

National 4 Mathematics

REPORT 1

Resources to support achieving SMART Targets

Knox Academy

NUMERACY AND COMPUTING FACULTY



Expanding Brackets		Multiplying out single brackets	https://youtu.be/giz6BZQigXI
		Multiplying single brackets & simplifying	https://youtu.be/Z5QR4inbtlo
		Multiplying single brackets by letters	https://youtu.be/dhXbRivGaXU

Factorising		Factorise with numerical common factor	https://youtu.be/zvOTicC5OIY
		Common factor as a letter	https://youtu.be/5DkQxg7L_qM
		Common factor as a number and a letter	https://youtu.be/v5Hy4qczyXw

Simplifying Expressions		Gathering like terms – positive terms	https://youtu.be/x0TvwAW39E2w
		Gathering like terms – negative terms	https://youtu.be/lkIhD1WP5zY
		Gathering like terms – squared/cubed	https://youtu.be/pGynlBMZBRA

Evaluating Formulae		Substitution – basic expressions	https://youtu.be/yVnrqsr4Eg8
		Substitution – harder expressions	https://youtu.be/tMj8Gy-HU5s
		Substitution – with negatives & powers	https://youtu.be/xp4uISbpH6Y

Sequences		Linear patterns	https://youtu.be/VO9W-mOw5VE
		The nth term for increasing sequences	https://youtu.be/SWoX08SqtFO
		The nth term for decreasing sequences	https://youtu.be/9Nuo2zkVMNI

Gradient		Calculating the gradient of a slope	https://youtu.be/OO3Na4jehOo
		Calculating the gradient of a slope	https://youtu.be/iLu6AaQDZLg
		The gradient between two points	https://youtu.be/1hSAi6gewgg

Circumference and Area		Circumference of a circle	https://youtu.be/LOi7uXtNhB4
		Calculating the diameter of a circle	https://youtu.be/usccnPVT04
		The perimeter of a composite shape	https://youtu.be/sKhKLSHDIV4
		Area of a circle	https://youtu.be/r5ISMehBKvQ
		Calculating the radius of a circle	https://youtu.be/7pTicaydJl0
		The area of a composite shape	https://youtu.be/iGM6JaHelOM

Trapezium		Area of rectangle, square & parallelogram	https://youtu.be/yQ3RRSvUJww
		Area of a triangle, rhombus & kite	https://youtu.be/FhHDQdk12qo
		Area of a trapezium	https://youtu.be/8nkAdKhtyBc

Surface Area		Surface area of a cube	https://youtu.be/JnDugyXhRao
		Surface area of a cuboid	https://youtu.be/uzCWHCnQSQY
		Surface area of a cylinder	https://youtu.be/iUXABdX0INs

Volume of a Cylinder		Volume of a prism	https://youtu.be/zcdvFkfxMp4
		Volume of a prism	https://youtu.be/GPYP9JefBzU
		Volume of a cylinder – using a formula	https://youtu.be/VtmASOog_IY