Handout 31. How to encode and decode a binary message

Instruction
Suggest a correspondence table: fill in the table below by linking each five-bit combination to a character:

5 bits	00000	00001	00010	00011	00100	00101	00110	00111
Letter								

5 bits	01000	01001	01010	01011	01100	01101	01110	01111
Letter								

5 bits	10000	10001	10010	10011	10100	10101	10110	10111
Letter								

5 bits	11000	11001	11010	11011	11100	11101	11110	11111
Letter								

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This is the correspondence table we will use going forward:

5 bits	00000	00001	00010	00011	00100	00101	00110	00111
Letter	A	B	C	D	E	F	G	H

5 bits	01000	01001	01010	01011	01100	01101	01110	01111
Letter	I	J	K	L	M	N	O	P

5 bits	10000	10001	10010	10011	10100	10101	10110	10111
Letter	Q	R	S	T	U	V	W	X

5 bits	11000	11001	11010	11011	11100	11101	11110	11111
Letter	Y	Z	.	Space	*No meaning (these can be used for other punctuation signs if desired)*			

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Instruction
Encode the message below in binary to tell the mission control team that the rover is ten minutes from base:

Worded message:	T	E	N		M	I	N	U	T	E	S
Message in binary code											

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Challenge: Direction
The base replied "0111001010". Decode this message.