



Holy Family Community School

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NUMERACY POLICY – JUNE 2015

"Numeracy is a Proficiency which involves confidence and competence with numbers and measures. It requires an understanding of the numbers system, a repertoire of computational skills and an inclination and ability to solve number problems in a variety of contexts. Numeracy also demands practical understanding of the ways in which information is gathered by counting and measuring, and is presented in graphs, diagrams, charts and tables."

National Framework for teaching Mathematics

MISSION STATEMENT:

Holy Family Community School is committed to raising the standards of Numeracy of all its students, so that they develop the ability to use Numeracy skills in all areas of the curriculum and the skills necessary to cope confidently with the demands of further education, employment and adult life.

OBJECTIVES ACHIEVED SO FAR:

- National Maths Week held in October 2014 consisting of a quiz, puzzles and posters to raise awareness of numeracy across all year groups.
- Maths Homework Club was created to aid mainly 1st year students with the completion of difficult topics in Maths and to help students catch up on material.
- All Ireland Linguistics Olympiad is a competition for higher ability students based on numeracy and problem solving. In 2014, we entered 23 students and one student reached the top 100 students in the country.
- Kangaroo Maths Ireland is an online Mathematics challenge. It contains numerous resources and allows students to compete in an internationally recognized competition. We have entered this challenge in 2013 and in 2014. This year we had 26 students competing and we were awarded with six silver, thirteen bronzes and seven participation awards.
- First Year Common Testing and Standardised Marking were introduced in 2014 and have been used to assess students and establish a baseline. From this examination, the Maths Department can identify and focus on certain topics/areas that need improving.

- Key Words were the main focus within the teaching of Maths classes this year. The definition of key words is taught to students to aid them with the understanding of questions. A list of keywords is attached in the appendix.
- Number Lines have been created and displayed in the main Maths classrooms.
- Posters (Maths Eyes) and Project Maths posters have been displayed around the school to create awareness of numbers in everyday life.
- A Numeracy folder has been created on staff common. This folder, on the school server, contains Maths resources for other subjects in which Maths are a main component.

SPECIFIC STRATEGIES FOR FUTURE IMPLEMENTATION:

- A Peer Teaching System where Transition Year students would be paired with a first year student to meet and help with Maths homework or difficult topics.
- A Maths dictionary to develop a booklet of key words and definitions that students will need on a regular basis. This will form the basis of a TY Maths project.
- To ensure that all class teachers take positive steps to encourage numeracy in all subject areas.
- Students asked to record in their subject copy where numeracy occurs in each subject at the beginning of the school year to raise awareness of numeracy.
- Invite in guests speakers and Universities to talk about the applications of Maths in everyday life.
- Promoting of World Maths Day (14th of October 2015) and National Pi Day (14th of March 2016).
- An award system to be developed for students who continue higher level Maths up to Junior Certificate and gain good grades.
- A Maths/Numeracy notice board will be re-established where notices and puzzles can be posted.
- To further develop students' time management skills and deadlines in relation to studying and project work.

THE NUMERACY TEAM HAS OUTLINED BELOW A RANGE OF DAILY STRATEGIES THAT EACH DEPARTMENT CAN IMPLEMENT FOR THEIR SUBJECT AREA:

School Department:	Possible Strategies for Numeracy in the Classroom:	Midpoint Review of Implementation:
<u>Art</u>	Sculptures, 2D/3D shapes, Dates and periods – Art History Scale Factors, Dimensions, Shape and Illusions.	
<u>Business:</u>	Accounts, Formula for tax, interest etc, Revenue, deductions, graphs, Earnings, profit/loss.	
<u>CSPE</u>	Census information, Employment/unemployment rates, Memberships – EU, Populations, Currencies, Key dates.	
<u>English</u>	Poetry (various types i.e. sonnets 14 lines, limericks 7 lines etc), Poets – years lived, number of works written, Features of poetic writing – Iambic Pentameter, Rhyming.	
<u>French</u>	Counting(numbers) Addresses, Timetables, Telling time.	
<u>Gaeilge</u>	Counting(numbers) Addresses, Timetables, Telling time.	
<u>Geography</u>	Backdating of rocks, Measuring volcanic activity(seismometer), Measuring earthquakes, Reading maps (Latitude, Longitude)	
<u>German</u>	Counting(numbers) Addresses, Timetables, Telling time.	
<u>History</u>	Dates and periods of time, Key dates in History, Sense of number(dating), Measurement, Backdating – fossil samples.	

<u>Home Economics</u>	Measurements (cooking/ingredients, litres, millilitres), Measurements (sewing) Time Management, Temperature Control	
<u>LCVP</u>	Business Statistics Time Management Tables Dates	
<u>Material Technology (Wood)</u>	Measurements (for cutting/sanding), Tool sizes – drill bits, screws. Accuracy and Estimation.	
<u>Maths</u>	All areas of Mathematics refer to numeracy.	
<u>Metalwork:</u>	Measurements (for cutting/filing/drilling), Tool sizes – drill bits, screws	
<u>Music</u>	Scales, Cadences/chord progressions, Dates (Music History), Recognition of musical features (Aural Learning),	
<u>PE</u>	Running (laps) Scoring points(football, basketball, hurling), Beep tests,	
<u>RE</u>	Dates. Measurement. Population. Statistics.	
<u>Science</u>	Lab Work (Experiments), Acids (PH Scale), Periodic Table (Element with atomic numbers), Chemistry – structuring atoms, molecules and balancing equations, Working with units (litres, millilitres, concentrations), Graphing & Charts, Transposing and Manipulating of formulae, Reading quantities from equipment, Quantitative surveys, Working with scientific notation, Percentages and Percentage Error, Making up solutions to a given concentration.	

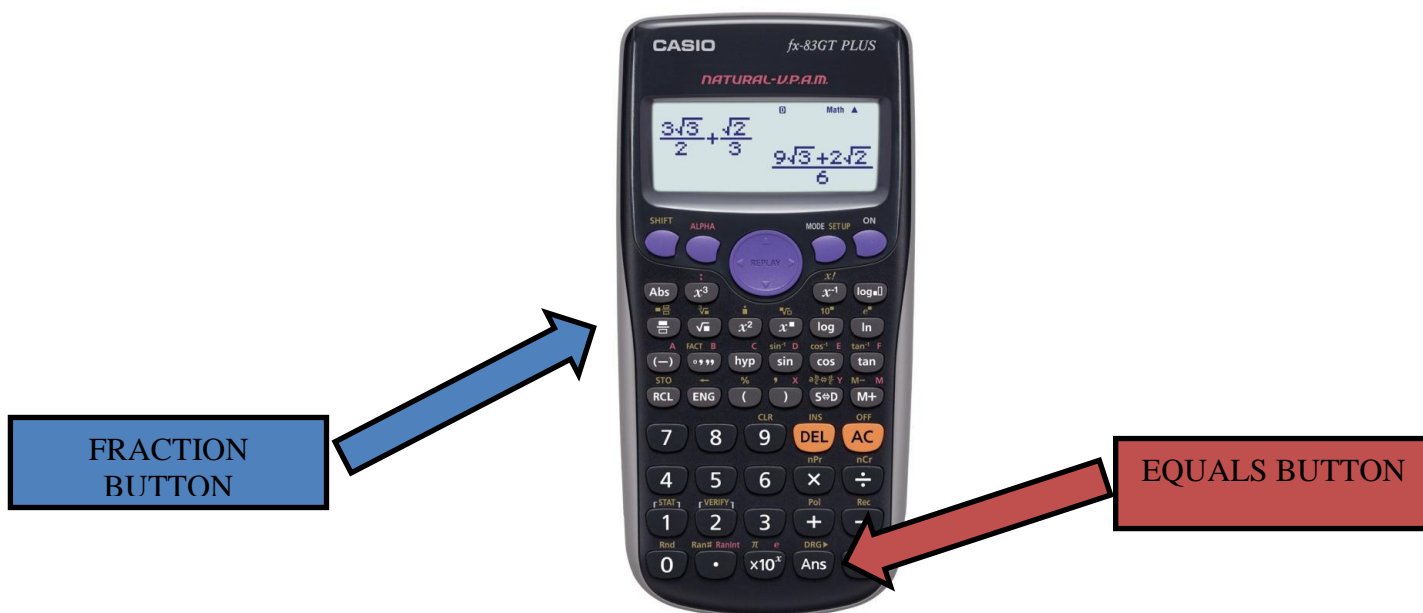
APPENDIX: HOW TO CALCULATE PERCENTAGES FROM DECIMALS:

Example: If a student get 24 marks out of 40 marks:

Then using a calculator and press the fraction button (highlighted in blue) type in $\frac{24}{40}$ and then press the equals button (highlighted in red) and then to convert to a percentage multiply your answer by 100.

This is then your answer as a percentage.

Answer: 60%



APPENDIX: LIST OF FIRST YEAR KEYWORDS:

<u>BAR CHART</u>
<u>BIAS</u>
<u>CATEGORICAL DATA</u>
<u>CHANCE</u>
<u>CONTINUOUS DATA</u>
<u>DATA</u>
<u>DISCRETE DATA</u>
<u>ELEMENT</u>
<u>EQUAL</u>
<u>FREQUENCY</u>
<u>HORIZONTAL</u>
<u>INTERSECTION</u>
<u>LIKELY</u>
<u>LINE PLOT</u>
<u>NOMINAL DATA</u>
<u>NULL</u>
<u>NUMERICAL DATA</u>
<u>OUTCOME</u>
<u>ORDINAL DATA</u>
<u>POPULATION</u>
<u>PRIMARY DATA</u>
<u>QUESTIONNAIRE</u>
<u>RANDOM</u>
<u>REPRESENTATIVE</u>
<u>SAMPLE</u>
<u>SCALE</u>
<u>SECONDARY DATA</u>
<u>STEM & LEAF PLOT</u>
<u>SUBSET</u>
<u>SURVEY</u>
<u>TABLE</u>
<u>UNION</u>
<u>UNIVERSAL SET</u>
<u>VENN DIAGRAM</u>
<u>VERTICAL</u>