

What is Platinum?

Platinum is a chemical element with the symbol Pt. It is considered a noble metal which means it has a high resistance to high temperatures and oxidation. It is a silver white metal once known as white gold.

It is heavy, soft, malleable and ductile, this means it is easy to work with and to draw into wires. It has a high melting point.

Where does it come from?

Platinum comes from deep underground. It is found uncombined in alluvial deposits. Platinum mainly comes from Russia and South Africa.

80% is mined from South Africa and 20% is mined in Russia. It is also found in small amounts.

How is it mined?

Platinum Ore occurs deep underground. To extract the mineral rich material miners pack explosives into holes drilled into the rock. It is blasted into smaller pieces and transported to the surface for processing. Extracting platinum from ore is expensive and labor intensive.



here is a picture of platinum in its natural form.

It can take up to 6 months and 7-12 tons of ore to produce 1 troy ounce (31.135 grams) of pure platinum.

Platinum

did you know?

- Platinum is non toxic and stable so it does not react with negative effects in the human body
- Used in 50% of cancer therapy drugs.
- dental work
- medical and laboratory instruments for example - pacemakers for the heart

What are the uses?

Jewellery - Because it is very strong and resistant to scratching.



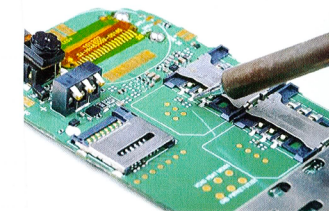
Electrical Contacts - Because it is very resistant to oxidation which makes it an excellent electrode.

Fine resistant wires - Used to control the amount of current in a circuit.



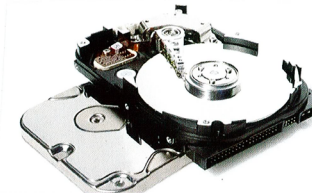
Catalytic Converters
in a car

(this reduces toxic gasses)



Circuit board

Computer hard disc



Used in comp hard discs.



CBA 1 Evaluation

Research & Analysis (The origin of the Material):

Do you think you found out all the relevant information about where the material came from? Yes as I did my reaserch and

Found all the relevant information on my material

How did you get on researching the material's origin? my dad

knew some and I got some off google.

Highlight a few areas where you can improve your investigation? 1

could probaly add more information on the cost of the material.

Properties & Applications of the Material:

Were you successful at finding out about the properties? yes

because I did my reserch and use the relevant information

Explain how you found out about the properties? I reserched

on google and asked my dad

Highlight where you can improve on these sections of the task? _____

cost of my material and add more properties

Were you happy with the way the properties section turned out? ye

half yes as I have relevant info but mybe I could of added more

How would you rate your investigation of the applications? 1 did

a lot of reserch so probaly a 8/10


Properties & Applications of the Material:

How did you get on researching the material's uses? asked my
dad and used google.

Highlight where you can improve on these sections of the task? _____
explain the uses a small bit more

Chosen Product

Do you think the product you chose was appropriate? yes as it
was very relevant to my material

Did you provide detailed information on why the product needs the material to work? I took a lot of time to research
to find good, relevant information

What new skills did you learn in this task? how to add
more and explain your answers much better

What aspects of the task went well? how is it mined & uses
because there is good information and pictures
on them

What aspects of the task could have went better? in my opinion
they were all decent with good questions and
answers

Did you find the task good for your learning? yes, very much
because I learned learned how to give proper
information and good answers

Did you find the task enjoyable? yes I thought it was
fun and a nice change to other classwork

Teacher Annotations

Very effect approach taken to researching the topic of platinum which allowed for an in-depth analysis of the findings.

There was a very good understanding of where the material is used in everyday engineering scenarios.

The Classroom-Based Assessment is evaluated to a high level and shows an appreciation of where the material comes from.

The information is presented to a very high standard and there was careful consideration taken to what was needed to be presented

Overall Judgement

Above expectations

