Gludwch Yma
Glue Here



Uned 1: Dechrau Ysgol Uwchradd
Unit 1: Starting Secondary π

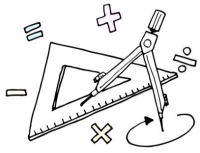
Dylech chi wybod...
- ❑ Y rhifau hyd at 1 mil
- ❑ Sut i adio/tynnu'n y pen
- ❑ Eich tablau lluosi (1 i 12)
- ❑ Beth yw ffracsiwn, degolyn a chanran
- ❑ Amser a chlociau

You should already know...
- ❑ *Numbers up to 1 thousand*
- ❑ *How to mentally add/subtract*
- ❑ *Your times tables (1 to 12)*
- ❑ *What a fraction, decimal and a percentage is*
- ❑ *Time and Clocks*



Key Words/ Geiriau Allweddol
- Add - **Adio**
- Subtract - **Tynnu**
- Multiply - **Lluosi**
- Divide - **Rhannu**
- Equivalence - **Cywerthedd**
- Fraction - **Ffracsiwn**
- Decimal - **Degolyn**
- Percentage - **Canran**
- Ascending - **Esgynnol**
- Descending - **Disgynnol**

Offer/ Equipment
- ❑ Pen Ysgrifennu / Writing Pen (Glas,Du / *Blue, Black*)
- ❑ Pensil / *Pencil*
- ❑ Pren Mesur / *Ruler*
- ❑ Pen Marcio / *Marking Pen* (Gwyrdd/*Green*)



Pam? I ddod yn ddysgwyr sydd yn

… datblygu corff o wybodaeth a sydd â'r sgiliau sydd eu hangen i gysylltu'r wybodaeth honno a'i chymhwyso mewn gwahanol gyd-destunau.

… wynebu heriau ac yn eu goresgyn.

Why? To become learners who

… are building up a body of knowledge and have the skills to connect and apply that knowledge in different contexts.

… face and overcome challenge.



Uned 1: Dechrau Ysgol Uwchradd

Yn yr uned hon byddwch yn dysgu...
- ❑ Sut i ddefnyddio'r dull colofn ar gyfer adio/tynnu i ddatrys problemau
- ❑ Sut i ddefnyddio dulliau lluosi Esgyrn Napier i ddatrys problemau a rhannu Hir/Byr i ddatrys problemau
- ❑ Sut i ddefnyddio gweithrediadau gwrthdro i wirio'ch cyfrifo a'ch atebion
- ❑ Cysyniad gwerth lle a sylfaen 10
- ❑ Cysyniad cywerthedd â gwerth lle (ffracsiynau, degolynnau a chanrannau)
- ❑ Sut i drefnu a throsi rhwng gwerth lle
- ❑ Sut i gyfrifo ffracsiynau o swm
- ❑ Sut i gyfrifo canrannau o swm

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Yn eich dyfodol...
- Defnyddio pres.
- Gweithio mewn siop/bwyty.
- Gweithio ym maes cyllid neu gyfrifeg.
- Swyddi ymarferol fel swyddi adeiladu.

Unit 1: Starting Secondary



In this unit you will learn...
- ❑ How to use the column method for adding/subtraction to solve problems
- ❑ How to use Napier's Bones multiplication methods to solve problems and Long/Short division to solve problems
- ❑ How to use inverse operations to check your working out and answers
- ❑ The concept of place value and base 10
- ❑ The concept of equivalence with FDP (fractions, decimals and percentages)
- ❑ How to order and convert between FDP
- ❑ How to calculate fractions of an amount
- ❑ How to calculate percentages of an amount

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In your future...
- Any career involving **money**.
- Working in a **shop/restaurant**.
- Working in **finance** or **accountancy**.
- Practical jobs such as **building** jobs.

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Uned 2: Algebra yn y Byd
Unit 2: Algebra in the Real World

Dylech chi wybod...

1. Sut i ddefnyddio arwyddion hafal ac anhafaledd
2. Sut i ddefnyddio gweithrediadau gwrthdro mewn peiriannau rhif.
3. Y gwahaniaeth rhwng arwynebedd a pherimedr
4. Enwanu siapiau 2D

You should already know...

1. *How to use equals and inequality signs*
2. *How to use inverse operations in number machines*
3. *The difference between area and perimeter*
4. *The names of 2D shapes*

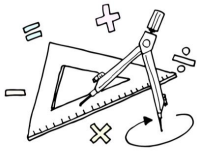


Offer/ *Equipment*

- ❑ Pen Ysgrifennu / Writing Pen (Glas,Du / *Blue, Black*)
- ❑ Pensil / *Pencil*
- ❑ Pren Mesur / *Ruler*
- ❑ Pen Marcio / *Marking Pen* (Gwyrdd/*Green*)

Key Words/ Geiriau Allweddol

- Simplify - **Symleiddiwch**
- Expand - **Ehangu**
- Solve - **Datrys**
- Factorise - **Ffactoriwch**
- Substitute - **Eilydd**
- Formula - **Fformiwla**
- Area - **Arwynebedd**
- Perimeter - **Perimedr**



Pam? I ddod yn ddysgwyr sydd yn

...datblygu corff o wybodaeth a sydd â'r sgiliau sydd eu hangen i gysylltu'r wybodaeth honno a'ich ymhwyso mewn gwahanol gyd-destunau.

...yn cwestiynu ac yn mwynhau datrys problemau.

Why? To become learners who

... are building up a body of knowledge and have the skills to connect and apply that knowledge in different contexts.

... are questioning and enjoy solving problems.



Uned 2: Algebra yn y Byd

Yn yr uned hon byddwch yn dysgu...

- ❑ Sut i ddefnyddio **peiriannau rhif.**
- ❑ Beth yw **rhifau sgwâr, ciwbiau a phwerau.**
- ❑ Sut i gyfrifo **arwynebedd** a **pherimedr** siapiau 2D.
- ❑ Beth a olygir gan **nodiant algebraidd**, **cydraddoldeb** a **chymudoledd**.
- ❑ Sut i **symleiddio** mynegiadau.
- ❑ Sut i **ehangu** a **ffactorio (U)** cromfachau sengl.
- ❑ Sut i ddatrys **mynegiadau** algebraidd 1 a 2 gam syml.
- ❑ Sut i ddefnyddio amnewid a **fformwlâu geiriau** i ddatrys problemau.
- ❑ Sut i ffurfio **hafaliadau** ac **aildrefnu** i ddatrys problemau.

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Yn eich dyfodol...

- Cynghorydd Ariannol
- Pensaer tirwedd neu Goedwigwr
- Peiriannydd neu blymwr
- Mathemategydd

Unit 2: Algebra in the Real World



In this unit you will learn...

- ❑ *How to use **number machines.***
- ❑ *What are **square numbers, cubes and powers.***
- ❑ *How to calculate **area and perimeter** of 2D shapes.*
- ❑ *What is meant by **algebraic notation, equality** and **commutativity.***
- ❑ *How to **simplify** expressions.*
- ❑ *How to **expand and factorise (H)** single brackets.*
- ❑ *How to **solve** simple 1 and 2 step algebraic equations.*
- ❑ *How to use **substitution** and **word formulae** to solve problems.*
- ❑ *How to form equations and **rearrange** to solve problems.*

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In your future...

- *Financial Advisor*
- *Landscape Architect or Forester*
- *Engineer or Plumber*
- *Mathematician*

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Uned 3: Casglu a Dadansoddi Data
Unit 3 : Collecting and Analysing Data

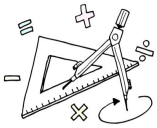
Dylech chi wybod...
1. Sut i gynhyrchu tali
2. Sut i gasglu data gan ddefnyddio arolwg
3. Sut i blotio cydgyfesynnau yn y chwadrant cyntaf
4. Sut i ddarllen graddfeydd syml ar graff

You should already know...
1. *How to produce a tally*
2. *How to collect data using a survey*
3. *How to plot coordinates in the 1st quadrant*
4. *How to read simple scales on a graph*



Key Words/ Geiriau Allweddol
- Data – Data
- Amlder – Frequency
- Arwahanol – Discrete
- Parhaus – Continuous
- Ansoddol – Qualitative
- Cydberthynas – Correlation
- Cymedr – Mean
- Modd – Mode
- Canolrif – Median
- Amrediad – Range

Offer/ *Equipment*
- ❑ Pen Ysgrifennu / Writing Pen (Glas,Du / *Blue, Black*)
- ❑ Pensil / *Pencil*
- ❑ Pren Mesur / *Ruler*
- ❑ Pen Marcio / *Marking Pen* (Gwyrdd/*Green*)



Pam? I ddod yn ddysgwyr sydd yn
... … deall sut i ddehongli data ac ymhél â chysyniadau mathemategol.
… defnyddio technolegau digidol yn greadigol i gyfathrebu, dod o hyd i wybodaeth ac ei dadansoddi
… darganfod, dadansoddi a defnyddio tystiolaeth I roi barn.

Why? To become learners who *... understand how to interpret data and apply mathematical concepts.*
... use digital technologies creatively to communicate, find and analyse information.
… find, evaluate and use evidence in forming views.



Uned 3: Casglu a Dadansoddi Data

Yn yr uned hon byddwch yn dysgu...
- ❑ Sut i ddarllen graddfeydd cymhleth ar graffiau
- ❑ Beth a olygir gan amlder
- ❑ Sut i gynrychioli data mewn tablau amlder grwpio
- ❑ Y defnyddiau ar gyfer gwahanol fathau o graffiau a siartiau gan gynnwys bar, pei, gwasgariad, a pictogram
- ❑ Beth yw'r gwahaniaeth rhwng data arwahanol, parhaus ac ansoddol
- ❑ Beth a olygir gan gydberthynas
- ❑ Sut i gyfrifo cyfartaleddau ac amrediad
- ❑ Sut i blotio cydgyfesynnau yn y 4 chwadrant
- ❑ Sut i gymharu gwahanol fathau o ddata

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Yn dy ddyfodol...
- Dadansoddwr Data
- Busneswr
- Dadansoddwr Chwaraeon
- Gwyddonydd Data

Unit 3 : Collecting and Analysing Data



In this unit you will learn...
- ❑ *How to read complex scales on graphs*
- ❑ *What is meant by frequency*
- ❑ *How to represent data in grouped frequency tables*
- ❑ *The uses for different types of graphs and charts including, bar, pie, scatter, and pictograph*
- ❑ *What is difference between discrete, continuous and qualitative data*
- ❑ *What is meant by correlation*
- ❑ *How to calculate averages and range*
- ❑ *How to plot coordinates in the 4 quadrants*
- ❑ *How to compare different types of data*

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In your future...
- *Data Analyst*
- *Businessperson*
- *Sports Analyst*
- *Data Scientist*

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Uned 4: Mesur & Offer Mathemategol
Unit 4: Measures & Mathematical Equipment

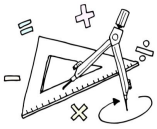
Dylech chi wybod...
1. Gwahanol fathau o onglau
2. Gwahanol fathau o drionglau
3. Sut i fesur gyda phren mesu
4. Sut i grynhoi i'r cyfanrif agosaf

You should already know...
1. Different types of angles
2. Different types of triangles
3. How to measure using a ruler
4. How to round to the nearest integer



Offer/ *Equipment*
- ❑ Pen Ysgrifennu / Writing Pen (Glas,Du / *Blue, Black*)
- ❑ Pensil / *Pencil*
- ❑ Pren Mesur / *Ruler*
- ❑ Pen Marcio / *Marking Pen* (Gwyrdd/*Green*)
- ❑ Onglydd/Protractor

Key Words/ Geiriau Allweddol
- Aciwt – *Acute*
- Aflem – *Obtuse*
- Atgyrch – *Reflex*
- Ongl Square – *Right angle*
- Cynyddau – *Increase*
- Gostyngiad - *Decrease*



Pam? I ddod yn ddysgwyr sydd yn
... meddu ar y sgiliau a'r wybodaeth i reoli bywyd bob dydd mor annibynnol ag y gallant … yn holgar ac yn mwynhau datrys problemau …
yn gallu defnyddio rhif yn effeithiol mewn amrywiaeth o gyd-destunau

Why? To become learners who ... have the skills and knowledge to manage everyday life as independently as they can
… are questioning and enjoy solving problems ...
can use number effectively in different contexts



Uned 4: Mesur & Offer Mathemategol

Yn yr uned hon byddwch yn dysgu...
- ❑ Rheolau onglau sylfaenol ar gyfer trionglau a chwadrau gwahanol (H)
- ❑ Sawl gradd sydd ar linell syth ac o gwmpas pwynt
- ❑ Sut i lunio, mesur a datrys problemau gan ddefnyddio onglau
- ❑ Sut i grynhoi i 1 ac 2 lle degol
- ❑ Sut i gynhyrchu lluniadau graddfa a datrys problemau gyda arwynebedd a pherimedr
- ❑ Sut i adio a thynnu gyda rhifau negatif
- ❑ Sut i ddatrys problemau mewn cyd-destunau bywyd go iawn gan ddefnyddio rhifau negatif
- ❑ Sut i ddatrys problemau bywyd go iawn sy'n ymwneud ag amser ac arian

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Yn dy ddyfodol...
- Gweithiwr adeiladu / saer adeiladu
- Dylunydd mewnol
- Meteorydd neu reolwr traffig awyr
- Pensaer

Unit 4: Measures & Mathematical Equipment



In this unit you will learn...
- ❑ *Basic angle rules of different triangles and quadrilaterals (H)*
- ❑ *How many degrees are on a straight line and about a point*
- ❑ *How to draw, measure and solve problems using angles*
- ❑ *How to round to 1 and 2 decimal places*
- ❑ *How to produce scale drawings and solve problems with area and perimeter*
- ❑ *How to add and subtract with negative numbers*
- ❑ *How to solve problems in real life contexts using negative numbers*
- ❑ *How to solve real life problems regarding time and money*

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In your future...
- *Construction Worker/Builder*
- *Interior Designer*
- *Meteorologist or Air Traffic Controller*
- *Architect*

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Uned 5: Gwneud Eich Lwc
Unit 5: Making Your Own Luck

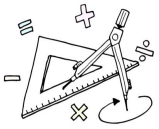
Dylech chi wybod...
1. Sut i adnabod patrymau rhifau
2. Cysyniadau rhifau od ac eilrif
3. Sut i ddefnyddio dulliau meddwl ar gyfer y pedwar gweithred (+ − × ÷)
4. Sut i ddefnyddio cyfanrifau, degolion, canrannau a ffracsiynau.

You should already know...
1. *How to recognise **number patterns***
2. *Concepts of **odd** and **even** numbers*
3. *How to use mental methods for the four operations (**+ − x ÷**)*
4. *How to use **integers** (whole numbers), **decimals**, **percentages** and **fractions.***



Key Words/ Geiriau Allweddol
- Patterns - **Patrymau**
- Odd - **Odrif**
- Even - **Eilrif**
- Integers - **Cyfanrifau**
- Linear - **Llinol**
- Formulae - **Fformiwlâu**
- Probabilities - **Tebygolrwydd**

Offer/ *Equipment*
- ❑ Pen Ysgrifennu / Writing Pen (Glas,Du / *Blue, Black*)
- ❑ Pensil / *Pencil*
- ❑ Pren Mesur / *Ruler*
- ❑ Pen Marcio / *Marking Pen* (Gwyrdd/*Green*)



Pam? I ddod yn ddysgwyr sydd yn
... gwneud dewisiadau da
am sut i fyw achadw'n ddiogel ...
cael y sgiliau a'rwybodaeth i ofalu
amdanyn nhw euhunain bob dydd
... meddwl am beth
sy'n gallu digwydd pan maen nhw' n gwneud dewisiadau

Why? To become learners who … take measured decisions about lifestyle and manage risk … have the skills and knowledge to manage everyday life as independently as they can …. Understand and consider the impact of their actions when making choices and acting .



Uned 5: Gwneud Eich Lwc

Yn yr uned hon byddwch yn dysgu...
- ❑Dysgu'r rheolau ar gyfer gwneud patrymau rhifau
- ❑Deall beth yw dilyniant syth (linol)
- ❑Dysgu am wahanol fathau o ddilyniannau
- ❑Creu fformiwlâu syml
- ❑Rhagweld y rhif nesaf mewn dilyniant
- ❑Defnyddio geiriau sy'n ymwneud â siawns
- ❑Cyfrifo siawns digwyddiad syml
- ❑Defnyddio diagramau (fel diagramau gofod sampl) i ddangos pob canlyniad posibl
- ❑Gwybod beth sydd mewn pecyn safonol o gardiau chwarae

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Yn dy ddyfodol...
- ❑ Actiwari (cyfrifo risg)
- ❑ Meteorolegydd (rhagfynegydd tywydd)
- ❑ Croupier (Rhywun *sy'n gweithio mewn casino ac yn rheoli gemau.)*
- ❑ Dadansoddwr Chwaraeon

Unit 5: Making Your Own Luck



In this unit you will learn...
- ❑ About **rules** to create number sequences
- ❑ What makes a **linear sequence**
- ❑ **Special** types of sequences
- ❑ Creating **formulae**
- ❑ How to **predict** any number in a sequence
- ❑ To use the **words associated** with chance
- ❑ How to calculate **probabilities** of **single events**
- ❑ How to use tools such as **sample space** diagrams to **list all possible outcomes**
- ❑ What a standard deck of **playing cards** contains

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In your future...
- ❑ Actuary (Risk Calculator)
- ❑ Meteorologist (Weather Forecaster)
- ❑ Croupier (Casino Worker)
- ❑ Sports Analyst

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Uned 6: Mynd Trwy Newidiadau
Unit 6: Going Through Changes

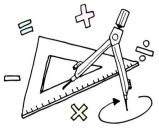
Dylech chi wybod...
- Sut i gyfrifo arwynebedd a pherimedr petryalau, paralelogramau a thrionglau
- Sut i ddefnyddio unedau'n briodol
- Sut i blotio cyfesurynnau positif
- Beth yw ystyr y termau cymesur, cylchdroi, ehangu
- Gogledd, Dwyrain, De a Gorllewin

You should already know...
- How to calculate area and perimeter of rectangles, parallelograms, and triangles
- How to use units appropriately
- How to plot positive coordinates
- What is meant by the terms symmetrical, rotate, and enlarge
- North, East, South and West



Offer/ Equipment
- ❑ Pen Ysgrifennu / Writing Pen (Glas, Du / *Blue, Black*)
- ❑ Pensil / *Pencil*
- ❑ Pren Mesur / *Ruler*
- ❑ Pen Marcio / *Marking Pen* (Gwyrdd/*Green*)

Key Words/ Geiriau Allweddol
- Transformations - **Trawsnewidiadau**
- Reflection - **Myfyrdod**
- Rotation - **Cylchdro**
- Translation - **Sifft**
- Enlargement - **Helaethiad**
- Horizontal - **Llorweddol**
- Vertical - **Fertigol**



Pam? I ddod yn ddysgwyr sydd yn
...cymryd rhan mewn gweithgarwch corfforol ...cysylltu a chymhwyso eu gwybodaeth a'u sgiliau i greu syniadau a chynnyrch ...meddwl yn greadigol i ailfframio a datrys problemau ...gallu cyfathrebu'n effeithiol mewn gwahanol ffurfiau a chyd-destunau, gan ddefnyddio'r Gymraeg a'r Saesneg

Why? To become learners who ...take part in physical activity ... connect and apply their knowledge and skills to create ideas and products ... think creatively to reframe and solve problems ... can communicate effectively in different forms and settings, using both Welsh and English



Uned 6: Mynd Trwy Newidiadau
Unit 6: Going Through Changes



Yn yr uned hon byddwch yn dysgu...
- ❑ Sut i blotio yn y Pedwar Chwadrant
- ❑ Mae 4 math o drawsffurfiad.
- ❑ Adlewyrchiad, cylchdroi, trawsleoli ac ehangu.
- ❑ Sut i drawsffurfio siapiau drwy ddilyn cyfarwyddiadau
- ❑ Disgrifio trawsffurfiad gan ddefnyddio termau mathemategol cywir
- ❑ Sut i enwi llinellau llorweddol a fertigol
- ❑ Ymchwilio i siapiau 2D a 3D
- ❑ Siapiau Tebyg a Chydweddol

In this unit you will learn...
- ❑ How to **plot** in the Four Quadrants
- ❑ There are 4 types of **transformation**.
- ❑ **Reflection**, **rotation**, **translation** and **enlargement**.
- ❑ How to transform shapes by **following instructions**
- ❑ Describe a transformation using correct mathematical **terminology**
- ❑ How to name **horizontal** and **vertical lines**
- ❑ **Investigate** 2D and 3D shapes
- ❑ **Similar Shapes** and **Congruence**

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Yn dy ddyfodol...
- Artist Tirwedd
- Pensaer
- Gweithiwr adeiladu / adeiladwr
- Mathemategydd

In your future...
- Landscape Artist
- Architect
- Construction Worker/Builder
- Mathematician