

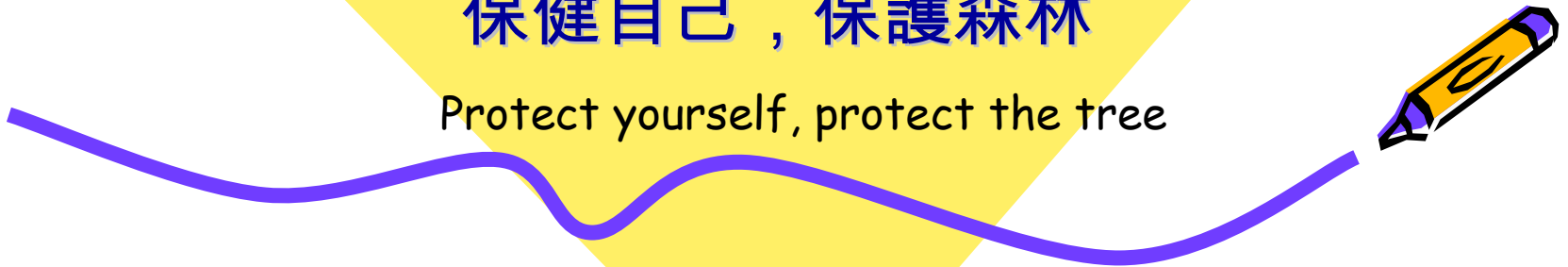


可怕的免洗筷

Scary storey about disposable chopstick

保健自己，保護森林

Protect yourself, protect the tree



你知道你每餐用的 筷子是怎麼做的嗎

Do you know what is these chopstick made of?

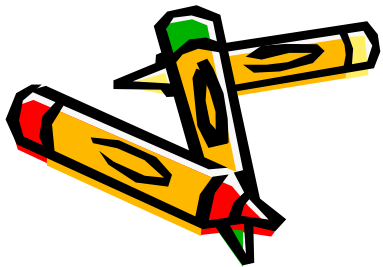


免洗筷子製造簡介

Brief infor. On production of Disposable Chopstick

1. 東南亞國家砍下的竹材

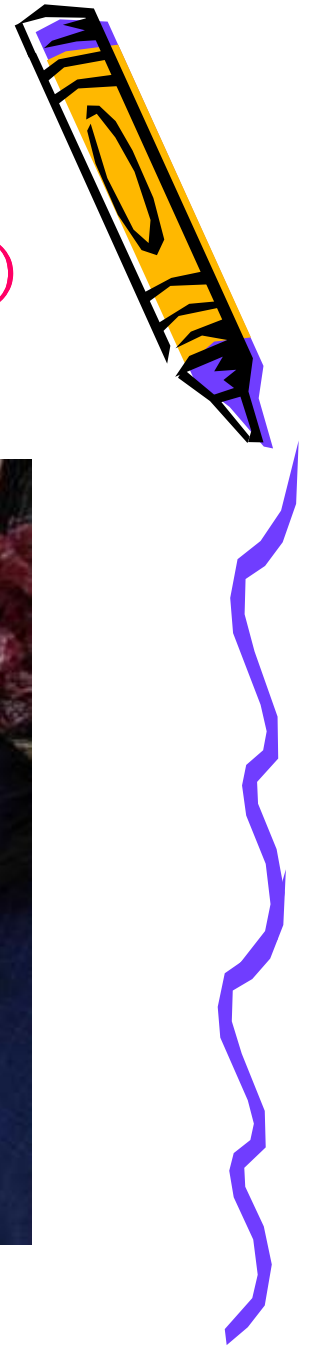
1. Cut from Bamboo Trees



免洗筷子製造簡介

2. 工廠加工成竹筷(地點：越南中央高地)

2. Production in Central of Vietnam



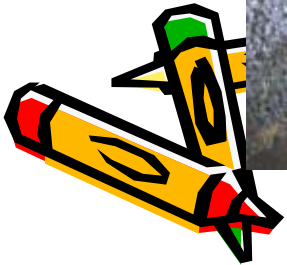
免洗筷子製造簡介

3. 經硫磺燻白或雙氧水漂白（並非消毒）

3. Bleach using sulfur & Hydrogen Peroxide (Not disinfect)

硫磺 sulfur

雙氧水 Hydrogen Peroxide



免洗筷子製造簡介

4. 曬乾、烘乾，加工成你我所見的筷子

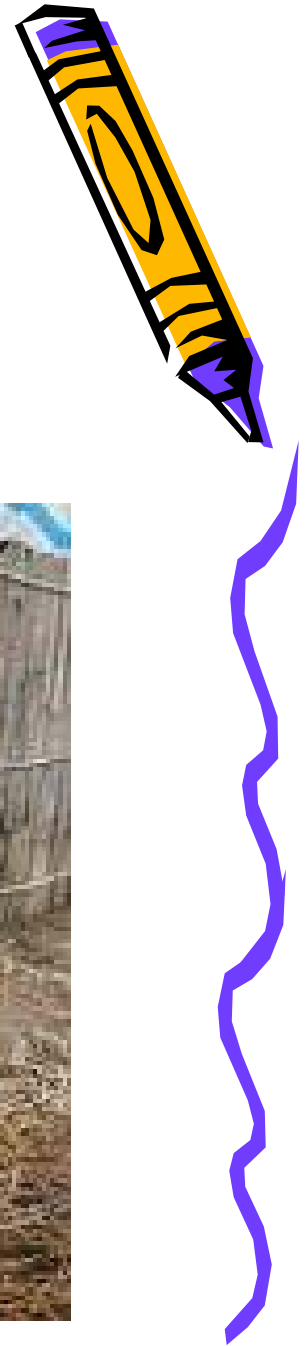
4. Drying process



免洗筷子製造簡介

5. 裝箱或裸露運送到台灣、日本…

5. Packing ready to be export to Taiwan, Japan



免洗筷子製造簡介

6. 裝船送到台灣

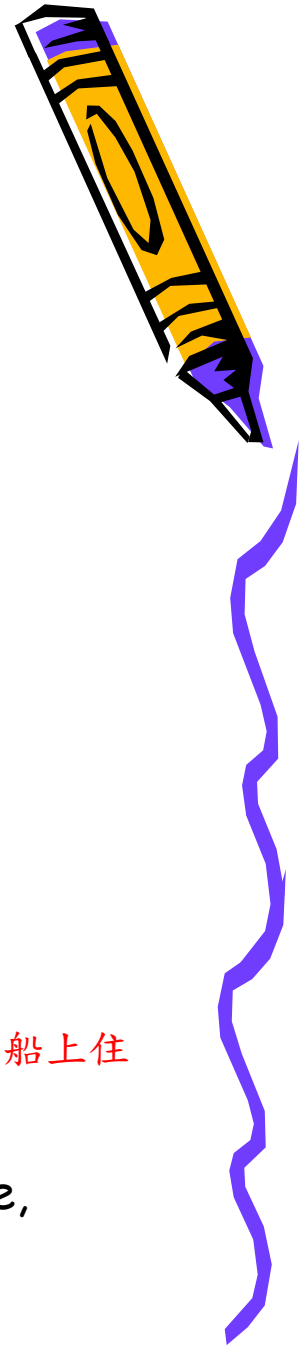
6. Shipping ready to be sent to Taiwan



- 從工廠到碼頭裝船，然後從東南亞的港口一路到台灣，筷子大概在船上住了一個月，這一個月來，船上的老鼠，蟑螂等在筷子上爬，排泄



It takes 1 mth from Ex-factory to Taiwan. Meantime, the chopstick is exposed to rat & cockroach.



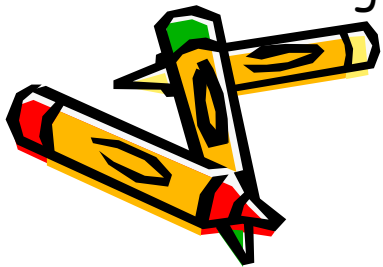
免洗筷子製造簡介

7. 裸筷包裝（毫無消毒）

7. Wrapping process (without any disinfection)

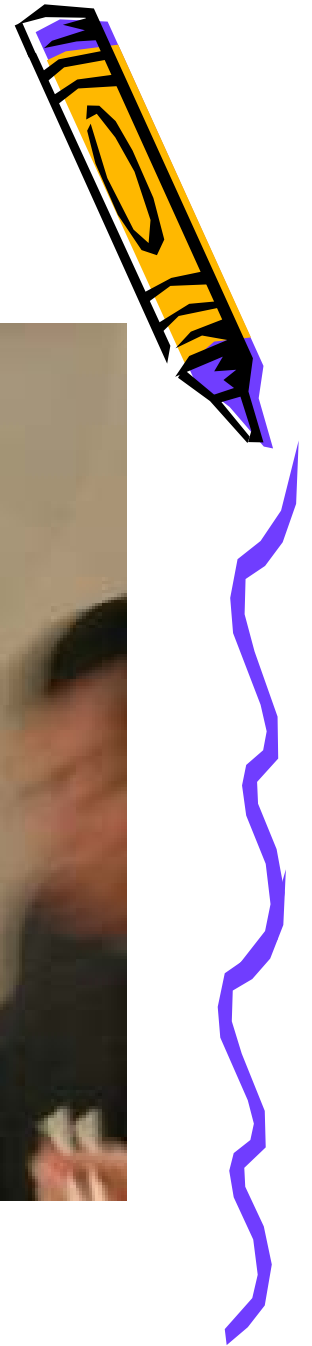
裸筷運到了台灣，一個小小加工廠的裝袋機將筷子一雙雙的分裝，也沒消毒，就送到了餐廳我們大家的手上

Upon arrival in Taiwan, these chopsticks are sent to small factory to be wrapped without any disinfection process before sending to restaurants.



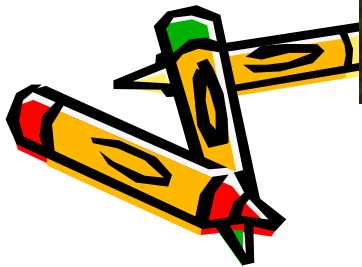
筷子就這麼送進食客的嘴裡

And directly send to customer mouth



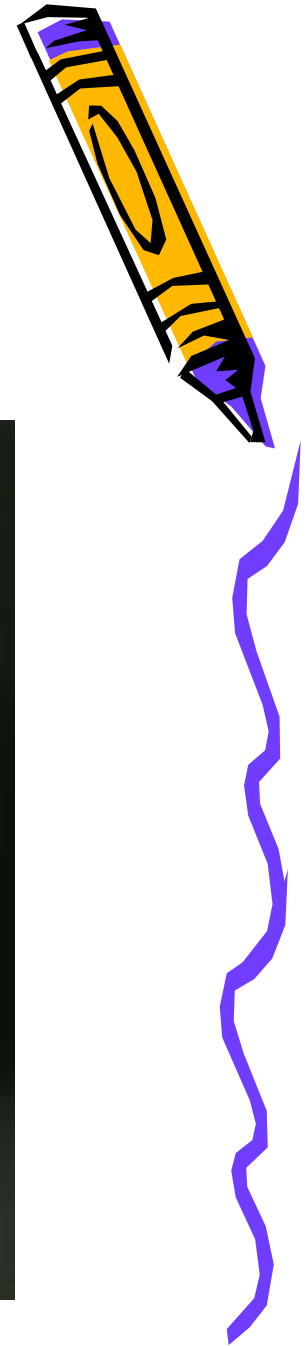
竹筷子裡躲千萬隻猴子

There are thousand and million of monkey residing inside these chopstick



看到了沒?

Can u see it?



竹筷子裡的猴子臉

Monkey face inside the chopstick



當製造過程中燻蒸硫磺或淋雙氧水後，這些物質就會留在這些猴子的眼睛及鼻子裡面，等到你用筷子吃的時候，才釋放出來

The leftover from the chemical would stay inside these holes until you use them.

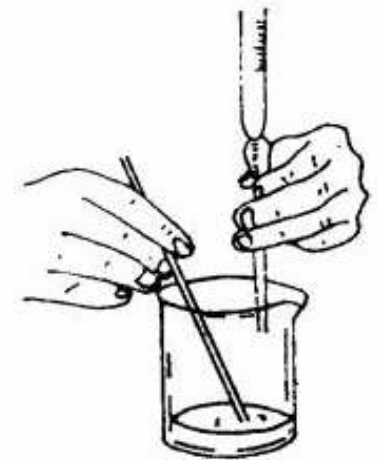


小朋友科展結論

95年臺中市中小學科展化學類第一名

Conclusion from the experiment conducted
by a primary school student

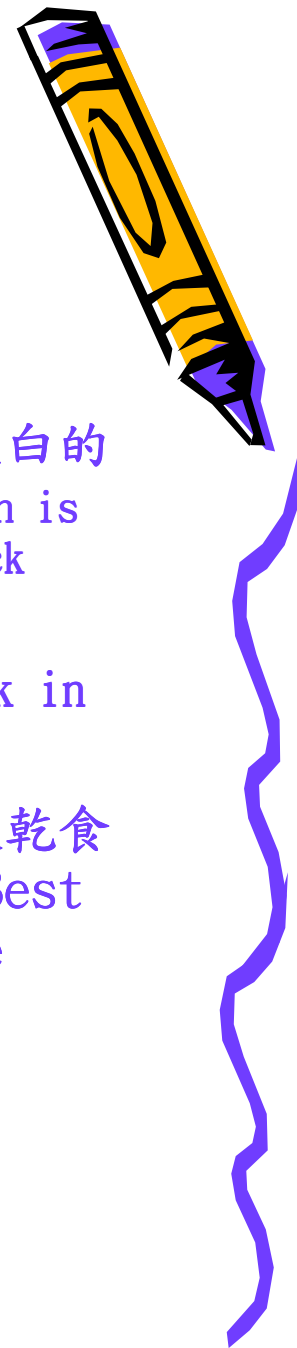
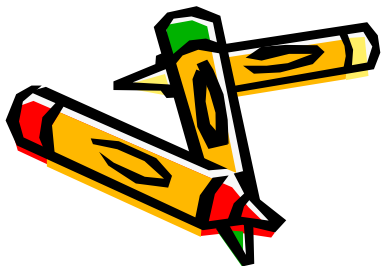
- 1. 免洗筷泡水一個星期就「臭得不得了」 Soak the chopstick in the water for one week - It stinks
- 2. 用這些發臭的水種綠豆，發芽遲緩，且長到五六公分就停止生長，最後死掉 Planted green pea in the soaked water, resulted longer growing process, it stop growing when reach 5-6cm, & finally died.
- 3. 筷子燃燒的煙霧，用試紙測試，結果呈現酸性 Smoke from burning these chopstick is tested to be acidic.



竹筷裡會飽留二氧化硫

Carbon dioxide found in the bamboo chopstick

- 避使用太白的免洗筷，因為木頭或竹材都有原來的顏色，太白的免洗筷，應是有過度漂白 Avoid using disposable chopstick which is very white as it is not the original colour of the wood. Chopstick that is too white may have been bleach excessively.
- 宜先用熱水浸泡，時間越久二氧化硫釋出越多 Advisable to soak in hot water b4 use to release carbon dioxide.
- 喝湯攪拌則因熱水與筷子的接觸面較多，釋出的二氧化硫較乾食夾取來得更多，最好不要把免洗筷拿去火鍋、湯汁內浸泡 Best not to use these chopstick for bbq, and leave in the soup as it tend to release more carbon dioxide



使用免洗筷可能會怎麼樣？

Possible consequences of using disposable chopstick

- 一般人若是食入過量的亞硫酸鹽，可能會造成呼吸困難、嘔吐、腹瀉等症狀，且亞硫酸鹽會與人體的鈣結合，會有造成骨質流失之虞 Suffer difficult breathing, vomit, diarrhoea etc. and loss of calcium due to sulfur.
- 有些體質特殊的人，無法將亞硫酸鹽轉換成硫酸鹽，攝食超量時，可能會產生不同程度的過敏反應，誘發氣喘或是呼吸困難 Suffer Asthma and difficult in breathing
- 除此之外，硫磺中含有重金屬，例如鉛、汞等。重金屬在人體內部是可以堆積的，長時間的累積會造成鉛中毒或汞中毒。
- 甚至有人得到淋巴腺癌 Limpa blockage



無可避免時

If you cant avoid...

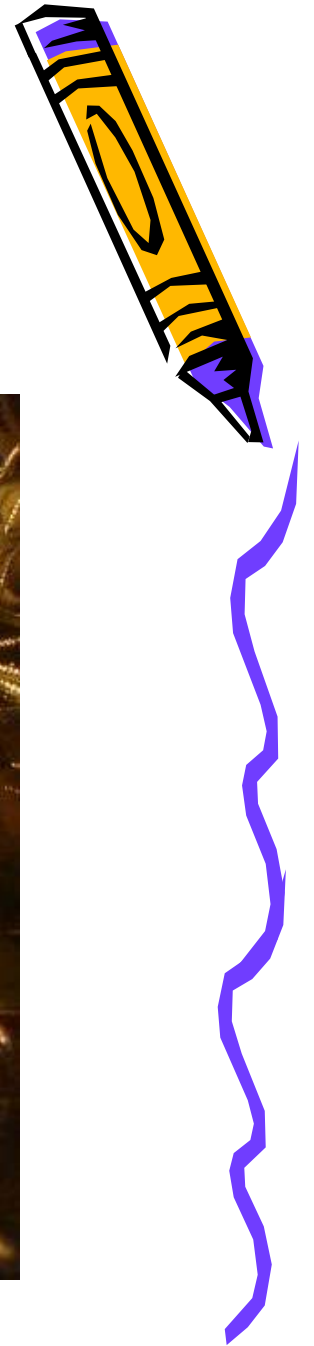
- 建議消費者購買時，先拿起來聞一聞，如果有一股酸酸的味道，可能含有二氧化硫，由於二氧化硫會溶于水中，消費者使用前可以先將筷子浸泡於溫或熱水中數秒，若時間足夠，應該泡二至三分鐘，以減少筷子中的二氧化硫殘留量。

It is suggested to smell the chopstick b4 use. If any sour smell, possibly it contain CO₂. And soak them in warm and hot water for 2 to 3 min to reduce the CO₂.



最好自己攜帶筷子

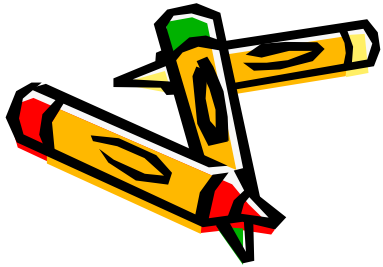
Best is to bring your own chopstick



繼續用免洗筷的生態浩劫

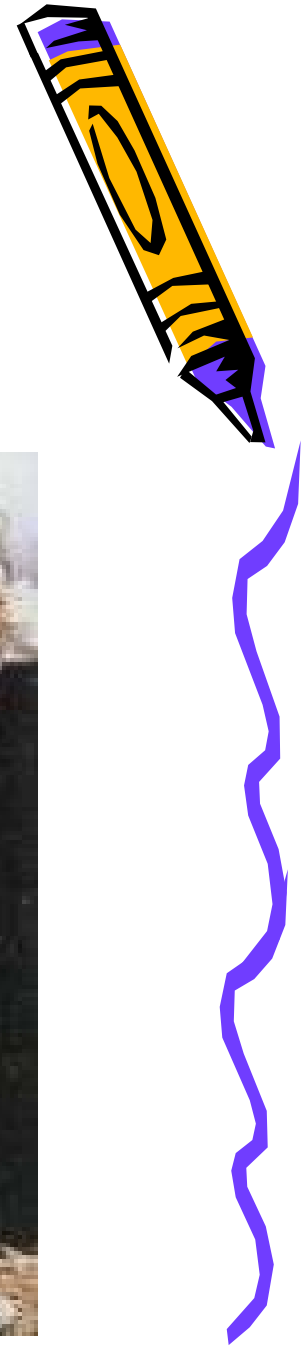
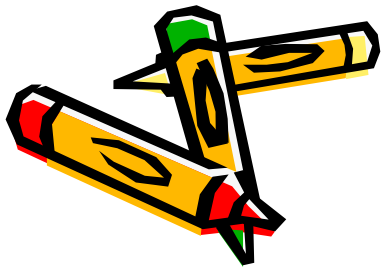
By continuing consuming disposable chopstick..

- 一棵生長了**20年**的大樹，僅能製成**3000至4000雙**筷子 A 20-year old tree could produce 3000-4000 pairs of chopstick
- 台灣每年要用掉**100億**雙筷子 Taiwanese use more than 100billion pairs
- 就是說，我們一年要吃掉**290萬**棵樹 Which means 29 million of trees are being cut every year



免洗筷對環境的影響

Disposable chopstick effect to our environment

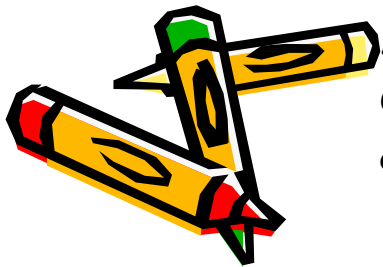


台灣會不會有回收免洗筷再使用

Is it possible that Taiwan will recycle the use chopstick?



工人正在將發霉筷子分開擺放，筷子長滿霉斑，店老闆自稱：他店裡一個月銷售600萬雙筷子



As reported by reliable sources, it was found that the disposable chopstick are being recycle by reusing sulfur & Hydrogen Peroxide.

