



Republic of the Philippines  
**Department of Education**  
National Capital Region  
Schools Division Office – Muntinlupa City

**SPECIAL PROGRAM IN TECHNICAL VOCATIONAL EDUCATION (SPTVE)**  
**TECHNICAL DRAFTING – GRADE 8**  
**Q3 – W3**

I. Topic: Isometric Drawing

II. Objectives:

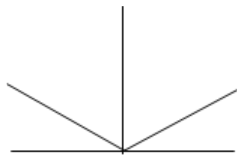
1. interpret blueprint reading;
2. sketch isometric drawings; and
3. construct (mechanical) isometric drawing of objects with inclined surfaces.

III. Introduction

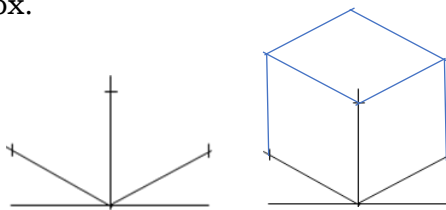
Constructing an isometric drawing is interesting. Here are the steps in constructing objects with the inclined surface.

For objects with inclined surfaces, follow these steps:

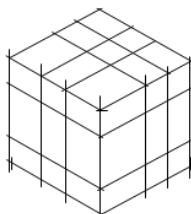
1. Draw the three isometric axes using a 30 x 60-degree triangle.



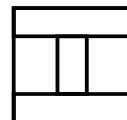
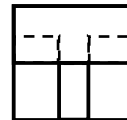
2. From the given orthographic views, layout the principal measurements (width, height, and length) on the isometric axes. Draw the isometric box.



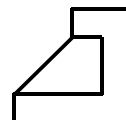
3. From the isometric box, add the complete construction lines.



TOP VIEW



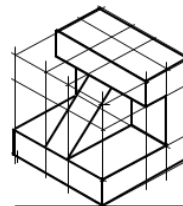
FRONT VIEW



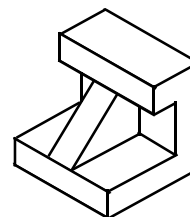
SIDE VIEW

ORTHOGRAPHIC

4. Darken the edges/contour of the object



5. Erase the unnecessary lines and label the drawing. Add shading if required.



ISOMETRIC





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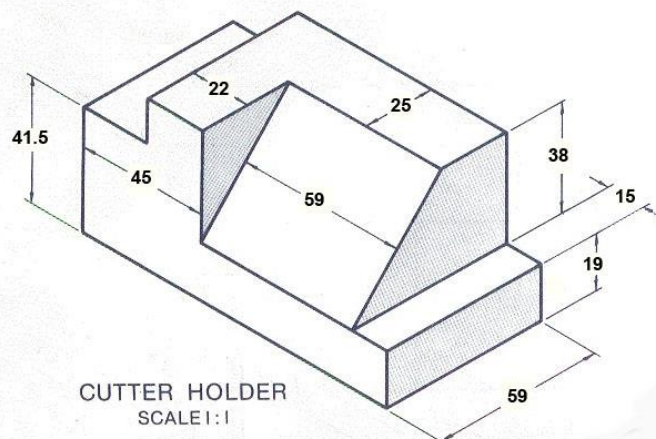
IV. Activities:

Activity 1 – Re-draw the isometric below on Oslo paper. Estimate the dimensions.



STUDENT NAME	ISOMETRIC DRAWING	DATE FINISHED	PLATE
SECTION:		TEACHER	1

Activity 2 – Reproduce the isometric with the given measurement in millimeters.



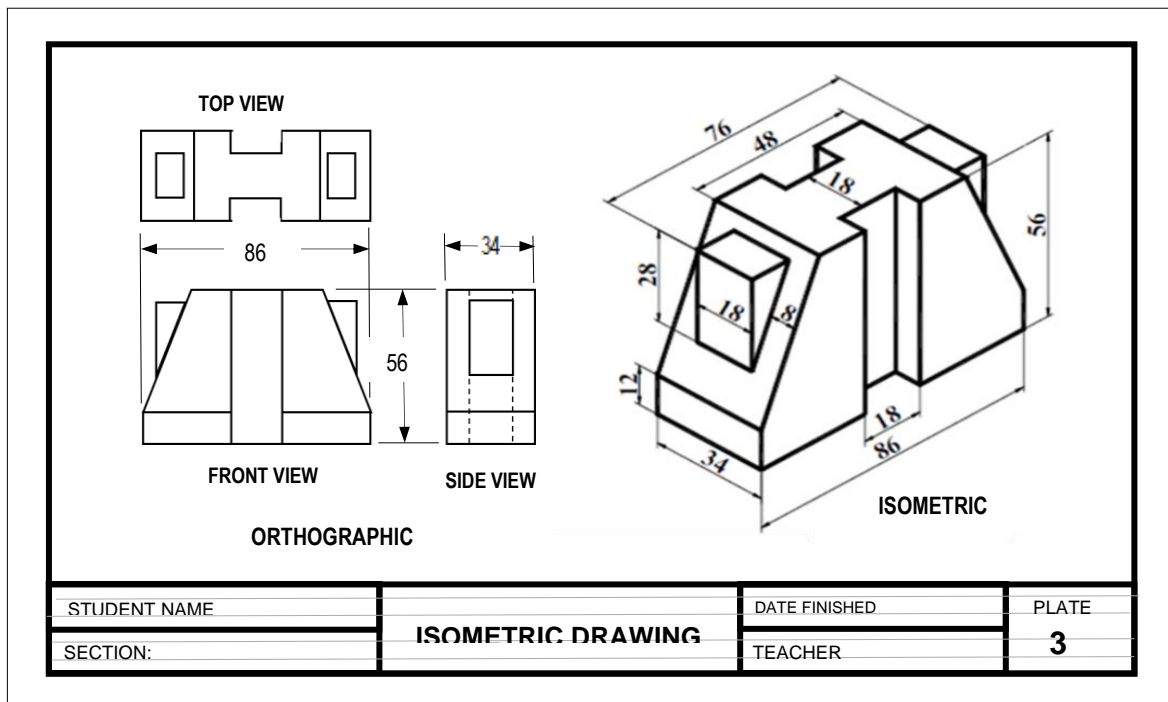
STUDENT NAME	ISOMETRIC DRAWING	DATE FINISHED	PLATE
SECTION:		TEACHER	2





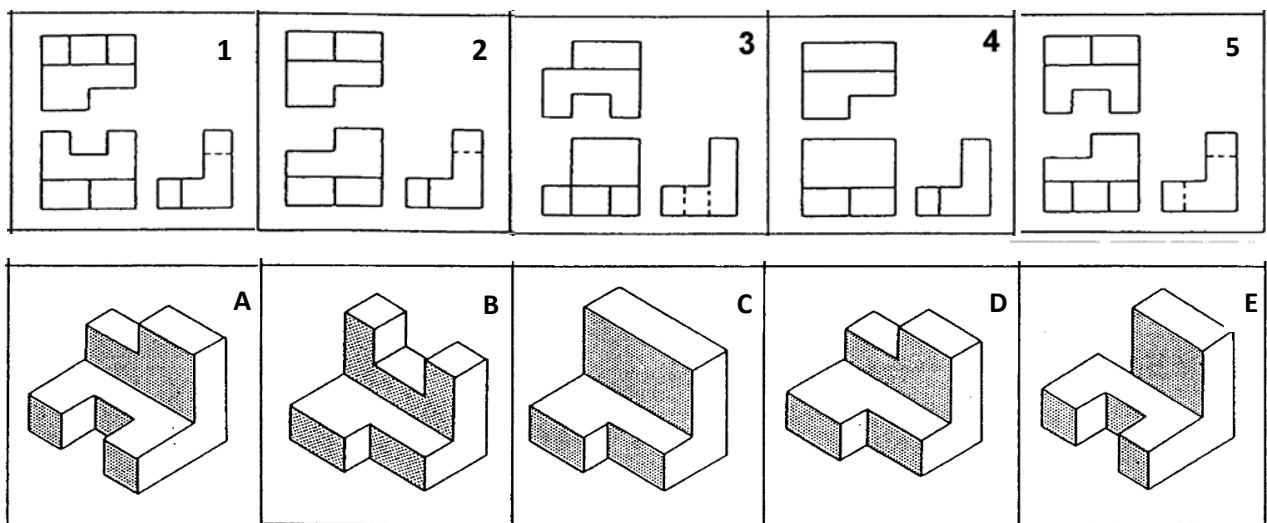
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Activity 3 – Reproduce the illustrations below on Oslo with the given measurement in millimeters.



V. Assessment:

**Directions:** Study the two types and complete the table by matching the numbered orthographic drawings with the same isometric view. Write your answer on a separate sheet of paper.



1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_



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VI. Reflection:

In your own opinion,

1. Do you think you can make an isometric drawing without proper instruments?  
Explain your answer? (5 points)

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2. What will you do if your parents cannot provide you the needed instrument in drafting? (5 points)

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References:

- German M. Manaois. *Drafting 1 and 2* Phoenix Publishing:1983
- Norman Stirling. *Introduction to Technical Drawing* Delmar Publishing: 1977
- Competency-Based Learning Material, *Technical Drafting*
- Madsen, Shumaker, Turpin, Stark: *Engineering, Drawing, and Design*
- Internet: [Pinterest](#)

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