Yr 8 Science. Physical versus Chemical change

Lighting a match is an *exothermic* reaction (i.e. it gives off heat); what *else* does it give off? _____
Is lighting a match *reversible* or *irreversible* ? _____
Is there a colour change involved in lighting a match?_____
So, does lighting a match involve a *physical* or a *chemical* change?_____

When you melted ice on Monday, from *where* did the energy come to melt the ice? _____
Can the melting of ice be *reversed* ? _____
If your prac went long enough, the water boiled; can the boiling of water be *reversed* ? _____
What is the *name* of the process in which steam turns back into liquid H_2O ? _____
So, does melting ice involve a *physical* or a *chemical* change?_____

When an apple is cut, an oxidation reaction occurs; the enzyme polyphenol oxidase reacts with oxygen in the air.
Is the *cutting* of the apple a *physical* or a *chemical* change? _____
If the cut apple is left for a few hours, does a *chemical* change or a *physical* change occur? _____
Is this enzyme reaction *reversible* or *irreversible* ? _____
So, is the browning of an apple a *chemical* change or a *physical* change? _____

Is the frying of an egg a *physical* change or a *chemical* change ? _____
How do you *know* ? _____

When a few drops of iodine solution are added to starch solution, the contents of the beaker change from milky white to blue-black.
Is this reaction *reversible* or *irreversible* ? _____
So, does the addition of iodine to starch cause a *chemical* change or a *physical* change? _____

Glow-sticks contain a glass vial with hydrogen peroxide. Phenol oxalate and dye are the other substances in the plastic tube. When the stick is bent, the glass vial is broken and the substances mix.
Is this reaction *reversible* or *irreversible* ? _____
So, does the breaking of the vial cause a *chemical* change or a *physical* change? State <u>two</u> pieces of evidence to support your answer. _____because_____

When hydrochloric acid is added to magnesium, it forms magnesium chloride and flammable hydrogen gas.
Is this reaction *reversible* or *irreversible* ? _____
So, does the addition of this acid to this metal cause a *chemical* change or a *physical* change? State <u>two</u> pieces of evidence to support your answer. _____because_____

Sodium thiosulphate ($Na_2S_2O_3$) is used to clean pools and spas. If this reaction occurs in a beaker, the reaction absorbs heat and so you'll feel the beaker get colder ---- this is an *endothermic* reaction.
Is this reaction *reversible* or *irreversible* ? _____
So, does the addition of sodium thiosulphate to water cause a *chemical* change or a *physical* change? _____

When iodine crystals are heated, they change directly to a toxic gas.
What is the *name* of this change of state? _____
Is this change of state *reversible* or *irreversible* ? _____
Are any new products formed when iodine crystals are heated ? _____
So, does heating iodine crystals involve a *physical* or a *chemical* change ?_____

Does microwaving popcorn cause a *chemical* change or a *physical* change? _____
How do you *know* ? _____

'Slime' can be made by mixing a saturated borax solution with a PVA-based glue (like Clag).
Is this reaction *reversible* or *irreversible* ? _____
So, does the making of 'slime' involve a *chemical* change or a *physical* change? _____