

Read the article “Strike Anywhere” by Sarah Murphy from the Exploratorium Quarterly.

Answer the following questions in complete sentences.

RESEARCH AND HYPOTHESIS FORMATION

1. Which type of fire making is oldest? How far does it go back?
2. What are the advantages and disadvantages of iron pyrite as a fire starter? What was it replaced by?
3. What is tinder? Which part of the match you used could be considered tinder?
4. When/What was the first known use of the friction method? Where was it used first?
5. What is a fire drill? Why is the channel critical in a fire drill?
6. How do lenses and fire pistons start fires?
7. How did the Instantaneous Light Box work?
8. How did the Fumades Fire producer work?
9. Which is the Promethian most similar to: the Instantaneous Light Box or the Fumades Fire Producer? Discuss the similarities and differences in these two methods.

10. Who invented the match, what was his profession, and why did he later deny his invention?
11. Why did Germany refuse to transport Strike Anywhere matches?
12. What improvements did Lundstrom's matches have?
13. What were the health risks to the people who worked making matches? What happened to them and what caused it?
14. What were the governmental and industrial responses to the health problem you identified in #13?
15. Why were there fewer match companies in 1988 than in 1978? Give at least two reasons.

CONCLUSIONS

16. Which of the methods of making fire that you observed in lab was a
friction method?
percussive method?
chemical method?
17. Which of the two matches you tested is called a "strike anywhere" match? Provide evidence.
18. Why won't the other match light except on the match box surface?
19. Based on your observations in the laboratory, what are the differences between Lundstrom's match and the safety match you tested? Provide evidence.