

NATIONAL SKILLS COMPETITION

Competitions Sub-Committee

Wall and Floor Tiling

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INTRODUCTION

WorldSkills Jamaica , by a resolution of the National Organizing 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 National Skills Competition.

The Technical Description consists of the following:

- Section 1 – Technical/Competition Description (TD)
- Section 2 – Project Design Criteria (PD)
- Section 3 – Skill Management Procedures (SM)
- Section 4 – Workshop Setup (WS)
- Section 5 – Infrastructure List (IL)
- Section 6 – Appendices

Effective 01.04.07

Grace Mclean (GM)

Chairman, Competition Committee

01.04.07

Daphne Simmonds

Co-chair

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The National Skills Competitions Sub-Committee has adopted the following minimum requirements for applicants' entry in the WorldSkills Jamaica Competition.

The effective date will be that date on which this document is issued, and is subject to change by the Skills Jamaica Competition National Organizing Committee.

1. NAME AND DESCRIPTION OF SKILL

1.1 The name of the skill is:

1.1.1. Wall and floor tiling

1.2 Wall and Floor Tiling refers to the laying of tiles of ceramics, mosaic on walls, floors and staircases in houses, industrial and public buildings, churches, swimming pools, outside installations and facades.

1.3 **This technical description must be known to every candidate.**

1.4 In the event of any query or conflict within the technical descriptions, the English copy will take precedence

1.5 Words implying masculine gender only shall include the feminine gender

2. SCOPE OF WORK AT COMPETITIONS

2.1 The test project consists only of practical work.

2.2 The theoretical knowledge is limited to that necessary to carry out the practical work.

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3. PRACTICAL WORK

2.3.1 The competitor has to carry out, independently, the following tasks:

- Interpretation of plans and specifications
- Setting out of tile work
- Symmetrical and balanced tile work
- Preparation and truing of substrates
- Mixing of mortars, adhesives and grouts
- Installing wall and floor tiles
- Decorating tiling of surfaces with tiles, mosaics
- Basic brick or block work.

2.3.2 The appropriate technical skills are:

- Measuring, calculating, marking, cutting
- Interpretation of plans and drawings
- All necessary preparations before laying the tiles
- Bonding of tiles to wall/floor surface
- Cleaning and grouting of tiles

4. THEORETICAL KNOWLEDGE

4.1 Interpretation and execution of drawings and sketches, setting out principles.

Industry standards should be followed.

4.2 Knowledge of materials, auxiliary materials and processes.

5. SKILL MANAGEMENT PROCEDURES (SM)

5.1. DOCUMENTS REQUIRED

3.1.1 The Chief Expert will have available a current copy of all documents associated with this skill for the Competition.

3.1.2 The documents required are:

- Technical Description

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- Competition Rules
- Health and Safety documents
- QAMS – all documents
- Any other documents referred to in the documents listed above.

3.1.3 While it is understood that the Chief Expert will have a copy of these documents in there shall also be a complete set that is available for the experts and other competition workers.

3.1.4 The Chief Expert is expected to have a sound knowledge of the requirements and procedures specified in the documentation.

3.1.5 The Jury President is expected to have a thorough knowledge and understanding of the requirements and procedures specified in the documentation.

5.2. PRE-COMPETITION RESPONSIBILITIES

3.2.1 In the period between one National Skills Competition and the next, the elected Chief Expert is responsible to ensure that the requirements of Section 2 – Project Design Criteria are complied with.

5.3. SKILL MANAGEMENT PROCEDURES FOR THE CHIEF EXPERTS

The following speaks to the procedures prior to and during the Competition

3.3.1 The procedures specified below must be adhered to.

3.3.2 On arrival at the Competition site for the first time, the Chief Expert must:

- Welcome the experts and ensure introductions are made
- Inform them of their duties and responsibilities in terms of the Competition Rules and Standing Orders
- Ensure that the project is endorsed by all the experts and that a copy is signed by all the experts

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3.3.3 The Chief Expert will then divide the experts into teams for the following activities:

- Verify that the material on site is appropriate and sufficient
- Verify again that the quantities of material as specified on the material list is accurate
- Develop a program for the competitors to complete the modules
- Develop timetables for activities
- Set up equipment
- Confirm that the layout, work areas and equipment are in accordance with the workshop setup requirements
- Confirm that all machinery/equipment is in a safe working order
- Confirm that all workstations/machinery/equipment are in accordance with the plan, and that they are numbered
- Confirm that there is sufficient illumination
- Confirm that there is sufficient space for the competitors to work efficiently
- Confirm that the barriers are far enough removed from the competitors to ensure that there will be no interference, and if they are not, set up a roster among the experts to police the area during the Competition
- If necessary, set up duty rosters for activities during the Competition – e.g. keeping watch during lunch, preventing access of unauthorised persons, etc

3.3.4 The Chief Expert will then divide the experts into teams for purpose of marking and setting up marking schedules in accordance with the requirements.

3.3.5 Suggestions and comments for the revision and improvement of the Technical Description are to be provided to the Deputy Chief Expert in writing. The Deputy Chief Expert will reduce the information to a single typed document ready for discussion by all experts. Prior to leaving the

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Competition site, the Chief Expert, the Deputy Chief Expert and the Jury President will facilitate the discussion and revision of the Technical Description.

- 3.3.6 At any time that a unanimous decision is not achieved within a reasonable time, the Chief Expert will put the matter under discussion to the vote. A majority will be 50% of the experts present plus one. This decision will be final. In the event that an expert is absent at the time that the vote takes place, he/she has the right to be informed of the decision but the matter will not be raised again or voted upon again. The exception to this majority rule will be in the case of approval of the changes to the Technical Description, where the majority of 80% is required.
- 3.3.7 In the event that an extension of time is requested for the Competition to exceed the allotted hours, the matter must be discussed with the Jury President. All possible alternative solutions must be investigated before approval of an extension of time is requested, or will be approved.
- 3.3.8 Prior to the end of the Competition, the Jury President will facilitate the selection of the Chief Expert and Deputy Chief Expert for the next national Skills Competition.
- 3.3.9 Experts are eligible for selection as a Chief Expert if they:
- Have attended the National Skills Competition at least twice before (if less than 4 experts have been to the National Skills Competition before, this criterion may be relaxed at the discretion of the Jury President)
 - Demonstrate a high degree of expertise in the skill
 - Demonstrate leadership qualities.
 - Are competent using a computer and the Internet – specifically to facilitate the Discussion Forum for their skill category.
- 3.3.10 The process by which selection will take place is by secret ballot and is as follows:

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- Each expert present will list their choice of three experts in order of preference • The Jury President will allocate a score of three (3) points to each experts first preference, two (2) points to the second preference and one (1) point to the third preference
 - The Jury President will then calculate total scores and announce the three highest scoring experts
 - The expert with the highest score will be appointed Chief Expert for the next National Skills Competition
 - If the first choice cannot attend, then the second choice will be Chief Expert
 - If the first and second choice cannot attend, then the third choice will attend
 - If none of the choices can attend, then the jury president will appoint, or facilitate the appointment of a Chief Expert
 - The names of the selected experts will be entered into the provided documentation and signed by the Jury President and returned to the co-chair of the competitions committee.
- 3.3.11 Changes to the method of Competition design or suggestions offered for the next Competition design process or tasks must be written down and signed by 80% of the experts.
- 3.3.12 The Deputy Chief Expert's primary role is to ensure that the Technical Description is updated to reflect the technological advances of the skill category and include overall improvements for the preparation and running of the Competition. He/she will ensure that all changes to the Technical Description are entered, that all experts sign it, and that it is delivered to the co-chair of the competitions committee as a hard copy and digitally.

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3.3.13 The Deputy Chief Expert also assists in the distribution and collection of the QAMS Audit Questionnaires and assists the Chief Expert where necessary.

5.4. 3.4 HONESTY AND TRANSPARENCY

3.4.1 The competitors that attend the National Skills Competition have the right to expect fair and honest treatment during the Competition in terms of the following:

- Instructions that are clear and unambiguous
- Marking schedules that provide no advantage to an opposing competitor
- All necessary equipment and material specified within the skill documentation that are required to complete the Competition
- The assistance necessary from judges and officials to ensure that he is able to complete the project. (The assistance deemed necessary will be provided equally and at the same time to all competitors present)
- No undue interference by officials or spectators that may hinder them in the completion of their project

3.4.2 Every competitor has the right to expect and demand that no opposing competitors will receive undue or unfair assistance or intervention that may provide that opposing competitor with an unfair advantage.

3.4.3 All officials and judges present on the Competition site are expected to ensure that paragraphs 3.4.1 and 3.4.2 above are complied with and maintained.

3.4.4 It is the responsibility of the Chief Expert or his Deputy to ensure that all competitors, interpreters, officials and judges comply with and maintain the integrity of the Competition, and additionally ensure that all necessary steps are taken to ensure that:

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- Outside influences do not unduly improve or decrease competitors' abilities to provide a worthy performance.
- 3.4.5 A briefing will be provided to all experts and competitors on the requirements for integrity during the Competition.
- 3.4.6 Additionally, the Chief Expert is expected to identify these and any other factors that may exist on the Competition site that may result in the contravention of paragraphs 3.4.1 and 3.4.2 above, and reduce them to a checklist for continuous reference.
- 3.4.7 In the event that any competitor, judge, official, observer or competitor compatriot is found to be attempting to gain or provide assistance in any form that may result in an unfair advantage, the Chief Expert is to immediately refer the matter to the Jury President.
- 3.4.8 The Chief Expert will receive nominations and appoint a Security Officer whose responsibility it will be to ensure that these requirements are carried out.
- 3.4.9 It will be explained to all experts and competitors that nothing is to come in or out of the site unless specified by the Chief Expert as being allowed after being briefed on this topic.
- 3.4.10 Security checks will be carried out each day on experts and competitors (by experts and competitors) upon entry and exit to the site.

5.5. INFORMATION POLICY

- 3.9.1 During the competition a modified project plan without measurements is to be made available to the public.

6. MATERIALS

- 5.1 Basic commercial materials.
- 5.2 Tiles of ceramics, mosaic and natural stones, mortars, adhesives and grouts.

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7. WORKSHOP INSTALLATIONS

6.1 Each competitor will have a mounting wall made on brick/concrete of approximately 2500 x 1400 x 2000 mm (length, depth and height) and a thickness of at least 15 cm, a tolerance of 5 mm on the vertical and horizontal face alignment as also the internal square. It may be necessary for organiser or competitor to build additional background. Left wall in an angle 90° or 135°.

6.1.1 The test project must meet the worldskills rules and must suit the size of the background as stated in 6.1. The maximum tiled area of the project is 2400 x 1300 x 1900 mm.

6.1.2 Competitors must have a minimum of 6 metres clearance directly in front of mounting wall for working bench and tools. Tools and toolboxes must be contained in this area.

6.2 The general layout of the workshop venue will be as below, with sufficient space for the booth and for the competitors working area as defined in 6.1 above.

Please note that this is an example of the layout, and is not definitive. The minimum area requirements will be available.

6.4 The following tools must be provided:

- Gauging trowels
- Steel trowels
- Spirit levels
- Calculator
- Cutters
- Scribes
- Pick hammers

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- Pinchers
- Ruler
- Pencil
- Wooden float
- Hammer
- Builder's square (600 mm approx.)
- Try square
- Bevel
- Compass (radius extension 250 mm)
- Safety equipment (protective clothing)
- Notch trowels

Note: The competitors may bring other tools that they use in the tiling industry.

6.4.1 Tool box

The competitors' toolbox will be limited to a size of 2.0 m³ (maximum)

8. TEST PROJECT MARKING

7.1 The experts will decide together on the test project, the marking criteria and the dimensional tolerances on forms 5, 5A and 6, and they will prepare the material list.

8.1. MARKS

Perfect	=	10 points
Very good	=	9 points
Good	=	8 points
Rather good	=	7points
Sufficient	=	6 points
Medium	=	5 points

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Weak	=	4 points
Insufficient	=	3 points
Very bad	=	2 points
Zero	=	1 point

8.1.1. Subjective:

Perfect	=	10 points
Very good	=	9 points
Good	=	8 points
Rather good	=	7 points
Sufficient	=	6 points
Medium	=	5 points
Weak	=	4 points
Insufficient	=	3 points
Very bad	=	2 points
Zero	=	1 points

8.1.2. Objective (tolerance)

1mm	=	10 points
2 mm	=	9 points
3 mm	=	8 points
4 mm	=	7 points
5 mm	=	6 points

more than 5 mm will be 1 point

8.2. RATING

Section	Item	Maximum Points
A	Overall appearance	10
B	Cutting	10
C	Level plumb and square	30

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D	Surface alignment	15
E	Measurements	25
F	Full completed to drawing	10

Conversion to the 400 - 600 scale will be done by computer.

9. COMPETITION PROCEDURE

- 8.1 The competition will be worked on over all four days of the competition.
- 8.2 Competitors will have time at their disposal to familiarise themselves with material and processes. Where processes are particularly difficult, the host country will provide a subject matter expert to demonstrate the process and the competitors will be given the opportunity to practice.
- 8.3 The competitors will be given all competition documents including the marking criteria one hour prior to the commencement of the competition so that they may study the requirements.
- 8.4 Prior to the start of the competition, each competitor will receive a detailed timetable reflecting the timing for completion of modules.
- 8.5 On completion of the daily module, or after time has lapsed for the completion of a module, competitors may return to work on the main project module.

10. JUDGING PROCEDURAL REQUIREMENTS

- 9.1 The experts that attend the competition will be divided into marking groups to deal with each section of the marking criteria.

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11. SAFETY REQUIREMENTS

- 10.1 All competitors must use safety glasses when using any hand, power or machine tools or equipment likely to cause or create chips or fragments that may injure the eyes
- 10.2 All competitors must wear long trousers and regulation safety footwear.
- 10.3 All competitors must wear hearing protection when necessary.
- 10.4 All machinery, equipment and safety clothing must comply with the safety rules of the organising country.
- 10.5 Competitors must keep their workspace clear of obstacles and the floor space clean of material and equipment - any items likely to cause the competitor to trip, slip or fall.
- 10.6 Failure by the competitor to comply with safety directions or instructions will incur loss of marks for safety.
- 10.7 Judges will wear the appropriate personal safety equipment when inspecting, checking or otherwise working with a competitor's project.