Using the NQF Level Descriptors

NQF Level Descriptors are used along with other sources of information to place qualifications on the NQF. Other sources, which will become more widely available as qualifications are placed on the NQF, include subject benchmarks, qualifications at the same level, and comparable qualifications on other frameworks.

NQF Level Descriptors are not qualification specifications. On the contrary, while Level Descriptors confirm learning outcomes for a series of predefined characteristics, qualification specifications (descriptors) set out:

- what the learner is expected to do on successful completion of the qualification
- the qualification structure i.e. level and number of units
- the minimum number and level of credits required at each level.

The NQF Level Descriptors are generic and equally applicable to academic, vocational and work-based qualifications. There will be qualifications with units that comprise learning outcomes at different levels, and it may also be that one or more of the sub-strands does not appear in particular units. A best-fit approach is used to determine the level of the units of a qualification on the NQF.

Professional judgement can be assisted by reading and becoming familiar with the Level Descriptors in order to make an informed determination as to where a qualification sits and to provide supporting rationales that can be understood by others who may not be expert in the subject/discipline area.

Although Level Descriptors can act as a useful guide when designing qualifications, it is not recommended that the design of a qualification be based solely on these descriptors. It is important that qualifications are designed to meet the needs of learners and other stakeholders such as employers, universities and training institutions.

In this respect, if a particular unit does not have learning outcomes relevant to one or more sub-strands, the qualification should not be adapted purely to meet this need. That said, it is equally important that qualifications development is not based on one or two sub-strands alone.

From one level to the next there are small increments in the levels of learning. When using a descriptor at a particular level it is assumed that the requirements of the predecessor levels have also been met - they are not repeated at each level. For example, under Knowledge: Practical Application, it states:

- relate to some of the main theories and concepts (Level 4)
- relate to the main theories and concepts (Level 5)
- relate to the main and core theories and concepts (Level 7)
At Level 4, learners would not cover all the theories of the subject/discipline, only some of them, with a decision on the eventual number being covered left to those designing the qualification. At Level 5, learners would cover more of the main theories. Theories are not directly referenced in Level 6, being already covered in Levels 4 and 5, but this does not prevent the continuance of activity relating to core theories at Level 6. At Level 7, learners would study more in-depth theories that are central to the subject/discipline.

To become familiar with the progressive nature of the language being used, it can be useful to consider and compare key words used within the Level Descriptors. In the table below, examples are provided for Level 1, Level 5 and Level 10 of the NQF (using sub-strands 1, 3 and 5) in which key words are highlighted with a view to demonstrating progression.

<table>
<thead>
<tr>
<th>NQF Level</th>
<th>1. Knowledge - Theoretical Understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>In a subject/discipline, demonstrate elementary knowledge of: some simple facts.</td>
</tr>
<tr>
<td>Level 5</td>
<td>Associated with a subject/discipline, demonstrate generalised knowledge and understanding of: a wide range of facts and ideas; processes, materials, properties, practices, techniques and/or terminology; the main theories and concepts.</td>
</tr>
<tr>
<td>Level 10</td>
<td>At the forefront of a subject/discipline, demonstrate detailed critical knowledge and understanding of: processes, materials, properties, techniques, features, conventions and terminology; leading principal and specialised theories, principles and concepts. Have extensive detailed and often leading knowledge of: one or more specialisations generated through personal research or investigative work that makes a significant contribution to existing knowledge and practice.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NQF Level</th>
<th>3. Skills - Generic Problem Solving and Analytical Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>With encouragement and support: use well-defined stages to solve simple uncomplicated problems; take some account of the identified consequences of actions or inaction.</td>
</tr>
<tr>
<td>Level 5</td>
<td>With some guidance: obtain, organise and use information; solve problems; draw conclusions and suggest solutions; make generalisations and predictions in defined situations.</td>
</tr>
<tr>
<td>Level 10</td>
<td>Improvise and use a combination of approaches to: critically analyse, evaluate and/or synthesise complex ideas and information to develop creative and original responses to problems and issues; deal with very complex and/or new situations, issues and/or problems; make informed judgements in situations where data/information is very limited and/or inconsistent.</td>
</tr>
</tbody>
</table>
NQF Level | 5. Competence: Autonomy, Responsibility and Context
--- | ---
Level 1 | Operate under supervision in everyday contexts; in highly organised and well-defined contexts.
Level 5 | Operate with some guidance in familiar and unfamiliar contexts; in carrying out defined tasks with independence taking responsibility for the nature and quality of outputs.
Level 10 | Operate at an expert level; in variable contexts that are complex, unpredictable and not clearly defined; with sole responsibility and accountability for the outcome of individuals, groups and projects. Originate and lead complex activities/projects/work. Taking strategic decisions.

To help with interpretation of the Level Descriptors, a glossary of words and terms has been developed in which the meaning is provided specifically in relation to the NQF. Additionally, in Levels 2 to 10, a key to progression is provided with a view to exemplifying progression from one level to the next. In most cases text is minimal, for example under Knowledge: Practical Application: Subject/Discipline Specific, it reads:

- complete familiar, uncomplicated, pre-planned tasks (Level 2)
- complete familiar, straightforward tasks that are routine (Level 3).

As with uncomplicated at Level 2, straightforward at Level 3 still describes tasks that are undemanding but may involve processes that require greater thinking, for example sequencing. In this respect, and for the purpose of the NQF Level Descriptors, straightforward represents a small progression from uncomplicated.

At Level 3 it can also be seen that tasks, although familiar, are not pre-planned. Thus, routine at Level 3 represents a small progression from pre-planned at Level 2.

In another example, under Knowledge: Theoretical Understanding, we see the statement:

- demonstrate mainly factual knowledge and understanding (Level 3).

For some subjects/disciplines at this level it may be beneficial to include some fundamental theories in specific qualifications; in other qualifications this might be less important. As long as the outcome is mainly factual knowledge of simple facts and ideas and some basic processes, the inclusion of some fundamental theories will not alter the level of this sub-strand.

In the sub-strand Skills: Communication, ICT and Numeracy a number of example activity types are given. These should, however, only be used as a guide and not as a boundary or inhibitor.

At lower levels of the NQF it is recognised that very young children will conduct research or investigation for projects at school or for pleasure. This level of research is not specifically mentioned in the descriptors, with such activities at lower levels covered by statements such as basic processes, materials and terminology.
At the other end of the scale, at NQF Level 7 it is expected that the learner will have knowledge and understanding of some research methods and/or other investigative techniques relevant to the subject/discipline. For example, in psychology this might be knowledge of experiential, descriptive or correlational research methods. In vocational areas this might include exploration of the types of materials for use in specific manufacturing products or processes. In hospitality this could involve investigating new trends in food consumption or ingredients. In this respect it is extremely important that subject experts are involved in the mapping of qualifications to the NQF, providing the required sector and subject-specific insight in into the requirements of relevant qualifications.

In all cases, it is important not to read a single word or phrase in isolation, with descriptors read holistically across the strands to determine the best-fit. Similarly, the level of the unit should be considered holistically, taking into consideration the level of all of the composite sub-strands: where for the majority of sub-strands the best-fit for learning outcomes is at NQF Level 3, the unit should also be at NQF Level 3.

Across the Level Descriptors the terms: everyday, familiar, unfamiliar, routine and non-routine are used. In this respect everyday tasks or contexts include those that are simple and commonplace. A familiar task or context is well known to the learner but is not as commonplace, and may not be as simple or everyday. An unfamiliar task or context is one that is known, or has been experienced, by the learner but is not well-known. Routine is something that is customary, normal or scheduled, whereas non-routine is something that does not occur on a regular basis and is out of the ordinary.

Occasionally, these terms are used together and/or within the same level. In order to help clarify the meaning of these terms, some examples are provided below:

<table>
<thead>
<tr>
<th>TERMS</th>
<th>EXPLANATION</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine and familiar</td>
<td>That which is carried out or experienced regularly and is well-known.</td>
<td>Making a meal (routine) using a recipe that is used often (familiar).</td>
</tr>
<tr>
<td>Routine and unfamiliar</td>
<td>That which is carried out or experienced regularly and is not well known.</td>
<td>Making a meal (routine) using a recipe that is only used on special occasions once or twice a year (unfamiliar).</td>
</tr>
<tr>
<td>Routine and new</td>
<td>That which is carried out or experienced regularly but has not been done/experienced before.</td>
<td>Making a meal (routine) using a recipe that the individual has not used before (new).</td>
</tr>
<tr>
<td>Non-routine and familiar</td>
<td>That which is not carried out often but is well-known.</td>
<td>Changing a light bulb.</td>
</tr>
<tr>
<td>Non-routine and unfamiliar</td>
<td>That which is not carried out or experienced often and is not well known.</td>
<td>Changing a tyre.</td>
</tr>
</tbody>
</table>

When placing qualifications on the NQF it is necessary to consider both context and the target group. For example, changing a tyre may be non-routine and unfamiliar to many but for a car mechanic it is likely to be routine and familiar.
Glossary of Terms

To help with interpretation of the Level Descriptors, a short glossary of words and terms has been developed providing a specific definition relevant for use within the NQF.

<table>
<thead>
<tr>
<th>WORD / PHRASE</th>
<th>DEFINITION / MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>A range of…</td>
<td>A number of…</td>
</tr>
<tr>
<td>Associated with a subject/discipline</td>
<td>Refers to knowledge that is not specific to (but associated with) a subject/discipline, yet it is required for its understanding.</td>
</tr>
<tr>
<td>Common</td>
<td>Normal; unexceptional or conventional.</td>
</tr>
<tr>
<td>Complexity</td>
<td>Being made up of interconnected parts; not simple; involved.</td>
</tr>
<tr>
<td>Deal with</td>
<td>Sort out.</td>
</tr>
<tr>
<td>Defining features of…</td>
<td>The nature and essential qualities of…</td>
</tr>
<tr>
<td>Elementary</td>
<td>Fundamental, introductory, simple facts or activities that must be learned or carried out (initially) in order to understand, or be able to do, that which follows.</td>
</tr>
<tr>
<td>Encouragement and support</td>
<td>Prompt.</td>
</tr>
<tr>
<td>Everyday</td>
<td>Commonplace; normal; expected.</td>
</tr>
<tr>
<td>Familiar</td>
<td>Frequent; known but not as frequent as every day.</td>
</tr>
<tr>
<td>Forefront</td>
<td>Leading’ in a position of great importance or advancement.</td>
</tr>
<tr>
<td>Guidance</td>
<td>Advice; direction; instruction.</td>
</tr>
<tr>
<td>In a subject/discipline</td>
<td>Refers to key facts specific to a subject or discipline.</td>
</tr>
<tr>
<td>Independence</td>
<td>Not controlled by others; autonomous.</td>
</tr>
<tr>
<td>Insight</td>
<td>Comprehension; perception; judgement.</td>
</tr>
<tr>
<td>Limited range</td>
<td>Small number but greater than narrow range.</td>
</tr>
<tr>
<td>Little supervision</td>
<td>Little instruction or guidance.</td>
</tr>
<tr>
<td>Narrow range</td>
<td>Small number.</td>
</tr>
<tr>
<td>Operate</td>
<td>Perform; work; function.</td>
</tr>
<tr>
<td>Process</td>
<td>Action to achieve results; deal with, prepare or make ready.</td>
</tr>
<tr>
<td>Professional level</td>
<td>Trained; specialised; qualified; proficient.</td>
</tr>
<tr>
<td>WORD / PHRASE</td>
<td>DEFINITION / MEANING</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Relate</td>
<td>Apply; utilise.</td>
</tr>
<tr>
<td>Routine</td>
<td>Predictable; unchanging; repetitive.</td>
</tr>
<tr>
<td>Simple</td>
<td>Easy to understand; not complicated.</td>
</tr>
<tr>
<td>Some</td>
<td>A small amount.</td>
</tr>
<tr>
<td>Straightforward</td>
<td>Undemanding but may require some thinking or planning.</td>
</tr>
<tr>
<td>Support</td>
<td>Encouragement; advocacy.</td>
</tr>
<tr>
<td>Synthesise</td>
<td>Integrate; blend; fuse.</td>
</tr>
<tr>
<td>Uncomplicated</td>
<td>Simple; not complex.</td>
</tr>
<tr>
<td>Understanding</td>
<td>Comprehension.</td>
</tr>
<tr>
<td>Very simple</td>
<td>Exceedingly easy.</td>
</tr>
<tr>
<td>Well-defined</td>
<td>Clearly defined structure or organisation; clearly stated.</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>In a subject/discipline, demonstrate elementary knowledge of: • some simple facts.</td>
</tr>
<tr>
<td>2</td>
<td>In a subject/discipline, demonstrate elementary knowledge and understanding of: • some simple facts and ideas.</td>
</tr>
<tr>
<td>3</td>
<td>In and associated with a subject/discipline, demonstrate basic, mainly factual knowledge and understanding of: • simple facts and ideas; • some basic processes, materials and/or terminology.</td>
</tr>
<tr>
<td>4</td>
<td>Associated with a subject/discipline, demonstrate basic knowledge and understanding of: • a range of facts and ideas; • basic processes, materials and/or terminology; • some of the main theories and concepts.</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------</td>
</tr>
</tbody>
</table>
| 3     | In and associated with a subject/discipline, demonstrate basic, mainly factual knowledge and understanding of:  
• simple facts and ideas;  
• some basic processes, materials and/or terminology. | Use simple skills and some basic skills to:  
• complete familiar, straightforward tasks that are routine;  
• select and use safely, with little supervision, basic tools and materials effectively. | With little support:  
• use known stages of a problem solving approach to deal with straightforward situations, issues and/or problems;  
• identify the consequences of actions or inaction. | Use simple skills to:  
• develop and respond to simple but detailed written and oral communication;  
• access features of familiar applications to obtain information and process data;  
• interpret familiar, uncomplicated numerical and graphical data. | Operate under little supervision:  
• in, familiar and routine contexts;  
• with little independence and limited responsibility. |
| 4     | Associated with a subject/discipline, demonstrate basic knowledge and understanding of:  
• a range of facts and ideas;  
• basic processes, materials and/or terminology;  
• some of the main theories and concepts. | Use basic skills to:  
• plan and organise familiar tasks;  
• relate to some of the main theories and concepts;  
• complete familiar and unfamiliar tasks that have some non-routine elements;  
• select and use tools and materials safely and effectively with minimal supervision, making adjustments where necessary. | With minimal support:  
• use problem solving approaches to deal with familiar and unfamiliar situations, issues and/or problems;  
• make generalisations and draw conclusions in defined situations. | Use basic skills to:  
• produce and respond to familiar detailed written and oral communication;  
• access features of standard applications to obtain and combine information and process data;  
• interpret and use routine, numerical and graphical data that has a little complexity. | Operate with minimal supervision:  
• in familiar and some unfamiliar contexts;  
• with some independence and responsibility. |
| 5     | Associated with a subject/discipline, demonstrate generalised knowledge and understanding of:  
• a wide range of facts and ideas;  
• processes, materials, properties, practices, techniques and/or terminology;  
• the main theories and concepts. | Use basic skills to:  
• plan and organise familiar and new tasks;  
• relate to the main theories and concepts;  
• complete routine and non-routine tasks;  
• adapt, as necessary, processes, practices, techniques tools and/or materials to deal with defined routine situations, issues and/or problems. | With some guidance:  
• obtain, organise and use information;  
• solve problems;  
• draw conclusions and suggest solutions;  
• make generalisations and predictions in defined situations. | Use basic skills to:  
• produce and respond to familiar and unfamiliar written and oral communication some of which is detailed;  
• select and use standard applications to obtain and combine information and process data;  
• interpret and use routine and non-routine numerical and graphical data that has some complexity. | Operate with some guidance:  
• in familiar and unfamiliar contexts;  
• in carrying out defined tasks;  
• with independence taking responsibility for the nature and quality of output. |
|-------|-----------------------------------|----------------------------------|-----------------------------------------------|---------------------------------|---------------------------------------------|
| 4     | Associated with a subject/discipline, demonstrate basic knowledge and understanding of:  
  - a range of facts and ideas;  
  - basic processes, materials and/or terminology;  
  - some of the main theories and concepts.  
  Use basic skills to:  
  - plan and organise familiar tasks;  
  - relate to some of the main theories and concepts;  
  - complete familiar and unfamiliar tasks that have some non-routine elements;  
  - select and use tools and materials safely and effectively with minimal supervision, making adjustments where necessary.  
  With minimal support:  
  - use problem solving approaches to deal with familiar and unfamiliar situations, issues and/or problems;  
  - make generalisations and draw conclusions in defined situations.  
  Use basic skills to:  
  - produce and respond to familiar detailed written and oral communication;  
  - access features of standard applications to obtain and combine information and process data;  
  - interpret and use routine, numerical and graphical data that has a little complexity.  
  Operate with minimal supervision:  
  - in familiar and some unfamiliar contexts;  
  - with some independence and responsibility. |
| 5     | Associated with a subject/discipline, demonstrate generalised knowledge and understanding of:  
  - a wide range of facts and ideas;  
  - processes, materials, properties, practices, techniques and/or terminology;  
  - the main theories and concepts.  
  Use basic skills to:  
  - plan and organise familiar and new tasks;  
  - relate to the main theories and concepts;  
  - complete routine and non-routine tasks;  
  - adapt, as necessary, processes, practices, techniques tools and/or materials to deal with defined routine situations, issues and/or problems;  
  With some guidance:  
  - obtain, organise and use information;  
  - solve problems;  
  - draw conclusions and suggest solutions;  
  - make generalisations and predictions in defined situations.  
  Use basic skills to:  
  - produce and respond to familiar and unfamiliar written and oral communication some of which is detailed;  
  - select and use standard applications to obtain and combine information and process data;  
  - interpret and use routine and non-routine numerical and graphical data that has some complexity.  
  Operate with some guidance:  
  - in familiar and unfamiliar contexts;  
  - in carrying out defined tasks;  
  - with independence taking responsibility for the nature and quality of output. |
| 6     | Associated with a subject/discipline, demonstrate detailed knowledge and understanding which is embedded in the main theories, principles and concepts and includes:  
  - facts and ideas;  
  - processes, materials, properties, techniques and/or terminology;  
  - the changing nature of knowledge relating to the subject/discipline;  
  - the importance between explanations based on evidence and/or research and other forms of explanations.  
  Use basic skills and some advanced skills to:  
  - plan and organise familiar and new tasks, some of which are at an advanced level;  
  - complete routine, non-routine and some advanced level tasks;  
  - adapt, as necessary, processes, practices, techniques, tools and/or materials to deal with defined and some undefined situations, issues and/or problems.  
  Use and organise information to:  
  - present and evaluate arguments, information and ideas;  
  - deal with defined and some undefined situations, issues and/or problems.  
  Use basic and some advanced skills to:  
  - communicate clearly in a well-structured manner to convey complex information and ideas;  
  - select and use standard applications to obtain and combine a variety of information and process data;  
  - combine numerical and graphical data to measure progress against targets/goals.  
  Operate:  
  - in familiar and unfamiliar contexts;  
  - in defined areas of work and/or application of resources;  
  - with independence taking responsibility for the nature and quality of output  
  - with accountability for determining and achieving personal outcomes. |
|-------|--------------------------------------|----------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|
| 6     | Associated with a subject/discipline, demonstrate detailed knowledge and understanding which is embedded in the main theories, principles and concepts and includes:  
- facts and ideas;  
- processes, materials, properties, techniques and/or terminology;  
- the changing nature of knowledge relating to the subject/discipline;  
- the importance between explanations based on evidence and/or research and other forms of explanations.  
Use basic skills and some advanced skills to:  
- plan and organise familiar and new tasks, some of which are at an advanced level;  
- complete routine, non-routine and some advanced level tasks;  
- adapt, as necessary, processes, practices, techniques, tools and/or materials to deal with defined and some undefined situations, issues and/or problems.  
Use and organise information to:  
- present and evaluate arguments, information and ideas;  
- deal with defined and some undefined situations, issues and/or problems.  
Use basic and some advanced skills to:  
- communicate clearly in a well-structured manner to convey complex information and ideas;  
- select and use standard applications to obtain and combine a variety of information and process data;  
- combine numerical and graphical data to measure progress against targets/goals.  
Operate:  
- in familiar and unfamiliar contexts;  
- in defined areas of work and/or application of resources;  
- with independence taking responsibility for the nature and quality of output;  
- with accountability for determining and achieving personal outcomes. |
| 7     | Associated with a subject/discipline, demonstrate advanced knowledge and understanding of:  
- processes, materials, properties, techniques, conventions and/or terminology;  
- the core theories, principles and concepts;  
- its specialisations, scope and defining features;  
- some major current issues.  
Knowledge and understanding of some research methods and/or other investigative techniques.  
Use advanced level and some specialist level skills to:  
- plan and organise advanced level tasks;  
- adapt, as necessary, processes, practices, techniques, tools and/or materials to deal with defined and undefined situations, issues and/or problems;  
- undertake research or investigation into advanced level situations, issues and/or problems.  
Use a range of approaches to:  
- undertake analysis, evaluation and/or synthesise information and concepts, within the common understanding of the subject/discipline;  
- critically evaluate evidence;  
- formulate solutions that are evidence-based.  
Use advanced skills to:  
- communicate clearly in a well-structured manner to convey complex information and ideas, adapting the message to the requirements and level of the target audience;  
- select and use standard applications, and some specialist applications, to obtain and combine a variety of information and process data;  
- interpret and evaluate numerical and graphical data to measure progress against targets/goals.  
Operate at an advanced level;  
- in variable contexts;  
- in defined and some undefined areas of work;  
- with some responsibility for the work of others;  
- with accountability for determining and achieving personal and group outcomes. |
|-------|--------------------------------------|---------------------------------|---------------------------------------------------|-------------------------------------------|---------------------------------------------|
| 7     | Associated with a subject/discipline, demonstrate advanced knowledge and understanding of:  
  - processes, materials, properties, techniques, conventions and/or terminology;  
  - the core theories, principles and concepts;  
  - its specialisations, scope and defining features;  
  - some major current issues.  
  Knowledge and understanding of some research methods and/or other investigative techniques.  
  Use advanced level and some specialist level skills to:  
  - plan and organise advanced level tasks;  
  - adapt, as necessary, processes, practices, techniques, tools and/or materials to deal with defined and undefined situations, issues and/or problems;  
  - undertake research or investigation into advanced level situations, issues and/or problems.  
  Use a range of approaches to:  
  - undertake analysis, evaluation and/or synthesis information and concepts, within the common understanding of the subject/discipline;  
  - critically evaluate evidence;  
  - formulate solutions that are evidence-based.  
  Use advanced skills to:  
  - communicate clearly in a well-structured manner to convey complex information and ideas, adapting the message to the requirements and level of the target audience;  
  - select and use standard applications, and some specialist applications, to obtain and combine a variety of information and process data;  
  - interpret and evaluate numerical and graphical data to measure progress against targets/goals.  
  Operate at an advanced level;  
  - in variable contexts;  
  - in defined and some undefined areas of work;  
  - with some responsibility for the work of others;  
  - with accountability for determining and achieving personal and group outcomes. |
| 8     | Associated with a subject/discipline, demonstrate critical knowledge and understanding of:  
  - processes, materials, properties, techniques, features, conventions and/or terminology;  
  - some specialist theories, principles and concepts;  
  - of major current issues;  
  - that integrates the core theories, principles, and concepts.  
  Have detailed knowledge and understanding of:  
  - one or more specialisations in the subject/discipline;  
  - the established research methods and/or investigative techniques.  
  Use specialist level skills to:  
  - deal with advanced and some complex situations and/or problems that have an element of unpredictability;  
  - relate to and adapt main and core theories and concepts;  
  - apply standard research or investigative methods;  
  - plan and undertake defined projects of development, research or investigation into special situations, issues and/or problems;  
  - demonstrate creativity in the application of knowledge, understanding and/or practices.  
  Use a range of approaches to:  
  - critically analyse, evaluate and synthesise information, concepts, skills and practices in a subject/discipline to identify and define situations, issues and/or problems;  
  - demonstrate insight, interpretation and creativity to complex situations, issues and/or problems;  
  - identify and implement relevant solutions;  
  - make informed judgements in situations where data/information is limited and/or comes from a variety of sources.  
  Use special skills to:  
  - communicate with peers, senior colleagues and specialists;  
  - make formal presentations about specialised topics, adapting the message to the audience as appropriate;  
  - select and use standard and specialist applications;  
  - specify refinements and/or improvements to applications as required;  
  - interpret and evaluate numerical and graphical data to establish targets and measure progress.  
  Operate at a specialist level;  
  - in variable contexts that have some unpredictability;  
  - in defined and undefined areas of work;  
  - with significant responsibility for the work of others;  
  - lead multiple groups and projects with decision making responsibilities. |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Associated with a subject/discipline, demonstrate critical knowledge and understanding of: • processes, materials, properties, techniques, features, conventions and terminology; • specialist theories, principles and concepts; • major current issues in the subject/discipline and its specialisations that integrate the core theories, some specialised theories, principles and concepts; • Have extensive detailed knowledge and understanding of: • one or more specialisations in the subject/discipline which is informed by developments at the forefront; established and specialised research methods and/or investigative techniques.</td>
<td>Use professional level skills which are at, or informed by, developments at the forefront of the subject/discipline to: • deal with complex, unpredictable situations, issues and/or problems; • apply standard and specialised research methods and/or investigative techniques; • plan and undertake significant projects of development, research or investigation into new situations, issues and/or problems; • demonstrate creativity or originality in the application of knowledge, understanding and/or practices.</td>
<td>Use a combination of approaches to: • critically analyse, evaluate and/or synthesise information that extends existing knowledge and concepts of the subject/discipline; • identify, conceptualise and define new and abstract problems; • demonstrate professional levels of insight, interpretation, originality and creativity to complex situations, issues and/or problems; • develop original and creative responses to deal with complex situations, issues and/or problems; • make informed judgements in situations where data/information is limited and/or inconsistent.</td>
<td>Use professional skills to: • select appropriate means to communicate with a range of audiences with different levels of knowledge/expertise; • communicate with peers, more senior colleagues and specialists; • have in-depth knowledge of appropriate applications to support and enhance work at this level; • specify refinements and/or improvements to applications to increase effectiveness; • undertake critical evaluation of a wide variety of numerical and graphical data.</td>
<td>Operate at a professional level: • in variable contexts that are often complex, unpredictable and not clearly defined; • with substantial responsibility for the work of individuals and groups; • initiate and lead activities/projects/work; • taking part in strategic decision making.</td>
</tr>
<tr>
<td>10</td>
<td>At the forefront of a subject/discipline, demonstrate detailed critical knowledge and understanding of: • processes, materials, properties, techniques, features, conventions and terminology; • leading principal and specialised theories, principles and concepts. Have extensive detailed and often leading knowledge of: • one or more specialisations generated through personal research or investigative work that makes a significant contribution to existing knowledge and practice.</td>
<td>Use highly specialised and expert skills which are at, or informed by, developments at the forefront of the subject/discipline to: • deal with new and unfamiliar complex situations and/or issues that are unpredictable; • apply standard and specialised research methods and/or investigative techniques; • relate to and adapt main, core and specialised core theories and concepts; • plan and undertake an extensive project of development, research or investigations into new and leading situations, issues and problems; • demonstrate creativity and originality in the development and application of new knowledge understanding and/or practices.</td>
<td>Improvise and use a combination of approaches to: • critically analyse, evaluate and/or synthesise complex ideas and information to develop creative and original responses to problems and issues; • deal with very complex and/or new situations, issues and/or problems; • make informed judgements in situations where data/information is very limited and/or inconsistent.</td>
<td>Use a significant range of professional skills to: • communicate at an appropriate level to a range of audiences and adapt communication to context and purpose; • communicate results of research and innovation to peers and others; engage in critical dialogue; use a range of applications to support and enhance work; critically evaluate numerical and graphical data.</td>
<td>Operate at an expert level: • in variable contexts that are complex, unpredictable and not clearly defined; • with sole responsibility and accountability for the outcome of individuals, groups and projects; • originate and lead complex activities/projects/work; • taking strategic decisions.</td>
</tr>
</tbody>
</table>