Neptune Week 13 Answers

Literacy				
Core Targets for All Writing	What do you know already about Food and Farming?			
	All the statements are True			
	 Scotland's Farming Year – Spring Ewe – female sheep that has given birth to a lamb Calf – baby cow Livestock Farming – keep animals and usually plant grass and other crops to help feed those animals Arable Farming – grow crops like wheat, oil seed rape, oats, barley and vegetables for us to eat Precision Farming – when farmers use satellite navigation systems to make sure seeds get sown as efficiently as possible Nutrients – foods that plants use and get from the soil Crop Rotation – where the farmer grows a different crop in a field every year (e.g. over a 7-year period) and then repeats the cycle Fertiliser – helps to replace the nutrients in the ground Deep Ridging – where a machine removes the stones from the soil and lays them either side of raised beds 			

Maths on the Farm	Farmer Gump's Fields	
https://www.rhet.org.uk/media/1516/maths-worksheet-rev1.pdf		
	Field 1:	Fencing Costs
1. 32 litres per cow	P = 2 x (10m + 10m) = 40m	Field:
	A = 10m x 10m = 100m ₂	1) $40 \times £16 = £640$
2. 290 x 32 = 9280 litres of milk		2) 60 x £16 = £960
	Field 2:	3) 70 x £16 = £1120
3. 6 x £3 = £18 entry	P = 2 x (25m + 5m) = 60m	4) 58 x £16 = £928
$f_2 \times 1 = f_2, f_5 \times 2 = f_{10}, f_{10} \times 3 = f_{30}$	A = 25m x 5m = 125m ₂	5) 42 x £16 = £672
f2 + f10 + f30 = f42		6) 146 x £16 = £2336
£42 - £18 = £24 profit	Field 3:	7) 90 x £16 = £ 1440
4. i) 2/8 of 16kg ii) 3/8 of 16kg iii) 1/8 of 16kg	P = 70m	
$16 \div 8 = 2$ kg $16 \div 8 = 2$ kg $16 \div 8 = 2$ kg	A = 300m ₂	Total Fencing Cost = £8096
2kg x 2 = 4 kg 2kg x 3 = 6kg 2kg x 1 = 2kg		
b) 1 day = 4kg 16÷4 = 4 days	Field 4:	Number of sheep in each field:
	P = 58m	1) 10 sheep
5. 03.00am – 05.30 = 2.5 hours	A = 198m ₂	2) 12 sheep
12.30 – 14.15 = 1.45 hours		3) 30 sheep
19.45 – 21.00 = 1.15 hours	Field 5:	4) 19 sheep
Total = 5½ hours	P = 42m	5) 10 sheep
	A = 108m ₂	6) 115 sheep
6. a) 140:20 14:2 7:1		7) 47 sheep
b) 25:15 5:3	Field 6:	
·,	P = 146m	Total Number of sheep = 243 sheep
7. Andersons: 2 packets, 2 x £1.80 = £3.60	A = 1150m ₂	Cost of sheep = 243 x £65 = £15795
Marshalls: 4 packets, $4 \times \pm 0.80 = \pm 3.20$		
Country Corner: 8 packets, 8 x £0.50= £4	Field 7:	TOTAL COST
Marshall's is the cheapest place for the farmer to buy his tomato seeds	s P = 90m	£8096 + £15795 = £23891
	A = 476m ₂	
8. Potato = 40% = 40/100 = 4/10 = 2/5		
Leek = 30% = 30/100 = 3/10		
Strawberries = 25% = 25/100 = 1/4		
Carrots = 5% = 5/100 = 1/20		

