

Technical Description

Bakery

Social and Personal Services




worldskills

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.

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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

Bakery

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

The baker is a highly skilled professional, with high level of knowledge about food and nutrition, who produces a wide range of bread and pastry items.

The baker produces all varieties of fresh and tasty bakery products, made of any kind of grains. Different types of fermentation and other processes will be used to turn the raw material in to sweet or savoury products. For example, wheat bread, rye bread, artisan bread, enriched breads, laminated products, and ingredients to flavour their bakery products.

These items will appear in a large number of bakeries. Bakers may also produce elaborate displays of decorative breads using creative skills and knowledge.

A high degree of specialist knowledge and skill is required. Bakers have undergone years of training in order for them to develop the level of skill required and a good understanding of sustainability. Bakers will be proficient in a wide range of specialist techniques and technology to develop and create a variety of bakery products. An artistic talent and artisan skills with the attention to detail are required, alongside the ability to work effectively and economically in order to achieve outstanding results within set timeframes.

Bakers must have knowledge about the functions, compatibility, and reactions of ingredients to create a new recipe.

Bakers must have a good understanding about reformulating recipes and adapting to a changing environment. The ability to work on their own initiative is essential. They will use a range of specialist equipment, technology, and materials in an environmentally friendly manner. The professional baker must take account of the quality of ingredients and the health and safety requirements of customers. They must respect those ingredients and work to high levels of food hygiene and safety.

Specialist bakers can develop careers, such as owning, managing, and working in all types of bakeries including high quality, family, and specialized shops. Careers in teaching and working with ingredients and machinery companies within the baking industry are also options.

It is often the case that specialist retail shops sell hand-made and decorated pastry products, artisan breads, and decorative dough's, which are prepared using the skills of a specialist baker.

1.1.3 Number of Competitors per team

Bakery 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 – Competition Rules
- WSI – WorldSkills Standards Specification framework
- WSI – WorldSkills Assessment Strategy
- WSI Online resources as indicated in this document
- WorldSkills Health, Safety, and Environment Policy and Regulations

2 THE WORLDSKILLS STANDARDS SPECIFICATION (WSSS)

2.1 GENERAL NOTES ON THE WSSS

The WSSS 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/WSSS).

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 Standards Specification 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 Specification. This is often referred to as the “weighting”. The sum of all the percentage marks is 100.

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

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

2.2 WORLDSKILLS STANDARDS SPECIFICATION

SECTION		RELATIVE IMPORTANCE (%)
1	Work organization and communication	8
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • Principles of business • The stages from buying raw material producing it to valuable product and selling them to costumers • The importance of minimizing waste and maximizing sustainability • The factors bearing on ingredients used in bakery including seasons, availability, costs, storage, and use • The range of tools and equipment used in bakery • Legislation and good practice relating to the purchase, storage, preparation, cooking, baking, and service of food products • How bakery products should be displayed for sale • The importance of displays and notices as sales and communication tools • Legal restrictions on the presentation of promotional materials • The importance of appearance when on public view and dealing with customers • The importance of effective communications across teams, colleagues, contractors, and other professionals • The need to communicate effectively with customers 	

	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Prepare and correctly use tools and equipment • Prioritize and plan work effectively to work within a given time • Show respect for raw materials • Use ingredients cost-effectively and minimize waste • Prepare products within prescribed costs • Pre-order goods and materials accurately for planned work • Work efficiently and cleanly, paying attention to the workplace and the people in it • Demonstrate good work flow skills • Demonstrate inspiration, flair, and innovation in design and work techniques • Work within given themes • Produce large quantities of bakery products to a consistent standard • Be consistent with size and weight of products in order to maintain customer satisfaction and profit margins • React professionally and effectively to unexpected situations • Work to deadlines • Have all the costumers' orders ready at the right time • Have professional dialogue with customers • Work out the right products with the costumers to their wishes for their special orders • Work effectively with colleagues and other professionals • Be an effective team member • Display products in order to maximize sales • Always pay attention to own cleanliness and appearance • Communicate effectively with colleagues, teams, and customers • Provide advice and guidance on specialist matters to managers, colleagues, and customers • Develop recipes in a way that every other baker can read them and achieve good quality products 	
2	Food hygiene and workplace health, safety, and environment	8
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • Legislation and good practice relating to the purchase, storage, preparation, cooking, and service of food • Quality indicators for fresh and preserved foods • The causes of deterioration of food • The range of tools and equipment used in bakery • Legislation and safe working practices in a bakery kitchen and for using commercial equipment 	

	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Work following all personal hygiene standards and safety regulations for food storage, preparation, cooking and service (HACCP) • Comply with all Health and Food Safety regulations and best practices • Store all commodities safely according to HACCP • Ensure all work areas are cleaned based on the highest standards • Apply the business internal HACCP concept to the last detail • Work safely and uphold accident prevention regulations • Use all tools and equipment safely and within manufacturer's instructions • Promote health, safety, and environment and food hygiene within the working environment 	
3	Enriched breads	12
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • The factors that impact on the performance of yeast • The use of yeast in its various forms • The range of sweet and enriched dough products • How to produce and enriched dough enhancing with such ingredients as sugar, eggs, butter and milk • The impact of enriching ingredients on the proving process • How sweet or enriched dough products should be displayed for sale • The different techniques for shaping like braiding, moulding in different shapes, baking in tins and many more • How sweet or enriched dough products should be stored 	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Produce a range of sweet or enriched doughs • Produce a range of bakery products using sweet or enriched dough • Produce products in bulk to a consistent size, shape, appearance, flavour and standard • Use appropriate flavourings effectively • Finish or decorate products as appropriate • Display products for sale 	

4	Wheat Breads	25
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • The factors that impact on the performance of yeast • The use of yeast in its various forms • The stages in the bread producing process • The range of large and small bread products • The range and characteristics of bread products from around the world • The importance of appearance, texture and taste • The influence of different working techniques to produce bakery products • The importance of the dough temperature • The importance of developing gluten structure in wheat dough's • How the different dough's having to be handled and stored • The science of fermentation such as types of fermentation, substances involved in the fermentation process and acidification • When to use an all-in dough method for the bakery product • The benefits of using a preferment dough leavening method, with starters like polish, sponge, biga, and levains • The benefits of refrigeration technology systems to control the fermentation to the next day for long-term leavening methods • The purpose of pre-absorption or starch gelatinization methods known as soaker, boiled dough, or mash • The sourdough leavening method with and without baker's yeast 	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Use the knowledge of the impact of various milling products and flours on bakery products • Use own understanding of the impact of dry and liquid raw materials to make different doughs • Apply knowledge of the characteristics of raw materials in bakery products • Use appropriate ingredients and flavourings effectively • Devise products demonstrating innovation and flair • Formulate recipes to make quality products • Create recipes to produce a range of breads, rolls, and loaves • Design products in bulk to a consistent size, shape, appearance, flavour, and standard • Use appropriate flavourings effectively • Design display pieces based on clients' briefs • Create designs that take account of the purpose of the pieces and the environment where they will be displayed 	

5	Laminated Doughs/Pastries	20
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • The principle of lamination as a form of raising a paste or dough • The range of laminated pastes and doughs used in bakery products • Methods of making and using laminated pastes and doughs • Colour applications, taste combinations, and texture coordination • The range and uses of doughs and pastes used to producing bakery products • The range of raw materials and how can they be worked in to a filling • Why fillings which are baked need to be stable at high temperature • The effect of using seasonal fruits and vegetables for fillings • The importance of appearance, texture, and taste 	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Produce high quality laminated pastes and doughs • Produce bakery products using laminated pastes and doughs including danish pastries, croissants, pain au chocolate, and puff pastry products • Produce products in bulk ensuring that the quality, size and finish remains consistent • Finish or decorate products • Display products for sale • Store products safely and hygienically at the point of sale 	
6	Healthy/Specialty breads	12
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • The importance of shaping and decorating dough before baking • The commonly used shapes for certain products, which are known around the world • The range of tools and equipment used in bakery for shaping and decorating • The importance of recipes for the quality control • The range and characteristics of bakery products, which are known around the world, leavened and unleavened • Colour applications, taste combinations, and texture coordination • Basic principles involved in accurately combining ingredients in order to produce products • How to create appearance, texture, and taste from the bakery product by using different ingredients and working techniques • How to process different grains, cereals and pseudo cereals • The impact of various flours and ingredients on the finished product • The manipulation of raw materials through production techniques • The influence of different working techniques to produce bakery products • Colour applications, taste combinations, and texture coordination • Finesse and artistic appreciation • The importance of the finale proof in its different methods like on couches, on loading devices, in bannetons, or on trays • The different methods of finishing before baking. This can be reshaping, cutting, scoring, piercing, sprinkling, brushing, spreading, dusting, and so on 	

	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Shape common bakery products out of dough • Recognize when the dough has fermented enough and is ready to scale and shape • Handle and scale dough's appropriated after fermenting • Shape bread products consistently and to pre-determined shapes • Produce small and big bakery products • Be creative to shape dough following costumer orders • Shape large quantities of the same product identically • Produce products in bulk ensuring that the quality, size, and finish remain consistent • Make filled products which are filled and decorated before baking • Apply different techniques for shaping • Decide how long the product needs to have a finale proof before baking • Finish the decoration before the dough is baked using different techniques • Use various techniques to produce display pieces or decorative breads 	
7	Decorative Breads	15
	<p>The individual needs to know and understand:</p> <ul style="list-style-type: none"> • The purpose and function of display pieces • The importance of creativity of design • Various techniques used to produce display pieces • The hygiene implications of displaying edible pieces 	
	<p>The individual shall be able to:</p> <ul style="list-style-type: none"> • Design display pieces based on clients' briefs • Create designs that take account of the purpose of the pieces and the environment where they will be displayed • Create display pieces to meet specifications • Use appropriate ingredients to assemble products if required • Work with leavened and unleavened doughs together in harmony 	
	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 Specification. The Test Project is the assessment vehicle for the skill competition, and also follows the Standards Specification. The CIS enables the timely and accurate recording of marks, and has expanding supportive capacity.

The Marking Scheme, in outline, will lead the process of Test Project design. After this, the Marking Scheme and Test Project will be designed and developed through an iterative process, to ensure that both together optimize their relationship with the Standards Specification 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 Specification.

Prior to submission for approval to WSI, the Marking Scheme and Test Project will liaise with the WSI Skill Advisors in order 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 standards that represent the skill. It is designed to allocate marks for each assessed aspect of performance in accordance with the weightings in the Standards Specification.

By reflecting the weightings in the Standards Specification, the Marking Scheme establishes the parameters for the design of the Test Project. Depending on the nature of the skill 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 Specification, if there is no practicable alternative.

The Marking Scheme and Test Project will be developed by the Skills Competition Manager (SCM).

In all cases a draft Marking Scheme must be entered into the CIS at least eight weeks prior to the Competition using the CIS standard spreadsheet or other agreed methods.

4.2 ASSESSMENT CRITERIA

The main headings of the Marking Scheme are the Assessment Criteria. These headings are derived in conjunction with the Test Project. In some skill competitions the Assessment Criteria may be similar to the section headings in the Standards Specification; in others they may be totally 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 Specification.

Assessment Criteria are created by the person(s) developing the Marking Scheme, who are free to define 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). It is advisable not to specify either the Assessment Criteria, or the allocation of marks, or the assessment methods, within this Technical Description.

The Mark Summary Form generated by the CIS will comprise a list of the Assessment 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) specified 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, or instructions for how the marks are to be awarded. Aspects are assessed either by measurement or 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 skill in the Standards Specification. 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)

	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, in all circumstances. The marking teams must be organized to ensure that there is no compatriot marking in any circumstances. (See 4.6.)

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, with a fourth to coordinate the marking and acting as a judge to prevent compatriot marking.

4.7 ASSESSMENT AND MARKING USING MEASUREMENT

Three Experts will be used to assess each aspect. 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.

4.8 THE USE OF MEASUREMENT AND JUDGEMENT

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

4.9 COMPLETION OF SKILL ASSESSMENT SPECIFICATION

The skill assessment criteria are clear and concise aspect specifications which explain exactly how and why a particular mark is awarded.

Marks will be awarded for

- Preparation of tools and equipment;
- Basic treatment of raw materials/ingredients;
- Preparation of semi-finished products;
- Creating a recipe;
- Hygiene, food safety and sanitation;
- Recipes;
- Different techniques;
- Creativity and finesse;
- Hygiene/work processes/waste;
- Design and general impression;
- Time;
- Size;
- Harmony of the product range;
- General impression;
- Taste and texture;
- Visual appeal
- Weight;
- Quantity;
- Variety;
- Use of mystery ingredients;
- applying of work techniques;
- Hygiene/work processes/waste;
- Lamination technique/ingredients;
- Finishing, decoration, general impression

4.10 SKILL ASSESSMENT PROCEDURES

The Experts that attend the Competition will be divided into rotating mixed groups.

Experts will maintain supervision of the Competitors during the Competition period.

Experts should not trespass or enter the Competitor's work areas if not necessary. Depending on the layout of the workshop, the Chef Expert can make stronger restrictions.

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 skills in each section of the WSSS.

The purpose of the Test Project is to provide full, balanced and authentic opportunities for assessment and marking across the Standards Specification, in conjunction with the Marking Scheme. The relationship between the Test Project, Marking Scheme and Standards Specification 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 Specification, or affect the balance of marks within the Standards Specification other than in the circumstances indicated by Section 2.

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.

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 Specification. Section 2.1 refers.

5.2 FORMAT/STRUCTURE OF THE TEST PROJECT

The Test Project is a series of separately assessed modules.

5.3 TEST PROJECT DESIGN REQUIREMENTS

The Test Project should include and assess the skills described in section 2.2 in this document, as well as being composed and formatted in accordance with item 5.2 and be in accordance with current standards. It should be noted that the Test Project must have a recreational purpose, namely, to simulate a real application, even though it may not be used in practice due to its dimensions, power, strength, etc.

- One of the models must be a decorative work,
- One module should include bread making made with enriched or sweet dough, some of them being filled;
- One module must be dedicated to the production of laminated dough (fermented) for bakery products;
- One module must be used for making "wheat" bread, where at least two varieties of bread must be prepared, differing in size and composition;
- One module must include healthy or speciality style flours or ingredients;
- A module must be allocated for the preparation of a type of bread made with ingredients from a mystery basket;
- There can be other modules for different bakery types added.

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 is developed by the Skill Competition Manager

5.4.2 How and where is the Test Project or modules developed

The modules of the Test Project have been developed around the WSSS, which has been endorsed by Bakery Industry Representatives from around the world.

5.4.3 When is the Test Project developed

The Test Project is developed at least three months before the Competition

TIME	ACTIVITY
Three months prior to the Competition	Experts can view the Test Project modules on the forum
At the Competition	Some 30% change to the Test Project modules. Element of surprise.

5.5 TEST PROJECT VALIDATION

The modules are finalized and explained to Experts once all have arrived at the Competition to confirm that they understand what is required for their Competitors to complete the competition. Some mystery aspects will be announced on C-2 and some will be announced on the day of competition.

5.6 TEST PROJECT SELECTION

Not applicable.

5.7 TEST PROJECT CIRCULATION

The Test Project is circulated via the website as follows:

Test Project modules are circulated three months prior to the Competition.

The Competitors will be given all Competition documents including the Mark Summary Form on Familiarization Day C-2 so that they may study the requirements in their preferred language. It is the responsibility of the Expert from each country/region to provide a translation in their Competitor's preferred languages.

5.8 TEST PROJECT COORDINATION (PREPARATION FOR COMPETITION)

Coordination of the Test Project will be undertaken by the Skill Competition Manager.

5.9 TEST PROJECT CHANGE AT THE COMPETITION

An approximate 30% change, new information, or mystery component will be given to Experts and Competitors on C-2 or competition day.

5.10 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.

All equipment and raw materials specifications are prepared by the Workshop Manager and are posted on the Infrastructure List as early as possible but by a minimum of three months before the Competition.

All Experts must submit their Competitor's specific and total ingredients order in English by four (4) weeks before the Competition. This can be any selection of ingredients which appear on the Infrastructure List. This is essential. Consideration will be taken into the marks for excess ingredients that have been ordered and not used.

Every Competitor is allowed to bring with them four ingredients, which do not exist on the Infrastructure List. These four ingredients do not include sour dough starters, preferments, levains, spices, or colours.

Machinery and a certain amount of equipment is supplied as can be seen on the Infrastructure List. If it is supplied by the Competition Organizer, it can't be brought by the Competitor. For example, a Kitchen Aid-style mixer is supplied, so the Competitor can't bring one to the competition.

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
- Marking Schemes
- Test Projects
- 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).

7 SKILL-SPECIFIC SAFETY REQUIREMENTS

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

Skill-specific safety requirements for bakery are:

- All Competitors must wear a chef's jacket, long black, grey, white or finely chequered trousers, apron, safety shoes, and hats. No visible jewellery is allowed;
- All Experts' uniforms should consist of long black trousers, flat safety shoes, chef's jacket, and hat. In all cases jewellery should be minimal;
- All Competitors must know how to use all the equipment on site before starting the Competition;
- All Competitors must be aware of all dangers associated in working in a bakery kitchen and be aware of the specific Health and Safety regulations of the Competition Organizer.

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 Experts for the next Competition. The Competition Organizer will progressively update the Infrastructure List specifying the actual quantity, type, brand, and model of the items. Items supplied by the Competition Organizer are shown in a separate column.

At each Competition, the Experts must review and update the Infrastructure List in preparation for the next Competition. Experts 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 COMPETITOR'S TOOLBOX

This is an example how the toolbox can look. The maximum external size of 0.6 m³ must be adhered to. Where possible the sizes length, height, depth should also be adhered to.

These toolboxes must be on wheels for ease of moving from the store room to the Competitors workstation. The racks in the workstations will not be removed from the workstations. Competitors will unpack their toolboxes from crates or shipping boxes on C-2 and will sort them to be ready for the Competitor to use on their first day of competition.

<p>Example 1</p> 	<p>Length 0.85m Depth/wide 0.7m Height 1m</p> <p>Total 0.6m³ The size is including the wheels</p>
<p>Example 2</p> 	<p>Length 0.65m Depth/wide 0.50m Height 1.0m</p> <p>Total 0.32m³ The size is including the wheels</p>

8.3 MATERIALS, EQUIPMENT, AND TOOLS SUPPLIED BY COMPETITORS IN THEIR TOOLBOX

The Competitors are allowed to bring the following items to the Competition:

- Food colouring materials in powder, paste, liquid, or natural form;
- Food spices not on the Infrastructure List
- Four ingredients of Competitor's choice will be allowed, but must be declared upon opening of the toolbox. In case of bringing flour, it is allowed to bring a maximum of 5kg of flour;
- Each Competitor can bring two toolboxes;
- In the toolbox you can bring all the tools you like (as long as they are allowed to import to the Host Country);
- The toolboxes need to be on wheels, to easy change from one shift to the other;
- Competitors are not allowed to bring more tools, than can fit in to the toolbox;
- No premade products are allowed to be brought in to the competition;
- Stencils and moulds can be brought to the competition;
- COMPETITORS MUST NOT BRING TOOLS OR EQUIPMENT THAT ARE ON THE INFRASTRUCTURE LIST

8.4 MATERIALS, EQUIPMENT, AND TOOLS SUPPLIED BY EXPERTS

Not applicable.

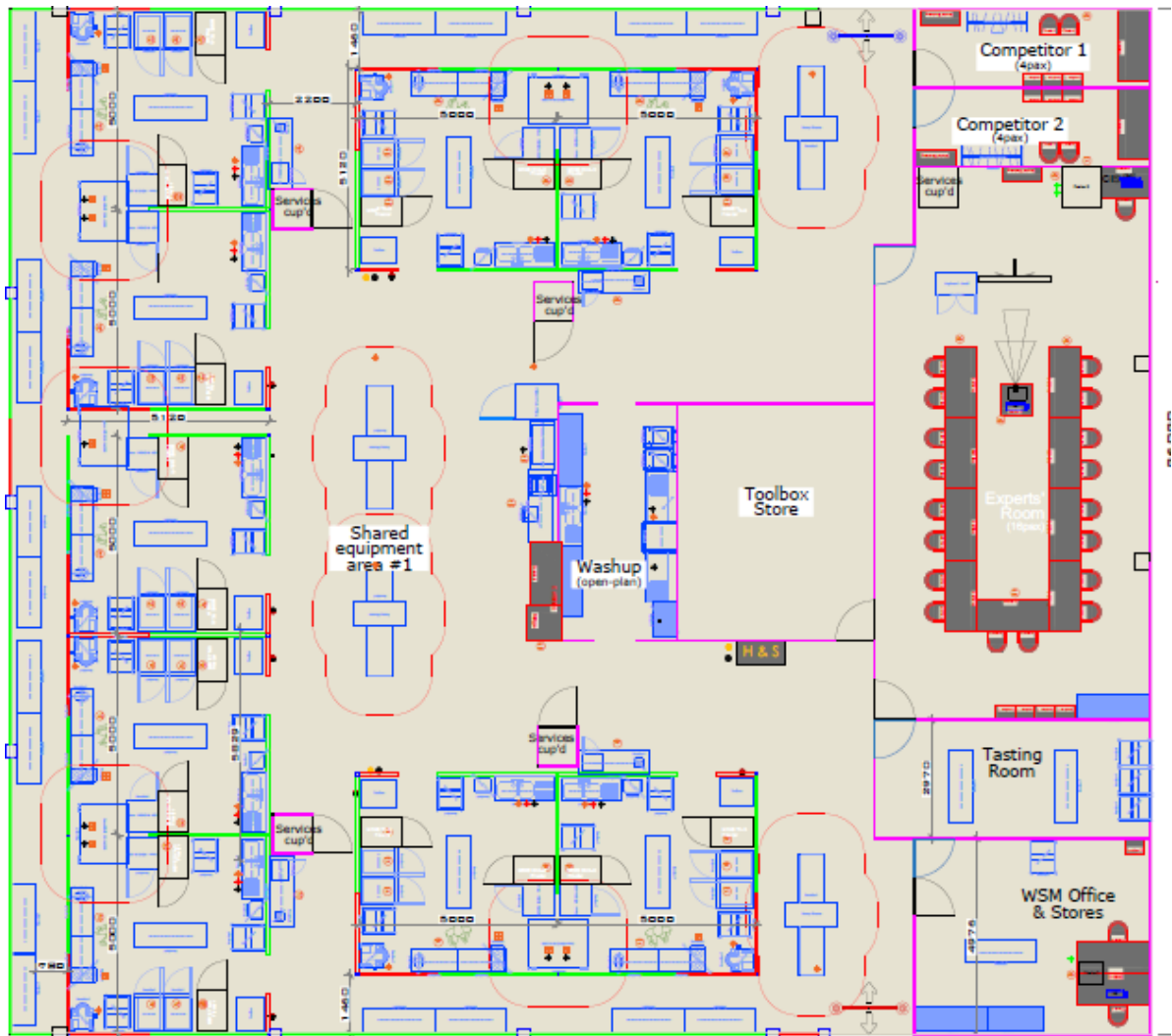
8.5 MATERIALS AND EQUIPMENT PROHIBITED IN THE SKILL AREA

All other food ingredients not specified in paragraphs 8.2 and 8.3.

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 work flow, and documentation management and distribution.

TOPIC/TASK	SKILL-SPECIFIC RULE
Use of technology – USB, memory sticks	Experts and Interpreters are allowed to bring memory sticks into the workshop.
Use of technology – personal laptops, tablets and mobile phones	Competitors are allowed to bring personal laptops, tablets or mobile phones into the workshop however they must be locked until the end of each competition day.
Use of technology – personal photo and video taking devices	During Competition time all Competitors, Experts, and Interpreters are not allowed to use phone, personal photo, and video taking devices in the workshop. Only the SCM can use a camera or mobile device during this time. The CE and DCE may have WorldSkills issued devices that they can use during the competition. These devices can be used by Experts and Competitors during break times.
Templates, aids, etc.	Competitors are permitted to bring templates and aids into the workshop except where the Test Project indicates otherwise.
Equipment failure	If equipment or tools which are brought by the Competitor fail, no extra time will be allowed.
Health, Safety, and Environment	Refer to the WorldSkills Health, Safety, and Environment policy and guidelines document.

10 VISITOR AND MEDIA ENGAGEMENT

The following ideas may be considered in order to maximize visitor and media engagement.

- Have a Go: visitors are able to try a skill with a trade;
- Display screen of the work produced on a daily basis throughout the competition – this is an interesting way for more people to observe the details of Competition without having to access the kitchens;
- Test Project descriptors – this involves fully explaining the skills involved in the Competition in order to enhance the understanding of Competitor activities and presentation times;
- Competitor profiles: A full presentation of each Competitor should be compiled by one source (possibly the Competition Organizer) in order to ensure uniformity throughout the stand;
- Career opportunities: World travel is a distinct possibility as there is a shortage of good bakers throughout the world. Opportunities which exist in hotels and restaurants, schools, developmental areas, own businesses, etc. should be well presented.

11 SUSTAINABILITY

In order to support sustainability of this competition we should be aware of the following points. During the entire process (before, during and after the actual competition days):

- Recycling of waste products;
- Encouraging the use of 'green' materials;
- Re-use of completed products from the Test Project modules after Competition;
- Order lists based on the Infrastructure List: Competitors/Experts should place a specific order list for raw materials based on the infrastructure List agreed upon by the Experts at the previous competition;
- The ingredients must be ordered four weeks before the competition and this order should constitute all of their entire order requirement, extra flour will be ordered by Competition Organizer;
- Control of the equipment required from the Infrastructure list by each Competitor/Expert – equipment not required from the host country should be declared by the Expert/Competitor four weeks before the Competition;
- Energy saving by switching off unused equipment;
- The use of tablets for marking;
- Repurpose: The Test Project can be used in the training for each Member for reference in their national Skills Competitions.

12 REFERENCES FOR INDUSTRY CONSULTATION

WorldSkills is committed to ensuring that the WorldSkills Standards Specifications 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 Standards Specification 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/>)
- ESCO: (<https://ec.europa.eu/esco/portal/home>)
- O*NET OnLine (www.onetonline.org/)

This WSSS (Section 2) appears most closely to relate to *Bakers*:

<https://www.onetonline.org/link/summary/51-3011.00>

and *Baker*: <http://data.europa.eu/esco/occupation/1aadb308-432a-4d01-b54b-b4f7f76dd419>

Adjacent occupations may 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 Standards Specification in place for WorldSkills Kazan 2019.

ORGANIZATION	CONTACT NAME
Ackermann Artisan Boulanger, Sàrl (Switzerland)	Christophe Ackermann, Owner and Director
Guangzhou Restaurant Group Likofu Food Company Ltd (China)	AU YANG, Siu Hung, Chief of R&D: Baking Section
Paolos Bakery	Paul Triglau, Owner, Baker, and Trainer
Culinary Institute of Michigan	Tom Recinella – Dean Paula Recinella- Program Director