

Drafting Practice

Activity Overview:

You will create a multi-view part drawing from scratch from a object in your classroom suitable for a manufacturer to reproduce that object.

Directions:

1. Select an object in your classroom. Think carefully about the object you select and ensure it meets the following criteria:
 - Has different top, front and side views
 - do not select an object, such as a tennis ball, where all three projections result in a single circle
 - Is appropriate for a part drawing, meaning something made of a single material and would NOT be assembled
 - for example, a coffee cup NOT a calculator
 - Objects primarily straight edges
 - overly complicated features or complex curved shapes may make this task overly difficult for beginning to intermediate drafters
2. Obtain your instructor's approval for your chosen object.
3. Gather the materials listed below:
 - Paper
 - Drafting tool
 - Measuring device
 - ruler or calipers
4. Make rough sketches on scratch paper to determine which views you will use to fully define the object and how they will be laid out on the piece of paper. Decide the scale you will use to show as much detail as possible while still leaving plenty of room for dimension and other notes.
5. Begin your final drawing by using a title block with the following information:
 - Object name
 - Drafter's name
 - Date
 - Projection type
 - Scale
 - Version number
 - Possible material used
 - Default tolerances

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6. Draw your base view, ensuring your drawing is as neat and organized as possible. Use these following tips as you draw:
 - Include all relevant dimensions
 - Apply a scale for the corresponding lines in your drawing
 - Use a ruler, triangle and compass to create object lines
 - Add any hidden or center lines and all the necessary dimensions
7. Draw two other projections, ensuring they are properly aligned and oriented with the base view. Follow the same procedure detailed in step four.
8. Swap your completed drawing with a partner to conduct a peer review. Review your partner's drawing and consider the following:
 - Are there dimensions that specify the size and location of every feature
 - Is the scale correct
 - Did their guess for material and default tolerance seem correct to you
9. Swap feedback with your partner for each other's drawings.
10. Complete any necessary revisions to your drawing identified in the discussion.
11. Return the object you drew and any tools or materials borrowed to the correct place.
12. Submit your drawing based on your instructor's directions.