

Yr Amgylchedd Adeiledig

Built Environment

Llyfr Gwaith Egwyddorion Adeiladu

Building Principles Handbook

Cwrs:
Course:

Lefel:
Level:

Uned: Ymarferion i ddatblygu Gwybodaeth Greiddiol ar gyfer Egwyddorion
Codi Adeiladau, Gwybodaeth a Chyfathrebu

Unit: Exercises to develop Underpinning knowledge for Principles of
Building Construction, Information & Communication

Enw'r Ymgeisydd: Name of Candidate:	
Enw'r Tiwtor: Name of Tutor:	

Mae rhywfaint o'r cynnwys yn y llyfr gwaith hwn yn rodd hael gan City & Guilds.

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Croeso / Welcome

Gwella Llythrennedd: gweithio gyda'n gilydd!
Improving Literacy: working together!

S/Sp - Sillafu / Spelling

PB/SS - Patrwm Brawddeg / Sentence Structure

A/R - Ailadrodd / Repetition

At/P - Atalnodi / Punctuation

Pr/C - Priflythyren / Capital Letter

✓ - Adran wedi'i hysgrifennu'n dda / well written section

✓✓ - Adran wedi'i hysgrifennu'n dda iawn / Very well written section

GA/WW - Gair Anghywir / Wrong Word

// - Paragraff / Paragraph

AB/T - Amser Berf / Tense and Agreement

^ - Gair ar Goll / Missing Word

Termau Dwyieithog / Bilingual Terms

Dyddiad - Date	Cymraeg - Welsh	Saesneg - English	Diffiniad - Definition

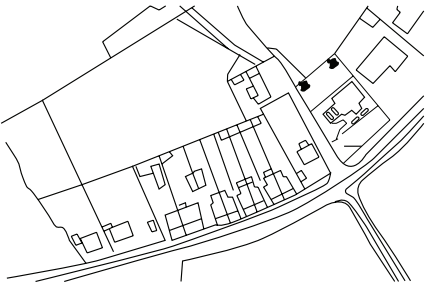
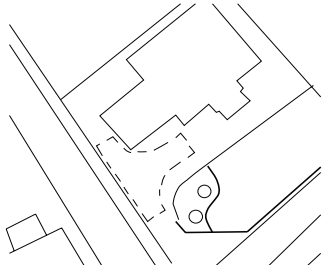
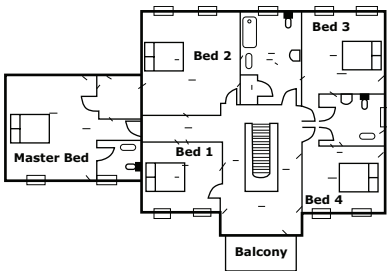
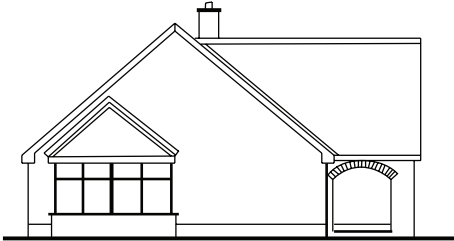
Gweithgaredd 1/ Activity 1

Dehongli Ffynonellau Gwybodaeth / Interpret Information Sources



Nodwch y raddfa gywir/graddfeydd cywir ar gyfer pob math o luniad a disgrifiwch beth mae'r lluniad yn bwriadu ei ddangos i'r defnyddiwr.

Identify the correct scale/scales for each type of drawing and describe what the drawing is intending to show to the user.


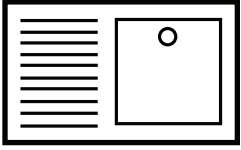
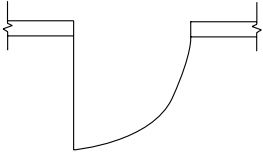
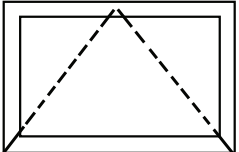
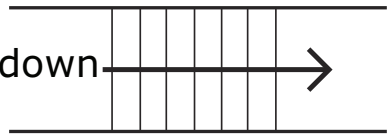
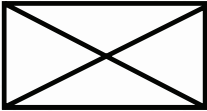

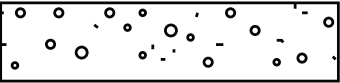
<p>Cynllun Safle / Site Plan:</p> 	<p>Graddfa a Ddefnyddiwyd / Scale Used:</p> <p>Disgrifiad / Description:</p>
<p>Cynllun Bloc / Block Plan:</p> 	<p>Graddfa a Ddefnyddiwyd / Scale Used:</p> <p>Disgrifiad / Description:</p>
<p>Cynllun y Llawr / Floor Plan:</p> 	<p>Graddfa a Ddefnyddiwyd / Scale Used:</p> <p>Disgrifiad / Description:</p>
<p>Cynllun Golwg / Elevation Plan:</p> 	<p>Graddfa a Ddefnyddiwyd / Scale Used:</p> <p>Disgrifiad / Description:</p>

Gweithgaredd 2 / Activity 2

Symbolau Lluniadu Sylfaenol (Llinellu) / Basic Drawing Symbols (Hatchings)

Nodwch y symbolau lluniadu sylfaenol o'r diagramau isod.

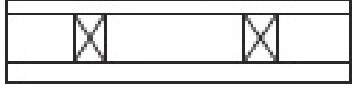

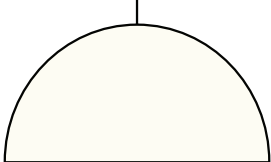

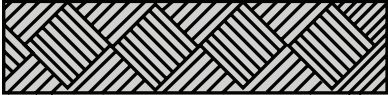
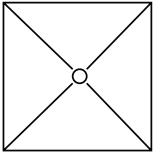
Identify the basic drawing symbols from the diagrams below.

	Math / Type:
	Math / Type:
	Math / Type:
	Math / Type:
	Math / Type:
	Math / Type:
	Math / Type:
	Math / Type:

Symbolau Lluniadu Sylfaenol (Llinellu) / Basic Drawing Symbols (Hatchings)

Nodwch y symbolau lluniadu sylfaenol o'r diagramau isod.

Identify the basic drawing symbols from the diagrams below.

	<p>Math / Type:</p>
	<p>Math / Type:</p>
	<p>Math / Type:</p>
	<p>Math / Type:</p>
	<p>Math / Type:</p>
	<p>Math / Type:</p>

Nawr disgrifiwch pam fod symbolau lluniadu'n cael eu defnyddio a phwysigrwydd defnyddio symbolau safonol.

Now describe why drawing symbols are used and the importance of using standard symbols.

Gweithgaredd 3 / Activity 3

Mathau o Gyfathrebu / Types of Communication

Isod ceir gwahanol ddulliau o gyfathrebu. Gan ddefnyddio'r cardiau a ddarperir, parwch yr enghreifftiau gyda'r dulliau perthnasol ac ysgrifennwch eich atebion yn y bylchau a ddarperir. Edrychwch i weld sawl math gwahanol y gallwch ei adnabod yn gywir ar gyfer pob dull a roddwyd.

Below are different methods of communication. Using the cards provided match the examples to the relevant methods & write your answers in the spaces provided. See how many different types you can correctly identify for each given method.

Dull Cyfathrebu: **Llafar** / Communication Method: **Verbal**

Enghreifftiau / Examples:

- | | |
|----------|-----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |
| 7. _____ | 8. _____ |
| 9. _____ | 10. _____ |

Dull Cyfathrebu: **Ysgrifenedig** / Communication Method: **Written**

Enghreifftiau / Examples:

- | | |
|----------|-----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |
| 7. _____ | 8. _____ |
| 9. _____ | 10. _____ |

Dull Cyfathrebu: **Electronig** / Communication Method: **Electronic**

Enghreifftiau / Examples:

- | | |
|----------|-----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |
| 7. _____ | 8. _____ |
| 9. _____ | 10. _____ |

Dull Cyfathrebu: **Iaith y Corff** / Communication Method: **Body Language**

Enghreifftiau / Examples:

- | | |
|----------|-----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |
| 7. _____ | 8. _____ |
| 9. _____ | 10. _____ |

Cardiau i gael eu defnyddio ar gyfer y gweithgaredd uchod:
 Cards to be used for the above activity:

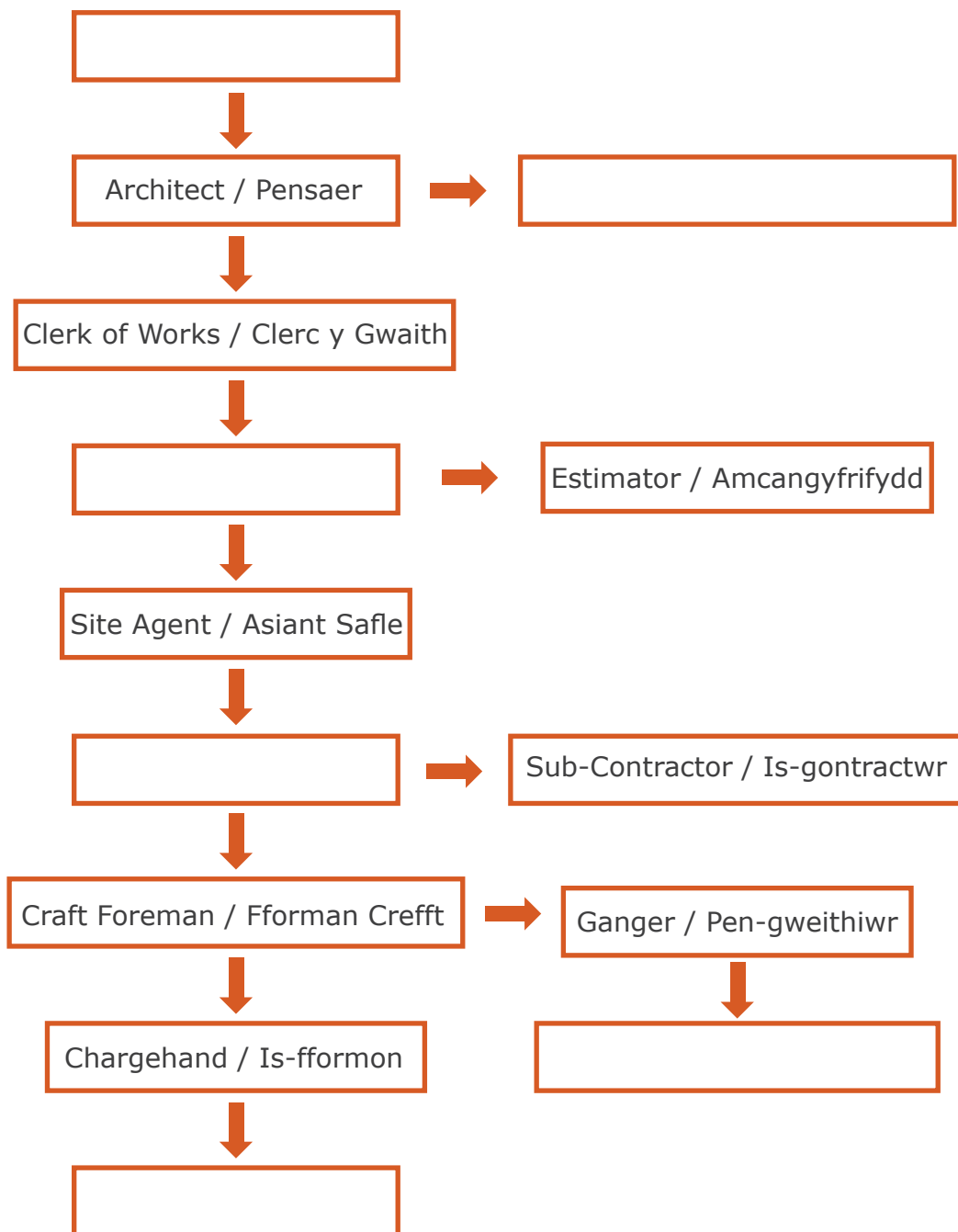
Trafodaethau Grŵp Group Discussions	Cyfarfodydd Meetings	Wyneb yn Wyneb Face to Face
Sgyrsiau Ffôn Telephone Conversations	Fideo-gynadledda Video Conference	Sgyrsiau Blwch Offer Toolbox Talks
Gweiddi Shouting	Llythyrau Letters	Memos Memos
Taflenni Amser Timesheets	Anfonebau Invoices	Lluniadau a Brasluniau Drawings and Sketches
Manyleb Specifications	Amserlenni Schedules	Graffiau a Siartiau Charts and Graphs
Ffôn Telephone	Galwadau Fideo Video Calls	E-bost Email
Peiriannau Ffacs Fax Machines	Teledu a Radio Television and Radio	Ystumiau Dwylo Hand Gestures
Cyswllt Llygaid Eye Contact	Osgo Posture	Arwyddo Signalling

Gweithgaredd 4 / Activity 4

Hierarchaeth y Tîm Adeiladu / Building Team Hierarchy

Nodwch aelodau coll y tîm adeiladu a llenwch y bylchau yn y siart llif isod.

Identify & fill in the missing members of the building team in the flow chart below.



Gweithgaredd 5 / Activity 5

5

Y Tîm Adeiladu / Building Team

Disgrifiwch y rolau sydd gan y canlynol o fewn fframwaith y tîm adeiladu.

Describe the roles the following have within the building team structure

Cleient / Client

Disgrifiad / Description:

Clerc y Gwaith / Clerks of Works

Disgrifiad / Description:

Y Fforman Cyffredinol / General Foreman

Disgrifiad / Description:

Gweithredwyr Adeiladu / Building Operatives

Disgrifiad / Description:

Gweithgaredd 6 / Activity 6

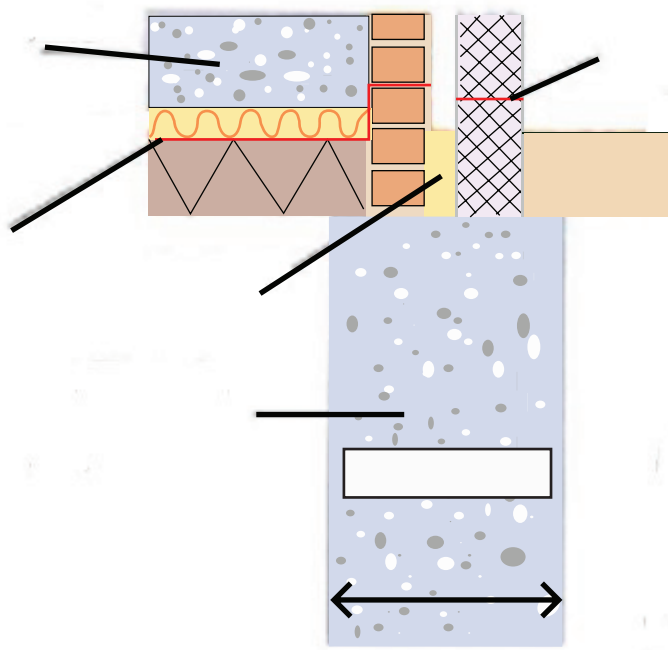
Sylfeini / Foundations

Yn y diagramau isod nodwch a labelwch y gwahanol fathau o sylfeini.

In the diagrams below identify and label the different types of foundation.

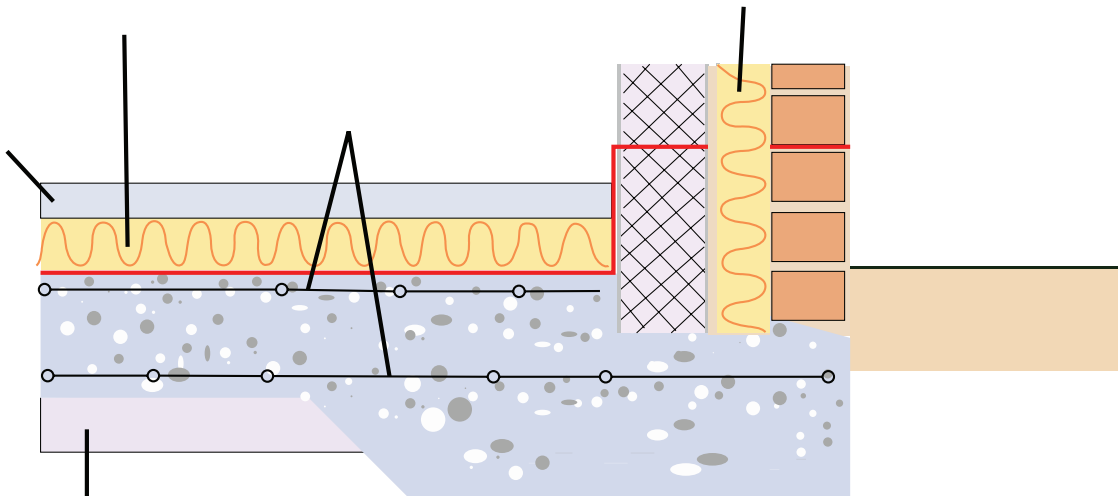
Sylfaen _____

Foundation _____



Sylfaen _____

Foundation _____



Disgrifiwch y mathau canlynol o sylfeini, gan gynnwys ble byddent yn cael eu defnyddio a sut byddent yn cael eu hadeiladu.

Describe the following types of foundations, including where they would be used and their construction.

Sylfaen Striped / Strip Foundation:

Sylfaen Rafft / Raft Foundation:

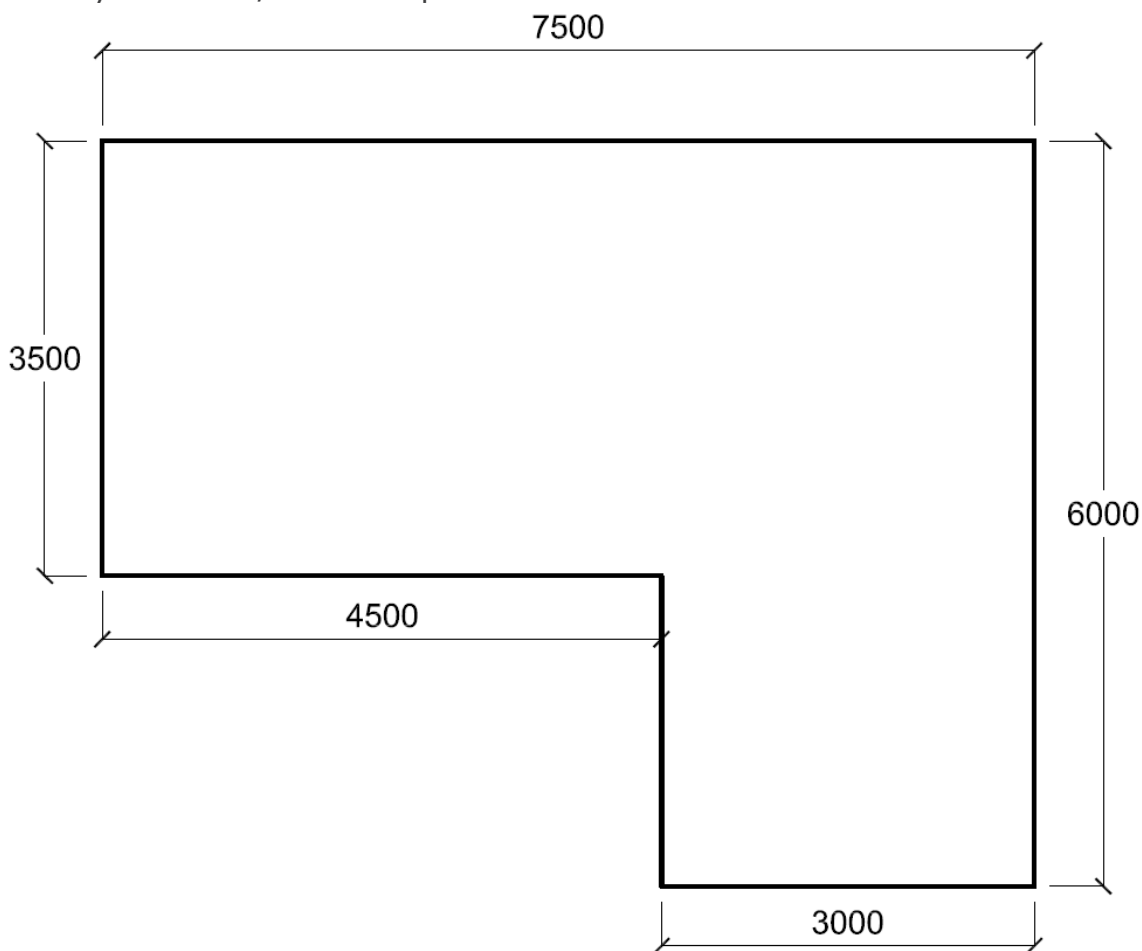
Gweithgaredd 7 / Activity 7

Gofynnwyd i chi ddodi planciau ar lawr 1af tŷ gan ddefnyddio pren haenog 18mm cyn bod y parwydydd stŷd yn cael eu gosod. Er nad yw'r lluniad isod ar raddfa, mae'n cynnwys yr holl fesuriadau y bydd eu hangen arnoch i gyfrifo nifer y dalennau pren haenog a fydd yn ofynnol. Hefyd bydd angen i chi wneud lwfans gwastraff o 15% y bydd angen ei ychwanegu at gyfanswm nifer y byrddau gofynnol.

You have been asked to board the 1st floor of a property with 18mm plywood before the stud partition walls are installed. The drawing below although not to scale contains all the measurements you will require to calculate the number of plywood sheets that will be required. You will also need to allow wastage of 15% which will need to be added to the total number of boards required.

Dangoswch eich cyfrifiadau i gyd ar ddalennau atodedig.
Please show all your calculations on attached sheets.

Cynllunllawr y llawr 1af / 1st Floor plan



Nifer y dalennau pren haenog sy'n ofynnol /
The number of plywood sheets required _____

Gwastraff 15% / 15% Wastage _____

Cyfanswm nifer y dalennau pren haenog sy'n ofynnol /
The total number of plywood sheets required _____

Dalen Waith Cyfrifiadau / Calculations Work sheet:

Gweithgaredd 8 / Activity 8

8

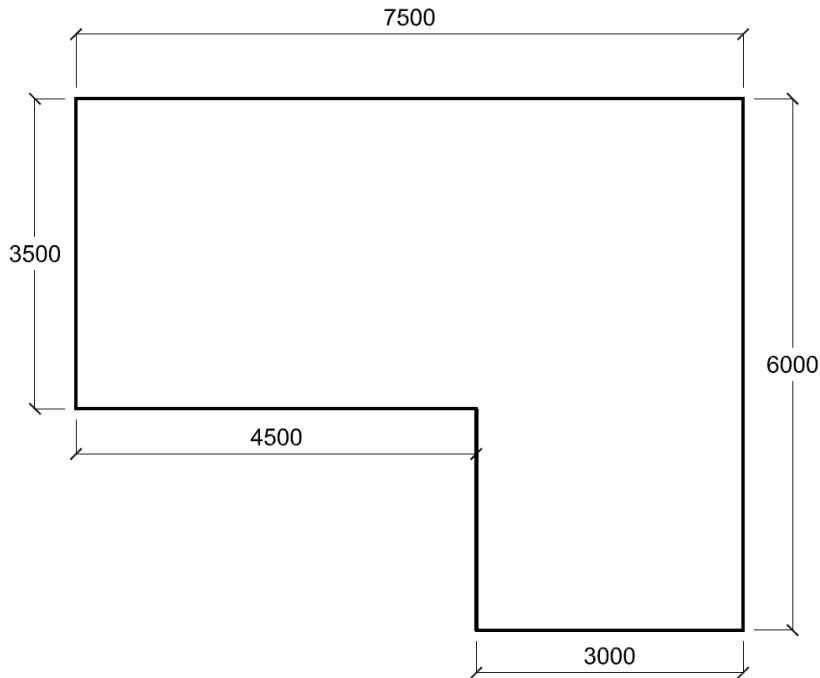
Gofynnwyd i chi osod sgrîd llawr ar lawr gwaelod tŷ newydd. Bydd angen i chi weithio allan faint o dywod a sment sydd eu hangen i osod sgrîd 50mm o drwch. Er nad yw'r lluniad isod ar raddfa, mae'n cynnwys yr holl fesuriadau y bydd eu hangen arnoch i gyfrifo nifer y bagiau o dywod a sment a fydd yn ofynnol. Hefyd bydd angen i chi wneud lwfans gwastraff o 15% y bydd angen ei ychwanegu at nifer y bagiau gofynnol.

You have been asked to lay a floor screed to the ground floor of a new build dwelling. You will need to work out how much sand and cement are needed to lay a screed 50mm thick. The drawing below although not to scale contains all the measurements you will require to calculate the number of bags of sand and cement that will be required. You will also need to allow wastage of 15% which will need to be added to the number of bags required.

Dangoswch eich cyfrifiadau i gyd ar ddalennau atodedig.

Please show all your calculations on attached sheets.

Cynllun y llawr i gael ei sgridio / Plan of floor to be screeded.



Nifer y bagiau gofynnol Tywod / Number of bags of sand required _____

Sment / Cement _____

Gwastraff 15% Tywod / 15% Wastage Sand _____

Sment / Cement _____

Cyfanswm nifer y bagiau gofynnol Tywod / Total number of bags of sand required _____

Sment / Cement _____

Dalen Waith Cyfrifiadau / Calculations Work sheet:

Gweithgaredd 9 / Activity 9

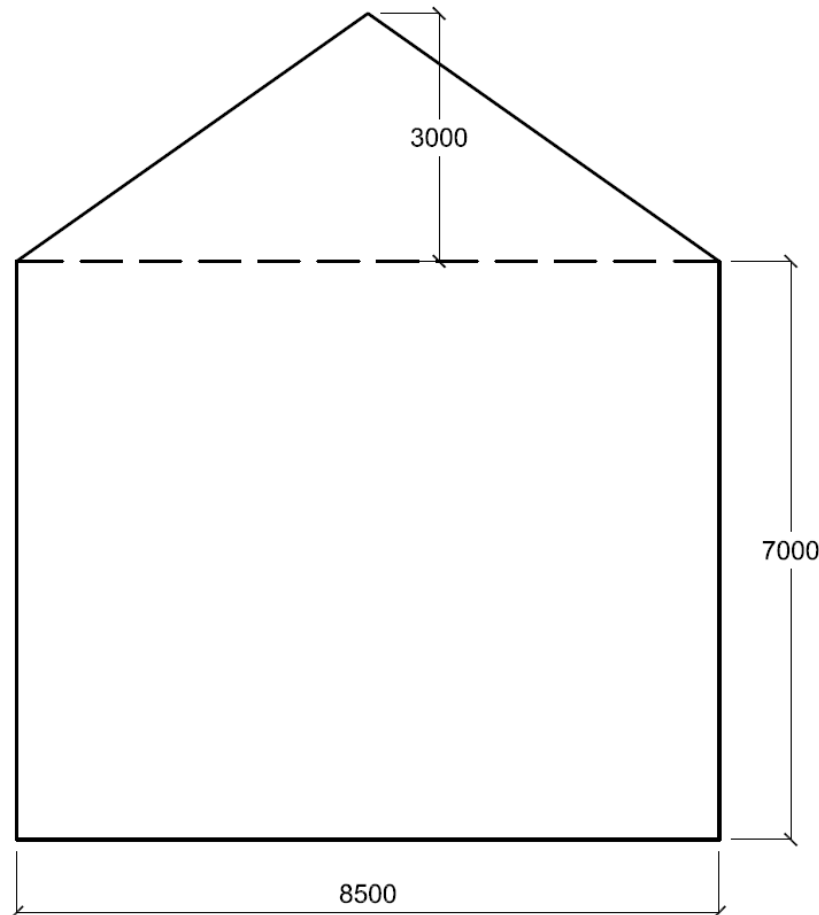
Gofynnwyd i chi roi cot o baent gorffennu i dalcen wal allanol. Pan gaiff ei roi bydd un tun 5 litr o baent maen gwedd mân yn gorchuddio 32.5m^2 . Er nad yw'r lluniad isod ar raddfa, mae'n cynnwys yr holl fesuriadau y bydd eu hangen arnoch i gyfrifo nifer y tuniau o baent a fydd yn ofynnol. Hefyd bydd angen i chi wneud lwfans gwastaraff o 15% y bydd angen ei ychwanegu at nifer y tuniau gofynnol.

You have been asked to apply a finishing coat of paint to the gable end of an external wall. One 5 litre tin of fine textured masonry paint will cover 32.5m^2 when applied. The drawing below although not to scale contains all the measurements you will require to calculate the numbers of tins of paint that will be required. You will also need to allow wastage of 15% which will need to be added to the number of tins required.

Dangoswch eich cyfrifiadau i gyd ar ddalennau atodedig.

Please show all your calculations on attached sheets.

Cynllun y wal i gael ei pheintio / Plan of wall to be painted.



Nifer y tuniau o baent gofynnol / Number of paint tins required _____

Gwastaraff 15% / 15% Wastage _____

Cyfanswm nifer y tuniau o baent gofynnol / Total number of paint tins required _____

Dalen Waith Cyfrifiadau / Calculations Works sheet:

Gweithgaredd 10 / Activity 10

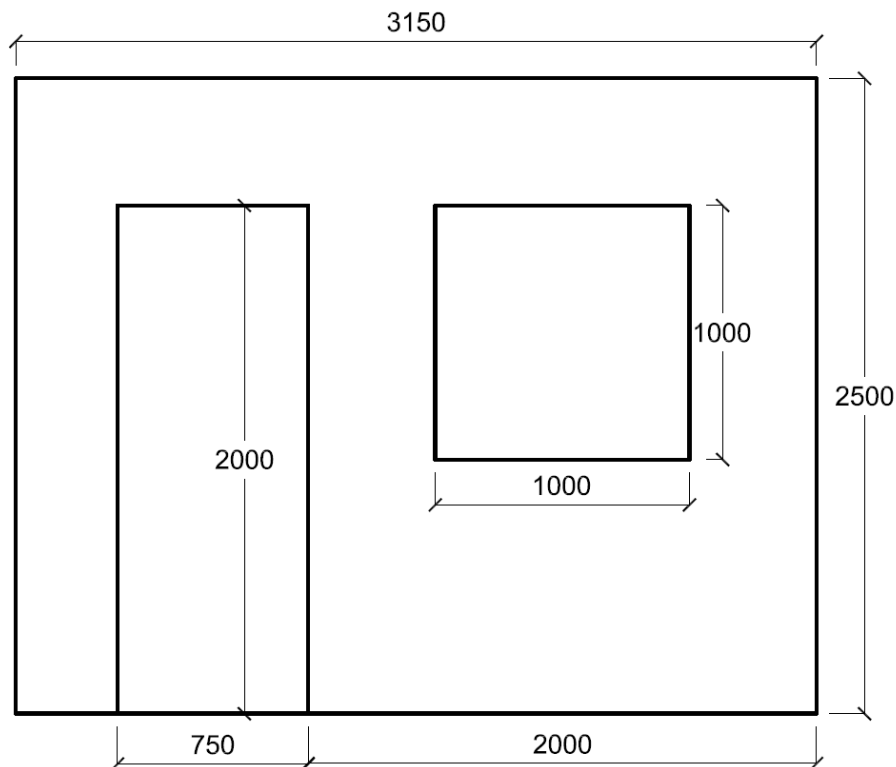
Gofynnwyd i chi adeiladu wal fewnol mewn adeilad newydd, mae yna ddrws a ffenestr yn y wal y bydd angen eu hystyried cyn cyfrifo nifer y blociau concrit 100mm y bydd eu hangen arnoch i gwblhau'r dasg. Er nad yw'r lluniad isod ar raddfa, mae'n cynnwys yr holl fesuriadau y bydd eu hangen arnoch i gyfrifo nifer y blociau concrit a fydd yn ofynnol. Hefyd bydd angen i chi wneud lwfans gwastaraff o 15% y bydd angen ei ychwanegu at nifer y blociau gofynnol.

You have been asked to build an internal wall in a new build, there is a door and window in the wall that will need to be taken into consideration before calculating the number of 100mm concrete blocks you will need to complete the task. The drawing below although not to scale contains all the measurements you will require to calculate the number of concrete blocks that will be required. You will also need to allow wastage of 15% which will need to be added to the number of blocks required.

Dangoswch eich cyfrifiadau i gyd ar ddalennau atodedig.

Please show all your calculations on attached sheets.

Cynllun y wal i gael ei hadeiladu / Plan of wall to be built.



Nifer y blociau gofynnol / Number of blocks required _____

Gwastraff 15% / 15% Wastage _____

Nifer y blociau gofynnol / Total number of blocks required _____

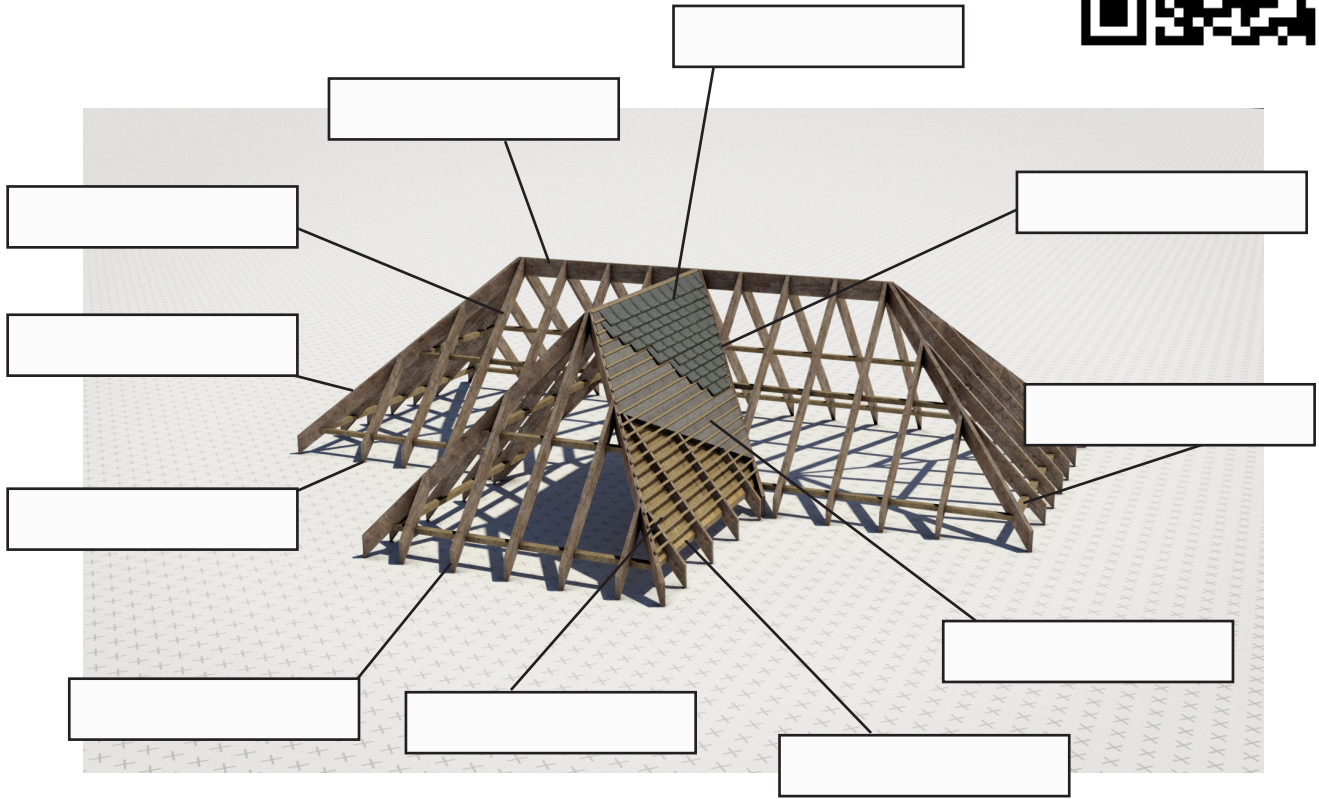
Dalen Waith Cyfrifiadau / Calculations Work sheet:

Gweithgaredd 11 / Activity 11

11

Ar y lluniad isod, nodwch wahanol gydrannau'r to.

On the drawing below identify the various roofing components.



Adborth / Feedback

Sylwadau'r Ymgeisydd / Candidate's Comments:

Adborth Yr Aseswr / Assessor's Feedback:

Cafodd y gwaith/asesiad hwn ei wneud dan amodau arholiad Do / Naddo
This work/assessment carried out under examination conditions Yes/ No

Nifer y cwestiynau / adrannau y rhoddwyd cynnig arnynt Number of questions/sections attempted	
Nifer y cwestiynau / adrannau a atebwyd yn gywir Number of questions/sections correctly answered	
Y cwestiwn / adran sydd angen eu cywiro The question / section number needing to be amended	

Sylwadau ychwanegol / Additional comments

Cytunaf fod y gwaith / asesiad hwn wedi cael ei wneud mewn modd teg a phriodol.

I agree that this work / assessment was carried out in a fair and proper manner.

Enw'r Ymgeisydd Candidate's Name	Llofnod yr Ymgeisydd Candidate's Signature	Rhif yr Ymgeisydd Candidate's Number	Dyddiad Date
Enw'r Aseswr Assessor's Name	Llofnod yr Aseswr Assessor's Signature	Rhif yr Aseswr Assessor's Number	Dyddiad Date
Enw'r D.M. I.V. Name	Llofnod yr D.M. I.V. Signature	Rhif yr D.M. I.V. Number	Dyddiad Date