**Sample Assessment Tasks**

Building and Construction

General Year 11

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Sample assessment task

Building and Construction – General Year 11

Task 3 – Unit 1

**Assessment type:** Design and Production

**Residential backyard design project**

**Part A: Design a scale model of a residential backyard (25 marks)**

You are to complete a design brief for the planning of a residential backyard.

**Part B: Construct a scale model of a residential backyard design (10 marks)**

You are to then construct a scale model.

**Part C: Evaluate completed scale model of a residential backyard design (5 marks)**

Finally, evaluate your scale model.

**Conditions**

Period allowed for completion of theory lessons and to complete this range of practical tasks:

4 to 6 weeks

**Task weighting**

Part A: Design 5%; Part B: Production 8%; Part C: Design 2% of the school mark for this pair of units

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**What you need to do**

**Part A**

* Take some pictures of your backyard (or someone else’s if you do not wish to use yours).
* Produce sketches (at least five) that illustrate particular characteristics of the backyard.
* Complete a scale drawing of your backyard.
* Examine the pictures that you have taken and the scale drawing that you have completed and produce a PMI table.
* Detail the changes that you will make utilising sketches.
* From the results of your PMI you are to decide upon changes that you would make to your backyard.
* You will be required to detail the changes that you are going to make and the reasons that you have chosen to make these changes.
* Select the appropriate materials to make the modifications that you have chosen to undertake. Detail the benefits of using these materials to yourself and the environment.
* Prepare a materials order/cutting list.

**Part B**

* You will be required to produce a scale model of your backyard showing the modifications made.
* Complete a materials costing list for your backyard.

**Part C**

* Evaluate the changes that you have made.
* Have your parents/guardian/carers evaluate the changes that you have made.

|  |  |
| --- | --- |
| **What needs to be submitted for assessment?** | **Due dates** |
| 🗆 Pictures, drawings and sketches of your backyard |  |
| 🗆 Completed PMI |  |
| 🗆 Completed detailed reasons for changes |  |
| 🗆 Completed materials selection justification benefits and costing |  |
| 🗆 Completed scale model and evaluation |  |

Marking key for sample assessment task 3 – Unit 1

Residential backyard design project

|  |  |
| --- | --- |
| **Description** | **Marks** |
| **Part A: Design a scale model of a residential backyard /25** | |
| Pictures and sketches (minimum of five) | /6 |
| * provides clear drawings with annotations and development * clear drawings with some annotations * clear drawings with no annotations | 5–6  3–4  1–2 |
| Scale drawing; hand or instrument drawing /4 | |
| * conforms to appropriate scale drawings standards * utilises appropriate drawing techniques, minor errors | 3–4  1–2 |
| PMI /6 | |
| * provides detailed information and annotated sketches for the changes planned and the relevant reasons for these changes * provides sketches with clear annotations for the changes and the main reasons for these changes * provides general brief comments about plans and reasons for changes | 5–6  3–4  1–2 |
| Materials selection documentation /4 | |
| * provides all relevant information in a clear and concise manner, detailing reasons for material selection * provides relevant information in a clear manner, detailing some reasons for material selection | 3–4  1–2 |
| Project materials order/cutting list /5 | |
| * provides relevant information in a detailed and complete order/cutting list * uses correct terminology to provide a suitable materials order/cutting list * presents list with missing or incomplete materials | 4–5  2–3  0–1 |
| **Part B: Construct a scale model of a residential backyard design /10** | |
| Completed project /10 | |
| * completes project to a very high standard of workmanship and finish * completes project to a high standard of workmanship and finish * completes project to a satisfactory standard of workmanship and finish | 8–10  5–7  1–4 |
| **Part C: Evaluate completed scale model of a residential backyard design /5** | |
| Project evaluation /5 | |
| * reflects on the design criteria and evaluates the changes made and materials used * presents simple likes and dislikes comments | 3–5  1–2 |
| **Total marks** | **/40** |

Sample assessment task

Building and Construction – General Year 11

Task 5 – Unit 1

**Assessment type:** Production

**Part A: Bricklaying and brick paving (66 marks)**

Gain a theoretical understanding from lessons, then complete a range of practical tasks to experience and develop skills in building and construction processes.

**Conditions**

Period allowed for completion of theory lessons and to complete a range of practical tasks:

5 to 8 weeks

**Task weighting**

10% of the school mark for this pair of units \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Suggested time management**

The practice for and production of these tasks will take place over a period of five weeks.

**What you need to do**

Using the information provided in Activity Sheet A1 attached, complete the following: calculating quantities, bricklaying and brick paving tasks.

**Activity 1: Theory**

Complete worksheets identifying and justifying material selection for the chosen situation.

* calculate materials quantities (10 marks)

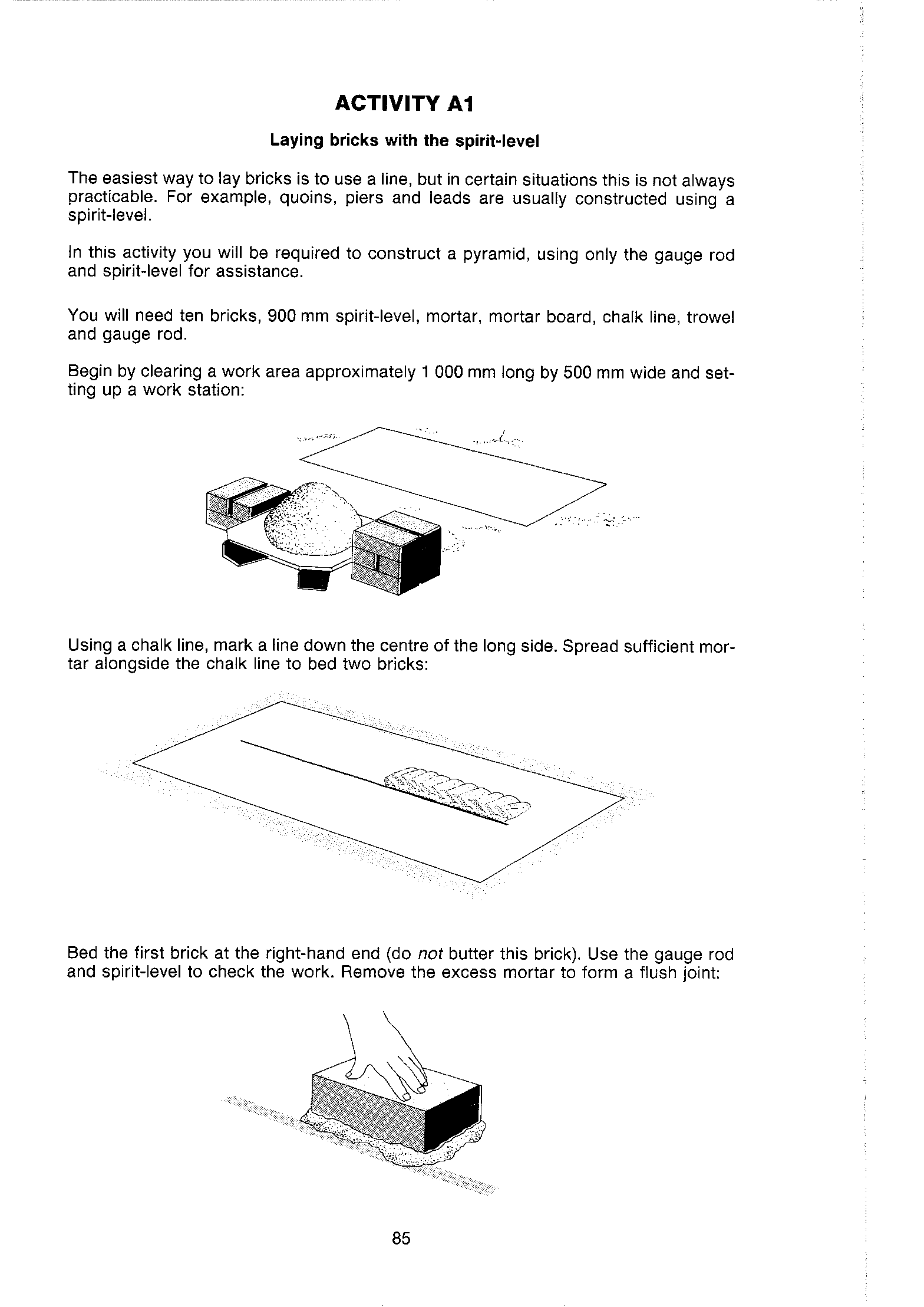
**Activity 2: Bricklaying**

* site preparation
* construction of brick pyramid
* constructing a brick pier (36 marks)

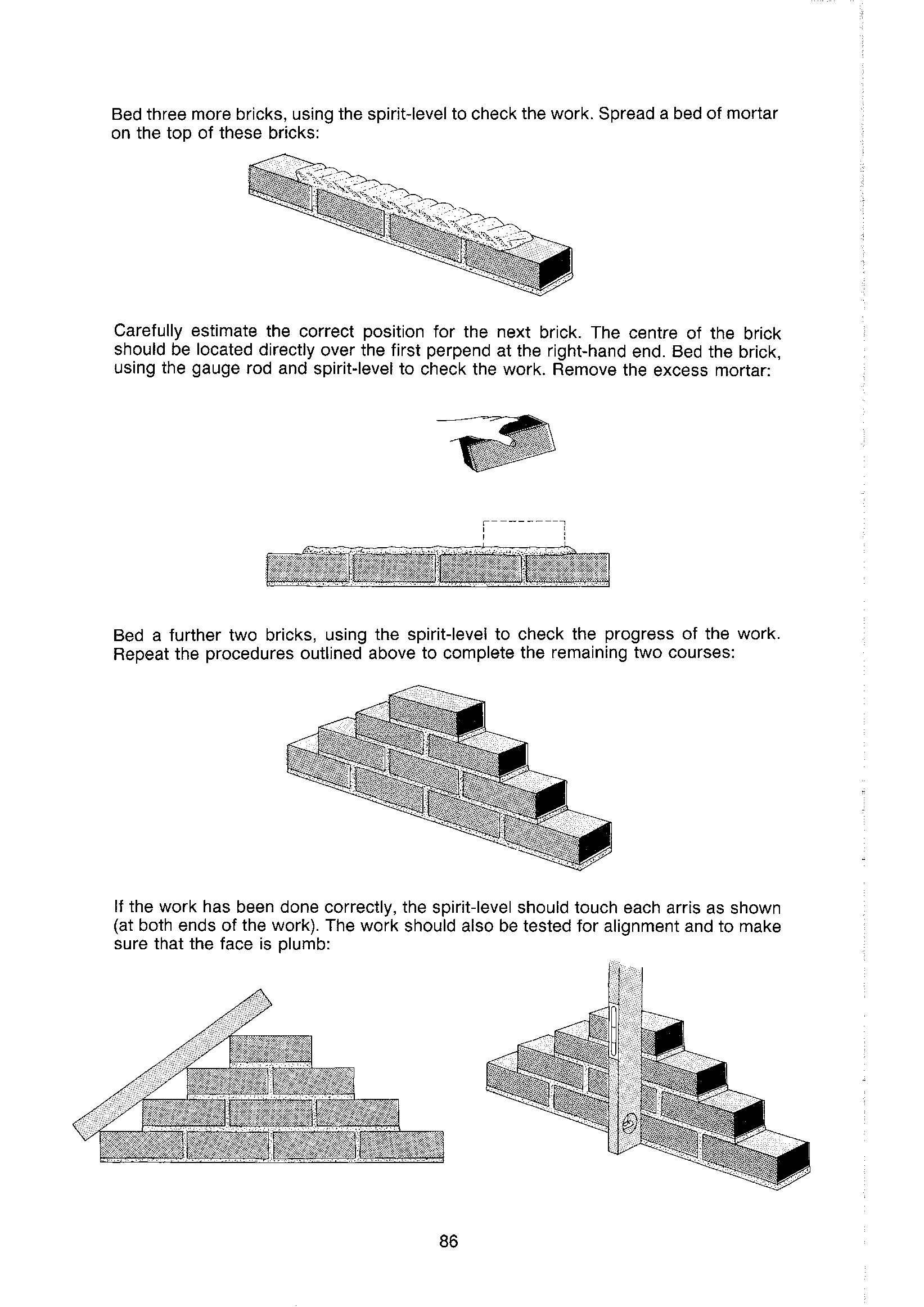
**Activity 3: Brick paving**

* site preparation
* stretcher pattern (20 marks)

|  |  |
| --- | --- |
| **What needs to be submitted for assessment?** | **Due dates** |
| 🗆 Activity 1: Theory worksheets | five weeks from commencement date |
| 🗆 Activity 2: Bricklaying |
| 🗆 Activity 3: Brick paving |

**ACTIVITY SHEET A1**

**ACTIVITY SHEET A1**



[From: Education Department of Western Australia, Curriculum Branch. (1987). *Bricks and bricklaying*.   
East Perth, WA: Education Department of Western Australia, pp. 85–86]

Marking key for sample assessment task 5 – Unit 1

Part A – Activity 1: Theory worksheets

|  |  |  |
| --- | --- | --- |
| **Description** | **Maximum possible mark** | **Allocated mark** |
| Complete worksheets identifying and justifying material selection for the chosen situation.   * all worksheets completed, clear notes and correct entries * all worksheets completed, notes have minor errors | 3–4  1–2 | **/4** |
| Calculating materials quantities   * all calculations completed, clearly set out and correct * all calculations completed, some errors corrected * calculations attempted, but require re-calculating or revision | 5–6  3–4  1–2 | **/6** |
| **Total** | | **/10** |

Part A – Activity 2: Bricklaying

|  |  |  |
| --- | --- | --- |
| **Description** | **Maximum possible mark** | **Allocated mark** |
| Site preparation   * cleanliness * setting out * preparedness | 1–2  1–2  1–2 | **/6** |
| Laying a course of bricks   * square * level * raking | 1–3  1–3  1–3 | **/9** |
| Construction of brick pier   * square * level * raking | 1–3  1–3  1–3 | **/9** |
| Occupational Safety and Health   * clothing * tools/equipment * procedural | 1–2  1–2  1–2 | **/6** |
| Work habits   * works independently * use of materials * tidiness | 1–2  1–2  1–2 | **/6** |
| **Total** | | **/36** |

Part A – Activity 3: Brick paving

|  |  |  |
| --- | --- | --- |
| **Description** | **Maximum possible mark** | **Allocated mark** |
| Site preparation   * cleanliness * setting out * preparedness | 1–2  1–2  1–2 | **/6** |
| Laying a course of paving bricks – stretcher pattern   * square * flat * compacted | 1–3  1–3  1–3 | **/9** |
| Work habits and Occupational Safety and Health   * correct PPE clothing * correct use of tools/equipment * correct procedure * appropriate use of materials * tidiness | 1  1  1  1  1 | **/5** |
| **Sub total** | | **/20** |
| **Combined total** | | **/66** |

Sample assessment task

Building and Construction – General Year 11

Task 5 – Unit 1

**Assessment type:** Production

**Part B: Construction exercises (identify materials and tiling) (55 marks)**

Complete a range of practical and theoretical exercises incorporating a spectrum of construction materials processes and techniques.

**Conditions**

Period allowed for completion of theory lessons and to complete a range of practical tasks:

5 to 8 weeks

**Task weighting**

10% of the school mark for this pair of units **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What you need to do**

You are to complete the following theory worksheets and practical exercises.

Construction knowledge and skills exercises

Activity 1: Wall tiling (20 marks)

Complete wall tiling task using specified area tools and equipment.

Activity 2: Floor tiling (20 marks)

Complete floor tiling task using specified area tools and equipment.

Activity 3: Construction materials (15 marks)

You are to complete the relevant worksheets that relate to the following points:

* present a materials identification sheet, showing mechanical properties of common building materials in terms of:
* hardness
* elasticity
* conductivity
* flexibility
* strength
* presentation of finishes; different types and their uses.

|  |  |
| --- | --- |
| **What needs to be submitted for assessment?** | **Due dates** |
| 🗆 Completed wall tiling |  |
| 🗆 Completed floor tiling |  |
| 🗆 Construction materials identification sheet |  |

Marking key for sample assessment task 5 – Unit 1

Task 5 Part B – Construction exercises

|  |  |  |
| --- | --- | --- |
| **Wall tiling** | **Maximum possible mark** | **Allocated mark** |
| Site preparation   * cleanliness * setting out * preparedness | 1–2  1–2  1–2 | **/6** |
| Wall tiling process   * mixing of grout * square * level * spacing * grouting | 1–2  1–2  1–2  1–2  1–2 | **/ 10** |
| Work habits and Occupational Safety and Health   * correct PPE clothing * correct use of tools/equipment * appropriate use of materials * tidiness | 1  1  1  1 | **/4** |
| **Total** | | **/ 20** |

|  |  |  |
| --- | --- | --- |
| **Floor tiling** | **Maximum possible mark** | **Allocated mark** |
| Site preparation   * cleanliness * setting out * preparedness | 1–2  1–2  1–2 | **/6** |
| Wall tiling process   * mixing of grout * square * level * spacing * grouting | 1–2  1–2  1–2  1–2  1–2 | **/ 10** |
| Work habits and Occupational Safety and Health   * correct PPE clothing * correct use of tools/equipment * appropriate use of materials * tidiness | 1  1  1  1 | **/4** |
| **Total** | | **/ 20** |

Task 5 Part B – Construction exercises – Materials identification sheet

|  |  |  |
| --- | --- | --- |
| **Description** | **Maximum possible mark** | **Allocated mark** |
| Presented materials identification sheet   * completed worksheet listing common building materials, with correct, detailed listing of all mechanical properties for each material * completed worksheet listing common building materials, with mechanical properties correctly listed for each material * completed list of common building materials, with minor errors in the listing of mechanical properties * partially finished worksheet of common building materials, with errors or missing mechanical properties * incomplete worksheet missing information about the mechanical properties | 9–10  7–8  5–6  3–4  1–2 | **/10** |
| Presentation of finishes; different types and their uses   * all finishes listed, with clearly set out uses * most finishes listed, but some errors in arrangement of details of uses * list of finishes attempted, but require further arrangement of types and uses | 4–5  2–3  0–1 | **/5** |
| **Total** | | **/ 15** |
| **Combined total** | | **/55** |

Sample assessment task

Building and Construction – General Year 11

Task 5 – Unit 1

**Assessment type:** Production

**Part C: Fabrication exercises (welding) (45 marks)**

Complete a series of practical exercises in the three types of welding.

Present welds on a suitable display board.

**Conditions**

Period allowed for completion of theory lessons and to complete a range of practical tasks:

5 to 8 weeks

**Task weighting**

8% of the school mark for this pair of units **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What you need to do**

You are to complete the following welding exercises. The exercises are to be presented on a suitable display board that you have constructed.

Arc welding

* beads
* butt weld
* ‘T’ weld

MIG welding

* beads
* butt weld
* ‘T’ weld

Gas welding

* beads
* butt weld
* flange weld

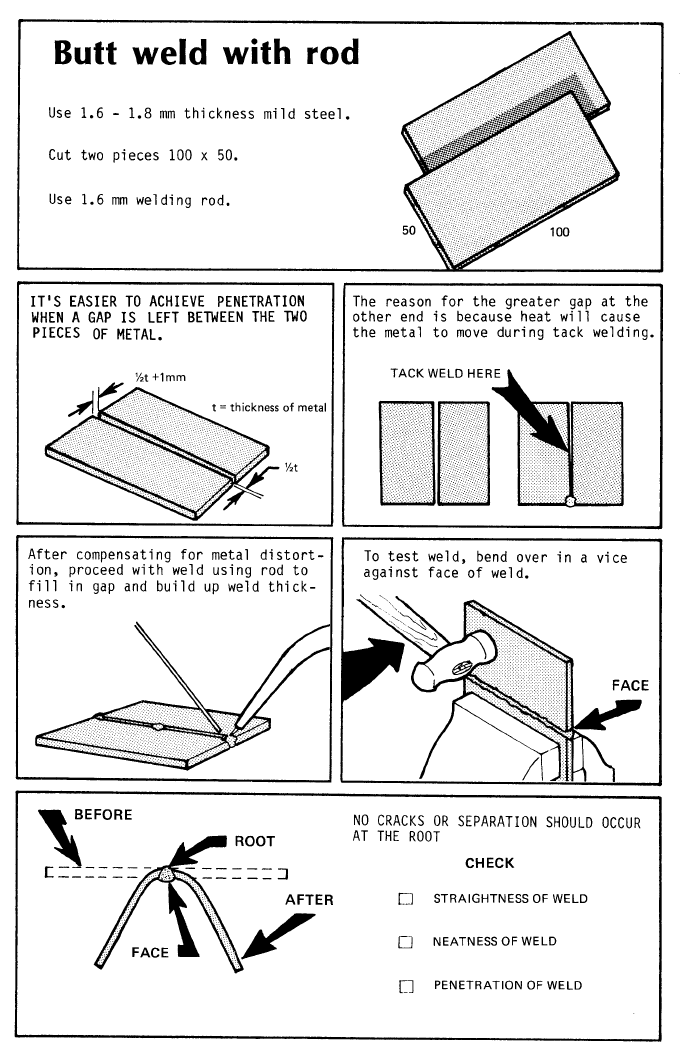
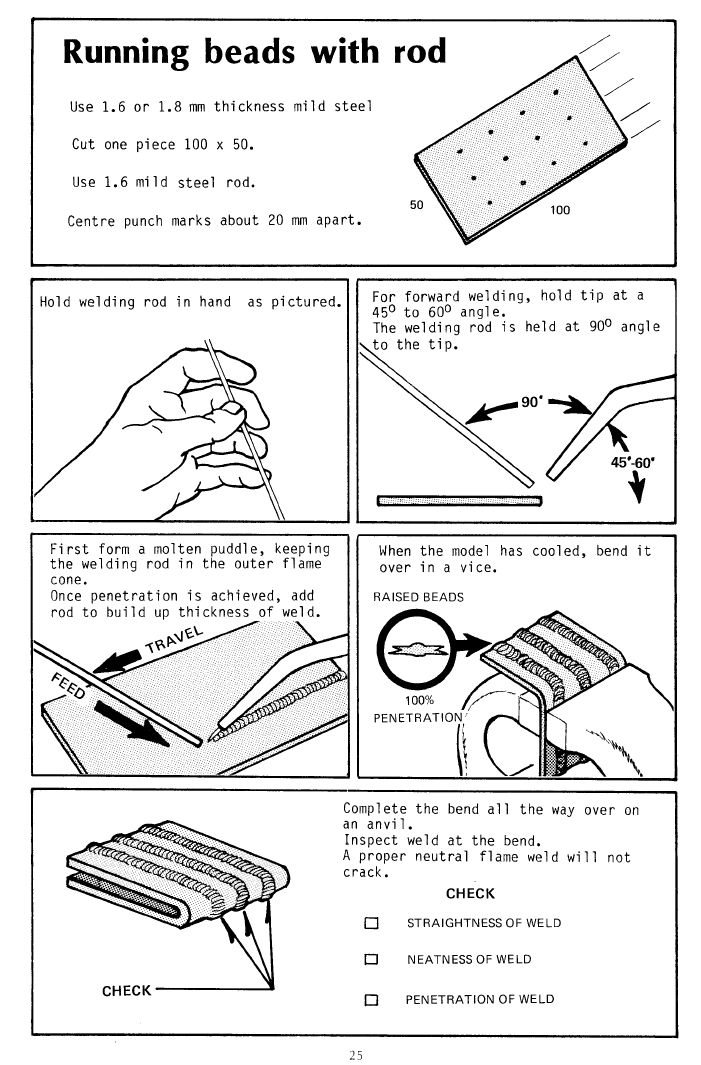
Present completed welds on a suitable display board.

|  |  |
| --- | --- |
| **What needs to be submitted for assessment?** | **Due dates** |
| 🗆 Completed welds on a suitable display board |  |

Marking key for sample assessment task 5 – Unit 1

Part C – Fabrication exercises (welding)

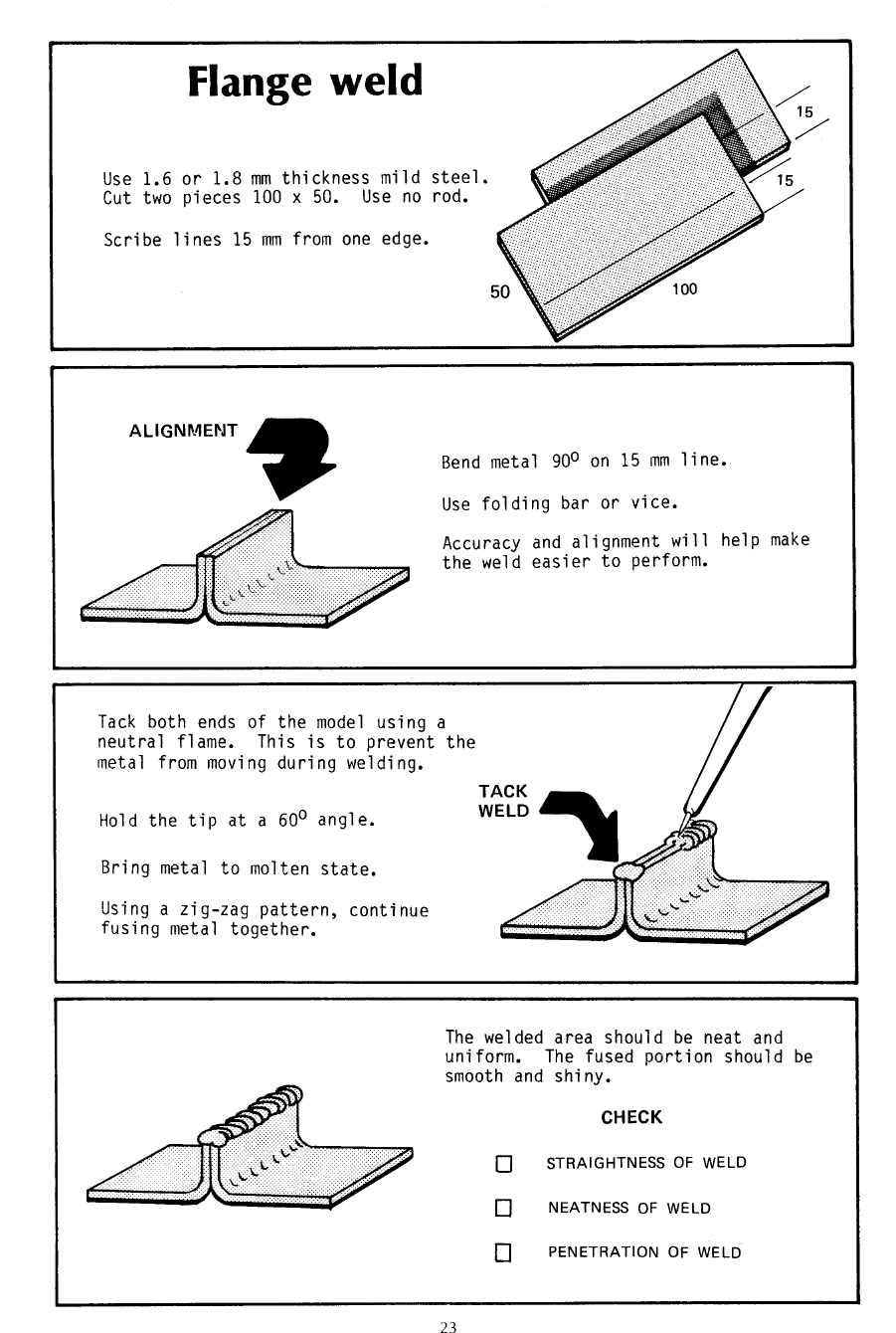
|  |  |  |
| --- | --- | --- |
| **Description** | **Maximum possible mark** | **Allocated mark** |
| Correct and safe preparation of welding equipment   * correct safe set up of equipment * personal protective equipment used * correct setting of:   + oxy/acetylene gas pressures   + rod selection and amperage   + amperage and wire speed * correct shut down | 1–3  1–3  1–3  1–3  1–3  1–3 | **/18** |
| Gas welding – good weld appearance, good weld penetration, and neat, even or consistent shape to weld and surrounding metal   * beads * butt weld * flange weld | 1–3  1–3  1–3 | **/9** |
| Arc welding – good weld appearance, good weld penetration, and neat, even or consistent shape to weld and surrounding metal   * beads * butt weld * ‘T’ weld | 1–3  1–3  1–3 | **/9** |
| MIG welding – good weld appearance, good weld penetration, and neat, even or consistent shape to weld and surrounding metal   * beads * butt weld * ‘T’ weld | 1–3  1–3  1–3 | **/9** |
| **Total** | | **/45** |



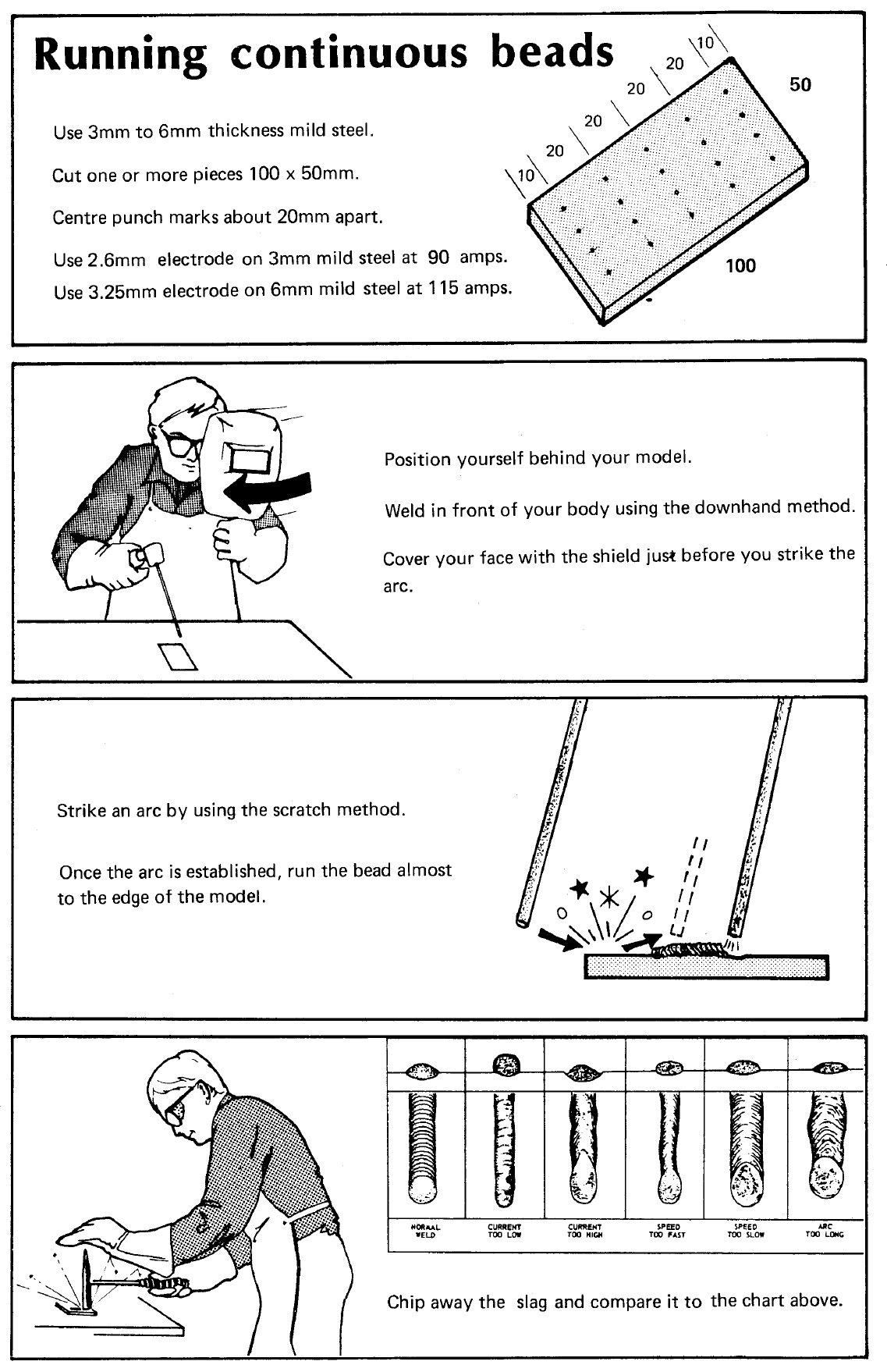
**GAS WELDING**

[From: Education Department of Western Australia, Curriculum Branch. (1983). *Manual arts: Fusion welding*. Perth: Education Department of Western Australia, p. 25]

[From: Education Department of Western Australia, Curriculum Branch. (1983). *Manual arts: Fusion welding*. Perth: Education Department of Western Australia, p. 27]

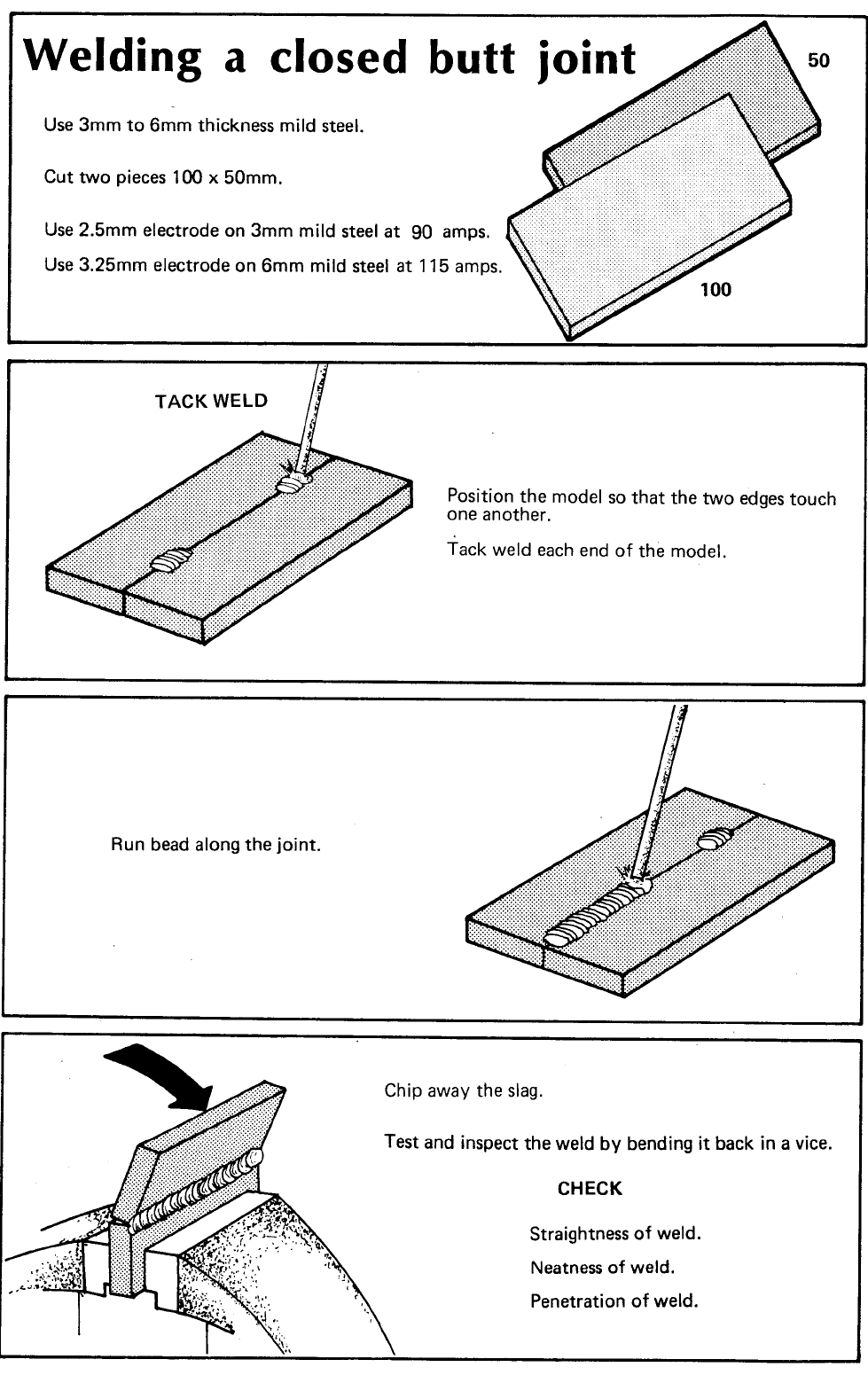


[From: Education Department of Western Australia, Curriculum Branch. (1983). *Manual arts: Fusion welding*. Perth: Education Department of Western Australia, p. 23]

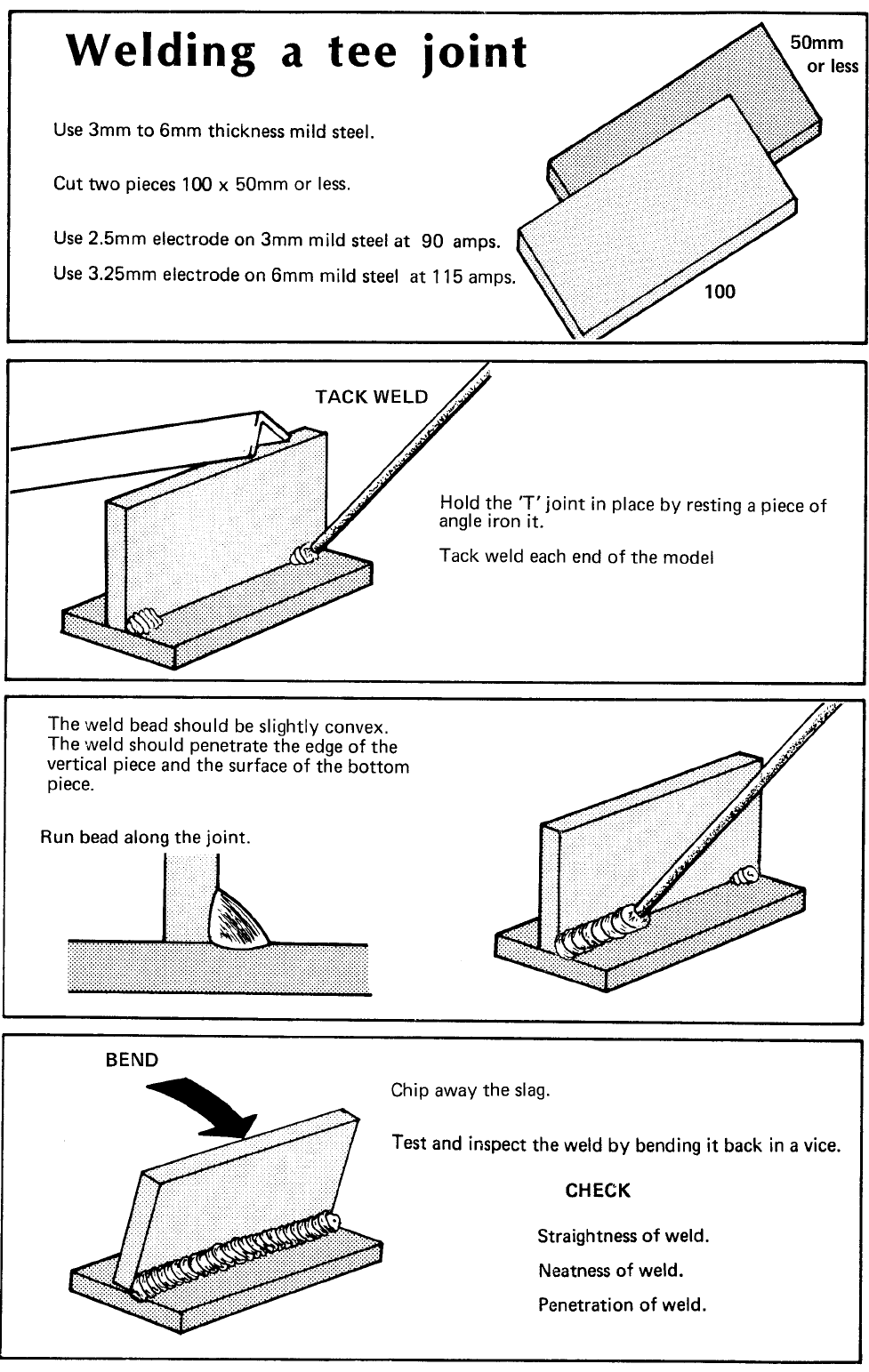


[From: Education Department of Western Australia, Curriculum Branch. (1984). *Manual arts: Arc welding*. Perth: Education Department of Western Australia, p. 30]

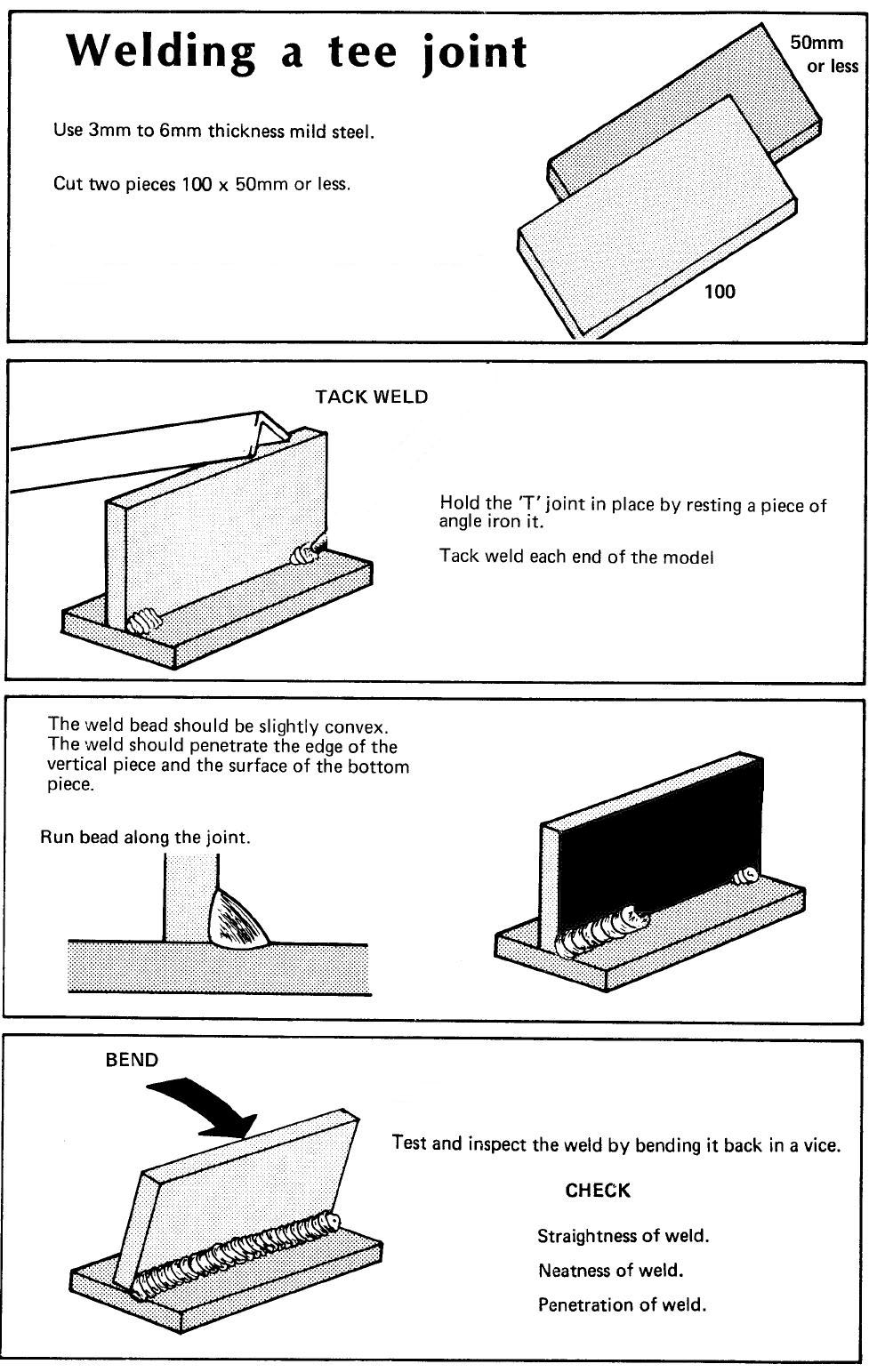
**ARC WELDING**



[From: Education Department of Western Australia, Curriculum Branch. (1984). *Manual arts: Arc welding*. Perth: Education Department of Western Australia, p. 34]

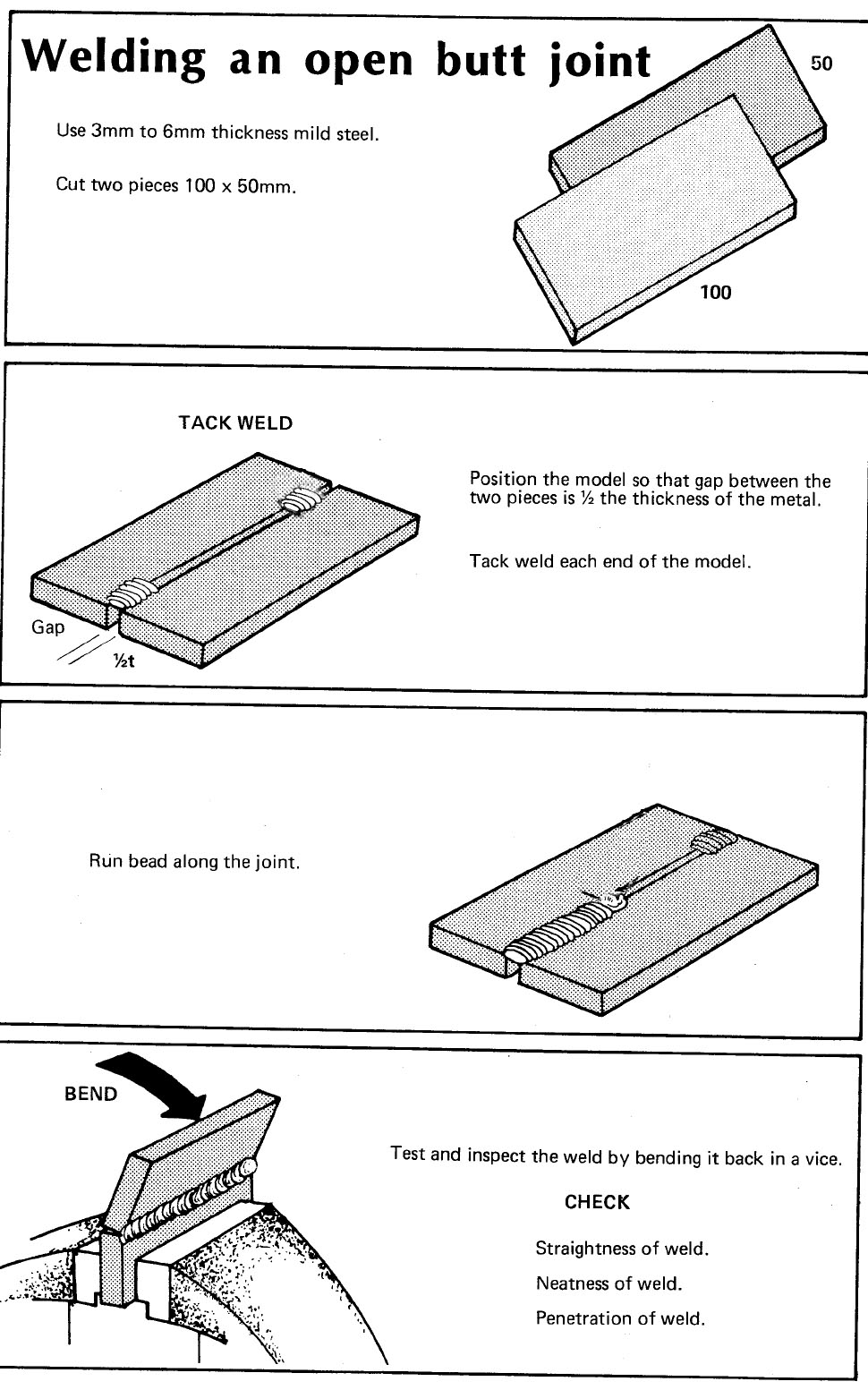


[From: Education Department of Western Australia, Curriculum Branch. (1984). *Manual arts: Arc welding*. Perth: Education Department of Western Australia, p. 37]



[From: Education Department of Western Australia, Curriculum Branch. (1984). *Manual arts: Arc welding*. Perth: Education Department of Western Australia, p. 37]

**MIG WELDING**



[From: Education Department of Western Australia, Curriculum Branch. (1984). *Manual arts: Arc welding*. Perth: Education Department of Western Australia, p. 35]

Sample assessment task

Building and Construction – General Year 11

Task 4 – Unit 1

**Assessment type:** Response

**Environment and sustainability assignment (25 marks)**

Research and compile notes on:

* sustainable practices in building and construction
* types of environmentally friendly alternatives in methods of building and construction

**Conditions**

Period allowed for completion of this task is two weeks

**Task weighting**

3% of the school mark for this pair of units

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What you need to do:**

In your groups, you are to research and compile notes on:

* sustainable practices in building and construction
  + define sustainable practices
  + locate and list methods of sustainable practices
* types of environmentally friendly alternatives in methods of building and construction
  + identify environmentally friendly alternatives
  + locate and list, giving a brief description and examples of each, of environmentally friendly alternatives in building and construction

Provide a list of references and sources of information.

|  |  |
| --- | --- |
| **What needs to be submitted for assessment?** | **Due dates** |
| 🗆 Completed assignment notes |  |

Marking key for sample assessment task 4 – Unit 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Research and compile notes on the definitions of sustainable practices. Identify methods of environmentally friendly alternatives in building and construction.** | **Maximum possible mark** | **Allocated mark** | |
| Definition of sustainable practices   * accurate detailed definition and correct use of terminology * adequate definition with/without minor errors in use of terminology | 4–5  1–3 | **/5** |
| Documents listing methods of sustainable practices   * accurate detailed listing of methods and correct use of terminology * minor/small errors or some details missing from list, uses general terminology correctly to explain methods * terminology incorrect and/or critical information missing | 5–6  3–4  1–2 | **/6** |
| Identify and list different environmentally friendly alternatives in building and construction   * accurate identification of each type and correct descriptions, using appropriate terminology and common examples * correct terminology in identifying each type but has minor errors in some descriptions * some types identified and described in general terms, with errors in some descriptions * incorrect use of terminology to identify and describe examples of only a few types | 10–12  7–9  4–6  1–3 | **/12** |
| * appropriate reference list * limited or no reference list provided | 2  0–1 | **/2** |
| **Total** | | **/25** |