

Tile Installer - NVQ Level 3

Course synopsis

This course is designed primarily to introduce the basics of Tile Installation in construction work and then to enhance the following key competencies.

- Reading and interpreting the drawings provided by the customer, and any drawings of their own for different tile installation operations
- Carrying out calculations for different types of material, tools, machinery equipment and labour with respect to a given job
- Sketching lay out plans & facilitating (smooth) installation of Tiles, while minimizing waste.
- Demonstrating safe work habits and an attitudes of working safely with tools, machinery and equipment around others to prevent unintentional injury
- Demonstrating awareness on the concepts of quality and environmental protection

Course Title:	Tile Installer
Course Duration:	3 Months (Institutional) + 6 Months in Industry (OJT)
<p>Objectives of the Course and career paths available following completion of the course</p> <p>Smooth integration to work environment is an integral part of the dual-type vocational training mode.</p> <p>Therefore, students on completion of 3 Months of Institutional Training will be transferred to industry worksites for gaining real hands on experience in the occupation.</p> <p>Therefore, at end of this 6 months of training in industry these students should be able to,</p> <ul style="list-style-type: none">• Analyze any given work situation• Apply /achieve occupation specific performance standards• Execute range of occupational skills• Transfer occupational skills to new situations & problem situations• Communicate effectively with hierarchical superiors, colleagues or with customers• Display professional ethics• Demonstrate the concepts of quality and environmental protection.	

Short Term Competency based Curriculum for the occupation – Tile Installer
Course Duration: 03 Months (Institutional) followed by 06 Months OJT in industry
(NVQ -3)

Index

Module #	Module Title	Page/s
01	Use basic Technical Drawings	3-4
02	Perform Basic Trade Calculations	5-6
03	Prepare Estimates	7-9
04	Prepare surface for installing Tiles	10-12
05	Prepare Layout Plan	13-15
06	Prepare Tile Bedding	16-18
07	Lay and set Tiles	19-23
08	Career Skills – 1	24

Occupation: Tile Installer

Module Title: Use basic Technical Drawings

Module Reference: M - 01

Module Aim

Aim of this Module is to enable the learner demonstrate drawing technical illustrations using standard tools, procedures and recommended methods

Module Content

Task	Task Description / Performance standards
<ul style="list-style-type: none">• Make and use varieties of sketches• Provide general information on drawings and lettering• Differentiate between lines of the drawing• Differentiate between symbols of materials• Make geometrical drawing/layout	<ul style="list-style-type: none">. Draw and Explain<ul style="list-style-type: none">• Freehand lines• Various freehand geometric shapes• Various freehand three-sided geometric shapes (different views)Illustrate and explain<ul style="list-style-type: none">• Geometric lines• Geometric areas• Geometric solids• Geometric curvesIllustrate and explain<ul style="list-style-type: none">• Purpose of technical drawing• Drawing equipment• Use of instruments• Types of lettering• Forms of characters• Size of characters• Formats and scalesIllustrate<ul style="list-style-type: none">• Nature of lines• Size of lines• Use of linesExplain<ul style="list-style-type: none">• Nature of hatching• Use of hatchingIllustrate<ul style="list-style-type: none">• Perpendicular• Parallel• Angles• Circumference• Tangents• Connection• Regular Polygons ,Common curves

Training Delivery

Group activities - Exercises

(to be performed by learner groups)

Get learner groups demonstrate how to perform each task

- 1) First provide guided practice
- 2) Then allow groups to practice with minimum guidance

Suggested Training Methodology

1. Lecture - Demonstration
2. Self-paced Instruction
3. Group Discussion

Small group activities to be used extensively

Assessment

Assessment of learning involves Trainers use of evidence of student learning to make judgments about student achievement and:

- provides the opportunity to report evidence of achievement related to curricular outcomes
- occurs at the end of a learning cycle using a variety of tools

Students need to be engaged regularly in assessment as learning. The various types of assessments should flow from the learning tasks and provide direct feedback to the students regarding their progress in attaining the desired learning as well as opportunities to set and assess personal learning goals related to the content of the occupation.

Occupation: Tile Installer

Module Title: Perform basic Trade calculations

Module Reference: M - 02

Module Aim

Aim of this Module is to enable the learner take off accurate measurement using standard tools, procedures and methods of measurement

Module Content

Task	Task Description / Performance standards
<p>Demonstrate accurate measurement using pocket tape measure.</p> <p>Draw a line parallel to a board's side.</p> <p>Calculate area, perimeter, and volume</p> <p>Demonstrate how to draw a line at 90 and 45 degrees</p> <p>Demonstrate how to check for level using a Mason's level.</p> <p>Trade Mathematics/Menstruation</p> <p>Explain each of these Mathematical applications /functions with simple illustrations</p> <p><u>Exercises</u> Get learners perform simple calculations on these Mathematical applications /functions</p> <p>Investigate a number of other measurement devices</p>	<p>Demonstrate accurate measurement using pocket tape measure.</p> <p>Demonstrate how to draw a line parallel to a board's side with a combination square</p> <p>Use simple formulas and a tape measure.</p> <p>Demonstrate using a framing square</p> <p>Demonstrate using a Mason's level</p> <ul style="list-style-type: none">• Four fundamental Arithmetical operations• Kinds of measurement• Dimensions• Ratios and Proportions• Simple Algebraic Equations• Fractions,• Percentage• Decimals• Conversions <p>(e.g., Sliding T-bevel, Dividers</p>

Training Delivery

Group activities - Exercises

(to be performed by learner groups)

Get learner groups demonstrate how to perform each task

- 1) First provide guided practice
- 2) Then allow groups to practice with minimum guidance

Suggested Training Methodology

1. Lecture - Demonstration
 2. Self-paced Instruction
 3. Group Discussion
- Small group activities to be used extensively

Assessment

During assessment ensure that following criteria are met

1. Identification of object or component to be measured.
2. Categorization and interpretation in accordance with appropriate regular geometric shape.
3. Selection and identification of measuring tools as per object to be measured
4. Obtaining accurate specifications from relevant sources.
5. Selecting measuring instruments as per job requirements.
6. Obtaining measurements according to job requirements.

Suggested Assessment Methods

1. Oral questioning
2. Direct observation
3. Written test

Occupation: Tile Installer

Module Title: Prepare Estimates

Module Reference: M - 03

Module Aim

Aim of this Module is to help the learner acquire a specific and more detailed understanding for creating a construction cost estimate for providing and installing floor tile and finishes.

Module Content

Task	Task Description / Performance standards
Gather required information	<ul style="list-style-type: none">• Conduct a brief discussion of review of project plans and specifications, scope review, methods and results required by the quantity surveyor• Identify Customer requirements clearly• Determine a methodology for compiling that information into a detailed cost estimate• Include Sample takeoffs and cost estimates.• Illustrate how repetitive calculations and analysis can be readily formulated into spreadsheet software (to greatly decrease effort and the potential for error)• Identify Health, safety and environmental concerns, requirements to be provided & maintained
Make an overview of Labor, Material, Equipment, Indirect Costs	<ul style="list-style-type: none">• Review number of factors that vary in determining labor cost. (cost to install an average ceramic tile floor depends upon material and finish grade, surface area and material volume, preparation and special needs, and the <u>labor rate</u>.)
Quantify gathered information	<ul style="list-style-type: none">• To price the tile, calculate the area of the job by multiplying the length of the room by the width for the total square feet.• Multiply the total square feet by the tile price per square foot, and then add 20 percent for cuts and breakage

--	--

Module Content	
Task	Task Description / Performance standards
Continued- Quantify gathered information	<u>Considerations</u> <ul style="list-style-type: none"> • Preparation costs vary greatly from job to job, and should be estimated considering all the materials needed and the time it will take to address every aspect of preparation. • Labor for laying tile depends on the type of tile, the pattern, and elements included in the job. (usually, more cuts require more time and should be priced higher) • Calculate costs of tools, machinery and equipment use • Profit- Once the total cost of all tile, floor preparation, tools, supplies and labor have been calculated, a minimum percentage(20-percent profit) needs to be added.
Finalize Estimate	<ul style="list-style-type: none"> • Prepare draft estimate as per SOP • Consult client for any amendments • Include amendments and prepare final estimate • Obtain necessary approval for final estimate

Training Delivery

Suggested Instructional Methodology

- Demonstration using the Performance Guide
- Small group activities
- Visualized Presentations

Suggested Instructional media –Flip charts, Flash cards, Power point Presentations

Assessment

Assessment of soft skills

Continuous Observation and assessment at work

Assessment of Technical competencies (Performance / Knowledge Assessments)

(Includes Mode of assessment and Assessment Instruments/tools to be used in assessment)

Technical Competencies to be assessed task wise

MCQ and Structured essay type questions and oral questions (short viva) to be used to assess the knowledge component

Collection of evidence – viz . Material lists, Student's Progress Record book

Consistency of performance

Consistency of performance to be established through repeated performance of task

Occupation: Tile Installer

Module Title: Prepare Surface for Installing Tiles

Module Reference: M - 04

Module Aim

Aim of this Module is for learner to acquire competencies required to

- organize site arrangements, required resources
- prepare surface

to given plan, design, estimate, specifications while adhering to occupational Health and Safety requirements and regulations

Module Content

Task	Task Description / Performance standards
<p>Discuss What would you do in organizing the work location and resources required for surface preparation</p> <p>Discuss What are basic site facilities and occupational health & safety regulations and requirements for the same?</p>	<ul style="list-style-type: none">• Prepare work plan required for arranging the site and preparing the surface for tiling.Note: (If at worksite this work plan should be communicated to all relevant parties before commencing work)• List resources and facilities required for arranging the site and preparing the surface (Refer work plan)• If at worksite, ensure that<ul style="list-style-type: none">- Resources and facilities listed are made available and located for effective use.- Suitability of resources and facilities Checked for quality- Basic site facilities checked against occupational health & safety regulations and requirements• Basic site facilities may include: Water, Power, Toilets, Changing area, Dining area, Transport, Security, Health and Safety facilities, Storage

Module Content	
Task	Task Description / Performance standards
<p>Provide samples of documents required to be referred when performing above task (In class room use documents obtained from work sites as samples)</p> <p>Provide explanations where necessary</p> <p>Explain/illustrate what is a subfloor (Use visuals)</p> <p>Explain/Demonstrate how to prepare a concrete sub floor for installing tiles</p> <p>Discuss the importance of taking time to repair, patch, and level any damaged or uneven areas</p> <p>Demonstrate the use of high pressure water gun to wash the Chipped and cleaned</p>	<p>Documents to be referred:</p> <ul style="list-style-type: none"> -Work plan -Estimate/BOQ -Drawings -Specifications <p>A subfloor is the bottom-most structural level of a given floor.</p> <p>The subfloor should be able to hold the weight of the tile and preparation materials required to complete the installation</p> <p>Preparing a concrete subfloor</p> <ul style="list-style-type: none"> • When preparing a concrete subfloor, ensure that it can accept water penetration. (You may test by sprinkling water on to different spaces of the subfloor) • Remove contaminants, if any, • Ensure that concrete is free from any efflorescence or salts on the surface • Use of chipping hammer for preparing an even concrete substratum • Roughen smooth concrete slabs using chemical or mechanical methods to achieve a good bond. • Ensure that concrete subfloors have a coarse finish • Check for dips (You may check by sliding a 4- to 6-foot straight edge in different directions all around the space) • Ensure that concrete floor is clean, dry, flat and free of adhesives. • Any moisture problems and leaks should be addressed before installation

<u>Module Content</u>	
Task	Task Description / Performance standards
Discuss purpose & How mat/ Membranes are used	<p style="text-align: center;">Assignment</p> Collect necessary details and present as how to check for dips and cracks, and install a membrane or mat on sub floor surface.

<u>Training Delivery</u>
<p>Suggested Instructional Methodology</p> <ul style="list-style-type: none"> • Demonstration using Performance Guides • Small group activities • Visualized Presentations <p>Suggested Instructional media –Flip charts, Flash cards, Power point Presentations</p>

<u>Assessment</u>
<p><u>Assessment of soft skills</u> Continuous Observation and assessment at work</p> <p>Assessment of Technical competencies (Performance / Knowledge Assessments) (Includes Mode of assessment and Assessment Instruments/tools to be used in assessment) Technical Competencies to be assessed task wise</p> <p>MCQ and Structured essay type questions and oral questions (short viva) to be used to assess the knowledge component</p> <p>Collection of evidence – viz . Material lists, Student’s Progress Record book</p> <p><u>Consistency of performance</u> Consistency of performance to be established through repeated performance of task</p>

Occupation: Tile Installer

Module Title:

Prepare Layout plan

Module Reference:

M - 05

Module Aim

Aim of this Module is to enable trainees prepare an efficient lay out plan which will facilitate (smooth) installation of Tiles, ensuring quality standards while minimizing waste.

Module Content

Task	Task Description / Performance standards
<p><u>Demonstrate</u> The process of plotting an effective layout for installing tiles</p> <p><u>Explain/Demonstrate</u> What need to be done, if the tile cuts needed are smaller than half a tile</p> <p><u>Problem situation -Discuss</u> Plotting the layout of a large room</p>	<p><u>Some guidelines are given below to follow the process</u></p> <p>First mark the center point of each of the walls in the given (say) room.</p> <p>Connect up chalk lines between the center points of opposite walls</p> <p>(This enables to pinpoint the center of the room)</p> <p>Ensure (by making adjustments as required) that the intersection creates squares.</p> <p>Now lay a row of loose tiles (without mortar) along the center lines in both directions (Start at the center point)</p> <p>On reaching the walls, cut tiles to achieve a perfect fit.</p> <p>Adjust the center line by snapping a new line a half-tile size closer to the wall</p> <p>Divide each section of the room into smaller 2' x 3' grids by snapping additional lines parallel to the centerlines.</p> <p><u>Following guide lines may be followed</u> Measuring the four walls in the room for their midpoints.</p>

<p><u>Exercise</u> Get trainees Demonstrate as how to locate the centre point of a given room</p>	<p><u>Steps</u></p> <p>Snap two chalk lines, One from the midpoints of two opposite walls Other from the midpoints of the other two walls. Find the point of intersection (This is the center point of the room).</p>
<p><u>Exercise</u> Get trainees to check if the chalk lines are square</p> <p><u>Exercise</u> Get each group to perform the exercise at least once</p> <p><u>Discuss</u> If room is not square what adjustments would you suggest?</p>	<p><u>Some Guidelines</u></p> <p>Mark points 3 feet on one chalk line and 4 feet on a perpendicular chalk line starting at the intersection.</p> <p>Measure the diagonal space between each of these two points. (If the distance between the two is exactly 5 feet, the lines are square.) If the lines are not square, the tiles will not be centered and the room might look unbalanced.</p> <p>Make adjustments to the position of one line and then square the other line using the 3-4-5 procedure</p>

<p><u>Training Delivery</u></p> <p>Suggested Instructional Methodology</p> <ul style="list-style-type: none"> • Demonstration using the Performance Guide • Small group activities • Visualized Presentations <p>Suggested Instructional media –Flip charts, Flash cards, Power point Presentations</p>

Assessment

Assessment of soft skills

Continuous Observation and assessment at work

Assessment of Technical competencies (Performance /Knowledge Assessments)

(Includes Mode of assessment and Assessment Instruments/tools to be used in assessment)

Technical Competencies to be assessed task wise

MCQ and Structured essay type questions and oral questions (short viva) to be used to assess the knowledge component

Collection of evidence – viz . Material lists, Student's Progress Record book

Consistency of performance

Consistency of performance to be established through repeated performance of task

Occupation: Tile Installer

Module Title: Prepare Tile Bedding

Module Reference: M - 06

Module Aim

Aim of this Module is to enable trainees prepare a tile bedding as per given specifications to facilitate perfect tile installation.

Module Content

Task	Task Description / Performance standards
<p><u>Explain</u> The process of forming the "Tile Bedding"</p> <p><u>Discuss</u></p> <ol style="list-style-type: none">1. Preparation of mortar<ul style="list-style-type: none">• Ratio of sand/cement• Mixing methods <p><u>Discuss</u> The process applicable to wood subfloors where a backer board is installed</p> <p><u>Explain</u> How to apply thin set</p>	<p><u>Key points to follow</u></p> <ul style="list-style-type: none">• Carefully study the given drawings, consult client, and obtain instructions from consultant• Prepare Mortar as per given Instructions <p>(Thin-set mortar is the cement or bonding agent used to attach the tile to the backer board or concrete subfloor).</p> <p>Some mortars ("non-modified") require a latex polymer admixture to improve the performance of the mortar and bond strength.</p> <p>Porcelain floor tiles are installed using a polymer modified thin-set to achieve for efficiency in bonding</p> <p>What you should not do.</p> <ul style="list-style-type: none">• Do not to mix too large a batch of thin-set. (It will start to harden before you've used all of it).• Do not add water after the thin-set begins to harden (this weakens the cement and affects bonding) <p><u>Applying the thin-set</u></p> <p>Use the trowel to scoop out an adequate quantity of mortar from mix bucket.</p> <p>Begin from one quadrant at the center point of the room where chalk lines drawn intersect,</p>

Training Delivery

Suggested Instructional Methodology

- Demonstration using the Performance Guide
- Small group activities
- Visualized Presentations

Suggested Instructional media –Flip charts, Flash cards, Power point Presentations

Assessment

Assessment of soft skills

Continuous Observation and assessment at work

Assessment of Technical competencies (Performance /Knowledge Assessments)

(Includes Mode of assessment and Assessment Instruments/tools to be used in assessment)

Technical Competencies to be assessed task wise

MCQ and Structured essay type questions and oral questions (short viva) to be used to assess the knowledge component

Collection of evidence – viz . Material lists, Student’s Progress Record book

Consistency of performance

Consistency of performance to be established through repeated performance of task

Occupation: Tile Installer

Module Title:

Lay and set Tiles

Module Reference:

M - 07

Module Aim

Aim of this Module is to enable the learner to use correct techniques of tile installing as per given specifications and quality standards while adhering to occupational health and safety requirements

Module Content

Task	Task Description / Performance standards
Organize required resources	<p>Organize</p> <ul style="list-style-type: none">• Tiles in required quantity and quality and as per other specifications• Required type of grout• Tile adhesives• Required tools and equipment• Other material required <p>Confirm if site facilities including OHS requirements are met</p> <p>Make available setting out designs, sketches, Drawings, etc.</p>
<p><u>Demonstrate to learners</u> Correct Techniques of laying Tiles</p> <p>Continue to laying tiles</p>	<p><u>Hints</u></p> <ul style="list-style-type: none">• Confirmed if the mortar has the right consistency• Re-lay the first tile (Test Tile), ensure it is line with the chalk lines at the center• Place two spacers along the side where tile will be attached Use two spacers, one on each end. (Spacers are used to ensure equal spacing between tiles).• Then set the second tile by aligning the edges and corners. <p><u>Hints</u></p> <ul style="list-style-type: none">• Follow chalk lines to ensure tiles are going down in a straight line,• Make sure you're not tiling yourself into a corner

Module Content	
Task	Task Description / Performance standards
<p>Level Tiles (Perform leveling)</p>	<p><u>steps</u></p> <ul style="list-style-type: none"> • Install three or four tiles, place a 2 x 4 on top and tap lightly with a rubber mallet. (This will level the tiles and embed them firmly in the mortar). • Continue spreading mortar and setting additional tiles • Use a damp sponge to clean off any mortar on top of the tiles. • Prevent drying of mortar. • Check alignment so often and look down the tile edges to ensure lines are straight. • This should be done often before the mortar starts to dry and harden.
<p>Complete laying all full tiles</p> <p><u>Small Group Activity</u></p> <p>Let trainees in group practice the task of installing of Tiles</p> <p>Select the correct Tile Cutting Tool (a manual snap cutter or an electric wet saw). wet saws splash water and tile residue during operation.</p> <p>Cut curves (on Tiles)</p> <p><u>Important</u></p> <ul style="list-style-type: none"> • Wear safety glasses when working with the nippers 	<p><u>Steps</u></p> <p>First complete laying full tiles in the first quadrant (This leaves behind the space between those tiles and the wall where cut tiles are now required).</p> <p>Continue laying tiles – not confining yet to corners (confining to corners now would force the worker to walk on the newly installed tiles)</p> <p>Now finish laying all full tiles in (other) three quadrants and let the mortar to harden.</p> <p>Select the manual cutter for smaller jobs.</p> <p>Select a wet saw for jobs that require cutting a large number of tiles.</p> <p>To cut a curve, mark the cutting line and then cut away bits of tile with the tile nippers.</p> <p>Smoothen the cut edge with an abrasive stone.</p>

Module Content	
Task	Task Description / Performance standards
Measure and cut Tiles	<p><u>Steps</u></p> <ul style="list-style-type: none"> • Place the tile required to be cut directly on top of the next <u>full tile</u> near the wall • Place two tiles upright against the wall (This will leave an expansion gap between the tiles and the wall and also space for grout line) • Place a fourth tile against those two tiles and on top of the tile to be cut • Trace along the edge of the fourth tile with a marker pen to draw a line on the first tile (This is where the cut will be made) Once this is cut it will fit perfectly in the space. • Measure twice before cutting (For accuracy) • Leave cut tiles in the space where they will be installed • When using the manual snap cutter, align the cutting wheel with the cut line already drawn • When using the wet saw, special care need to be taken. It is quite essential to wear safety glasses • Cutting has to be done slowly to avoid chipping the tile
<p>Make an illustrated presentation on the use of Grout</p> <p>Mixing of grout</p>	<ul style="list-style-type: none"> • Grout fills the spaces between the tiles • <u>Grouts available in the Market</u> There are several types of grout available in the market Poly Blend grout, Fusion Pro, Simple pre-mixed grout, and Epoxy grout. • Usually, a cement-based grout is used for this installation. • Use a drill and mortar paddle in a bucket to mix cement-based grout. • Most cement grouts have latex polymer in the powder mix; others require a latex polymer admixture

Continued-

Module Content	
Task	Task Description / Performance standards
<p><u>Demonstrate</u> How spreading of grout is done</p> <p>Clean excess grout from tiles</p>	<ul style="list-style-type: none"> • Let the mixed grout stand for 10 minutes before applying. • Avoid mixing too much grout at one time. <p><u>Steps</u></p> <ul style="list-style-type: none"> • Spread grout in sweeping arcs with the rubber grout float held at a shallow angle. • Apply at a 45-degree angle to the spaces between the tiles • Press grout into the joints, filling them completely. (Focus on small 4-by-4-foot sections). • After spreading grout, remove the excess with the grout float held at a 45-degree angle. • Work diagonally across the joints to avoid dipping into the joints <p><u>Hints</u></p> <ul style="list-style-type: none"> • Before grouting, remove all tile spacers • On completing one section, make light passes across tiles diagonally to remove excess grout • Wring the sponge until no water drips from it before cleaning. (Excess water may dilute the consistency of the grout) • Do not to press the sponge into the gaps. Do as many passes as required. • Rinse the sponge frequently in clean water and change the rinse water frequently. • Remove any remaining haze by using an old cheesecloth. • Slowly cure the grout by misting it twice a day for three days.
Module Content	

Task	Task Description / Performance standards
Seal the grout	<ul style="list-style-type: none"> • Follow the manufacturer’s instructions • Grout sealer provides invisible protection for grout. (Sealers help prevent stains, and keep mold from growing into the grout). • Choose a sealer with a built-in applicator or pick up a grout sealer application bottle. • Wipe off any excess sealer within 10 minutes. (If glazed tile is used, only seal the grout).
Cover expansion gap and install thresholds	<ul style="list-style-type: none"> • To complete operations remove the painter’s tape from any protected surfaces. Cover the ¼-inch expansion gap left along the walls. • Add any desired thresholds between the tiled floor and neighboring floors.

Training Delivery

Suggested Instructional Methodology

- Demonstration using the Performance Guide
- Small group activities
- Visualized Presentations

Suggested Instructional media –Flip charts, Flash cards, Power point Presentations

Assessment

Assessment of soft skills
Continuous Observation and assessment at work

Assessment of Technical competencies (Performance / Knowledge Assessments)
(Includes Mode of assessment and Assessment Instruments/tools to be used in assessment)
Technical Competencies to be assessed task wise

MCQ and Structured essay type questions and oral questions (short viva) to be used to assess the knowledge component

Collection of evidence – viz . Material lists, Student’s Progress Record book

Consistency of performance
Consistency of performance to be established through repeated performance of task

Module Title	Course Duration
Career Skills 1	At least 60 hours in any 3 month course
<p>Objectives of the module This module is compulsory in all NVQ Level 3 courses. It provides an introduction to the soft skills that will help students enjoy productive employment. This course provides basic communicative skills in English and effective elementary reading and writing skills and basic knowledge of grammar to facilitate this. It also introduces cognitive skills with regard to effective work and the ability to work efficiently alone and in a team.</p>	
<p>Competencies</p> <p>a Understand and use simple expressions to communication This subject provides the necessary communication skills so that students can introduce themselves and interact with others, and can respond to simple questions and follow simple instructions, describe people, places, tools.</p> <p>b Read and write effectively This subject provides the necessary skills to find and understand the information given in a text, to understand notices, instructions and information, to take down short messages and write simple descriptions.</p> <p>c. Use English correctly This subject is not taught separately but is included in the development of the productive and receptive skills above, since awareness of the structure of the language is necessary for these The development of appropriate vocabulary is also targeted to develop the above skills</p> <p>d. Develop the capacity to think and plan productively y This subject develops cognitive abilities and skills with regard to effective work, with strengthening of thinking skills, recognition of systems, making deductions etc</p> <p>e. Develop effective working capacity This subject develops the capacity to work effectively individually and in collaboration with others through building the sense of individual responsibility, and accountability within a working group</p>	