

Sea and Learn – Lesson Plan: HMS Victory Facts 'n' Figures

Key Stage: Three

National Curriculum Links: Ma2 1b, 1e; 2a, 2d; 3a, 3h, 3o, 3q; 4a, 4c
Ma3 1b, 1c; 4a

Main Subject Focus: Mathematics

Learning Outcomes:

Children will:

- Be able to use conversion methods to solve problems.
- Be able to use a calculator with increasing accuracy.
- Have an understanding of the Imperial and Metric system.

Resources Required:

- Calculators
- OHP Calculator and OHP or Microsoft Calculator and Laptop/Projector
- Copies of Worksheet 1 and 2

Lesson Outline:

1. Begin by looking discussing the Imperial and Metric system and how both are still in use today.
2. Use an OHP calculator (or MS Calculator if using a laptop) to show how to convert simple measurements like inches to cm (multiply by 2.54) and back again (divide by 2.54). Do some example questions altogether.
3. Look at Worksheet 1 and talk through the conversions. Remind children about using calculators accurately and to check their answers. Also remind them to round their answers to two decimal places.
4. Once Worksheet 1 is complete, check the answers altogether and demonstrate the conversions needed using the OHP calculator (or MS Calculator if using a laptop).
5. Now ask children to complete Worksheet 2, once again using their calculators carefully and accurately, where necessary. Encourage children to use pencil and paper methods for questions 1, 2, 7, 8 and 9.
6. Finally, check through the answers altogether and discuss their answers for question 4.

Extension/Homework Ideas:

- Ask children to create their own maths worksheet for younger children to learn about simple conversions from imperial to metric.

Sea and Learn – Worksheet 1

HMS Victory Facts 'n' Figures

Use a calculator to help you convert these facts about HMS Victory.

	Feet	Metres
Length (bow to stern)	226.5	
Length of lower gun deck	186	
Length of keel	151	
Length of bowsprit	110	
Length of foremast	182	
Length of mainmast	205	
Length of mizzenmast	152	

	Yards²	Metres²
Sail coverage	16000 yds ²	

	Tons	Kilograms
Salt beef	25	
Salt pork	30	
Dried peas	15	
Biscuits	45	
Flour	10	
Butter	2	
Cheese	2	
Beer	50	
Water	300	
Fuel for galley stove	50	
Cannon Balls	120	
Gunpowder	36	
Spare Timber	50	

Information from: *Admiral Lord Nelson & HMS Victory* by Peter Green

To convert from feet to metres:

multiply feet by 0.3048
E.g. 5ft x 0.3048 = 1.524 m

To convert from yards² to metres²:

multiply yards² by 0.8361
E.g. 5 yds² x 0.8361 = 4.1805 m²

To convert from tons to kilograms:

multiply tons by 1016.05
E.g. 5 tons x 1016.05 = 5080.25 kg

Sea and Learn – Worksheet 2

Now answer the following questions:

1. What is the combined length of the foremast, the mainmast and the mizzenmast in:

Feet? _____

Metres? _____
2. There are 850 crewmembers onboard. How many kilograms of biscuits would each sailor be entitled to?

3. Which item did HMS Victory carry the most of and how heavy was it in kilograms?

4. Why did HMS Victory have so much of this item? Can you give reasons why so much was stowed onboard?

5. What form of measurement would you usually use for this item?

6. Part of a sailor's food allowance was 1 pound of bread per day, 1 gallon of beer per day and 7 ounces of sugar per week. Can you convert these into metric measurements?

BREAD (pounds to kilograms = multiply by 0.45359) _____

BEER (gallons to litres = multiply by 4.546) _____

SUGAR (ounces to grams = multiply by 28.349) _____
7. Reloading a gun (cannon) on HMS Victory could be achieved in 90 seconds. How long would it take to fire 10 shots?

8. HMS Victory was launched from Chatham Dockyard in 1765. How old is HMS Victory this year?

9. HMS Victory was placed in dry dock in 1922. How many years ago was this?

10. The statue of Nelson in Trafalgar Square, London weighs 16 tons. How much is this in kilograms?
