Sci 8 Name:

Block:

**Physical or Chemical Property?**

1. What is the different between a physical property and a chemical property?

* A physical property is a characteristic of matter that can be **observed** or **measured** without changing its chemical identity (sweetness, colour, malleability, texture, melting point, etc)
* **A chemical property is the ability of matter to react with another substance to form one or more new substances with different properties. (flammability)**

1. Indicate whether the statement describes a **physical property** or **chemical property**. The first one is done for you.

|  |  |
| --- | --- |
| Statement | Physical or Chemical Property |
| Wood is combustible | Chemical property |
| Aluminum tent poles are malleable (bendable) | Physical |
| Oxygen is a gas at room temperature | Physical |
| The melting point of chocolate is 30C | Physical |
| Potassium in fireworks is very reactive | Chemical |
| Propane gas in the lantern is flammable | Chemical |
| Gold is shiny | Physical |
| The strawberry is sweet | Physical |
| Chocolate smells yummy | Physical |
| Water boils at 100C | Physical |
| The paper can be folded into an airplane | Physical |
| The tree is 4m tall | Physical |
| Sandpaper is rough | Physical |

**Chemical or Physical Change?**

1. What is the difference between a **physical change** and a **chemical change**?

* **Physical Change – a change that alters a substance without changing its chemical identity or composition. Eg. folding paper. Eg. change of state (freezing)**
* **Chemical Change (chemical reaction) – a new substance is produced.** [Bonds](http://www.chem4kids.com/files/atom_bonds.html) between atoms in a molecule are created or destroyed (chemical reaction).

1. State whether each example is either a physical or chemical change.

|  |  |
| --- | --- |
| Change | Chemical or Physical change |
| Fireworks exploding | Chemical |
| Clothing drying | Physical |
| Digesting hot dog | Chemical |
| Roasting marshmallows | Chemical |
| Chopping wood | Physical |
| A sheet of paper crumpled into a ball. | Physical |
| A sheet of paper is torn in two pieces | Physical |
| A sheet of paper is set on fire and burns to ashes | Chemical |
| Steel wool is placed in a glass of salty water. The steel wool rusts. | Chemical |
| A sheet of flexible, colourless plastic is left outside, in bright sunlight, and becomes yellow and brittle over time. | Chemical |
| A teaspoon of white sugar dissolves in a glass of warm water. | Physical |
| Vinegar is poured over a teaspoon of baking soda. The white baking soda fizzes and bubbles form. | Chemical |
| A red-hot nail is inserted into a large block of ice. Steam forms as the nail contacts the block and water flow away from the nail. | Physical |
| A scoop of ice cream falls on the side walk and melts into a puddle | Physical |