# Assessors handbook - Gold INGOT assessment criteria

BACK TO CONTENTS **[1]**

| Gold INGOT<br><br>**Open Systems and General knowledge** | Producing documents and using spreadsheets<br><br>Document processing | Producing documents and using spreadsheets<br><br>Graphic Design | Producing documents and using spreadsheets<br><br>Using spreadsheets | Community Service<br><br>Contributing to the community |
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| I know that access to fully open systems is not dependent on permission from copyright or patent holders | I can set up and edit document templates. | I specify precise angles and distances to draw scale diagrams and plans with accuracy. | I can copy data and formulas using fixed references for rows columns and cells. | I have set up a Blog on the INGOT community site in order to document my project for presentation to a wide audience. |
| I understand the term interoperability | I can set up and edit styles within documents. | I can group and ungroup objects to manage them effectively | I can use functions such as SUM, AVERAGE, MIN and MAX routinely. | I have provided appropriate links to the NOS at level 2 |
| I know the difference between open source and open standards | I know how to layout text and graphics effectively. | I can use grid locking selectively to help improve the precision of my drawing. | I can set up and edit styles for my spreadsheet | I have licensed my work appropriately to be used by others and made it available in downloadable files |
| I understand the term intellectual property and I am familiar with the data protection act and freedom of information act | I can set up tables with a variety of styles. | I can change the units and scales used in a drawing to suit particular tasks. | I can present a completed spreadsheet attractively so it prints appropriately and looks good on the screen. | I can get the information I need from a range of sources in order to carry out my project. |
| I know how copyright and licensing work together to protect intellectual property | I can set up headers and footers with automatic page numbering. | I regularly illustrate my own work with my own designs. | I can sort, import and export data from my spreadsheet to other programs. | I can select appropriate ICT tools and say why I used them. |
| I understand the need for regular backups and how backup strategies work. | I can set up a table of contents and an index for a lengthy document. | I can use 3D objects and lighting effects to make my drawing look more | I can produce charts and graphs appropriate for the chosen data sets. | My project provided useful resources or support for the Worldwide |

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| Gold INGOT<br><br>**Open Systems and General knowledge** | Producing documents and using spreadsheets<br><br>Document processing | Producing documents and using spreadsheets<br><br>Graphic Design | Producing documents and using spreadsheets<br><br>Using spreadsheets | Community Service<br><br>Contributing to the community |
| | | attractive. | | community supporting open digital resources |
| I know how to use a live CD to enable work to continue in an emergency. | I can set up a mail merge to send out a circular to many people. | I can export and import drawings to and from other applications. | I can make the result returned in a cell depend on the value in another cell using an IF statement | I have discussed my work with my assessor and indicated why it is intended to be of benefit to society. |
| I work safely and collaboratively with others at all times | I can change dictionaries and the language settings in the software. | I understand different graphics file formats and related issues. | I can use a spreadsheet to set up a financial model and use it to look at a range of possible outcomes from different starting points. | I have evaluated my project saying how it might be improved by others and how it might be enhanced. |
| I understand the danger of computer viruses and know how to reduce risk of infection. | I can export my documents in pdf format for read only download from the Internet. | | | <br><br>www.theINGOTs.org [2] |

**Assessors' Guide to Gold INGOT**

***General Information***

- This is a Level 2 qualification also known as the Gold INGOT
- Level 2 qualifications recognise basic knowledge and skills and the ability to apply learning with increasing self-sufficiency. Learning at this level is beginning to support the types of activity likely to support routine work in an office environment.
- The Level 2 Gold Award has three levels of success. Pass, Merit, Distinction. This helps provide a natural transition from the Level 1 qualifications and provides a basis for moving into Level 3.

- The criteria are designed to help promote numeracy, literacy, thinking skills, economic understanding, social skills and citizenship as well as ICT capability.

- The specification for the Level 2 Gold certificate provides an outcome framework for assessment and is not intended to dictate any particular context for learning. This allows flexibility to meet local needs.

### *Requirements*

- Must be assessed by a trained Gold INGOT Assessor or higher

- Assessors must, at a minimum, record assessment judgements as entries in the on-line mark book on the INGOTs.org certification site and keep such records as necessary to support the learners in achieving high quality outcomes. In Centers with more than one assessor, all assessors should attend an annual meeting conducted by the Principal Assessor to ensure standards are consistent.

- It is expected that there will be routine evidence of work used for judging assessment outcomes in the candidates' personal records of their day to day work.

- Different approaches to learning will be required in order to match differing needs, for example, the needs of children will be different from the needs of adults.

- Completing the criteria for Gold INGOT entitles the candidate to the Award of the Level 2 certificate in Open Systems and Office Applications. The candidate should demonstrate that criteria of the type "I work safely and collaboratively with others at all times." are sustained over time.

- The Gold INGOT is presented in 3 units. We expect at least 20 hours of guided study to be under-taken for each unit before the certificates are awarded to those new to computers but discretion can be used to take account of prior learning where this is sensible in individual cases. In terms of making the award, what matters is what the candidate knows and is able to do.

### *Optional general certificates*

There is an optional general certificate for Gold INGOT which can be awarded by the assessor, using their discretion, as an added motivator. This increases the number of rewards that the assessor can provide to act as positive motivators. The general certificates can be printed at any time on any paper and there is no additional charge for them.

### *Assessment Method*

Assessors can use the criteria to determine levels of prior learning through dialogue with the candidate, direct observation and any other appropriate and relevant evidence. They can score each of the criteria 0,1 or 2. A zero indicates no observed capability. A one indicates some capability but some help still required. A two indicates self-sufficient capability. For unit 1 and unit 2, when the great majority of criteria are assessed as a two, the assessor uses the web site mark book to request

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the Awarding Body set tasks or in the case of on-line work, moderation. The tasks and test are used to verify the criteria matching recorded by the assessor. They are completed under controlled conditions. Unit 3 is a project of the candidates choosing assessed against a mark scheme derived directly from the criteria and presented using a Blog.

***Details of the basis of the Award***

**The Gold Award is made up of three units.**

1. Open standards, general knowledge
2. Producing documents
3. Community service project

The first, unit is largely knowledge based, the second supports skills in using productivity tools, and the third applying learning to produce a useful digital resource or service for the community.

**Unit 1** is awarded when the candidate completes the Awarding Body set test after achieving a score of at least 13 for criteria matching. There are 9 criteria and each can be scored 0,1 or 2. Score 0 if the candidate is yet to show any competence, 1 if the candidate has a degree of competence but still requires some external help, 2 if the candidate is fully self-sufficient.

Award 5 marks to candidates scoring 18 ie all criteria matched to a 2, 4 marks to those scoring 17, 3 marks to those scoring 16, 2 marks to those scoring 15 and 1 mark to those scoring 14. The test score (Range 0-25) and the marks for criteria matching (Range 0-5) are combined to give a maximum of 30 marks. 18 or more marks in total constitute a pass. Pass with merit for 21 or more and pass with distinction for 25 or more marks.

**Unit 2** is awarded when the candidate completes the Awarding Body specified tasks after satisfying criteria matching with at least 46 marks. There are 25 criteria giving a total of 50 marks. Each criterion can be scored 0,1 or 2. Score 0 if the candidate is yet to show any competence, 1 if the candidate has a degree of competence but still requires some external help, 2 if the candidate is fully self-sufficient. Award 5 marks to candidates scoring 50, 4 marks to those scoring 49, 3 marks to those scoring 48, 2 marks to those scoring 47 and 1 mark to those scoring 46. Once the criteria matching is complete and the candidate(s) meets the minimum score, the assessor requests the Awarding Body tasks using the on-line mark book. The marks gained on the tasks will be in the range 0-25 and the marks for criteria matching in the range 1-5 giving a combined total of 30. A pass requires 18 or more marks. Pass with merit for 21 or more and pass with distinction for 25 or more

marks. The on-line mark book will automatically work out these levels once the data is entered. Specimen tasks are provided at the end of this section.

**Unit 3** is awarded when the candidate completes the community service project and achieves a minimum of 22 marks on the mark scheme which is derived from the criteria, pass with merit 27 marks or more and pass with distinction for 32 marks or more.

The full qualification is awarded when all three units have been completed at the minimum level and candidates must match the criteria to work safely and collaborate effectively with others to achieve a full qualification. To achieve merit the candidate must achieve merit in a majority of units and pass all units. To achieve distinction, the candidate must achieve distinction in a majority of units and pass all units.

***Weighting of assessment***

Each unit contributes equally to the qualification.

**Expansion of the assessment criteria**

For the level 2 Gold Award, candidates will build on skills and knowledge developed in earlier learning increasingly demonstrating the capability to find things out for themselves through asking each other questions, internet searches or from prepared material. This will provide opportunities to evaluate the effectiveness of their own and others' uses of information sources and ICT tools, using the results to improve the quality of their work and to inform future judgements.

**Unit 1: Open Systems and General Knowledge**

This unit builds on the knowledge acquired through the Bronze and Silver INGOTs. It enables candidates to develop an increasing understanding of the tension between the need to provide incentives for development and the dangers of setting up monopolies and transferring too much control over information to individual interests. Assessors should use the information provided in the guides for Bronze and Silver in conjunction with the additional information here to help plan their judgements about the candidates' progress. There is a massive amount of information on these subjects freely available on the internet. Wikipedia is a good practical place to start. Candidates might use research for this unit as the basis of their community resource for Unit 3.

**I know that access to fully open systems is not dependent on permission from copyright or patent holders**

In reality there are degrees of openness. Standards that are maintained by committees with no particular commercial interest in the standard or the industries supported by the standard are generally the most open and these standards are usually implemented in products from several manufacturers. Standards that are effectively owned by one company or a consortium of companies that benefit commercially from the standard are generally termed proprietary standards. The international ISO standards committee generally maintains standards approved by the national standards committees of many countries and so ISO standards tend to be accepted as fully open. British standards are a national version as are American Standards (BSI - British Standards Institute,

ANSI - American National Standards Institute). Some standards will be British, US and ISO standards, others just one or the other or a standard of another country. There are many standards bodies and committees that are independent of countries and so its quite confusing as to what the word standard actually means. This is compounded by commercial companies that are very keen to use the term standard to support market confidence in their products. Most companies aspire to be monopolies if they can and there is a clear tension between company owned standards establishing monopolies that can abuse their market power and establishing open standards that enable a wide range of commercial interests to compete fairly from equal standpoints. It is not illegal to be a monopoly, but it is illegal in many countries to abuse a dominant market position. This is referred to as anti-trust law in the USA. http://en.wikipedia.org/wiki/Antitrust [3].

The term industry standard is an example of the use of the word standard to instill confidence. Which standard in which industry? In times of rapid technological change it is difficult to mandate open standards because it could compromise innovation. Companies investing in research and development want protection for their ideas to justify the risk of investment. In itself, this is not unreasonable but problems arise if in protecting a technology that is fundamental to all other technologies, the power transferred to the owner of the idea is disproportionate. The rules for how this works out are made by society and were originally granted to protect individual inventors and encourage them to share their ideas with others without the risk of them being stolen. The difficulty now is that the cost of protecting intellectual property is so high it's very difficult for individuals to enforce their rights. It's very easy for large corporations to threaten small companies and individuals with malicious law suits they know the small companies will be unable to defend. The rise of software and digital information as key commodities has accentuated these problems because unlike most manufactured items, software costs virtually nothing to manufacture or distribute. Furthermore, it can be illegal to disassemble software to see how it works and so a company can claim software is infringing a patent and threaten others with lawsuits even though those being threatened can't verify the accusation. The only way to resolve the issue would be to go to court and that could well be beyond the means of the person threatened with action.

As technologies mature they change more slowly and it is easier to establish open standards without worrying about reducing innovation. Open standards are fundamental to freedom of information because without them individual interests owning the standards could determine who had access to any information dependent on that standard. Another factor to consider is accessibility. A web site that has badly chosen colors or is heavily dependent on graphics might be completely unusable by someone with impaired vision. Social inclusion requires consideration to be given to the digital information we use. If it is badly designed it could exclude disabled people, if it is dependent on buying software it might exclude those who can't afford the software. In the interests of social inclusion web sites and software applications should be accessible as far as possible with freely available resources that support people with disabilities.

**I understand the term interoperability**

Interoperable systems are systems that can exchange information using standard data formats and protocols. In other words, each system understands how the other structures the data sent and the methods of sending and receiving it. There are degrees of interoperability but in general it is easier to achieve interoperability with fully open standards. If a data standard is secret, it will be very difficult for someone who does not own the standard to use the data effectively. This means that the owner of the standard has a commercial advantage in the supply of any technology that operates on that data standard. It might even be illegal for a competing company to try and work out the structure of the data format in order to design software or hardware to operate on it. Interoperability is essential to competition in the ICT industry and governments have a key responsibility in ensuring their systems are open to a wide range of suppliers and users with different technologies, not just single suppliers or groups that adopt the products of single suppliers. Some governments have been

more active than others in promoting interoperability at least partly related to their own grasp of the issues.

**I know the difference between open source and open standards**

Open Source software is software where the source code is open to scrutiny and improvement by anyone. Source code is the program development medium and it is compiled into "executable" code (hence the .exe extension on some programs) The executable code is what is delivered to us on discs or as downloads for installing on our computers. Once source code is compiled into executable code it is almost impossible to determine how it works. Commercial software suppliers usually keep their source code secret to stop competitors “stealing" their ideas. Having source code viewable is not of direct interest to most users but it does guarantee a degree of accountability. Software manufacturers could put routines in secret software which, for example, provided them with personal data about the user. That would be a very much bigger risk for the supplier of the code if the source code is open and its unlikely that any supplier would take such a risk if it was likely that they would be found out. On a more mundane level, if code is open, experts can tell how well it is written and they have the potential to fix bugs or make improvements. This invites community involvement in the tools that the community uses and ensures that information is handled in a more open and transparent way. Open Standards is a wider issue covering data structures and protocols as well as software. (Protocols are rules that determine how information is transmitted so that different technologies can communicate and make sense of the information). A specific Open Source software application could become an open standard but mostly standards are related to data formats and protocols.

**I understand the term intellectual property and I am familiar with data protection and freedom of information.**

Intellectual property is a broad term that covers ownership of ideas and creativity in a similar way to owning physical property. Intellectual property is sometimes abbreviated to IP which can be confusing in ICT since IP also means internet protocol and IP addresses are used for internet sites. The main types of intellectual property are trade marks that protect brand identity and can be registered in one or more countries, copyright which usually applies automatically to works such as writing books, composing music, software and making films, and patents which protect inventions. The rules can be different in different countries. For example, in the USA software and business methods can be patented, in Europe, software can't usually be patented but there is a big battle at the time of writing, between those that want Europe to come more into line with US style patenting and those that think software patents are a recipe for transferring too much power to large corporations.

DRM or digital rights management is a mechanism for owners of digital intellectual property to protect their "goods". DRM prevents unauthorized copies of proprietary software or digital content from running on the DRM computer. There is a snag though. DRM can also make it inconvenient for legitimate users to use digital resources that they have legally acquired and also prevent some companies competing in a market if the DRM technology is inappropriate for their products. In general, DRM strengthens the position of the supplier at least to some extent curtailing the freedoms of the user.

Data protection is another area where US and European law is quite different. The idea behind data protection is to protect citizens from misuse of information about them held by companies or governments. In Europe, the key principles are that personal data is only obtained for lawful purposes; is only processed to the degree needed for lawful purposes; is kept accurate and up to

date and secure; is only kept as long as needed; is adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed. The USA has no comprehensive data protection legislation. Although a signatory to the 1981 OECD Guidelines, the USA has not implemented them domestically. The EU directive 95/46/EC prohibits the transfer of personal data to non EU states that do not meet the "adequacy" standard for the protection of privacy so there is a global trading problem due to the incompatibility of these systems. As a result of this, the US Department of Commerce developed the "safe harbor" system in consultation with the European Commission. This offers a method by which US organization can comply with the Directive. The EU approved "Safe harbor" in July 2000. Organizations who sign up to the scheme are certified as offering 'adequate' protection under the terms of the Directive, thus enabling transactions between those organizations and European organizations to proceed smoothly and within the law.

Freedom of information law creates a general right of access, on request, to information held by public authorities. However, there are numerous exemptions. Further details can be found at http://www.usdoj.gov/oip/ [4]. In overall terms these issues are complex, but they are fundamental to citizenship and democracy. At this stage it is sufficient for candidates to have a broad enough understanding of the issues to start developing personal opinions and attitudes towards them.

### I know how copyright and licensing work together to protect intellectual property

Its a common mistake to think that Open Source software is free of copyright. The owner of the software still holds intellectual property rights over the software. The owner simply licenses the software to be usable with greater freedom than is the case with the more restrictive licensing normally associated with closed source software. Open Source software licenses vary quite a lot but mostly they allow people to view and modify the source code and of most interest to most users, copy and use the software on as many computers as the user wants without paying any license fees. Some software is dual licensed. This could mean, for example, there is one license for commercial use and another for use in non-commercial circumstances. There could even be one license for use on one computer platform and another for use on another. Its up to the copyright holder to determine how their intellectual property is used. One very popular open source license with commercial suppliers is the BSD (Berkley Standard Distribution) license which basically says you can do whatever you want with this software as long as you don't sue the copyright owners. This license is popular with companies that want to build products on open source resources and then protect them from being copied further. Apple's Mac OS X is an example. It is effectively BSD Unix with modifications made by Apple and then restricted by Apple's own copyright and licensing. A license that does not allow people to take resources without contributing back is the GPL (Gnu Public License) which says you can use this software freely and improve and modify it as long as you give the same rights to anyone using any work derived from it. While the BSD license means the software can be taken modified and then relicensed as a commercial product, the GPL ensures improvements go back into the community "commons". GNU/Linux is an example of software licensed under the GPL. The term copyleft is used to describe licensing that uses copyright law to ensure freedom of use is passed on with particular resources. It is sometimes denoted by a copyright style symbol but with the C laterally inverted. Since the GPL affects potentially all works derived from a small starting point, it is sometime referred to as viral because it has the potential to propagate like a biological virus rather than because it is harmful like a software virus. Some software companies that are dependent on closed source software see the GPL as potentially harmful to the software industry but it appears that the reality is that alternative business models are springing up to take advantage of new ways of working.

### I understand the need for regular back ups and how backup strategies work

A backup is a copy of important data that can be used if the original information is damaged or lost. Candidates should appreciate that digital data is very easily lost if not backed up. Simply making a copy on the same machine is better than nothing but is still vulnerable if that machine is stolen or damaged. If data is important a copy of it should be taken to a physically separate place. Inevitably,

data can get out of date between copies and it is possible to copy errors from a broken version of the data to a good copy. For this reason it is best to have recent backups but also to keep older versions. If you have to go back to an older version you will have lost some recent work but its better than losing everything. Backups can be made over networks. Incremental backups only up date the back up with new data. This means that the amount of data that needs to be copied is much less and can therefore be done when the data transfer speeds are limited by the speed of the network. Usually a backup strategy will involve full backups at intervals with incremental backups in between. In a business, losing the data is probably more likely to cause a company to go into liquidation than losing its server hardware. Backing up the system software is not as critical in that usually it can be re-installed but this can be time consuming.

**I know how to use a live CD to enable work to continue in an emergency**

A common reason for data loss is hard drive failure. Hard drives have mechanical parts and can break down. Sometimes they just get errors in a critical place eg the information that tells the computer to load the operating system at start up. If this happens the computer will not start up so its very difficult to get your data back. A good way to get round such problems is to use a "Live CD" that was introduced in earlier work. A live CD has a full operating system installed on it just as it would be after installing it on the hard disc. If the computer is set to boot from the CD it will run the operating system direct from this CD and there is a good chance that it will provide access to the parts of the hard drive that are not damaged thus enabling the data to be retrieved. Live CDs can be downloaded as ISO images from the internet eg from www.ubuntu.com [5] and www.knopper.net [6] (knoppix) and burnt to a CD-RW. You then have to set the computer's bios to boot from CD. Usually this is a matter of holding down the delete key while powering up the computer which takes you to the bios settings. Look for boot devices and make the CD-ROM the first boot device. This means that if there is a CD in the drive the machine will try to boot from it first. If not it will go to the hard drive. CDs are much slower than hard drives and it will take several minutes to get the system up and running from the CD but once the linux desktop appears you will be able to use the machine and retrieve files from the broken hard drive. Apart from accessing broken hard drives, live discs can be used to finish urgent work or get round virus infections since Linux is not affected by windows viruses.

**I work safely and collaboratively with others at all times**

Candidates should realize that working safely with other people promotes safety. Working with others and sharing ideas including assessing each others' work is a good support for learning and all candidates should have regular opportunities to contribute to collaborative projects and/or assignments. They should be becoming increasingly aware of safety issues such as the organization of their physical work space and the need to keep it tidy. They should be aware that there are an increasing number of collaborative web sites available that allow free participation for the common good. Wikipedia and Wiktionary are good example. Wiki comes from the Hawaiian word for quick and Wikis are web sites that allow quick development through collaboration. Open source communities are in general collaborative. Some people say that a problem with Open Source software is lack of support. In reality there are an increasing number of companies providing commercial support but there is also extensive support from the community itself. For example, OpenOffice.org has a users mailing list where volunteers answer questions for new users. The discuss list enables users to discuss bug fixes and new features. From here bug reports are filed and they are usually fixed quite quickly if serious. The internet allows a degree of collaboration that has the potential to save billions on a global scale and involve more people in the development of the resources everyone uses.

**I understand the danger of viruses and know how to reduce risk of infection**

Viruses are a major problem on Windows but almost unknown on GNU/Linux and other unix

operating systems. Some people say that this is simply because there are fewer unix machines but others say that a more likely explanation is because the security is generally better supported in Linux. It is true that the worst virus problems in Windows arose because all users were effectively "administrators". This removed the requirement of a systems manager to install software and so viruses were written that could simply install themselves on the system without reference to any managed administration. In practice Linux and other unix users don't need anti-virus software so a good way of avoiding viruses is to avoid Windows. Of course this is not always practical and so there are anti-virus products that can be used to protect Windows computers from infection. The virus situation could change with Linux but so far the evidence seems against this. Anti-virus software should be kept up to date on any windows computer and care should be taken with any executable code from an unknown source.

### Unit 2: Producing Documents

This section builds on skills and knowledge developed in the Bronze and Silver INGOTs. The emphasis should be to develop increasingly efficient working practices especially when considering longer and more complex documents, encouraging candidates to be increasingly self-sufficient in finding out about efficient principles rather than the individual characteristics of specific software.

### I can set up and edit document templates

Candidates should be aware that multi-page documents are more efficiently dealt with using a layout template because if you change the template you can change all the pages and you don't have to spend time on layout adjustments on each page that needs a similar layout. This principle transfers to other software such as DTP, presentation and web development.

### I can set up and edit styles within documents

Similar to templates in that a lengthy document will require consistent text attributes such as font and font size. While these can be changed locally on an individual basis on short one off documents, its a lot less convenient than being able to change a style or apply a new style throughout a whole document.

### I know how to layout text and graphics effectively

This is to a degree subjective. The important issue is the ability to position graphics within text to good effect. This should be achieved in a page layout context, for example using text boxes and graphics in OpenOffice.org Draw or a desktop publisher like Scribus and/or a document context in a word processor that enables graphics and text to be combined. Candidates should not rely on a Wizard or Autopilots to produce a particular layout automatically but be encouraged to think about basic design and how to achieve it. They should continue to develop their knowledge of file formats understanding that in most cases vector illustrations are best and that while its easy to convert vector graphics to bitmap images its not easy to do the opposite and produce vector files from bitmaps.

### I can set up tables with a variety of styles

Candidates should demonstrate the ability to produce tables with varying numbers of columns and rows and appropriate borders, cell back grounds etc. They should understand how to force page breaks and use similar techniques to prevent break up of tables across pages and to keep tables tidy within the document. They should know how to use the same layout conventions within a table as with documents, using the tab key and space bar appropriately.

### I can set up headers and footers with automatic page numbering

The candidate should demonstrate the ability to set up repeated headers and footers in a report or extended document. with center left or right align as appropriate. They should also appreciate the power of combining headers and footers with page layout in document templates.

**I can set up a table of contents and an index for a lengthy document**

The candidate should produce at least one extended document(e.g. a written case study describing their community service project or it could be coursework in another subject or a business need for an extended document) that consists of multiple pages that can be numbered, indexed and table of contents compiled.

**I can set up a mail merge to send out a circular to many people**

The candidate should be able to set up a mail-merge by composing a letter and using mail merge fields from an appropriate data source. They should also know how to set up envelope printing from pre-defined templates.

**I can change dictionaries and the language settings in the software**

The candidate should be able to, for example, change between US and GB English dictionaries and set up their own dictionaries to include vocabulary specific to their particular needs.

**I can export my documents in pdf format for read only download from the Internet**

Candidates should be able to produce pdf documents from completed work in order to make available to others. OpenOffice can import MS Office documents and produce pdf documents.

**Graphic Design**

This section builds on drawing skills tackled in the Bronze INGOT. Candidates should produce a range of good quality and accurate diagrams related to their interests and to improve the presentation of proposals and similar documents.

**I specify precise angles and distances to draw scale diagrams and plans with accuracy**

This criterion requires candidates to appreciate the need for precision, and the degree of precision required in different circumstances. All candidates should demonstrate that they have drawn useful diagrams where the use of linear and angular measures are important eg to support work in geometry in mathematics, scale diagrams and drawings etc.

**I can group and ungroup objects to manage them effectively**

Candidates should use the group feature to manage their drawing objects efficiently.

**I can use grid locking selectively to help improve the precision of my drawing**

Building on work with the Bronze INGOT, candidates should be able to show the grid, alter its spacing and use the snap to grid function appropriately. This will also be used in conjunction with zoom to check the positioning of points as well as specifying coordinates for points numerically.

**I can change the units and scales used in a drawing to suit particular tasks**

Candidates should be able to deal in a range of appropriate units and they should be able to alter the number of subdivisions in the grid to suit particular tasks.

**I regularly illustrate my own work with my own designs**

Candidates should use their own drawings to illustrate their documents rather than relying exclusively on clip art.

**I can use 3D objects and lighting effects to make my drawing look more attractive**

The main point of this is to ensure that candidates use the available tools to make their work visually attractive. This will largely be down to the discretion of the assessor. OpenOffice.org Draw is a useful free tool that has 3D objects and lighting features.

**I can export and import drawings to and from other applications and I understand different graphics file formats and related issues**

This should build on earlier work and appreciation of the variety of file formats available. Keep reinforcing the difference between open and proprietary file formats and why open formats should be used as much as possible. The advantages and disadvantages of vector formats over bit maps should be regularly re-visited.

**Spreadsheets**

This section is intended to develop the work using spreadsheets started in the Silver INGOT. At the end, the candidates should be capable of setting up all kinds of routine spreadsheets and should know where to look for particular functions to set up up new and more complex spreadsheets to help solve new problems.

**I can copy data and formulae using fixed references for rows columns and cells**

The intention is that the candidate should be able to allow column, row and cell references to be either automatically up dated or kept the same depending on the circumstances thus reducing the work required to set up a large sheet.

**I can use functions such as SUM, AVERAGE, MIN and MAX routinely**

Candidates should be familiar with the most often used functions but also know where to look for functions that might be useful even though they have not yet used them.

**I can set up and edit styles for my spreadsheet**

The candidate should be able to set up an attractive layout from which it is clear and easy to extract information. This should be in keeping with the guidance on styles in the documentation section.

**I can present a completed spreadsheet attractively so it prints appropriately and looks good on the screen**

This is in some ways related to the previous criterion but the emphasis is on things such as the size of the paper and the way the paper is used to present the information.

**I can sort, import and export data from my spreadsheet to other programs**

Candidates should appreciate the use of CSV as a means of exporting raw data but appreciate that some attributes of the data and styles will be lost. They should be familiar with export filters to commonly used software that holds data and formulas in different formats and the limitations of such filters in terms of transferring, for example, macros. Again this is an opportunity to reinforce the importance and desirability of open file formats.

**I can produce charts and graphs appropriate for the chosen data sets**

The candidate should be able to produce data in appropriate graphical forms. eg pie charts for proportions of a population, bar charts for discrete quantities and line graphs for continuous variables.

**I can make the result returned in a cell depend on the value in another cell using an IF statement**

Candidates should be able to implement simple conditional statements.

**I can use a spreadsheet to set up a financial model and use it to look at a range of possible outcomes from different starting points.**

It is sufficient that the financial model consists of several rows and columns of financial data. The spreadsheet should incorporate several common functions and should lend itself to a situation where changing a few variables causes a substantial change in the whole sheet. An example might be a table for calculating the interest every month on several loans with fixed and variable rates of interest. Another might be costing something dependent on several component costs each of which has a variable tax rate to add to the basic cost.

***Specimen Assessment tasks for unit 2***

**Task 1 - 5 marks**

Create and save a document template with the following attributes.

A4 Landscape page with 1cm margins (1 mark)

A style called My Heading based on the default style that uses a sans serif font at 18pt and is centered (3 marks)

Enter the words "Document Template" at the top of the page and apply the style (1 mark)

Save the document template under your name and DT eg JaneSmithDT

**Task 2 - 5 marks**

In a blank document set up a table with 5 columns and 4 rows. (1 mark)

Adjust the column widths to 3 cm and provide an outline border 1 pt thick with all other lines 0.5 pts thick. (2 marks)

Center the table and type the numbers from 1 to 5 in the top row and center these numbers as column headings. (1 mark)

Type the text "This is column one and row 2" in the table cell formed by column one and row two.

Type the text "This is column 3 and row 3" in the table cell formed by column three and row three. (1 mark)

Save the file under your name and table eg JaneSmithTable.

**Task 3 - 5 marks**

Set up a table of contents at the beginning of the file provided (1 mark)

Add a footer with a page number centered (2 marks)

Edit the default style to display a 10 point serifed font. (1 mark)

Change the side heading style so that side headings appear in itallic (1 mark)

Save the document under your name and contents eg JaneSmithContents

**Task 4 - 5 marks**

Open a new spreadsheet

Find a function to generate a random number between 1 and 6 in cell B2 (1 mark)

Type the numbers from 1 to 6 in cells D1 to I1 respectively. (1 mark)

In cell D2 use a conditional (IF) statement to put a 1 in cell D2 if the number in B2 =the number in D1 and a zero in D2 if B2 contains any other number. (1 mark)

Adjust the formula in D2 to fix the cell references so that when you copy the formula from D2 into E2, F2, G2, H2, I2 a 1 appears in the cell in which the formula is situated if the number in B2 matches the number in the cell immediately above. (2 marks)

**Task 5 - 5 marks**

Open a new drawing

Draw a rectangle with length 10.0 cm and height 7.0 cm (1 mark)

Draw a triangle with two sides 8.4 cm long and and angle of 56.7 degrees between these sides (1 marks)

Label the third side with its length to the nearest mm (1 mark)

Draw an ellipse with the longest dimension 12.6 cm and the shortest dimension 8.2 cm.

Draw a line through the longest length of the ellipse and group it with the ellipse.

Rotate the shape so that the line is at exactly 45 degrees to the horizontal. (2 marks)

In general, if all drawings are accurate to 1 mm or better award full marks. Reduce by 1 mark if precision is worse than to 1 mm but in all other respects drawings are as they should be.

***Assessment specification for unit 3***

**Unit 3: Community Service**

The purpose of this section is to ensure that there is a clear procedure to follow as guidance for the community service project and at the same time sufficient flexibility for individual needs. he assessment criteria for this unit are broken down into more specific requirements with marks allocated. It is therefore strongly advised that learners are provided with the mak scheme so they know exactly what it is that they have to do in order to obtain all the marks.

The purpose of the Community Service Project is to provide the candidate with a flexible opportunity to learn by making a more prolonged, meaningful and useful contribution to the wider community. They will apply the skills learned in other aspects of the the INGOT certification together with new skills acquired as needed. This increases motivation and encourages progress to self-sufficient learning in keeping with contemporary ideas about learning how to learn and lifelong learning. Learning through participation supports understanding of technological development in the context of the international use of the Internet. The over-arching criteria for judging success in a project are.

- Is the project of interest to the candidate?
- Did the candidate spend the required time working productively on the project?
- Is the outcome of the project useful or potentially useful to the community?
- Did the candidate demonstrate appropriate communication with the community eg with their assessor, through their BLOG and on mailing lists?
- Is the project documented so that it is easy to see what was achieved and the process that led to that outcome?
- Does the project documentation include appropriate reference to the UK National Occupational Standards?

**A detailed mark scheme is provided below.**

Note that the complexity of the project and the particular content covered is not important beyond being in keeping with Level 2 work.

In general, level 2 qualifications recognize the ability to gain a good knowledge and understanding of a subject area of work or study, and to perform varied tasks with some guidance or supervision. Learning at this level involves building knowledge and/or skills in relation to an area of work or a subject area and is appropriate for many job roles. So the candidate's project should show them putting together what they have learned to provide something of use to the community.

It will be helpful to candidates to have studied an existing project in some detail in the Silver INGOT research project before starting the Gold community project although this is not mandatory. Some of the time allocated to the project will be to increase knowledge related to their project. This is a perfectly legitimate use of time and will provide the candidate with the background needed for participation and self-assessment. In the last analysis, candidates do have to produce something

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specific and at least potentially useful to other people by the end of the project. They will inevitably demonstrate key functional skills in ICT or it will not be possible to achieve their goals.

Candidates report on their project through a Web log or BLOG. We provide a simple way of doing this from the community section of theINGOTs.org website. The Blog will then be used by the assessor and the Awarding Body as a key means for quality assurance. The BLOG can be entirely anonymous, its up to the candidate and their assessor to decide on what is acceptable given issues of child protection etc. The BLOG should provide a day to day description of the candidate's work, the time taken for particular tasks and an up to date summary of what has been learned/achieved so far. This summary should finally become a case study of the candidate's work. The assessor and moderators can then check that the required time has been spent and that this time has been spent productively. This does not mean that the candidate is unable to count time that turned out not to be fruitful as long as the intention was right, they learned something from the experience and this is documented. All candidates will be expected to have produced a useful outcome at the end of their project even if the scope is more limited than originally intended. Activities involved should be appropriately referenced to the UK National Occupational Standards at Level 2 partly to establish the level and partly to show that the candidate has learned how to make references to useful sources of information. Candidates should become progressively more effective in guiding their own learning based on the demands of what they want to achieve. To take part in the program the candidate must provide permission to others to use and modify their work for the benefit of the global community in keeping with the Open Source maxim, "give a brick and get a house", thereby demonstrating a practical understanding of how intellectual property rights apply to their own work.

In terms of skills, candidates will demonstrate.

1. Use of a communication service to access the internet
2. The ability to select software applications to meet their needs
3. Selection and use of the computer user interface features to meet their needs
4. Adjustment of the system settings eg window size to suit their preferred way of working
5. Consideration of the effectiveness of the tools they choose to support their work
6. Management of files and media associated with their work
7. Selection and use of a range of sources of information to support their work
8. Recognition of the copyright implications of their work
9. Access to, navigation of and search of internet sources of information, purposefully and effectively
10. Use of appropriate search techniques and design queries to locate and select relevant information
11. Use of discrimination in selecting information that matches their requirements from a variety

of sources and evaluation of fitness for purpose.

12. Review and modification of work as it progresses to ensure the result is fit for purpose and audience and to inform future work.

13. Communication appropriately by E-mail and/or Blog comments

14. Manage the storage of their communications data by attaching files to their blog and forming an e-portfolio.

15. Ability to do a simple analysis of the requirements of task, taking into account the information they need

16. Ability to use ICT effectively to explore, develop and interpret information and solve problems in a variety of subjects and contexts

**Marking scheme for the community project**

**Setting up - 9 marks**

In the first Blog entry they must:

- Provide a title for their BLOG and project in the format "Gold INGOT project Center Number, Candidate Number <n> - "Title" (1 mark)

- A paragraph providing an outline of their project and a rationale/needs analysis for the project. This should provide a brief analysis of the task (1 mark)

- They should indicate what information they will need to be successful, (1 mark) including the software tools they intend to use and why. (1 mark)

- Make a declaration that any work presented in the Blog is their own. (Assessors should ensure that candidates understand the copyright and licensing issues of using other people's work without permission as well as any evidence of plagiarism being grounds for disqualification) (1 mark)

- Make a declaration that their work is made available under the Creative Commons share alike license. (There is a link at the foot of each Community Site page to an explanation of the CC license and why it is needed and assessors should ensure they understand this) (1 mark)

- Provide references to the UK National Occupational Standards [7] that are relevant to their proposed work. (Minimum of 5 relevant references at level 2) Outside the UK Candidates may make reference to local standards that are similar in demand to the UK NOS. (1 mark)

- Provides additional links to the NOS throughout the blog (2 marks) Outside the UK Candidates may make reference to local standards that are similar in demand to the UK NOS.

**Dialog with assessor - 2 marks**

The blog must show dialog with the assessor that has the following characteristics:

- Candidate makes suggestions about improvements, revisions or changes in plans due to unforeseen circumstances

- Candidate responds positively to suggestions made by the assessor (2 marks)

**Screen shots and illustrations - 2 marks**

- The candidate's blog should include graphical illustration. These might be screen shots or digital photographs

(1 mark for using graphical illustrations, 1 mark for effective use that significantly enhances the work and correctly formats)

**File attachments - 3 marks**

- The candidate uses file attachments to the blog or links to allow digital resources that they have created to be downloaded and/or viewed by others. These include data files, digital audio, digital video or still pictures and can include additional explanations and support in communicating their work as well as any actual content that they produce. File sizes should be considered and attached files should not be bigger than 5MB in total. Use extracts from lengthy video and audio files rather than the entire file.

(1 mark for using relevant attached files)

(1 mark for at least two different file types attached or linked to the blog)

(1 mark if candidate shows appreciation of the desirability for all attached files to be in data formats that are fully open and not subject to patents or dependent on proprietary software to view or use them)

**Quality of communications - 6 marks**

- (6 marks if the candidate clearly communicates their project so that its line of development is clear including on-going evaluation of the effectiveness of their own and others' uses of information sources and ICT tools, using the results to improve the quality of their work and to inform future judgements, 3 marks if the gist is apparent but it takes some effort to follow and evaluation and response to it is weak, 1 if the work is available but without any clear structure)

- (1 mark for use of a spell check to ensure at minimum all non-technical words are correctly spelled)

- Time management - 5 marks

- (2 marks for keeping clear track of time spent and communicating this to the reader)

- (1 mark if the Blog is complete with at least 10 page sized entries or equivalent, 2 marks if work is significant but there is evidence of inefficient use of time eg through lack of focus. 3 marks for productivity reasonably in keeping with 20 hours of guided learning)

**Evaluation - 3 marks**

Final blog entry should provide an evaluation which:

- Compares the outcome to what was intended (1 mark)

- Says what improvements or enhancements could be made (1 mark)

- Provides information about the limitations of the blogging software in achieving their goals (1 mark)

**Application developed or service provided -10 marks**

**10 marks** if work involved demonstrates capability in software tools employed consistent with UK NOS at level 2, effective use of ICT to explore, develop and interpret information and solve problems in a variety of contexts and if the resources produced are judged useful in their own right as is.

**7 marks** if work involved demonstrates capability in software tools employed consistent with UK NOS at level 2, effective use of ICT to explore, develop and interpret information and solve problems in a variety of contexts and if the resources produced are judged useful but need some refinement before fully usable or in the case of services needed external additional support.

**5 marks** if work involved demonstrates capability in software tools employed consistent with UK NOS at level 2, effective use of ICT to explore, develop and interpret information and solve problems

in a variety of contexts but outcomes are not useful without significant additional work or external support.

**3 marks** if the work involved demonstrates some capability in software tools employed consistent with UK NOS at level 2 but a significant proportion is below this level.

**1 mark** if some attempt has been made to complete the task and some learning has taken place.

**Examples of possible projects to make contributions to the community**

- Provide support for teaching the knowledge sections of the INGOT qualifications
- Provide open learning resources for the community section of the INGOT web site
- As a group set up and manage a web site to promote open standards
- Devise an entry for the school in Wikipedia
- Provide clip art or diagrams to support an OS application or applications e.g. www.openclipart.org [8]
- Provide graphics for an OS web site
- Provide new document templates for an Open Source word processor
- Provide support for new users of OpenOffice.org
- Provide support and training locally to help others benefit from Open Source software
- Take part in the quality assurance for an Open Source project, identifying bugs and filing them as issues eg catalogue currently logged quality assurance issues in the OpenOffice.org project and identify duplicates
- Produce advertising posters for marketing an Open Source product
- Get publicity for an Open Source project by writing articles about it and submitting them to the news media
- Help with language localization improving the English of non-native speaker translations
- Write “How to" guides for OpenOffice.org aimed at specific audiences e.g. primary school teachers and candidates and submit them to OOoAuthors

- Write useful Macros for an Open Source spreadsheet
- Produce presentations in OpenOffice.org Impress to teach an aspect of a subject to young children.
- Support a charitable group in the community with a computer running Open Source software for printing leaflets, newsletters and circulars.
- Make contributions to the OpenOffice.org Marketing project Wiki at http://wiki.services.openoffice.org/wiki/Marketing [9]
- Help with computer re-cycling community projects installing Open Source software
- Organise a conference to inform people about Open Source issues

***INGOT style assessment criteria for the community service project and their expansion.***

**I have set up a Blog on the INGOT community site in order to document my project for presentation to a wide audience.**

The candidate needs to set up a blog covering the points in the mark scheme. If they don't already have an account set up they will have to do this first and they will need an e-mail address to receive their password. There are instructions about how to set up a blog on the first page on the community web site. It would be a good idea to allow candidates to set things up by using their initiative and the instructions in the first instance. If they need help then it can be provided but assessors should check that the candidate is then able to repeat the procedures self-sufficiently.

**I have provided appropriate links to the UK National Occupational Standards**

Note that the references to the NOS do not have to be exhaustive. They should indicate in some key respects how the work matches the requirements for Level 2 work for IT users. Also indicate to candidates that the standards are the basis for all capabilities at level 2 across the IT users sector so they can use them to set their own targets and goals for future learning.

**I have licensed my work appropriately for use by others and and made it available in downloadable files**

Candidates should understand the basics of licensing from their work in the unit on general knowledge and open systems and what they have learnt in earlier INGOT certificates. They can cross-reference their theory work with this practical application. There are details about Creative Commons licensing on the links from the community web pages and the reasons why this license enables the community to operate sharing resources for the benefit of all. Candidates should be encouraged to use open data formats for download files where possible. This is not always a straightforward decision because sometimes open data standards are not as well known, newer or might not be easy to produce from a particular application. For this reason there is no mandatory specification to provide particular formats and in some cases candidates might provide more than one format to cater for people using different software. Candidates should also appreciate that anything new is likely to take time to get widespread take up but someone has to be first and provide the leadership for improvement. They should also be open to other people helping them with file conversions to open formats where this would make the resources available more open. The

Creative Commons license enables routine conversion of files to open formats and that is one reason for using it,

**I can get the information I need from a range of sources in order to carry out my project**

Candidates should demonstrate through their Blog that they have used several relevant sources of information to learn new skills and knowledge in completing their project. This could be a range of web sites, books, discussion groups, information directly learnt from a mentor, peer or assessor. The candidate should reference these simply saying where they got the information from and why it was useful.

**I can select appropriate ICT tools and say why I used them**

Candidates should use one or more ICT applications in their work. This might simply be using the internet to get information, but they should analyze their needs and document the tools chosen and why. This does not need to be complex or extensive documentation just enough to indicate their reasons. It might simply be that the tool was readily available or they might have chosen it to learn more about it or because it had particular features they knew they were going to need. There must be identifiable documentary evidence in their BLOG and assessors should verify that this is their own work. Assessors can give feedback for improvement eg in grammar, presentation etc but the candidate should be entirely responsible for making edits and whatever is in their Blog.

**My project provided useful resources or support for the World Wide community supporting open digital resources.**

By making their work open through a Creative Commons license they are making a contribution to the World Wide movement to provide open digital resources. If their work is a service rather than a product there should be some aspect of it that promotes openness in digital resources. The most important aspect is that their intentions should be to provide something useful to the community and the assessor needs to make a judgment against the marking criteria as to the degree to which this intention has been realized. In the case of services, the candidate should provide sufficient documentary evidence in their BLOG to demonstrate the value of their work to other people and its relevance to promoting open standards and/or open resources.

**I have discussed my work with my assessor and indicated why it is intended to be a benefit to society**

The candidates Blog should show a dialog with their assessor indicating the intention of their project to make a useful contribution to the community. This dialog should demonstrate positive responses to suggested guidance from the assessor to improve the work but the work itself should all be done by the candidate. Some general discussion points could be around layout, clarity of presentation, use of alternative media eg audio files or the choice of software in relation to open standards.

**I have evaluated my project saying how it might be improved by others and how it might be enhanced**

Towards the end of the Blog the candidate should summarize their project and any ways it might be improved by others. For example, it could be extended to cover a wider range of digital resources of similar type. The graphic illustrations might be improved or files converted to alternative formats. If they are documenting a service, someone else might re-write it in a different language for a different audience.

Moderation - The assessor will discuss the work of a selection of candidates chosen by the Account Manager with the Account Manager using the evidence provided by candidate Blogs. Certification will be authorized when the Account Manager is satisfied that the assessment is fair and accurate based on the evidence provided.

BACK TO CONTENTS **[1]**

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**Source URL:** https://theingots.org/community/handbook/gold

**Links**
[1] https://theingots.org/community/handbook
[2] http://www.theINGOTs.org
[3] http://en.wikipedia.org/wiki/Antitrust
[4] http://www.usdoj.gov/oip/
[5] http://www.ubuntu.com
[6] http://www.knopper.net
[7] http://nos.e-skills.com/nos_html?action=view;id=1
[8] http://www.openclipart.org
[9] http://wiki.services.openoffice.org/wiki/Marketing