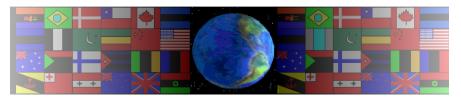
REVISION CARDS - NYLON

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On behalf of The World Association of Technology Teachers

W.A.T.T.



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DEVELOPMENT OF NYLON



1935 - a team of chemists at DuPont, led by Wallace Carothers, developed nylon66.

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1. Who led the research team that developed nylon and what company did he work for?

Physical Properties: An excellent insulator, often found inside electrical products. Strong, durable and tough, with very little 'give'. Produces very little friction and can be used as a material for plain bearings, as it does not need lubrication. It is resistant to corrosion.

Machinability: Can be machined into precision parts, using standard engineering equipment, such as centre lathes and milling machines. It can be cast, injection moulded and extruded, which allows it to be manufactured into a vast range of precision products.

PRACTICAL APPLICATION **NYLON**

Nylon is now used in a wide and varied range of products. These include nylon nuts, bolts, washers, screws, tools, packaging and even parts for cars. The list is endless and includes clothing textiles.



MANUFACTURE - NYLON FIBRE

Produced when equal volumes of a diamine acid and a dicarboxylic acid are carefully and slowly poured together.

Oil based (diamine) and floats on the top of the other, water based chemical dicarboxylic. A delicate film forms where the two chemicals meet (called the (Polyamide) 'interface'). Film removed using tweezers, producing a continuous nylon

thread. ← diamine acid ✓—INTERFACE ← dicarboxylic acid

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2 marks

Nylon

NAME:	COMPANY:	
2.List six products manufactured from nylon.	6 marks	
3.Describe three physical properties possessed by	nylon. 3 <i>marks</i>	