

Fishbone Diagram / Ishikawa Diagram

Diagram that is called by multiple names: Fishbone, Ishikawa, Cause & Effect. It is used, often in brainstorming, to refine the root cause of a problem or issue. While it is used in the service industry, it is most often used in manufacturing to identify defect sources.

“Branching patterns are the way the deep structures of the mind organizes itself. Because organizations are living systems, diagramming their processes is very appropriate. Diagramming is also the language of systems thinking. In fact, you could make a case that systems-level understanding is fundamentally about visualizing connections you can’t experience directly—something that requires making displays.” (Sibbet, David, Visual Meetings, New Jersey: Wiley & Sons, 2011, p.122)

Materials needed:

You can use paper/pen to complete this.

Who is involved:

Ideally, the project team members are involved in the creation of this diagram.

Directions:

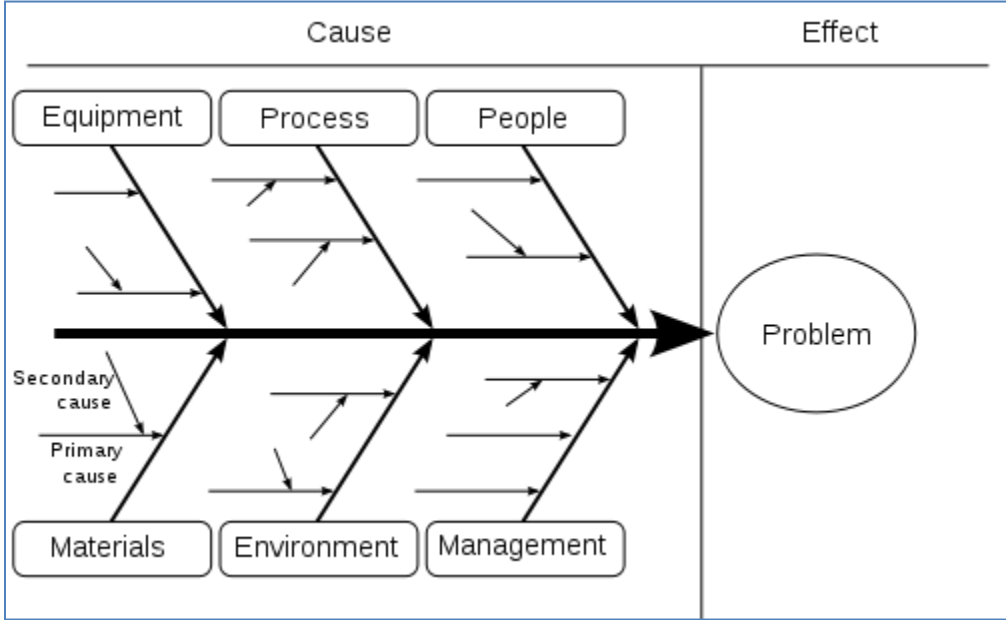
1. Place a “central idea” at the head of the fish (or roughly on the far right side in the middle of the paper).
2. Create a topic as a branch in any direction.
3. Add major elements of that branch to sub-branches.
4. Break down to even finer elements
5. Fill in the “branches” or “bones” by asking “Why does this happen?”

Commonly used TOPICS in the non-manufacturing world:

The 4 “Ms”	The 4 “Ss”	The 8 “Ps”	The 8 “Ms”
Management	Surroundings	Product	Machine (technology)
Methods	Suppliers	Price	Method
Materials	Systems	Place	Materials
Money	Skills	Promotion	Manpower
		People	Measurement
		Process	Milieu (Mother nature)
		Physical Evidence	Management/Money
		Productivity/Quality	Maintenance

NOTE: The TOPICS can be of your own creation. The above commonly used topics are presented as examples.

Example:



Information also obtained from Wikipedia, www.businesballs.com, and <http://asq.org>