	Name:	Block:
	Ch 5 Electrons	
	Fireworks Webquest	
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	Essential Question: Fireworks Ooh, ah, why?	
Introduction: Ch	nemistry Flame Test	
	of a flame test done in a chemistry classroom.	
https://www.yout	ube.com/watch?v=NEUbBAGw14k	
Fill out the data si	heet below of the observations you make on the color of each chemical that is	hurned
Element	Observations	bullicu.
Lithium (Li)	Coper various	
Sodium (Na)		
Potassium (K)		
Calcium (Ca)		
Strontium (Sr)		
Barium (Ba)		
Copper (Cu)		
History of Firewo	reworks Phind Fireworks	reworks.
Questions about	the Chemistry of Fireworks	
1. What exac	tly is a firework?	

2. Where and when were the first fireworks invented?

3. Who were the first Europeans to master fireworks?

4. What type of simple chemical reaction occurs in fireworks?

5.	What are the components of black powder? What are the ratios of these components?
6.	What three processes cause fireworks to emit light?
7.	What types of elements are responsible for the colors of fireworks?
8.	What is responsible for the whistling sound that often accompanies fireworks?
9.	What are the component parts of modern fireworks? What does each part do?
10.	Create a table that lists the chemical compounds that create the following colors of fireworks: blue, turquoise, yellow, pink, red, brilliant red, green, bright green, purple, white. You may use chemical formulas rather than common names of compounds in your table.

Conclusion

In the process of completing this WebQuest, you've become informed about the chemistry behind fireworks, the chemical compounds that are responsible for the brilliant colors seen in fireworks, and about the component parts of modern fireworks. You have also learned a little about the history of fireworks. You have developed research skills as you explored the web sites given and identified the relevant information to answer the set of conclusion questions below.

Answer these questions:

1.	Describe on the atomic level what has to happen for a chemical compound to produce colors we see during a fireworks display.
2.	Explain how the flame test mimics on a small scale the pyrotechnics of fireworks.
3.	Describe how complex modern fireworks are.
4.	Explain why fireworks can be dangerous for those who don't understand how they work.