**WEEK 9 YEAR 10 BASIC TECHNOLOGY**

**STRAND: GEOMETRICAL DRAWING**

**LESSON 23: DEVELOPMENT OF A PRISM-PARALLEL LINE DEVELOPMENT**

**LEARNING OUTCOME: DEVELOP THE SURFACE OF A RECTANGULAR PRISM**

To develop the surface of a rectangular prism

* Draw the plan and elevation of the prism to scale
* Number the edges as shown.
* Set out the stretch out. This is the perimeter of the prism measured off the plan.
* Project the height of the prism parallel to the stretch out line.
* Draw the vertical fold lines at points 2,3 and 4.
* The prism ends are added by revolving the lengths 2-3 and 1-4.
* **Note**: Final outlines should be firm. Fold lines should be light continuous lines.



**LESSON 24: DEVELOPMENT OF A CYLINDER- PARALLEL LINE DEVELOPMENT**

**LEARNING OUTCOME: DEVELOP THE SURFACE OF A CYLINDER**

* Draw the plan and elevation. The stretch out for the curved surface of the cylinder should equal the circumference of the cylinder.
* For drawing purposes the cylinder is thought of as many sided prism. We usually divide the plan into 12 divisions. The length of the stretch out is obtained by stepping off the same number of equal spaces (12) along the stretch out line.
* The height of the development will be the height taken from the elevation. Ends of the cylinder should be cut out as separate parts.

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**LESSON 25: DEVELOPMENT OF A CONE-RADIAL LINE DEVELOPMENT**

**LEARNING OUTCOME: DEVELOP THE SURFACE OF A CONE**

1. Fig A1. These illustrate the construction of a cone.
2. Fig A2. The intersection of a cone by a cutting plane D-D
3. **Note**: The intersection of the plane and cone elements must be projected into the true length edges.



**NOTE:**

* **AXIS REFERS TO THE HEIGHT OF THE PRISM**
* AXIS = HEIGHT