

CREATIVE ARTS AND FASHION

Graphic Design Technology



Technical Description

WorldSkills International, by a resolution of the Competitions Committee and in accordance with the Constitution, the Standing Orders, and the Competition Rules, has adopted the following minimum requirements for this skill for the WorldSkills Competition.

The Technical Description consists of the following:

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1 Introduction

1.1 Name and description of the skill competition

1.1.1 The name of the skill competition is

Graphic Design Technology

1.1.2 Description of the associated work role(s) or occupation(s).

Graphic Design Technology comprises many different skills and disciplines in the production of graphic design and output. The diversity of the skills required in the industry are very broad: it is common for people working in this field to be specialists in a particular aspect. As a result, a team may cover the Graphic Design Technology process, with each member of the team having their own strengths, specialities, and roles.

Graphic Design Technology involves working with external and internal clients to create unique solutions to their needs; these may also include printing or online publication production or integrating digital media capabilities for visual communication. People working in this industry often work closely with their clients and must be effective communicators so that they can achieve the client's objectives successfully. They require strong interactive, research, design, and technical skills in art and design to meet industry standards. In order to achieve these, they need to understand the target audience, markets, trends, cultural differences, and what the client wants. They must be able to work in either formal or informal teams, or independently.

After completing the research and planning stage, a project is interpreted to form a design in appropriate industry specific software. The design must be set up with the correct technical specifications for output. It is essential that practitioners understand all phases of the procedure including the constraints of the specified output process. These skills also apply to re-designing or updating a design.

There are various employment opportunities within the global creative industry. This may include becoming a freelancer, business owner, or being employed by an advertising, marketing, design, or printing company. They may also be employed by a company with a design department or as a stand-alone in-house designer. Practitioners may have a broad role, or specialize as a graphic designer, graphic artist, prepress operator, typographer, typesetter, type designer, image manipulation specialist, illustrator, art director, production manager, digital printer, information designer, publisher, brand or packaging specialist.

1.1.3 Number of Competitors per team

Graphic Design Technology is a single Competitor skill competition.

1.1.4 Age limit of Competitors

The Competitors must not be older than 22 years in the year of the Competition.

1.2 The relevance and significance of this document

This document contains information about the standards required to compete in this skill competition, and the assessment principles, methods and procedures that govern the competition.

Every Expert and Competitor must know and understand this Technical Description.

In the event of any conflict within the different languages of the Technical Descriptions, the English version takes precedence.

1.3 Associated documents

Since this Technical Description contains only skill-specific information it must be used in association with the following:

- WSI – Code of Ethics and Conduct
- WSI – Competition Rules
- WSI – WorldSkills Occupational Standards framework
- WSI – WorldSkills Assessment Strategy
- WSI online resources as indicated in this document
- WorldSkills Health, Safety, and Environment Policy and Regulations.

2 The WorldSkills Occupational Standards (WSOS)

2.1 General notes on the WSOS

The WSOS specifies the knowledge, understanding, and specific skills that underpin international best practice in technical and vocational performance. It should reflect a shared global understanding of what the associated work role(s) or occupation(s) represent for industry and business (www.worldskills.org/WSOS).

The skill competition is intended to reflect international best practice as described by the WSOS, and to the extent that it is able to. The Standard is therefore a guide to the required training and preparation for the skill competition.

In the skill competition the assessment of knowledge and understanding will take place through the assessment of performance. There will only be separate tests of knowledge and understanding where there is an overwhelming reason for these.

The Standard is divided into distinct sections with headings and reference numbers added.

Each section is assigned a percentage of the total marks to indicate its relative importance within the Standards. This is often referred to as the “weighting”. The sum of all the percentage marks is 100. The weightings determine the distribution of marks within the Marking Scheme.

Through the Test Project, the Marking Scheme will assess only those skills that are set out in the Standards Specification. They will reflect the Standards as comprehensively as possible within the constraints of the skill competition.

The Marking Scheme will follow the allocation of marks within the Standards to the extent practically possible. A variation of up to five percent is allowed, provided that this does not distort the weightings assigned by the Standards.

2.2 WorldSkills Occupational Standards

Section	Relative importance (%)
1 Work organization and management	10

The individual needs to know and understand:

- OHS regulations, safe work practices
- The time constraints of the industry
- Industry specific terms
- The nature and purposes of client specifications and projects
- Appropriate software usage for the outcomes required
- Methods of working within organizational limitations
- Methods of working in a team to achieve a common goal

The individual shall be able to:

- Interpret client specifications and projects
- Keep to project timelines
- Conduct themselves in a professional manner
- Manage workload under pressure and within time constraints
- Interpret projects in a sustainable manner to minimize wastage and cost to the client and company
- Recover from setbacks
- Problem solve and adapt to changes made to projects
- Multi-task
- Demonstrate time management skills
- Research projects to arrive at design frameworks

2 Communication and interpersonal skills	10
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The individual needs to know and understand:

- The importance of active listening skills
- Methods for interpreting design projects and clarifying/questioning clients
- How to visualize and interpret customer wishes and make recommendations which meet design and budgetary requirements
- The importance of building and maintaining productive working relationships
- The importance of resolving misunderstandings and conflicting demands
- How to ensure teams successfully understand design projects

Section	Relative importance (%)
<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Use literacy skills to: <ul style="list-style-type: none"> • Follow documented instructions for projects • Interpret workplace instructions and other technical documents • Keep up to date with latest industry guidelines • Present their briefs to clients and justify their design choices • Use oral communication skills to: <ul style="list-style-type: none"> • Communicate in a logical and easily understood manner • Use discretion and confidentiality when dealing with clients • Organize and compile presentations to present to clients • Question clients in an appropriate manner • Use assertiveness and tact in regards to dealing with clients • Show ideas and development through sketches 	
3 Problem solving	10
<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • Common problems and setbacks that can occur within the work process • How to trouble shoot minor software and output issues 	
<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Use analytical skills to determine the requirements of specifications • Use problem solving skills to translate the required outcomes of specifications to appropriate solutions • Use time management skills • Check work regularly to minimize problems that may arise at a later stage 	
4 Innovation, creativity, and design	35
<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • Creative trends and developments in the industry • How to apply appropriate colours, typography and composition • Principles and techniques for adapting graphics for various uses • Different target markets and the elements of design which satisfy each market • Protocols for maintaining a corporate identity, brand, and style guide • How to provide consistency and refine a design • Design principles, for creating pleasing and meaningful aesthetics • Current design trends • Standard sizes, formats, and settings commonly used in the industry 	

Section	Relative importance (%)
<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Create, analyse and develop visual responses to communication problems, including understanding hierarchy, typography, aesthetics, composition and illustration • Create (including photography), manipulate, and optimize images for both print and digital publishing • Analyse target markets and the products being delivered • Create ideas that are appropriate to target markets • Take into consideration the impact of each element that is added during the design process • Use all the required elements to create designs • Respect existing corporate identity guidelines and style guides • Maintain original design concepts and improve the visual appeal • Transform ideas into appropriate and creative designs 	
5 Technical aspects and output	35
<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • Technological trends and developments in the industry • Different input and output processes for print and other media: their limitations, techniques and relevant professional practice • Image input, manipulation and editing • Appropriate file sizes, formats, resolution, and compression • Colour systems: gamuts, ink density, colour matching, spot colours, ICC profiles, etc. • Printers marks and bleed, dielines, varnishes, blind embossing, and other embellishments • Appropriate software applications • Different types of materials and digital devices 	
<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Create prototype mock-ups for presentation • Apply appropriately mount for presentation and/or present digitally • Visually present to clients • Apply correct and appropriate adjustments for specified outputs • Capture, adjust and manipulate images to suit the designs and technical specifications • Apply colours correctly according to the task • Save files in the correct format • Use software applications comprehensively and appropriately • Organize and maintain folders (for final output and archiving) 	
Total	100

3 The Assessment Strategy and Specification

3.1 General guidance

Assessment is governed by the WorldSkills Assessment Strategy. The Strategy establishes the principles and techniques to which WorldSkills assessment and marking must conform.

Expert assessment practice lies at the heart of the WorldSkills Competition. For this reason, it is the subject of continuing professional development and scrutiny. The growth of expertise in assessment will inform the future use and direction of the main assessment instruments used by the WorldSkills Competition: the Marking Scheme, Test Project, and Competition Information System (CIS).

Assessment at the WorldSkills Competition falls into two broad types: measurement and judgement. For both types of assessment, the use of explicit benchmarks against which to assess each Aspect is essential to guarantee quality.

The Marking Scheme must follow the weightings within the Standards. The Test Project is the assessment vehicle for the skill competition, and therefore also follows the Standards. The CIS enables the timely and accurate recording of marks; its capacity for scrutiny, support, and feedback is continuously expanding.

The Marking Scheme, in outline, will lead the process of Test Project design. After this, the Marking Scheme and Test Project will be designed, developed, and verified through an iterative process, to ensure that both together optimize their relationship with the Standards and the Assessment Strategy. They will be agreed by the Experts and submitted to WSI for approval together, in order to demonstrate their quality and conformity with the Standards.

Prior to submission for approval to WSI, the Marking Scheme and Test Project will liaise with the WSI Skill Advisors for quality assurance and to benefit from the capabilities of the CIS.

4 The Marking Scheme

4.1 General guidance

This section describes the role and place of the Marking Scheme, how the Experts will assess Competitors' work as demonstrated through the Test Project, and the procedures and requirements for marking.

The Marking Scheme is the pivotal instrument of the WorldSkills Competition, in that it ties assessment to the standard that represents each skill competition, which itself represents a global occupation. It is designed to allocate marks for each assessed aspect of performance in accordance with the weightings in the Standards.

By reflecting the weightings in the Standards, the Marking Scheme establishes the parameters for the design of the Test Project. Depending on the nature of the skill competition and its assessment needs, it may initially be appropriate to develop the Marking Scheme in more detail as a guide for Test Project design. Alternatively, initial Test Project design can be based on the outline Marking Scheme. From this point onwards the Marking Scheme and Test Project should be developed together.

Section 2.1 above indicates the extent to which the Marking Scheme and Test Project may diverge from the weightings given in the Standards, if there is no practicable alternative.

For integrity and fairness, the Marking Scheme and Test Project are increasingly designed and developed by one or more independent people with relevant expertise. In these instances, the Marking Scheme and Test Project are unseen by Experts until immediately before the start of the skill competition, or competition module. Where the detailed and final Marking Scheme and Test Project are designed by Experts, they must be approved by the whole Expert group prior to submission for independent validation and quality assurance. Please see the Rules for further details.

Experts and Independent Assessors are required to submit their Marking Schemes and Test Projects for review, verification, and validation well in advance of completion. They are also expected to work with their Skill Advisor, reviewers, and verifiers, throughout the design and development process, for quality assurance and in order to take full advantage of the CIS's features.

In all cases a draft Marking Scheme must be entered into the CIS at least eight weeks prior to the Competition. Skill Advisors actively facilitate this process.

4.2 Assessment Criteria

The main headings of the Marking Scheme are the Assessment Criteria. These headings are derived before, or in conjunction with, the Test Project. In some skill competitions the Assessment Criteria may be similar to the section headings in the Standards; in others they may be different. There will normally be between five and nine Assessment Criteria. Whether or not the headings match, the Marking Scheme as a whole must reflect the weightings in the Standards.

Assessment Criteria are created by the person or people developing the Marking Scheme, who are free to define the Criteria that they consider most suited to the assessment and marking of the Test Project. Each Assessment Criterion is defined by a letter (A-I). *The Assessment Criteria, the allocation of marks, and the assessment methods, should not be set out within this Technical Description. This is because the Criteria, allocation of marks, and assessment methods all depend on the nature of the Marking Scheme and Test Project, which is decided after this Technical Description is published.*

The Mark Summary Form generated by the CIS will comprise a list of the Assessment Criteria and Sub Criteria.

The marks allocated to each Criterion will be calculated by the CIS. These will be the cumulative sum of marks given to each Aspect within that Assessment Criterion.

4.3 Sub Criteria

Each Assessment Criterion is divided into one or more Sub Criteria. Each Sub Criterion becomes the heading for a WorldSkills marking form. Each marking form (Sub Criterion) contains Aspects to be assessed and marked by measurement or judgement, or both measurement and judgement.

Each marking form (Sub Criterion) specifies both the day on which it will be marked, and the identity of the marking team.

4.4 Aspects

Each Aspect defines, in detail, a single item to be assessed and marked, together with the marks, and detailed descriptors or instructions as a guide to marking. Each Aspect is assessed either by measurement or by judgement.

The marking form lists, in detail, every Aspect to be marked together with the mark allocated to it. The sum of the marks allocated to each Aspect must fall within the range of marks specified for that section of the Standards. This will be displayed in the Mark Allocation Table of the CIS, in the following format, when the Marking Scheme is reviewed from C-8 weeks. (Section 4.1 refers.)

	CRITERIA								TOTAL MARKS PER SECTION	WSSS MARKS PER SECTION	VARIANCE
	A	B	C	D	E	F	G	H			
STANDARDS SPECIFICATION SECTION	1	5.00							5.00	5.00	0.00
	2		2.00				7.50		9.50	10.00	0.50
	3							11.00	11.00	10.00	1.00
	4			5.00					5.00	5.00	0.00
	5				10.00	10.00	10.00		30.00	30.00	0.00
	6		8.00	5.00			2.50	9.00	24.50	25.00	0.50
	7			10.00			5.00		15.00	15.00	0.00
TOTAL MARKS	5.00	10.00	20.00	10.00	10.00	10.00	15.00	20.00	100.00	100.00	2.00

4.5 Assessment and marking

There is to be one marking team for each Sub Criterion, whether it is assessed and marked by judgement, measurement, or both. The same marking team must assess and mark all Competitors. Where this is impracticable (for example where an action must be done by every Competitor simultaneously, and must be observed doing so), a second tier of assessment and marking will be put in place, with the approval of the Competitions Committee Management Team. The marking teams must be organized to ensure that there is no compatriot marking in any circumstances. (Section 4.6 refers.)

4.6 Assessment and marking using judgement

Judgement uses a scale of 0-3. To apply the scale with rigour and consistency, judgement must be conducted using:

- benchmarks (criteria) for detailed guidance for each Aspect (in words, images, artefacts or separate guidance notes)
- the 0-3 scale to indicate:
 - 0: performance below industry standard
 - 1: performance meets industry standard
 - 2: performance meets and, in specific respects, exceeds industry standard
 - 3: performance wholly exceeds industry standard and is judged as excellent

Three Experts will judge each Aspect, normally simultaneously, and record their scores. A fourth Expert coordinates and supervises the scoring, and checks their validity. They also act as a judge when required to prevent compatriot marking.

4.7 Assessment and marking using measurement

Normally three Experts will be used to assess each aspect, with a fourth Expert supervising. In some circumstances the team may organize itself as two pairs, for dual marking. Unless otherwise stated, only the maximum mark or zero will be awarded. Where they are used, the benchmarks for awarding partial marks will be clearly defined within the Aspect. To avoid errors in calculation or transmission, the CIS provides a large number of automated calculation options, the use of which is mandated.

4.8 The use of measurement and judgement

Decisions regarding the choice of criteria and assessment methods will be made during the design of the competition through the Marking Scheme and Test Project.

4.9 Skill assessment strategy

WorldSkills is committed to continuous improvement. This particularly applies to assessment. The SMT is expected to learn from past and alternative practice and build on the validity and quality of assessment and marking.

Within the marking scale. Due to the nature of the module development some modules may be more heavily weighted on measurement assessment, and others more judgement weighted.

The following is an *example* of the previous aspects

Criteria A - Creative process

- A.1 Ideas and originality for the design
- A.2 Understanding the target market
- A.3 Unity and relationship between all tasks (if applicable)

Criteria B - Final design

- B.1 Quality of the visual composition (aesthetic appeal and balance) for the design
- B.2 Visual Impact and Communication effectiveness for the design
- B.3 Quality of the typography for the design (choice of type, legibility and formatting)
- B.4 Quality of the colours (choice, balance, harmony) for the design
- B.5 Quality of image manipulation (retouch, cloning, blending, colour adjustment, etc.)
- B.6 Quality of redrawing objects in vector application for the design
- B.7 Quality of the design of other elements (charts, graphs, tables, maps, paragraph styles, etc.) for the design
- B.8 Quality of the mounted presentation or the 3D assembly

Criteria C – Software and Hardware Application

- C.1 Resolution of linked, embedded or original images as specified in the task
- C.2 Colour mode of linked images as specified in the task
- C.3 Image or element dimensions as specified in the task
- C.4 Use of style or master elements in layout as required in the task
- C.5 Final dimensions of layout as specified in the task
- C.6 All required text is present in the task
- C.7 All required elements are present in the task
- C.8 Use of corporate guidelines appropriate to the task

Criteria D – Visual Presentation Skills

- D.1 Mounting printouts on board for presentation
- D.2 Supply of printouts only
- D.3 Assembling in 3D (Mock-ups)
- D.4 Digital presentation methods

Criteria E - Knowledge of Prepress

- E.1 Bleed value applied in layout file in PDF as specified in the task
- E.2 Folding lines, trim marks, registration marks, and colour bars supplied as specified in the task
- E.3 Trapping value applied in illustrator file as specified in the task
- E.4 Overprinting applied in layout file in PDF as specified in the task
- E.5 Spot and CMYK colours used in layout in PDF file as specified in the task
- E.6 Dieline and glue area supplied as specified in the task

Criteria F – Integration of Digital Media

- F.1 Building interactive form with checklists, clickable and fillable features used in layout as required.
- F.2 Supplied media such as sound and video used in layout as required in the task
- F.3 Inserting hyperlinks, bookmarks, and buttons used in layout as required in the task
- F.4 Creating page transition effects used in layout in PDF file as specified in the task
- F.5 Usage of corporate guidelines applied on mobile app, interface design or interactive application, appropriate to the task
- F.6 Table of contents made interactive with cross-references applied in layout as required in the task
- F.7 Galleries and slideshows applied in the layout as required in the task
- F.8 Popup panel/menu and overlay applied in layout as required in the task

Criteria G - Saving and File Format

- G.1 All files saved in the correct format specified in the task
- G.2 ICC profile applied in images, PDF or layout file as specified in the task
- G.3 Saving in a specified PDF format as required in the task
- G.4 Save in a specified format
- G.5 Final production folder saved as required in the task
- G.6 Exporting interactive PDFs in the correct format as specified in the task

4.10 Skill assessment procedures

Assessment and marking are an intense process that depends upon skilful leadership, management, and scrutiny.

The same presentation is used for each module; the Independent Test Project Designer will select the appropriate aspects that are suited to the module. If there is more than one task in a module (E.g.: creating a logo and a poster), the aspects could be applied for each task if necessary (E.g.: B.6 could be marked once for the logo and once again for the poster).

5 The Test Project

5.1 General notes

Sections 3 and 4 govern the development of the Test Project. These notes are supplementary.

Whether it is a single entity, or a series of stand-alone or connected modules, the Test Project will enable the assessment of the applied knowledge, skills, and behaviours set out in each section of the WSOS.

The purpose of the Test Project is to provide full, balanced, and authentic opportunities for assessment and marking across the Standards, in conjunction with the Marking Scheme. The relationship between the Test Project, Marking Scheme, and Standards will be a key indicator of quality, as will be its relationship with actual work performance.

The Test Project will not cover areas outside the Standards, or affect the balance of marks within the Standards other than in the circumstances indicated by Section 2. This Technical Description will note any issues that affect the Test Project's capacity to support the full range of assessment relative to the Standards. Section 2.1 refers.

The Test Project will enable knowledge and understanding to be assessed solely through their applications within practical work. The Test Project will not assess knowledge of WorldSkills rules and regulations.

Most Test Projects (and Marking Schemes) are now designed and developed independently of the Experts. They are designed and developed either by the Skill Competition Manager, or an Independent Test Project Developer, normally from C-12 months. They are subject to independent review, verification, and validation. (Section 4.1 refers.)

The information provided below will be subject to what is known at the time of completing this Technical Description, and the requirement for confidentiality.

Please refer to the current version of the Competition Rules for further details.

5.2 Format/structure of the Test Project

The Test Project is a series of four (4) standalone modules.

5.3 Test Project design requirements

The Test Project/module consists of the following modules:

1: Editorial design and digital publishing (cover and/or inside pages, leaflet, restaurant menu, newspaper, booklet, e-books, data-merging, simple animated gifs, interactive form, image slideshow, or similar communication projects) could include headers, sub-headers, and text, images, graphics, tables, master elements and other appropriate elements.

2: Packaging design (regular box, tray box, tear-open packaging, label for a pre-existing package, container, or similar product) could include text and headers, and any other standardized data as specified by the task.

3: Corporate and information design (logo and collateral material, signage, symbols, graphs, tables, way-finding, social media elements, or similar elements.) could include a few lines of text, illustration, logo creation, symbol, vector drawing, or similar requirements.

4: Advertising and display design with new media (social media, digital signage screens, mobile app icon, application interface, menu, merchandise product, poster, banner, billboard, car mapping, full page advert, large format, or similar requirements.) could include a few lines of text or a slogan, image manipulation or photomontage, the use of large files, or similar specifications.

Typical modules may include:

- Capturing, digitizing, and optimizing images by specifying correct values and improving them by using appropriate tools for adjustments and manipulations;
- Creating or re-creating information design elements such as diagrams, graphs, and maps;
- Vector tracing of pixel-based logos and simple pictures such as symbols and icons;
- Converting digital manuscripts into typographic texts;
- Text to be used in projects should always be in English (or they are accompanied by texts in other languages). Translations (if necessary) may be completed by the participating countries;
- Designing most kinds of printed matter, such as books and book covers, magazines and magazine covers, newspapers, logos and logotypes, corporate identity elements (letterheads, business cards etc.), posters, advertisements, folders, signage etc.;
- Graphic design in 3D format, such as packages, bags, etc.
- Embed media objects, such as videos, and audio tracks within the publication
- Convert non-interactive objects into interactive objects to increase the level of interactivity, such as applying a clickable button, text frame and graphic frame.
- Control multi state appearance, effects, and actions.
- Printing formats may include offset, flexography, letterpress, silkscreen, digital or inkjet.
- Colour formats may include digital and print process and/or spot colours.
- Photography and/or scanning may be included in the modules.

5.4 Test Project development

The Test Project **MUST** be submitted using the templates provided by WorldSkills International (www.worldskills.org/expertcentre). Use the Word template for text documents and DWG template for drawings.

5.4.1 Who develops the Test Project or modules

The Test Project/modules are developed by an Independent Test Project Designer in collaboration with the Skill Competition Manager.

5.4.2 When is the Test Project developed

The Test Project/modules are developed according to the following timeline:

Time	Activity
Prior to the Competition	The Test Project/modules are developed.
One (1) month prior to the Competition	The Test Project documents are sent to the WorldSkills International Skills Competitions Administration Manager.
At the Competition one day prior to each module	The Test Project modules are presented to Experts and Interpreters.
At the Competition on the beginning of each module	The Test Project/modules are presented to Competitors.

5.5 Test Project initial review and verification

The purpose of a Test Project is to create a challenge for Competitors which authentically represents working life for an outstanding practitioner in an identified occupation. By doing this, the Test Project will apply the Marking Scheme and fully represent the WSOS. In this way it is unique in its context, purpose, activities, and expectations,

To support Test Project design and development, a rigorous quality assurance and design process is in place (Competition Rules sections 10.6-10.7 refer.) Once approved by WorldSkills, the Independent Test Project Designer is expected to identify one or more independent, expert, and trusted individuals initially to review the Designer's ideas and plans, and subsequently to verify the Test Project, prior to validation.

A Skill Advisor will ensure and coordinate this arrangement, to guarantee the timeliness and thoroughness of both initial review, and verification, based on the risk analysis that underpins Section 10.7 of the Competition Rules.

5.6 Test Project validation

The Skill Competition Manager coordinates the validation and will ensure that the Test Project/modules can be completed within the material, equipment, knowledge, and time constraints of Competitors.

5.7 Test Project selection

The Test Project/modules are selected by the Independent Test Project Designer in collaboration with the Skill Competition Manager.

5.8 Test Project circulation

The Test Project is circulated via the website as follows:

The Test Project/modules are not circulated prior to the Competition. The Test Project/modules are presented to Experts one day prior to the Modules start so it can be translated, and to Competitors on the beginning of each Module.

5.9 Test Project coordination (preparation for Competition)

Coordination of the Test Project/modules is undertaken by the Skill Competition Manager.

5.10 Test Project change

There is no 30% change required to be made to the Test Project/modules at the Competition. Exceptions are amendments to technical errors in the Test Project documents and to infrastructure limitations.

5.11 Material or manufacturer specifications

Specific material and/or manufacturer specifications required to allow the Competitor to complete the Test Project will be supplied by the Competition Organizer and are available from www.worldskills.org/infrastructure located in the Expert Centre. However, note that in some cases details of specific materials and/or manufacturer specifications may remain secret and will not be released prior to the Competition. These such items may include those for fault finding modules or modules not circulated.

Hardware and software specifications are made available to Experts on the Infrastructure List provided by the Competition Organizer.

6 Skill management and communication

6.1 Discussion Forum

Prior to the Competition, all discussion, communication, collaboration, and decision making regarding the skill competition must take place on the skill specific Discussion Forum (<http://forums.worldskills.org>). Skill related decisions and communication are only valid if they take place on the forum. The Chief Expert (or an Expert nominated by the Chief Expert) will be the moderator for this Forum. Refer to Competition Rules for the timeline of communication and competition development requirements.

6.2 Competitor information

All information for registered Competitors is available from the Competitor Centre (www.worldskills.org/competitorcentre).

This information includes:

- Competition Rules
- Technical Descriptions
- Mark Summary Form (where applicable)
- Test Projects (where applicable)
- Infrastructure List
- WorldSkills Health, Safety, and Environment Policy and Regulations
- Other Competition-related information

6.3 Test Projects [and Marking Schemes]

Circulated Test Projects will be available from www.worldskills.org/testprojects and the Competitor Centre (www.worldskills.org/competitorcentre).

6.4 Day-to-day management

The day-to-day management of the skill during the Competition is defined in the Skill Management Plan that is created by the Skill Management Team led by the Skill Competition Manager. The Skill Management Team comprises the Skill Competition Manager, Chief Expert, and Deputy Chief Expert. The Skill Management Plan is progressively developed in the six months prior to the Competition and finalized at the Competition by agreement of the Experts. The Skill Management Plan can be viewed in the Expert Centre (www.worldskills.org/expertcentre).

6.5 General best practice procedures

General best practice procedures clearly delineate the difference between what is a best practice procedure and skill-specific rules (section 9). General best practice procedures are those where Experts and Competitors CANNOT be held accountable as a breach to the Competition Rules or skill-specific rules which would have a penalty applied as part of the Issue and Dispute Resolution procedure including the Code of Ethics and Conduct Penalty System. In some cases, general best practice procedures for Competitors may be reflected in the Marking Scheme.

Topic/task	Best practice procedure
Equipment failure	<ul style="list-style-type: none"> In the occurrence of equipment failure Competitors must notify Experts immediately by raising their hand. Experts will take note of the time that the Competitor is not able to make use of their equipment. Any time lost due to equipment failure is provided to the Competitor at the end of the standard Module time. No additional time is granted for work not saved prior to the equipment failure.
Other	<ul style="list-style-type: none"> Experts must not attend a Competitor workstation without their marking group. Access to the competitor Competitor workstation is strictly prohibited. The Workshop Manager or Workshop Manager Assistant are the only people allowed to load any software/devices onto the Competitor's competition computer. Test Projects are not circulated and distribution of the Test Project before the competition to Competitors is prohibited.
Test Project translation	<ul style="list-style-type: none"> Experts are only to use word processing applications and translation software during the translation of Test Projects. Only people involved with translating the Test Project are in the translation area when it is occurring. The translation of the Test Projects is completed on computers provided by WorldSkills (or by hand) in the Expert room only. Translation will commence once the projects have been revealed to all Experts. Technical specifications are not allowed to be translated.

7 Skill-specific safety requirements

Refer to WorldSkills Health, Safety, and Environment Policy and Regulations for Host country or region regulations.

Task	Sturdy shoes
General PPE for safe areas	√
General working area at workstation	√

8 Materials and equipment

8.1 Infrastructure List

The Infrastructure List details all equipment, materials, and facilities provided by the Competition Organizer.

The Infrastructure List is available at www.worldskills.org/infrastructure.

The Infrastructure List specifies the items and quantities requested by the Skill Management Team for the next Competition. The Competition Organizer will progressively update the Infrastructure List specifying the actual quantity, type, brand, and model of the items. Note that in some cases details of specific materials and/or manufacturer specifications may remain secret and will not be released prior to the Competition. These such items may include those for fault finding modules or modules not circulated.

At each Competition, the Skill Management Team must review and update the Infrastructure List in preparation for the next Competition. The Skill Competition Manager must advise the Director of Skills Competitions of any increases in space and/or equipment.

At each Competition, the Technical Observer must audit the Infrastructure List that was used at that Competition.

The Infrastructure List does not include items that Competitors and/or Experts are required to bring and items that Competitors are not allowed to bring – they are specified below.

8.2 Competitors toolbox

Competitors are not allowed to send a toolbox to the Competition. All tools are provided by the Competition Organizer.

8.3 Materials, equipment, and tools supplied by Competitors

Competitors are allowed to bring personal tools on the morning of C-2 (Familiarization Day) as defined in the table below. It is recommended that these tools be brought in the luggage of the Competitor or purchased locally.

Description	Quantity	Photo
Pantone swatches or similar swatch books		
Sketching paper and pens, highlighter pen, post-it pad, coloured markers, coloured pencils, bone creaser folder		
Calibration charts		
Keyboard in own language (must not be wireless)		

Description	Quantity	Photo
Mouse, digitizer, and tablet (if desired). Must not be wireless)		
Cutting knife, scissors, stapler		
Spray adhesive is prohibited . Glue and double-sided adhesive tape will be provided by the Competition Organizer.		

8.4 Materials, equipment, and tools supplied by Experts

- Two (2) months prior to C-7, Experts will decide on a font set (no more than 20 font families) to be shared with the SMT; all font sets are made available to all Competitors from familiarization on.
- Experts may send music to the Skill Competition Manager by C-1 month. This music is made available to all Competitors on their computers for the duration of competition days.

8.5 Materials and equipment prohibited in the skill area

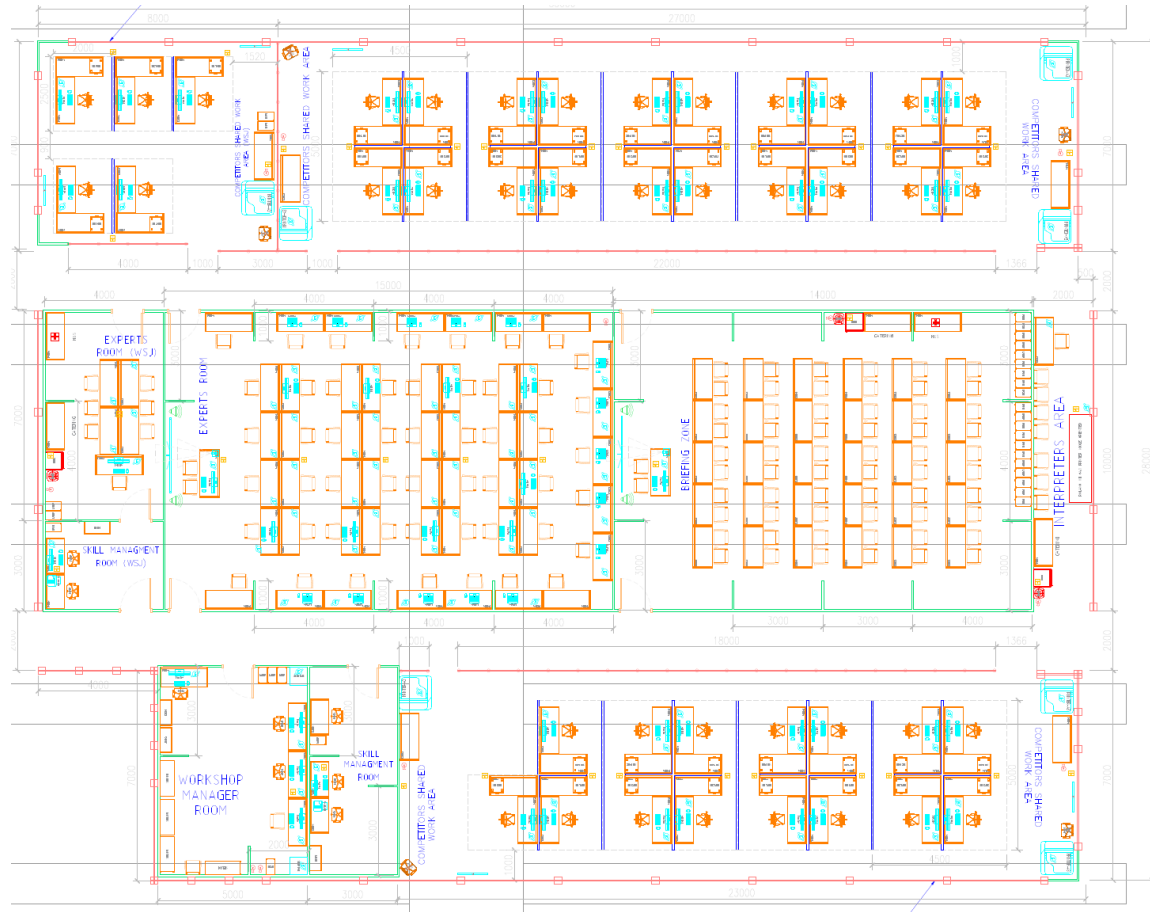
Competitors are NOT allowed to bring:

- Any device requiring Bluetooth access (tablet, mouse, keyboard);
- Extra RAM;
- Extra hard drives;
- Books with design references;
- Images/clip art;
- Mounting boards, cutting mat;
- No electronic devices (cell phones, iPod, etc.) — with the exception of an MP3 player without Wi-Fi capabilities;
- Unless stated in the Test Project, the Internet will not be available to Competitors.
- Spray adhesive is **prohibited**

8.6 Proposed workshop and workstation layouts

Workshop layouts from previous competitions are available at www.worldskills.org/sitelayout.

Example workshop layout



9 Skill-specific rules

Skill-specific rules cannot contradict or take priority over the Competition Rules. They do provide specific details and clarity in areas that may vary from skill competition to skill competition. This includes but is not limited to personal IT equipment, data storage devices, Internet access, procedures and workflow, and documentation management and distribution. Breaches of these rules will be solved according to the Issue and Dispute Resolution procedure including the Code of Ethics and Conduct Penalty System.

Topic/task	Skill-specific rule
Use of technology – USB, memory sticks	<ul style="list-style-type: none"> Competitors, Experts, and Interpreters must not bring any form of digital storage (USB/SSD/hard drive) into the workshop. If these items are brought into the workshop they must be immediately locked in the personal locker and not removed until the end of the competition on C4. The Chief Expert, Deputy Chief Expert, and Skill Competition Manager are exempt from this rule.
Use of technology – personal laptops, tablets and mobile phones	<ul style="list-style-type: none"> Experts and Interpreters are allowed to use personal laptops and tablets in the Expert room only. Personal tablets and laptops brought to the competition must remain locked in the personal locker when not in use and stay there until the conclusion of competition on C4. Experts and Interpreters can bring mobile phones into the workshop where they are to be placed in a central box and can only be used for emergencies with the approval of the Skill Competition Manager. Mobile phones may be taken out of the workshop at lunchtime and at the end of the day. Competitors are not allowed to bring and use personal laptops, tablets, and mobile phones. If these items are brought into the workshop they must be locked in the personal locker and can only be removed at the end of the day. The Chief Expert, Deputy Chief Expert, and Skill Competition Manager are exempt from this rule.
Use of technology – personal photo and video taking devices	<ul style="list-style-type: none"> Skill Competition Manager, Chief Expert, Deputy Chief Expert, Competitors, Experts, and Interpreters are allowed to use personal photo and video taking devices in the workshop after the conclusion of the competition only on C4.
Use of technology – other devices	<ul style="list-style-type: none"> Skill Competition Manager, Chief Expert, Deputy Chief Expert, Competitors, Experts, and Interpreters must not bring a keyboard or mouse with internal memory. Competitors may use an MP3 player, but the device must not have Wi-Fi/Internet access capabilities. Competitors may use a wired (not wireless) Wacom (or other) pen tablet, mouse, or keyboard Cameras may be supplied by the Competition Organizer for use by the Competitors for specific aspects of a Test Project/s

Topic/task	Skill-specific rule
Tools/infrastructure	<ul style="list-style-type: none"> • Skill Competition Manager, Chief Expert, Deputy Chief Expert, Experts, Interpreters, and Competitors are not allowed to access the Internet while in the workshop, unless stated in the Test Project. • Skill Competition Manager, Chief Expert, Deputy Chief Expert, Experts, Interpreters, and Competitors are not allowed the following in the competition area: <ul style="list-style-type: none"> • Books with design references • Images/clip art • Spray adhesive (or any other adhesive that does not comply to the safety standards) • Mounting board, guillotine, or cutting mat (or any other tool deemed to give the Competitor an unfair advantage).
Drawings, recording information	<ul style="list-style-type: none"> • Competitors are not permitted to bring notes into the workshop under any circumstances. All notes made at the Competitor workstation must remain on the Competitors desk at all times. No notes may be taken outside of the workshop until the competition has concluded on C4. • Skill Competition Manager, Chief Expert, Deputy Chief Expert, Experts, and Interpreters are exempt from this rule.

10 Visitor and media engagement

Following is a list of possible ways to maximize visitor and media engagement:

- Try-a-Skill;
- A conversation area is to be established for Experts and visitors (shut off from the work area);
- Information is hung that will explain the task of the Competitors;
- The walls of the stand are decorated with graphic design work when appropriate.

11 Sustainability

This skill competition will focus on the sustainable practices below:

- Recycling;
- Use of “green” materials;
- Minimisation of waste;
- Use of completed Test Projects after Competition.

12 References for industry consultation

WorldSkills is committed to ensuring that the WorldSkills Occupational Standards fully reflect the dynamism of internationally recognized best practice in industry and business. To do this WorldSkills approaches a number of organizations across the world that can offer feedback on the draft Description of the Associated Role and WorldSkills Occupational Standards on a two-yearly cycle.

In parallel to this, WSI consults three international occupational classifications and databases:

- ISCO-08: (<http://www.ilo.org/public/english/bureau/stat/isco/isco08/>) ILO 2166
- ESCO: (<https://ec.europa.eu/esco/portal/home>)
- O*NET OnLine (www.onetonline.org/)

This WSOS (Section 2) appears most closely to relate to *Graphic Designers*:
<https://www.onetonline.org/link/summary/27-1024.00>

And *Graphic Designer*:

<http://data.europa.eu/esco/occupation/69bcbb0a-8d80-4ecd-b0a4-9adea2a40de2>

Adjacent occupations can also be explored through these links.

The following table indicates which organizations were approached and provided valuable feedback for the Description of the Associated Role and WorldSkills Occupational Standards in place for WorldSkills Shanghai 2021.

There were no responses to our requests for feedback in this cycle.

13 Additional comments

The WorldSkills Standards Graphic Design Technology Glossary is updated via the WorldSkills Discussion Forum by Experts prior to the Competition. The intention of the glossary is to assist all Members with an industry standard vocabulary and to alleviate misinterpretation during assessment. The glossary will contain a brief description of the word and may include images, diagrams, and drawings.