



Cruchley's Collection

Diana Cruchley is an award-winning educator and author, who has taught at elementary and secondary levels. Her workshop are practical, include detailed handouts, and are always enthusiastically received.



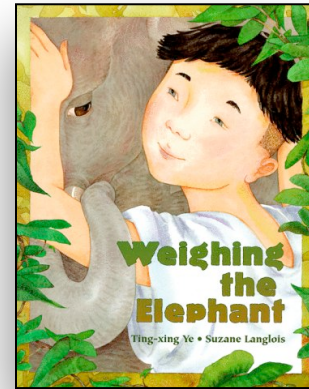
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Weighing the Elephant

In the mountains of China was a small village living peacefully with their working elephants. They especially liked the baby elephant who would play with the children. The Emperor demanded the baby elephant but it refused to play with the Emperor's children. The Emperor determined to put him death, but first posed an absurd riddle - whoever could weigh the elephant could win it. A little boy in the village solved the problem (by using displacement) and the baby elephant returned home.

Ting-Sing Ye

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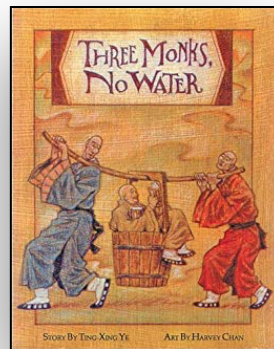


Teaching Ideas

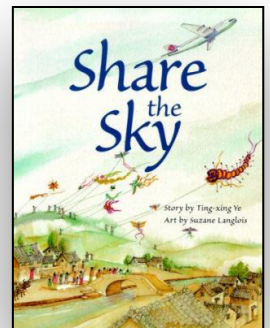
Author

Ting-xing Ye is a Chinese Canadian, living in Ontario, born in Shanghai. She mainly writes for adults. She does not seem to have a website but does have two other picture books:

Three Monks, No Water is a well known expression from a famous folktale of China. The story's moral is the importance of sharing responsibility.



Share the Sky is the story of a girl living with her kite-creating grandpa in China. When she discovers she will be going to North America to join her parents she wonders if they will "Share the same Sky". Nice immigrant "stress" story.



Pronouncing the Names

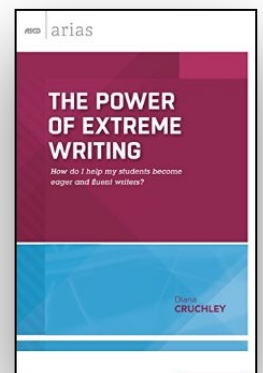
Hei-dou (the boy) is pronounced *hay dough* and means *black bean*.

The elephant's name is Huan-huan, pronounced *hwan hwan* which means *cheerful*.

Extreme Writing Topics

Always present three possible topics for Extreme Writing so that students will have a choice. My book, **The Power of Extreme Writing**, is available at ASCD for a complete explanation of this unique approach to journaling.

1. Stories about weighing things and being weighed yourself. What about measuring how tall things are?
2. Times when you lost something or had it taken away.
3. Stories about your pet.



The Real Story of Weighing the Elephant

During the Han Dynasty, there was a warlord who had a son who was a prodigy whose name was Cao Chong. Cao Chong is best known for solving the problem of weighing the elephant by using the principle of buoyancy, the basis of this tale. Another story that reflects his thinking skills and his kindness is the story of the rats who ate a saddle in his father's stable. The stable boys realized that they would be held responsible and probably be executed. They resolved to tie themselves together and confess. Cao Chong told them to wait three days. In the meantime he tore holes in his clothes and told his father that rats had eaten the holes. Three days later when the stable boys confessed, the warlord laughed and said that it was happening a lot.

Unfortunately Cao Chong died when he was only 12.

Impressing Students with Hei-dou's Ingenuity

Read the story of **Weighing the Elephant** to the point where Hei-dou realizes how to solve the problem. In groups, have students propose methods for weighing the elephant. Discuss. Choose the best. Then read the ending so that the students can really appreciate the boy's ingenuity.

Show images of scales in general. Ask students to explain how they work. (Bringing actual scales in to class would be more exciting.)



Famous Stories about Weighing Things

1. **Egyptian Weighing.** The Egyptians believed that when you died, the God Anubis would weigh your soul against a feather. Unless it was lighter than the feather you would be sent to a bad place.



2. **Archimedes and the Golden Crown.** The king of Syracuse had a golden crown made, but then wondered if the goldsmith had replaced some of the gold with silver. He asked his cousin, Archimedes, age 22, to figure it out without melting the crown. Archimedes was in the bath and noticed water flowing out when he immersed himself. He shouted "Eureka, I have found it" and ran through the streets naked to his home. He knew gold was denser than silver, so a similar weight would be smaller. First he took a lump of silver weighing the same as the crown and measured how much water it displaced. Then an amount of gold and measured the displacement. If the gold displaced less water (because it was smaller) the goldsmith would have cheated. The answer: Yes, the goldsmith cheated and was put to death.

3. **Shah Jahangir Weighing his Son.** In 1615, in the time of the Mughal Dynasty in India, Shah Jahangir weighed his son on his birthday. His weight was balanced by gold and precious gifts which would then be sold and the money distributed to the poor as an act of charity. This son was the future Shah Jahan, builder of the Taj Mahal. On this occasion, his weight would be balanced by gold and precious gifts which would then be sold and the money distributed to the poor as an act of charity.

4. **Atlas and Hercules.** Atlas was a Greek Titan condemned by Zeus to forever bear the weight of the world on his shoulders. One day the human hero, Hercules, asked Atlas to fetch the “Golden Apples of the Hesperides” that he needed for his 11th Labour, and in exchange took the weight of the world on his shoulders temporarily. This one is not about weighing, but is about “heavy things.”



Unreasonable Rulers

There are several picture books where the ruler presents an unreasonable challenge to his subjects and is outwitted in a sense by their ingenuity. Two that come to mind, **The Quiltmaker's Gift**, and **Rumpelstiltskin's Daughter**. Check out dianacruchley.com for teaching ideas for **Rumpelstiltskin's Daughter**.



Elephants and Humans

This might be a time to look into the difference between an African and an Indian elephant, and the range of their natural habitats, their behaviours in the wild, and what they have been trained to do by people or ways they have been used by humans.

Starting from this picture book as a stimulus, you can show the first few minutes of the BBC documentary on Hannibal's army with elephants, to get them interested in elephants in history:

<https://www.youtube.com/watch?v=0gbPIyCuGTA>

Students then see the list of what they might explore. There are 21 choices on the page. With those in front of them, students could pose questions such as: What role in history have elephants played? Are there any patterns to their use? What species of elephants are alive, and which are extinct? How do humans use elephants now? etc. As they research their individual topics, they should keep the questions they posed in mind.

Unless you have a small class, students can work in pairs to do their research. Give them a short period of time and ask them to write something like 20 interesting facts about their topic...while keeping the class's inquiry questions in mind. They can then use those facts to individually write a short essay. Finally, you can create a PowerPoint using images I have collected. Go to **diana cruchley pinterest** (those three words) and all of my pages will appear. Students would finally present their information for each page orally as each image appears, sharing their presentation to the class.

Finally, close with a discussion of the original class questions. Have you answered all of them? Are there any patterns to the information? Why have elephants been so important in history? How do you feel about elephants when you are finished?

1. Jumbo the Elephant
2. Hannibal and the War Elephants
3. Pyrrus and the Elephants
4. Kandula of Sri Lanka
5. Hanno and the Pope
6. Ganesh, the Hindu Elephant God
7. The expression "white elephant" and elephants as gifts
8. Logging and teak harvesting in Thailand with elephants
9. Elephant Polo
10. On a map of the world show: 1. where mastodons lived in North and South America (highlight in red), 2. Where wild African elephants can still be found (highlight in yellow), 3. where wild Asian elephants can still be found (highlight in blue), create a key, and explain why elephants are endangered today.
11. Mahmud: The Elephant and the Birth of Mohammad (this one is difficult)
12. Circus elephants
13. Charlemagne's elephant: Abdul Abbas
14. Lin Wang: Elephant Veteran of WWII
15. Elephant Rides for Tourists - Thailand
16. Using Elephants in Executions
17. Elephants in Europe
18. Elephants and the Sui Army of China
19. Tamburlaine and the War Elephants of Delhi 1398 CE
20. Elephants Carrying Royalty - the Howdah
21. The Mastodons of North and South America and Thomas Jefferson