LIVERPOOL PHYSICS OLYMPICS





Rank

Genetic Code

Do not write below line

Team		Result					
			1	2	3	4	
Ranking	The ranking order will be determined by the time taken to correctly identify the genetic code, with a 5 minute penalty for each incorrect identification.						
Time limit	10 minutes preparation plus 15 minutes communication.						
Conditions	Once the team pairs have separated into locations <i>A</i> and <i>B</i> , they cannot regroup to discuss tactics.						
Method	1 signal generator plus loudspeaker (per team) After 10 minutes to discuss tactics, each team splits into two pairs (<i>A</i> and <i>B</i>) sited at different locations. Pair <i>A</i> is given the genetic code (an explanation of the elements of the code is given on a separate sheet). Pair <i>A</i> must then communicate this information to pair <i>B</i> using an audio signal generator connected to a loudspeaker that all the teams can hear.						
Apparatus	1 signal genera	ator plus louds	speaker (p	er team)			
Aim	To transmit a genetic code from one pair of team members to the other using an audio signal.						

There are 20 amino acids

Ala	Arg	Asn	Asp
Cys	Gln	Glu	Gly
His	Ile	Leu	Lys
Met	Phe	Pro	Ser
Thr	Trp	Tyr	Val

You will be transmitting two sequences, each comprising four amino acids