When we watch a fireworks display, we are, in scientific terminology, seeing the chemical properties of the fireworks. A chemical property is a description of what a substance does when it reacts to produce new substances.

For example, when a match burns, a chemical change occurs because the matchstick is coated with a substance that burns easily. This ability to burn, or its combustibility, is a chemical property of the match. Chemical properties can be observed only when a chemical change occurs.
Chemical Properties

Chemical Properties

CHEMICAL PROPERTY
- a description of what a substance does when it reacts to produce new substances

April 12, 2016 1DCHEM - Chemical Properties

PRACTICE
1. Classify each as a physical or chemical property:
   (a) wood burns  chemical
   (b) clay is brown  physical
   (c) steel wool rusts  chemical
   (d) a paper clip is 3 cm long  physical

April 12, 2016 1DCHEM - Chemical Properties

The usefulness of many substances is determined by their chemical properties. Many substances, such as wood and coal, are useful because they burn easily. Other substances, such as liquid/powder fire retardants used to make fire resistant materials, are useful because they do not burn easily.

April 12, 2016 1DCHEM - Chemical Properties
2. (a) What chemical properties of nail polish remover makes it useful?
(a) removes nail polish

2. (b) What chemical property makes nail polish remover dangerous?
(b) flammable/poisonous

Metals are used to make jewellery, but only some metals, such as stainless steel, titanium, and some types of gold are used for body piercings. This is because these metals have a chemical property that make them useful for piercings – these metals, unlike copper and silver, do not react easily with substances in the body.
Chemical Properties

PRACTICE
3. Surgeons sometimes use metal plates and screws to hold broken bones together. What chemical properties do you think the metal should have?

- the metal should not react with substances in the body

Activity: Using Properties to ... (B7/P.156)

INSTRUCTIONS
A. Read the activity “B7: Using Properties to Identify Pure Substances”.
B. Follow the instructions given (i.e. procedure 1 to 14).
C. Answer the questions given (i.e. analysis 15 to 19).
D. Submit a formal lab report using the QHMMOCA format.

NOTE!
• This is a formal lab report and because of the chemicals being used your teacher will be paying particular attention to the materials list (i.e. the “chemical/amount/equipment/safety/WHMIS” chart). Use your “practice” formal lab report(s) as a guide.
• Make sure you do your “own” work!