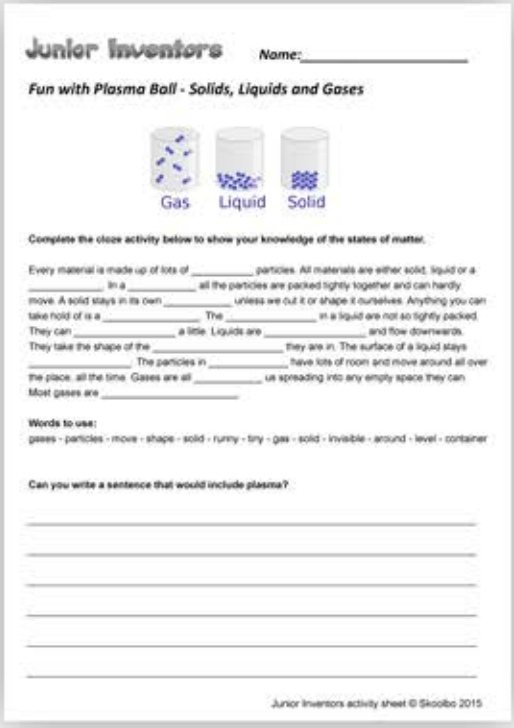
Fun with Plasma Ball



Junior Inventors Name:_____

Fun with Plasma Ball - Solids, Liquids and Gases

Gas Liquid Solid

Complete the cloze activity below to show your knowledge of the states of matter.

Every material is made up of lots of _____ particles. All materials are either solid, liquid or a _____. In a _____ all the particles are packed tightly together and can hardly move. A solid stays in its own _____ unless we cut it or shape it ourselves. Anything you can take hold of is a _____. The _____ in a liquid are not so tightly packed. They can _____ a little. Liquids are _____ and flow downwards. They take the shape of the _____ they are in. The surface of a liquid stays _____. The particles in _____ have lots of room and move around all over the place, all the time. Gases are all _____, us spreading into any empty space they can. Most gases are _____.

Words to use:
gases - particles - move - shape - solid - runny - tiny - gas - solid - invisible - around - level - container

Can you write a sentence that would include plasma?

Junior Inventors activity sheet © Skoolbo 2015

If you have access to a plasma ball, *spend time observing its movement and attraction to items such a fingers and fluorescent lights.*

Lesson Sequence:

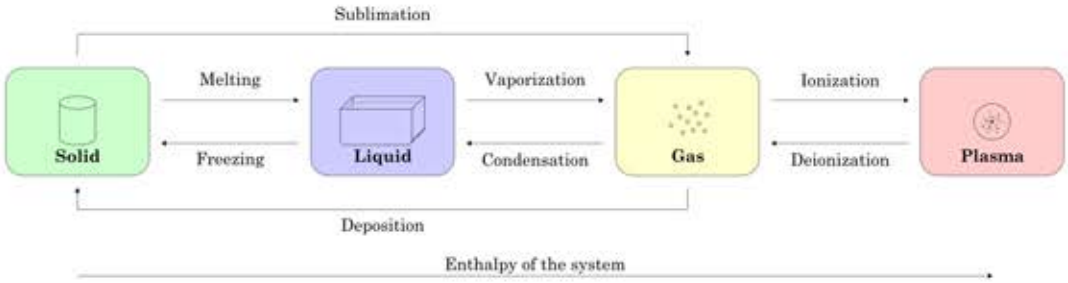
Prior Knowledge: Complete a bus stop activity - students rotate around 4 large pieces of paper, writing down their knowledge, wonderings and images prompted by each word solid, liquid, gas and plasma.

Tuning in: Share the prior knowledge charts. Find common ideas and write an overall class definition for each. Identify any misconceptions to prompt further lessons. Ensure students understand plasma in the blood is different to plasma, a state of matter.

Finding Out: Together read the article, Fun with Plasma Balls and watch the video of states of matter. Locate other school resources about matter and research add to or modify the definitions previously written. Read about the plasma ball and watch the video in the Digging Deeper section.

Activity Sheet: Students complete the cloze activity to consolidate their understanding of solids, liquids and gases.

Co-construct and the display the following chart



TIPS TO SUPERCHARGE YOUR LESSON

Make a table showing the way plasma can be seen.

- Astrophysical plasma: all stars, solar wind, space between planets, star systems and galaxies.
- Terrestrial plasma: lightning, auroras, extremely hot flames.
- Artificially produced: plasma TV's, fluorescent lighting and plasma torch for welding.

Read books about lightning and auroras. Model the atoms within solids, liquids and gases.

Solids: linked arms standing in a tight group.

Liquids: Still in a group, not linked and moving slow.

Gases: Not linked, spread out and moving faster, at times colliding.