



PAPER OF ANSWERS

Reading Invisible Words

“The words only appear in the bright moonlight, the king realized...He renamed the city the City of Bright Moonlight, in honor of the light that revealed the words of the Paper of Answers.”

—WHEN THE SEA TURNED TO SILVER

The Paper of Answers only shows words when it is exposed to the light of the full moon. The kings of Grace Lin’s Chinese tales have consulted it for wisdom for generations.

While, sadly, we cannot offer you a paper that gives you answers to difficult questions, we can show you how to create invisible writing that only appears in the presence of heat and light. How will you use it? To pass secret messages? To practice the strokes of Chinese characters? To ask a reading partner questions about the novel by Grace Lin?

NOTE: This activity should only be done with an adult as it involves using a heat element!

What to Gather:

- Small Bowl
- Milk
- Q-tip or small paintbrush
- Paper
- Oven mitts
- Heat Source: stove element, 100-watt bulb, or iron
- Pitcher or pot of water

What to Do:

- 1) Pour a splash of milk into a small bowl.
- 2) Dip the tip of the Q-tip or brush into the milk.
- 3) Write a question, answer, or quotation on the paper. You may even want to take this opportunity to practice your Chinese characters. You have just created invisible words.
- 4) While the paper dries, go find an adult who will help you heat the paper. NEVER put paper next to a heat source without being VERY careful and having an adult with you.

What to Do (cont.):

- 5) Put on oven mitts as the paper will get hot.
- 6) Wave paper gently over the heat source until the writing starts to appear. **Do not touch the paper to the heat source.**
- 7) Your paper should not burn, but keep water handy just in case.

Did you know the Chinese invented paper during the Han Dynasty in approximately 105 AD?

Milk or Mystery?

You may not hold the mysterious Paper of Answers, but you have made something invisible, visible. That is, in itself, astonishing.

Why does this happen? Milk is mildly acidic, and acid weakens paper. The acid remains in the paper after the milk has dried. When the paper is held near heat, the acidic parts of the paper burn or turn brown before the rest of the paper does.

Thanks to KidzWorld.com for this explanation.

Want to understand acids? Find a good explanation and a series of experiments on acids and bases at: www.wikihow.com/Explain-Acids-and-Bases-to-Kids.