasianem ni bawki qaya azu batqudian tumbes tu saimetan na taykungsun si, qaRayngu ti pisapat minamaw ya izip!



飛卉也發現只要用反方向拉一下太空船中的把手,身體就不會飄走了!



Behuy also discovers that if he pulls a handle in the opposite direction of his drifting, he can steady his body will not drift away in the space station!

慢

原









setangi ta taykunganan nani, qaqelizaqan!



今天的太空站真是太歡樂了!



What a joyful day on the space station!



一般單詞

中文	詞性	族語
肌肉	名詞	uRat
流失	動詞	masiyun
靜止的	形容詞	melikeneng
擔心	動詞	melaydaw
壓力	名詞	sakazawan
挑戰	名詞	sapaskan
訓練	名詞	sinanam
倒下	動詞	mesuRaw
抱住	動詞	paRu
裝置	名詞	nisepawan
防止	動詞	temabal
災害	名詞	niRapsian

中文	詞性	族語
颱風	名詞	banged
穩定性	名詞	qenaqezqezan
圓柱體	名詞	senataqan
風力	名詞	uRat na bali
地震	名詞	utuz
反向的作用力	名詞	batqudi ay uRat
阻尼器	名詞	sapaqezqezan

科學單詞

# 吉娃斯愛科學 噶瑪蘭族語

## 第04集 不倒的勇士

補助單位一 教育部國教署 (繪本紙本製作與族語翻譯配音)  
計畫名稱 「發現天生科學家：原住民族文化科學學習實踐與發展十年計劃」(第二階段第三年)

補助單位二 國家科學及技術委員會 (繪本繪圖製作)  
計畫名稱 「吉娃斯愛科學 V：太空站家園」

計畫主持人 傅麗玉  
計畫執行單位 國立清華大學原住民族科學發展中心

族語翻譯 tuwaq masud(杜佻克·瑪蘇筮)  
族語配音 tuwaq masud(杜佻克·瑪蘇筮)  
族語翻譯審查 buya batu(謝宗修)

英語翻譯 Joelle Chevrier (蔡雪青)  
英語配音 Jacob Roth  
華語配音 歐陽年年  
繪圖 王景嫻 Janet  
繪本審查 Sulangalr Pakawyan(洪崇維)、牟中瑜

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「飛鼠部落」網站整合了原住民族傳統智慧，  
並落實多元文化教育的精神於科學學習，  
是一個原住民族傳統智慧與科學學習的平台。



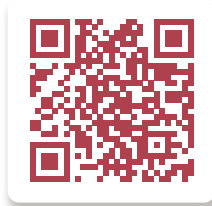
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<https://www.yabit.org.tw/>



飛鼠部落臉書



<https://www.facebook.com/Yabit2001>

# 吉娃斯 愛科學 GoGoGiwas

 粉絲專頁



 遊戲繪本 iOS 版



 遊戲繪本 Android 版

