



Industrial Print Reading

PBO Alignment Draft

1. Define blueprint. BP1

BP1: Demonstrate understanding of print basics and definitions by:

- Stating the definitions of a print
- Identifying different types of prints and stating their use
- Listing and explaining the 6 steps in reading a print

2. Explain alphabet of lines. BP2

BP2: Identify and name the different types of lines that are typically found on prints:

- Define the different types of lines found on prints
- Explain the purpose of each type of line
- Identify and define orientation and shape terminology
- Recognize and name a variety of geometric shapes

3. Explain types and uses of scales. BP3, BP19

BP3: Demonstrate a clear understanding of scales and their use by:

- Stating the definition of a scale
- Explaining the difference between a scale and a rule
- Identify the different types of scales
- Explain the usage of scales

BP19: Demonstrate proficiency in conversion between Metric and English Measurements

4. Demonstrate understanding of multiviews/orthographic projection.*PB4

BP4: Define and give examples of orthographic projection by:

- Explaining the 3 principle planes of projection as they relate to the development of views.
- Explaining and demonstrate and how multiviews are developed
- Demonstrating how multiviews are read.
- Identifying the different views.
- Differentiate between 2D and 3D views.
- Show the difference between 3rd angle projection and 1st angle projection.
- Explain the different dimensions that are typically found in each view (Front view, height and length or width dimensions etc.)



Industrial Print Reading

PBO Alignment Draft

5. Explain types and importance of sketches. PB4, PB5

BP4: Define and give examples of orthographic projection by:

- Explaining the 3 principle planes of projection as they relate to the development of views.
- Explaining and demonstrate and how multiviews are developed - Demonstrating how multiviews are read.
- Identifying the different views.
- Differentiate between 2D and 3D views.
- Show the difference between 3rd angle projection and 1st angle projection.
- Explain the different dimensions that are typically found in each view (Front view, height and length or width dimensions etc.)

BP5: Define sketching by:

- Providing a definition of sketching
- Explaining the importance of sketching
- Explaining the different types of sketches

6. Explain types and uses of auxiliary views. PB6

BP6: Identify and define auxiliary and section views by doing the following:

- State the definition of an auxiliary view.
- Name the different types of auxiliary views.
- Explain how auxiliary views are developed.
- Explain how auxiliary views are used on a print.
- State the definition of a section view.
- Identify the different kinds of section views found on a print.
- Show the difference between each kind of section view.
- Explain the purpose for each kind of section view.

7. Recognize dimension and tolerance. BP7

BP7: Define dimensions and tolerances, recognizing the following:

- Explain the elements in dimensioning. (Extension lines, leaders, dimension lines, arrowheads)
- Demonstrate how to read dimensions on a print.
- Explain the difference between datum dimension and continuous or chain-like dimensions



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PBO Alignment Draft

- Define size and location dimensions.
- Define and identify the different types of tolerance, and explain their importance.
- Identify and interpret dimensions and tolerances.

8. Define title block. BP9

BP9: Identify title block information by being able to do the following:

- Explain the purpose of the title block.
- Identify each area of the title block.
- Name the areas that are typically found in a title block.
- Explain the information located in the identified areas of a title block.



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