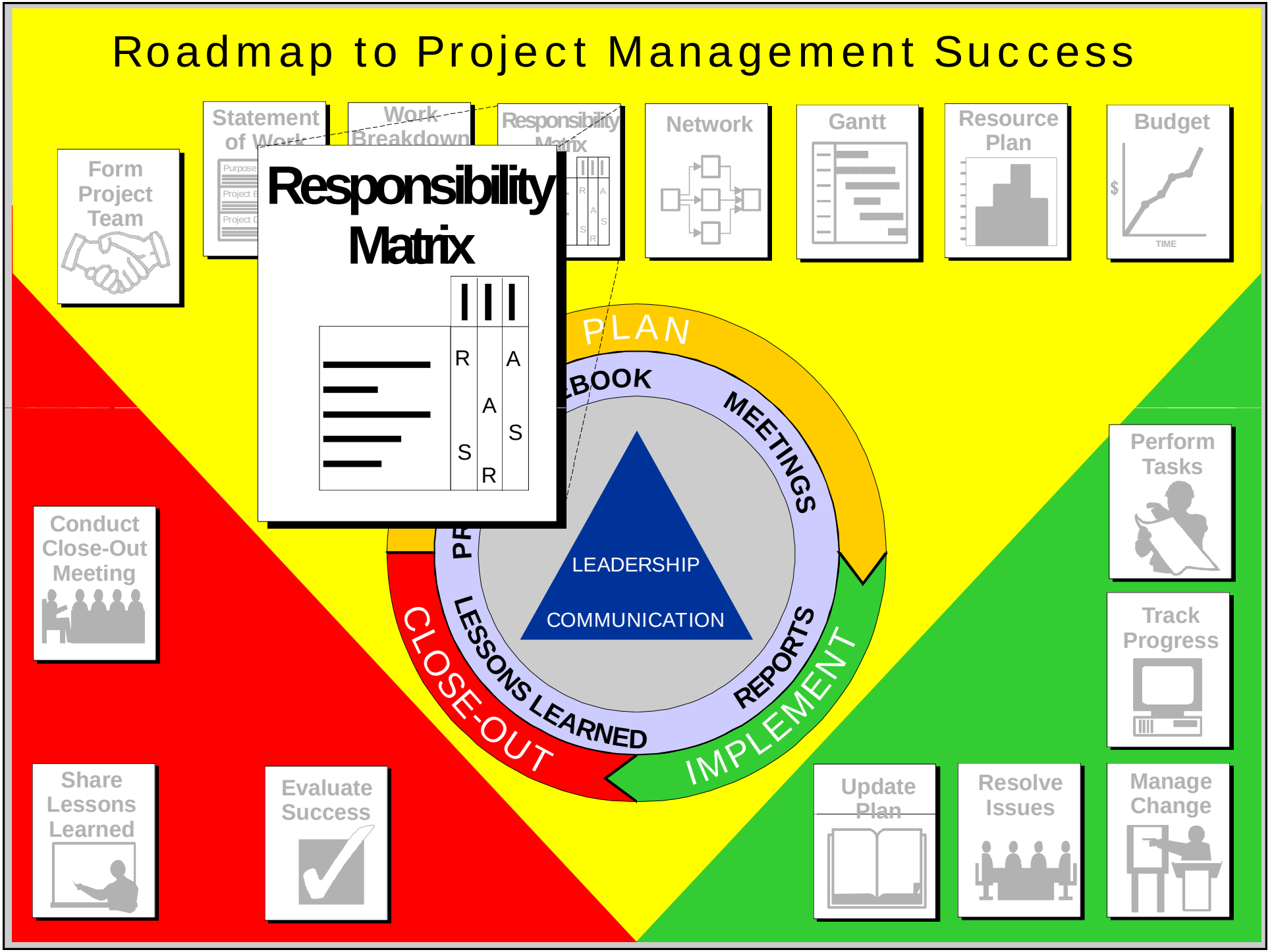
Roadmap to Project Management Success

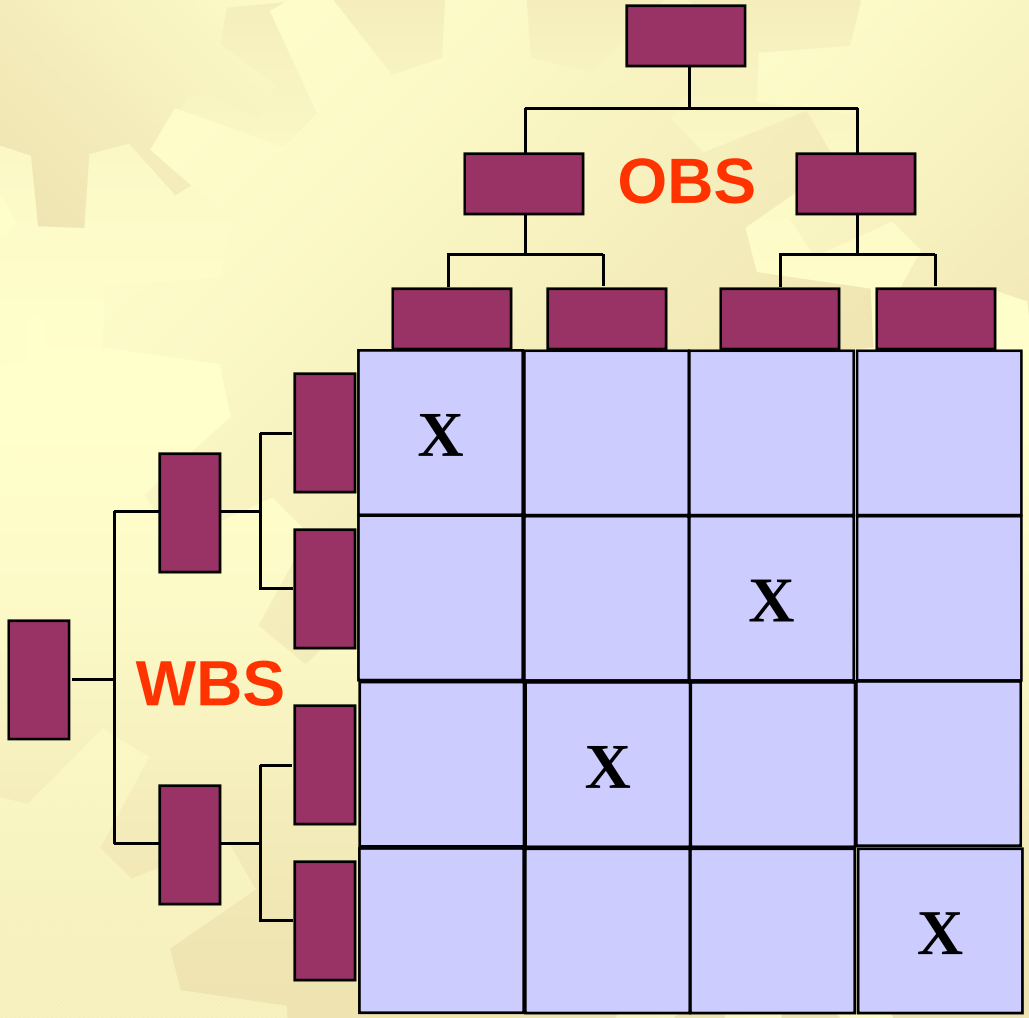


Responsibility Assignment Matrix (RAM) — Purpose

- Ensure that all tasks are assigned to people
- Show levels of involvement of people to work

Break Timer

Linkage Between WBS and OBS



Break Timer

SkillRight

Responsibility Assignment Matrix

RASIC Method

MARKETING STUDY	PROJECT MANAGER	CUSTOMER	TEAM MEMBER	SENIOR MANAGEMENT	SUPPORT STAFF
IDENTIFY POTENTIAL MARKET	C		S	R	
IDENTIFY SURVEY POPULATION	C	R	S	I	
DEVELOP SURVEY	R	I	S	I	
TEST SURVEY ON SAMPLE	R	I	S		S
FINALIZE SURVEY	R	A	S	I	S
CONDUCT SURVEY	R	I	S	I	S
COLLECT SURVEY	R	I	S		
ANALYZE DATA			R/S		I
REPORT RESULTS AND SUGGESTION	R	A	S	A	S

LEGEND

R - RESPONSIBLE
A - APPROVE
S - SUPPORT (DOES THE WORK)
I - INFORM
C - CONSULT

Break Timer

SkillRight

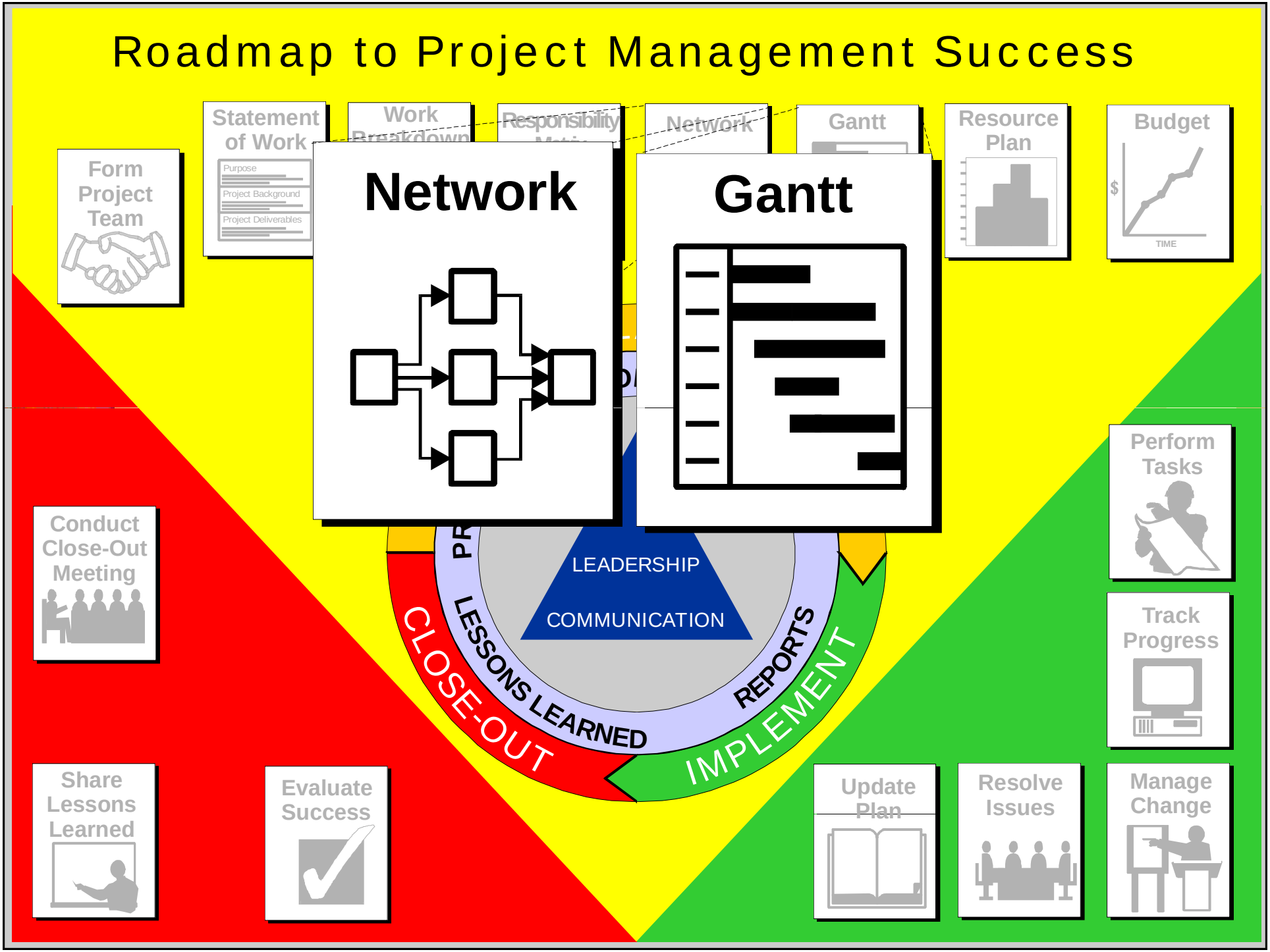
RASIC Coding System

- R = Responsible
  - Ensures that the assigned work is completed
- A = Approve
  - Approves that the work meets all requirements
- S = Support
  - Does the work
- I = Inform
  - Is kept informed of work status
- C = Consult
  - Is consulted on the work

Guidelines

- Team member names should be shown across the horizontal axis in the final matrix.
- There should be only one R and one S for each activity if possible.
- Every activity should have an R and an S. R/S for an activity is acceptable.
- The project manager will have the majority of Rs.
- The customer and senior management have the majority of As and Is.

Roadmap to Project Management Success



Project Schedule — Purpose

- Determine if requested completion date is possible.
- Identify start and completion dates of all work.
- Determine the controlling sequence of activities.
- Provide data for resource allocation.
- Track progress by providing a baseline.

Scheduling

Step 1: Estimate Activity Durations

Break Timer

Estimating Techniques

- Deterministic
  - Best Guess
  - Delphi (Consensus)

- Probabilistic
  - Program Evaluation Review Techniques (PERT)

Break Timer

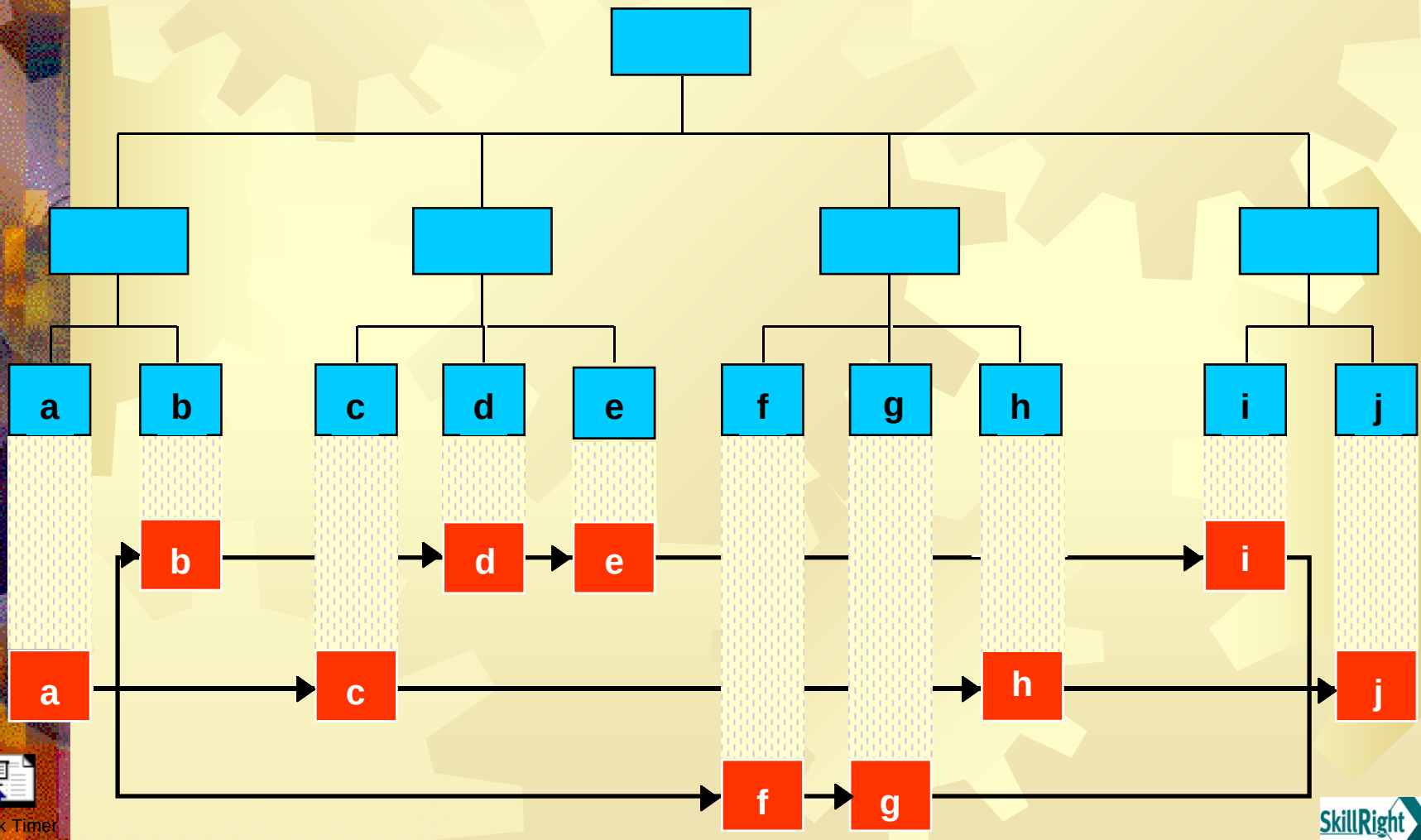
SkillRight

Scheduling

Step 2: Determine Activity Sequence By Creating a Network Diagram

Break Timer

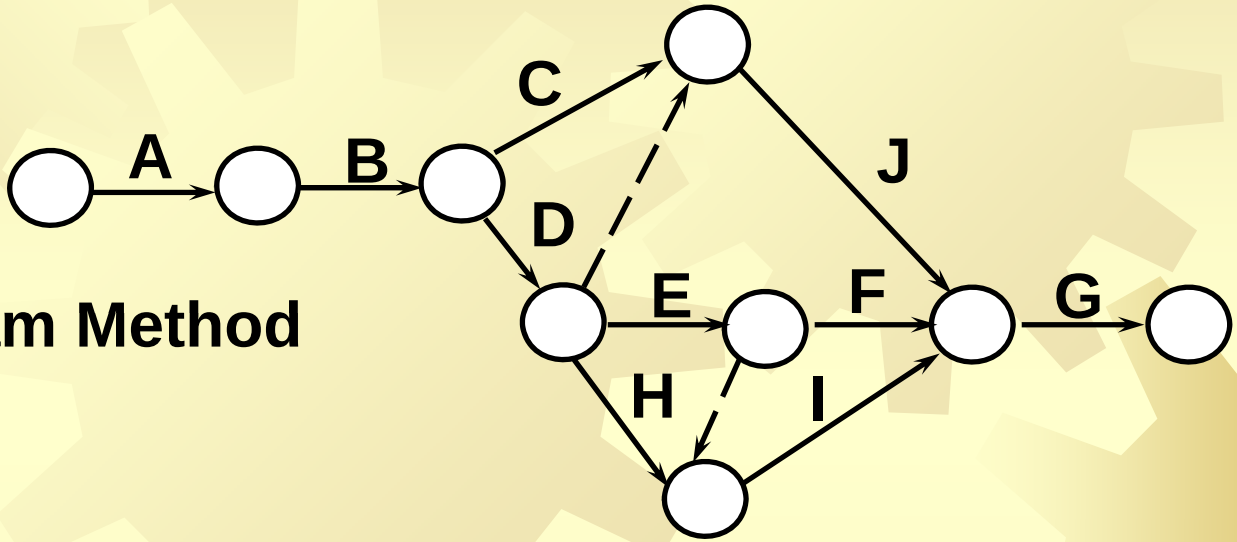
WBS/Network Diagram Linkage



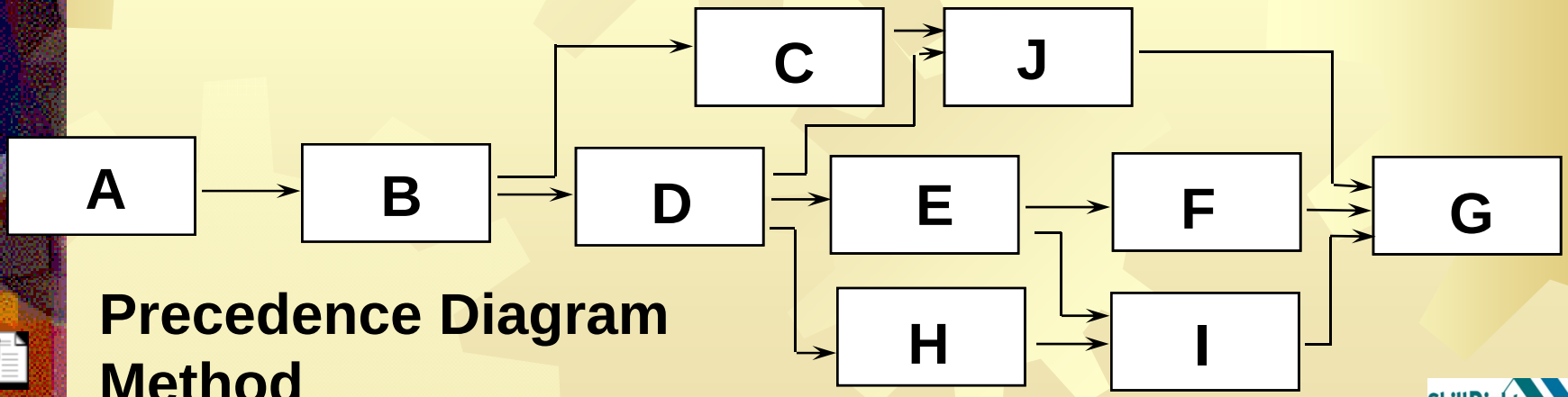
Break Timer

SkillRight

Network Diagram Methods



Arrow Diagram Method



Precedence Diagram Method

Break Timer

SkillRight

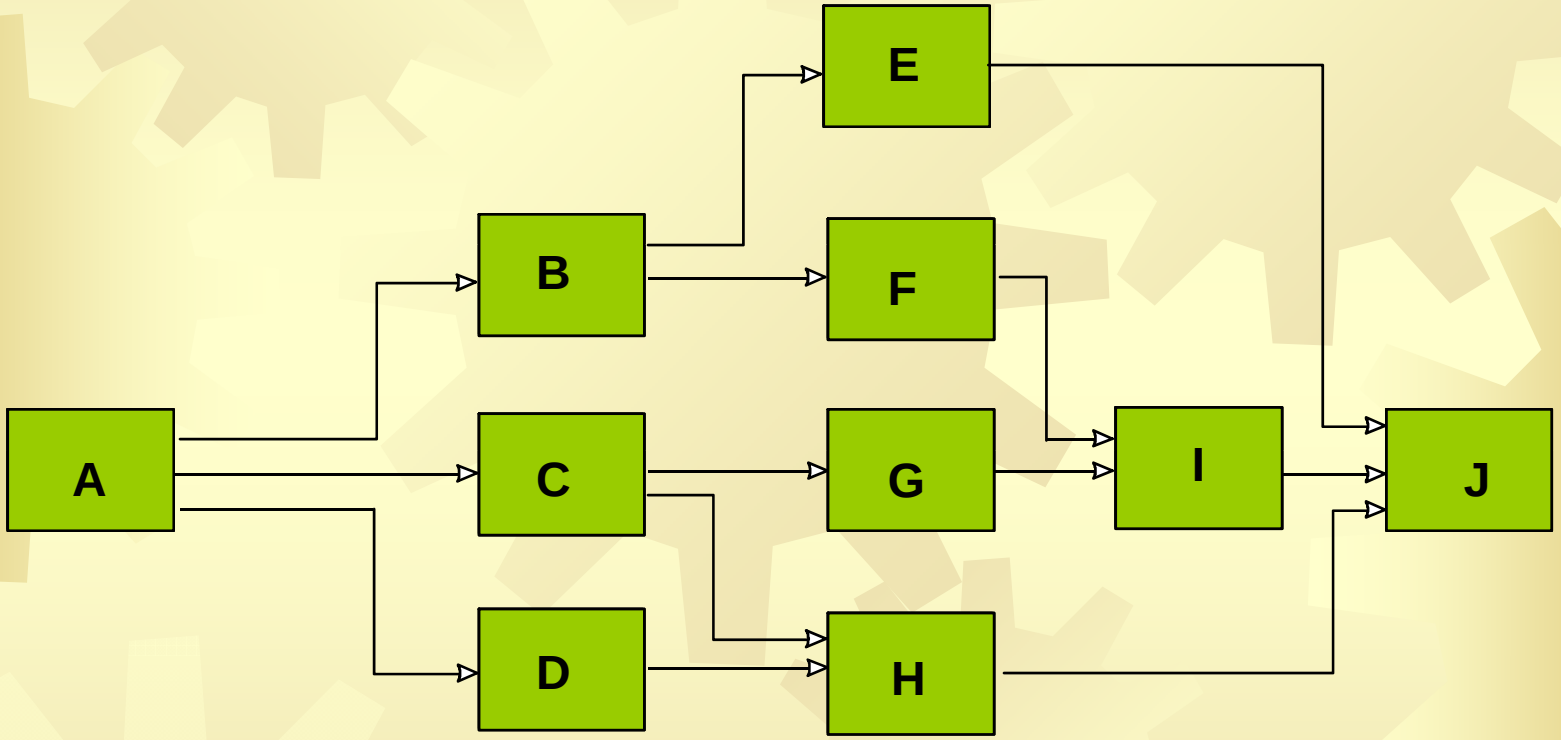
Create a Network Diagram

- **A** is the first activity
- **B, C** and **D** are dependent on **A**
- **E** and **F** are dependent on **B**
- **G** is dependent on **C**
- **H** is dependent on **C** and **D**
- **I** is dependent on **F** and **G**
- **J** is dependent on **E, I,** and **H**
- **J** is the last activity

Break Timer

SkillRight

Precedence Diagram Method



Logic Connection

Activity

Break Timer

SkillRight

Scheduling

Step 3: Calculate the Schedule Using Critical Path Method (CPM) Procedures

Break Timer

What's is the Critical Path?

- Riskiest path in a project
- Path with the most important activities
- Path with least slack
- Path with least resistance
- Path with longest duration
- Path to **Emerald** City

What's is the Critical Path?

- Path with least slack
- Path with longest duration

Break Timer

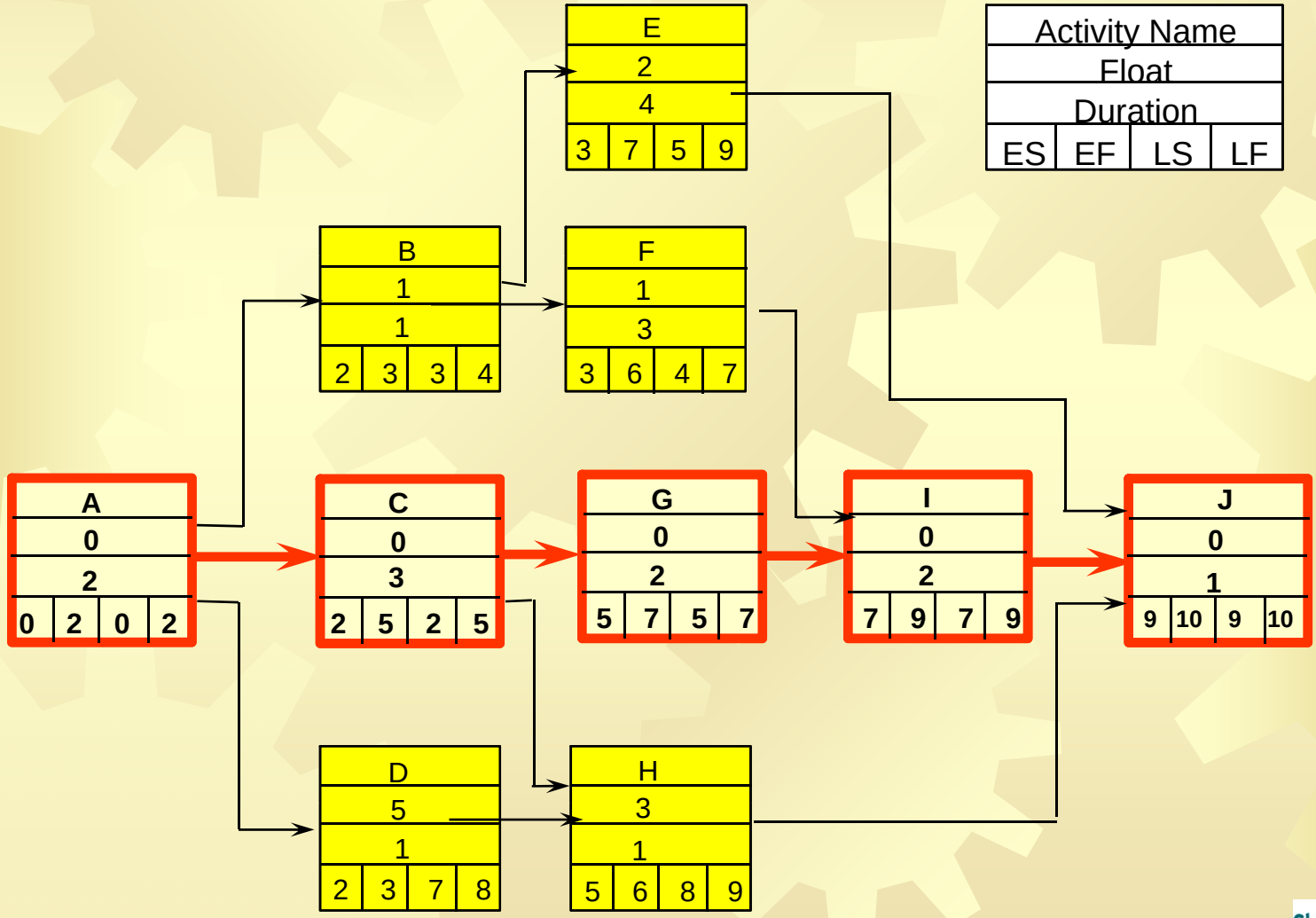
Determine the Critical Path

- A = 2 weeks
- B = 1 week
- C = 3 weeks
- D = 1 week
- E = 4 weeks
- F = 3 Weeks
- G = 2 weeks
- H = 1 week
- I = 2 weeks
- J = 1 week

Break Timer

SkillRight

Project X — Critical Path Solution



Break Timer

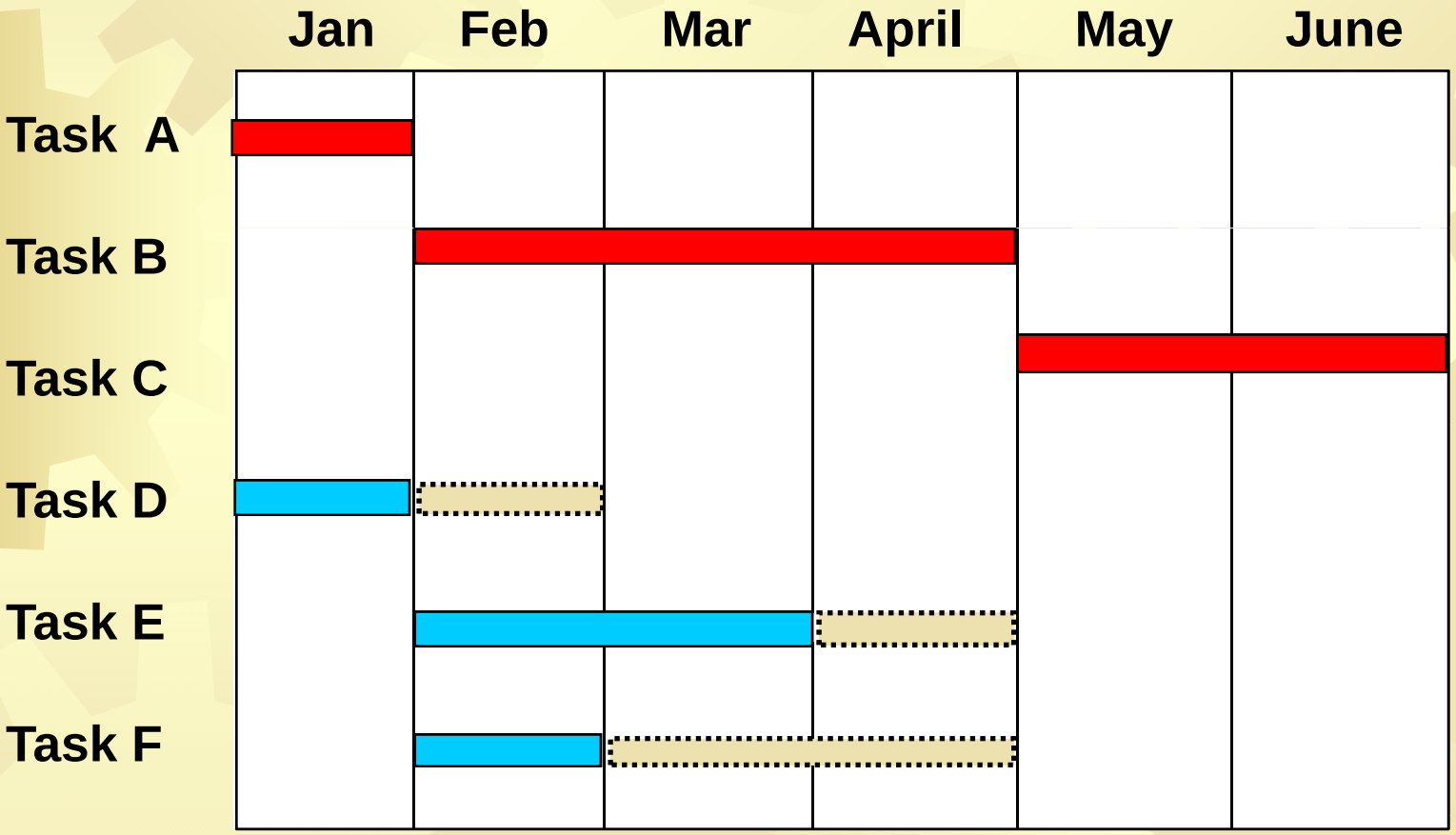
SkillRight

Scheduling

Step 4: Show the Schedule by Drawing Gantt and/or Milestone Charts

Break Timer

Enhanced Gantt Chart

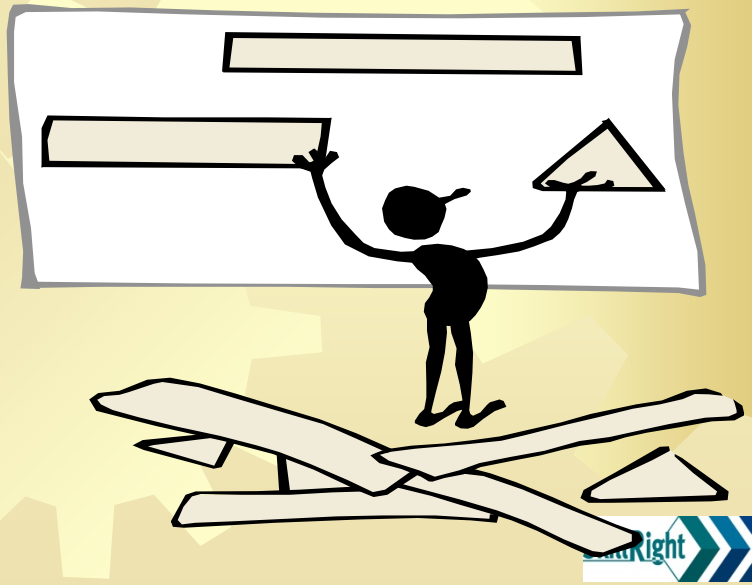


- Critical - Non-Critical - Slack/Float

Break Timer

Gantt Charts

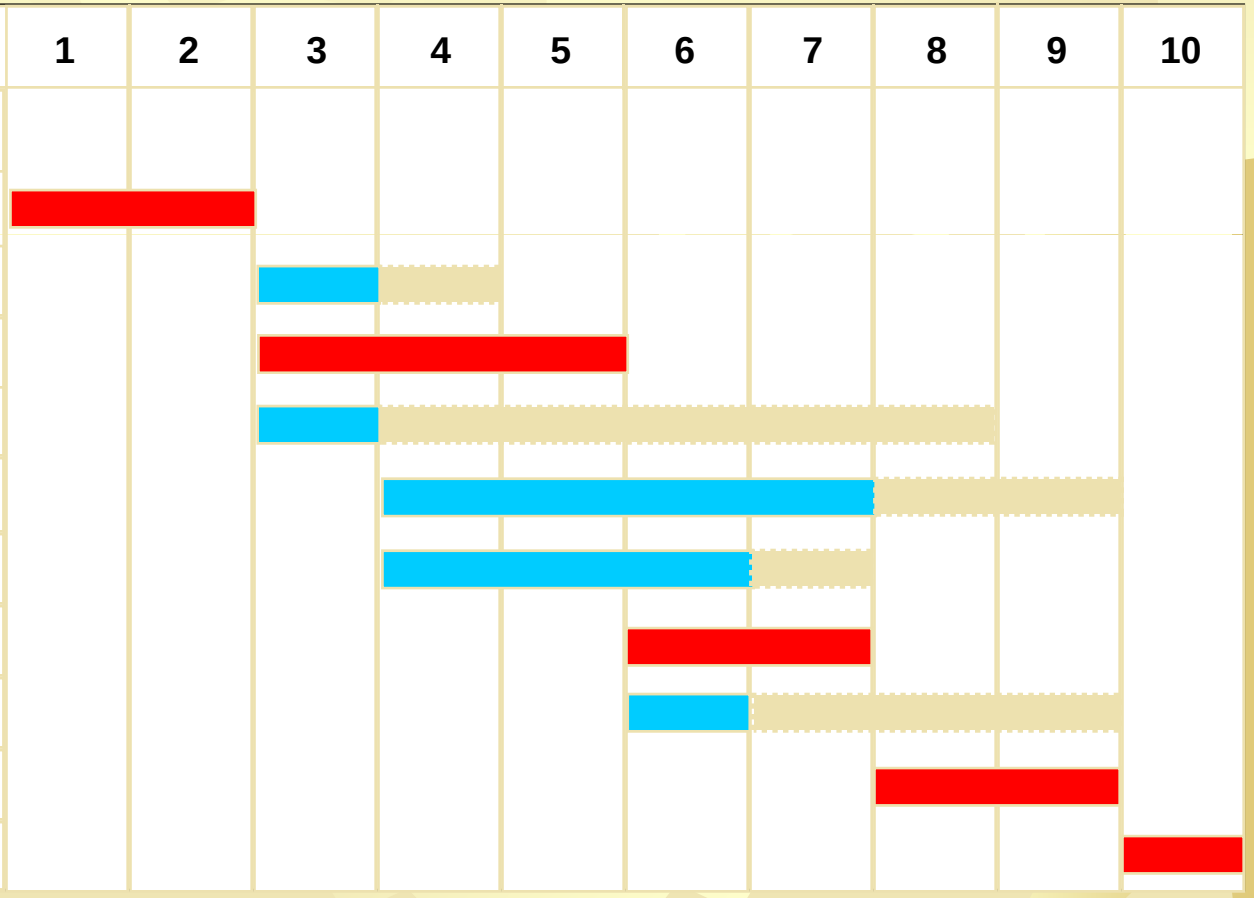
- Simple to construct
- Easy to interpret
- Good for management reporting



Break Timer

Project X — Gantt Chart Solution

Activity	Duration
A	2
B	1
C	3
D	1
E	4
F	3
G	2
H	1
I	2
J	1



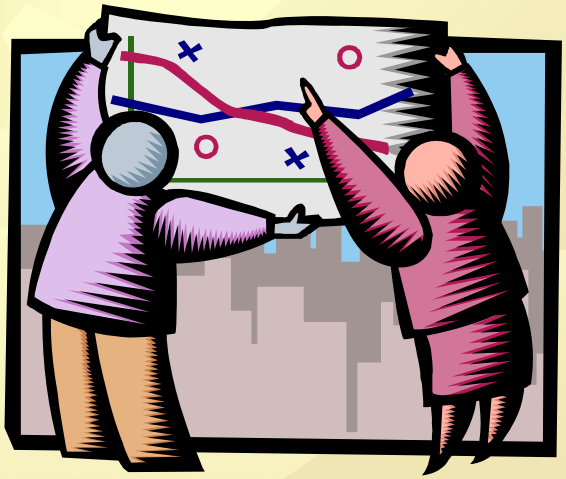
Break Timer

- Critical - Non-Critical - Slack/Float

SkillRight

Develop a Project Schedule

- Prepare a project schedule for your project.



Break Timer

SkillRight

Roadmap to Project Management Success

Form Project Team

Statement of Work

Purpose

Project Background

Project Deliverables

Work Breakdown Structure

Responsibility Matrix

Network

Gantt

Resource Plan

Budget

$

TIME

Resource Plan

PLAN

PROJECT NOTEBOOK

LEADERSHIP

COMMUNICATION

REPORTS

IMPLEMENT

LESSONS LEARNED

CLOSE-OUT

Conduct Close-Out Meeting

Perform Tasks

Track Progress

Share Lessons Learned

Evaluate Success

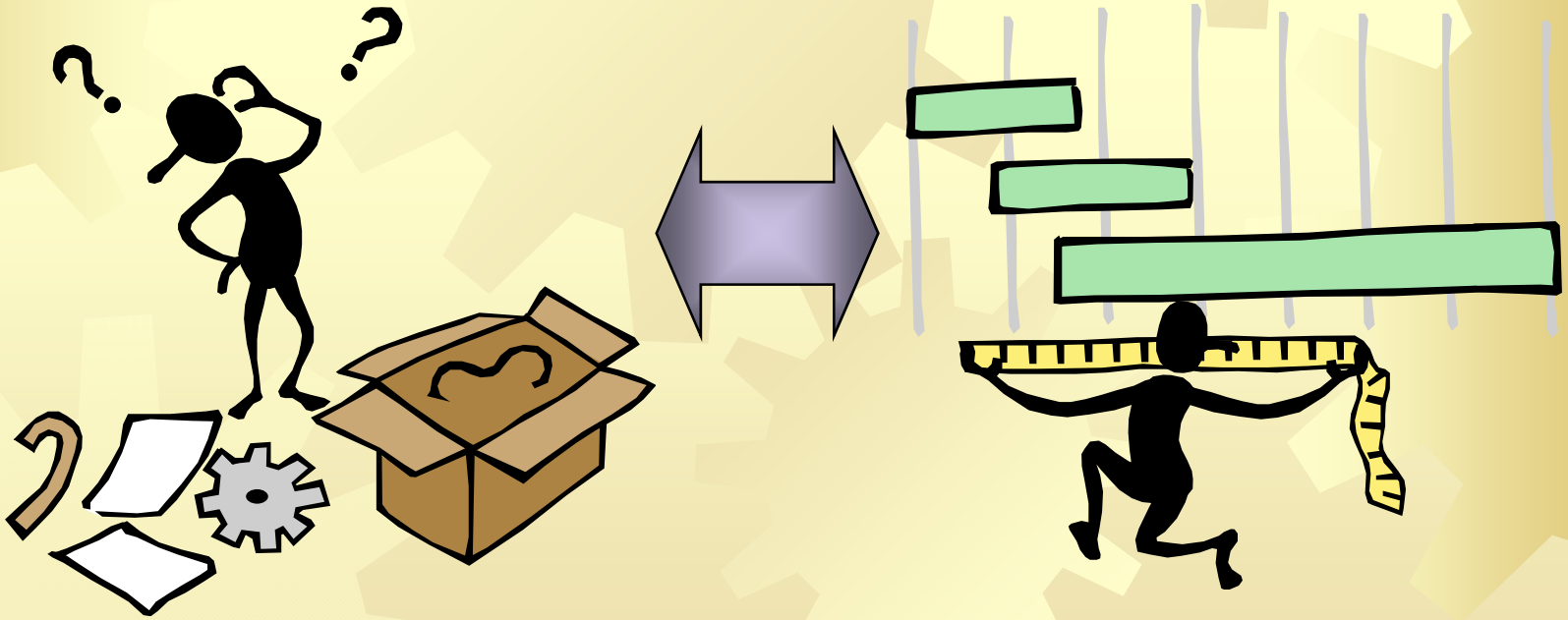
Update Plan

Resolve Issues

Manage Change

Assigning Resources

A schedule is not complete until all the resources necessary to complete the project have been committed or assigned.



Break Timer

SkillRight

Factors to Consider

- Availability of other resources
- Depletion of available float time
- Impact on critical path
- Impact on budget

Break Timer

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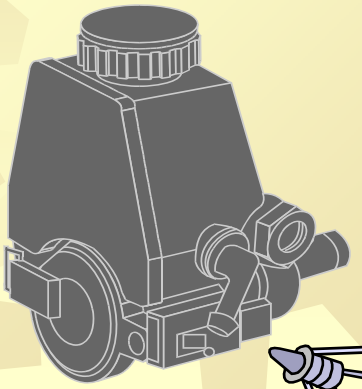
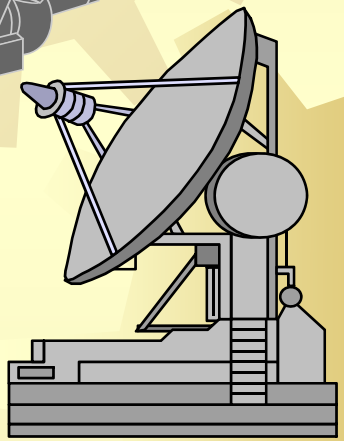
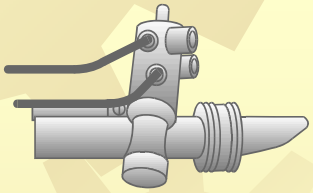
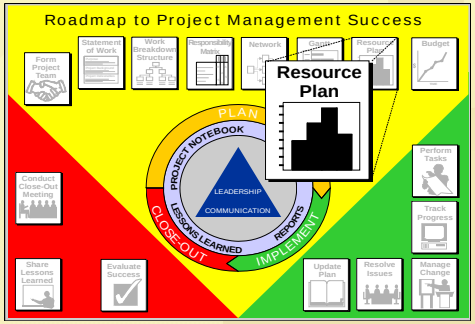
Non-Labor Resources

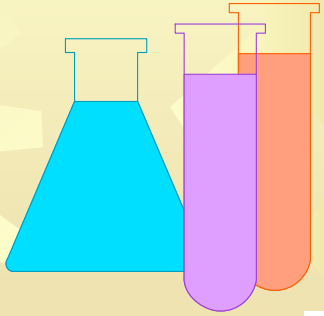
- Lab time
- Facilities
- Prototype parts/systems
- Equipment
- Materials











Break Timer

SkillRight

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TIME

Perform Tasks

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Manage Change

Resolve Issues

Update Plan

Evaluate Success

Share Lessons Learned

Conduct Close-Out Meeting

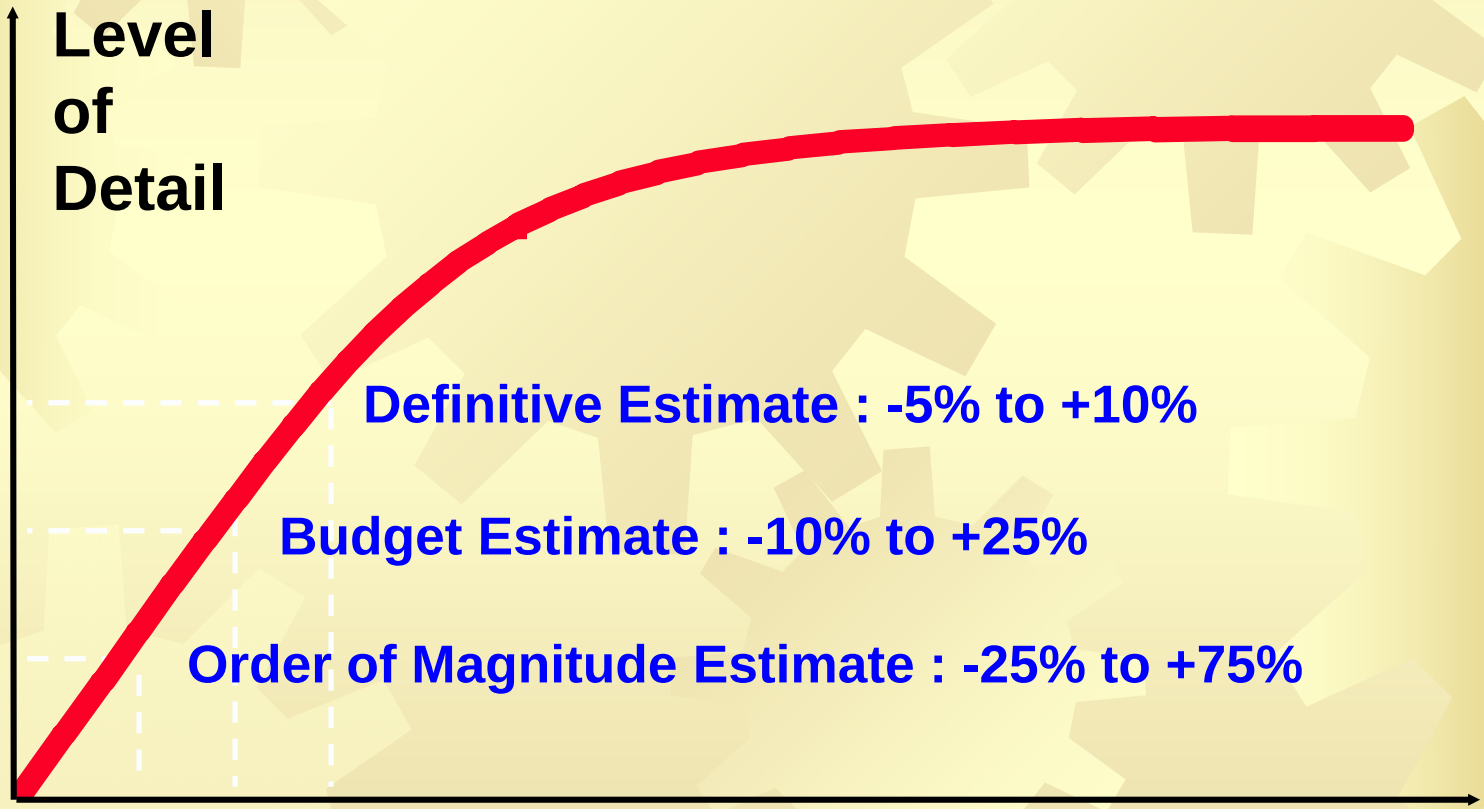
Cost Budgeting

- Cost Budgeting involves allocating overall cost estimates to individual work items in order to establish a cost baseline for measuring project performance. Using cost estimates, the WBS, the project schedule, and cost estimating tools, the project team develops a time-phased budget. This budget will be used to measure and monitor cost performance on the project."

Source: PMI

SkillRight

Budgeting Relationship



Break Timer

Types of Budget Estimates

- Order of Magnitude (Preliminary)
  - Supports decisions on project viability
  - Includes historical cost data
  - Actual cost within -25% to +75%
- Budget Estimate
  - Supports project planning decisions
  - Includes parametric modeling cost data
  - Actual cost within -10% to +25%
- Definitive
  - Supports project implementation
  - Includes cost data for each WBS activity
  - Actual cost within -5% to +10%

Break Timer

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Obtaining Cost Data

- Experience from past projects
- Functional subject matter experts
- Lessons learned
- Vendor quotes or bids
- Catalogs
- Cost estimating guides
- Buyers

Break Timer

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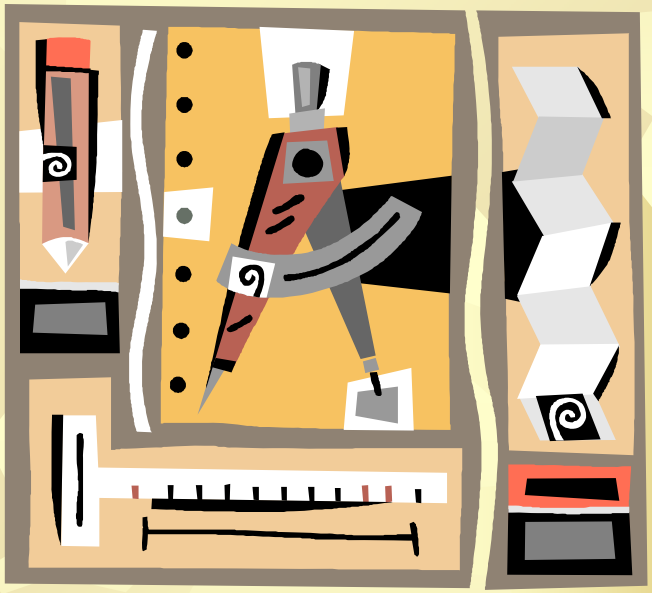
Major Cost Categories

- Capital Costs
  - Equipment
  - Facility Modifications
- Expenses
  - Labor costs
  - Material costs
  - Vendor/consultant costs



Break Timer

SkillRight

Facilities Modification

- Line reconfiguration
- Alterations to existing building/structure
- New process flow
- Relocation of utility hook-ups

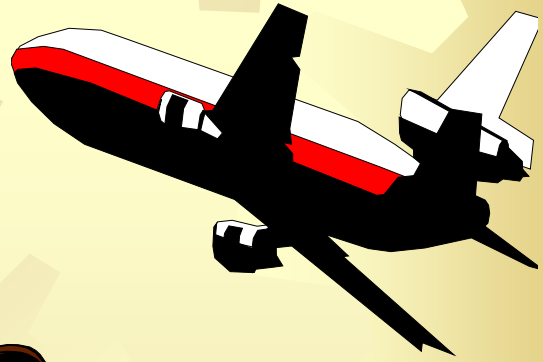
Other Cost Components

- Overhead
- Management or contingency reserve

Break Timer

Project Overhead

- Equipment rental
- Travel
- Consultants
- Contract labor
- Facility support



Break Timer

SkillRight

Contingency Reserve

- Weather delays
- Changes in design
- Unforeseen price increases
- Estimating errors
- Other project risks

Break Timer

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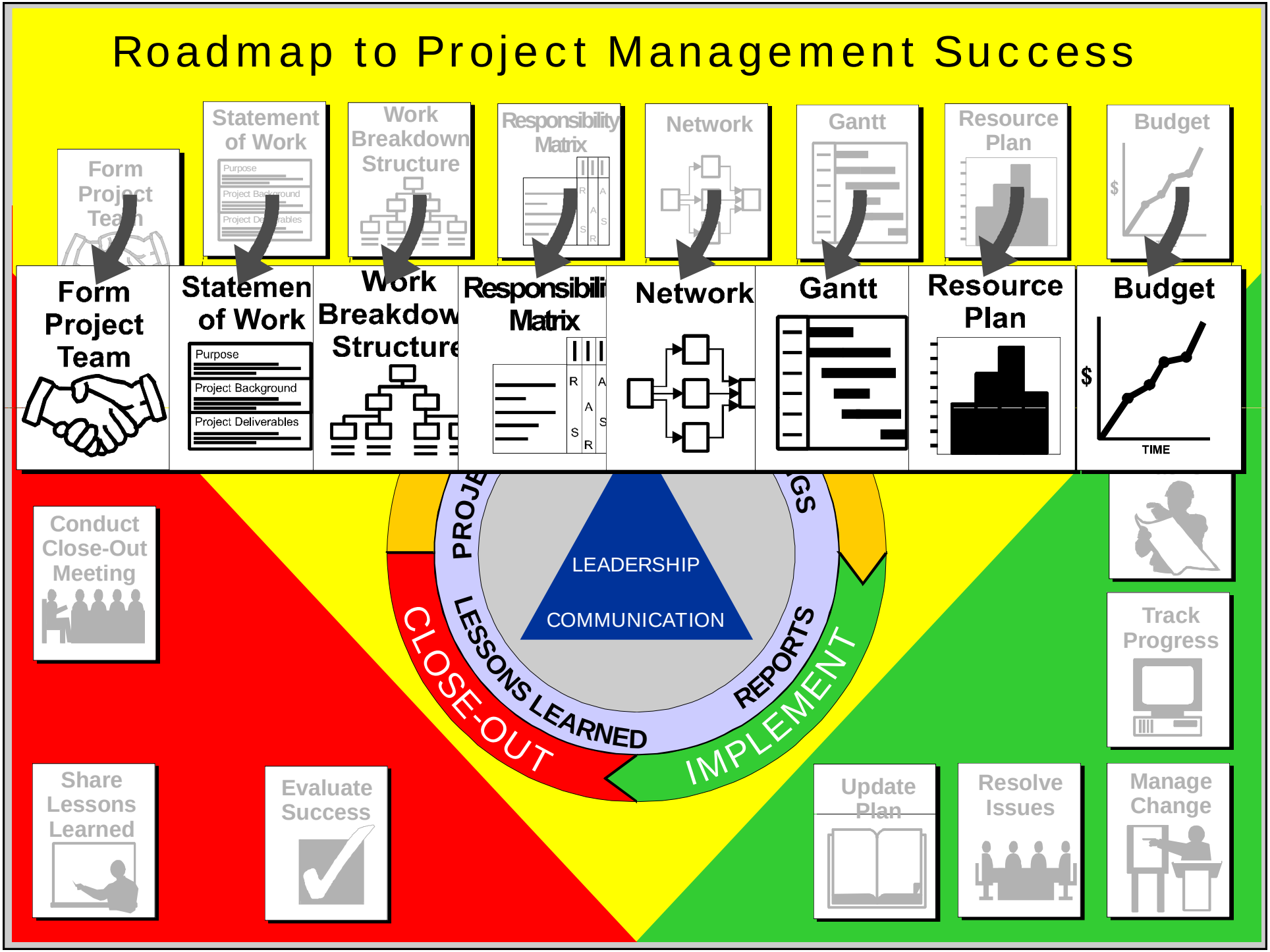
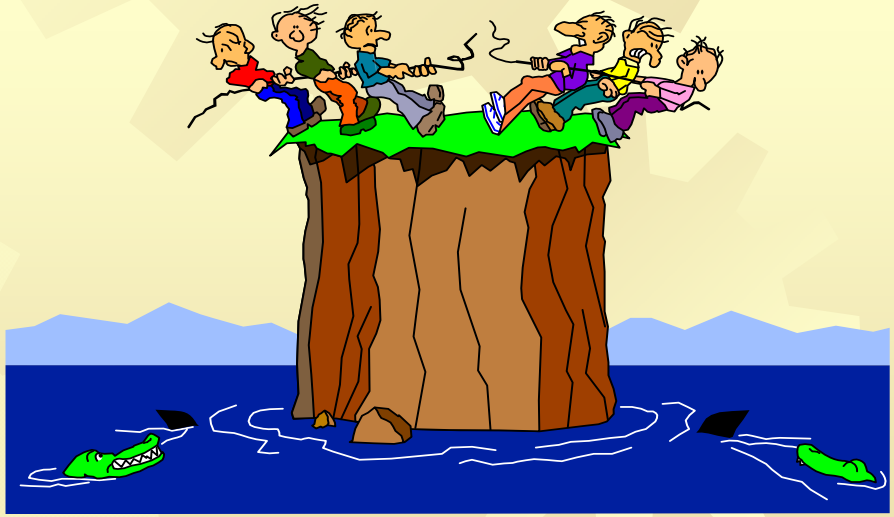
Roadmap to Project Management Success



What Is Risk?

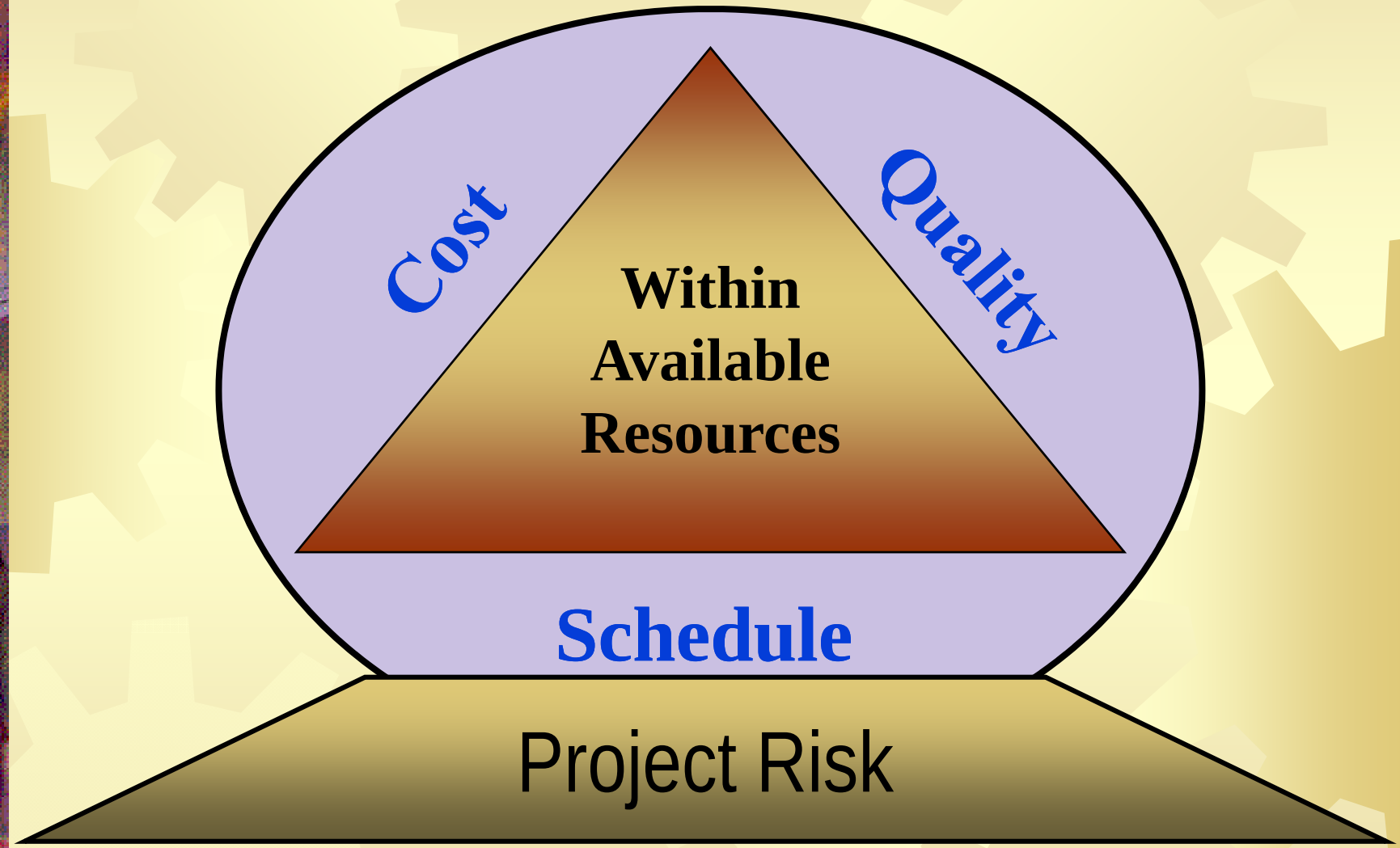
Risk can be defined as:

"Any threat to project success."



Break Timer

Project Scope



Break Timer

SkillRight

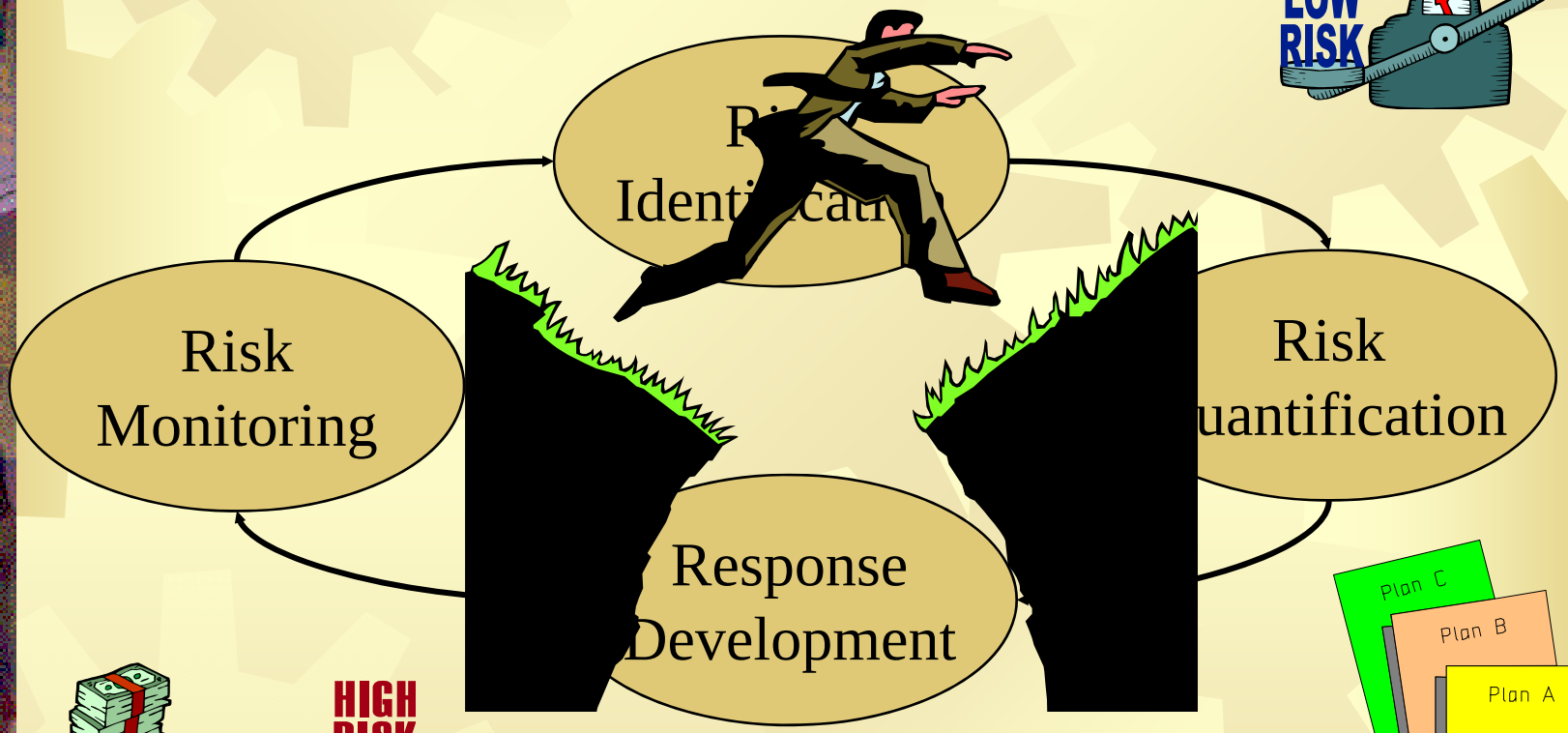
Risk Management

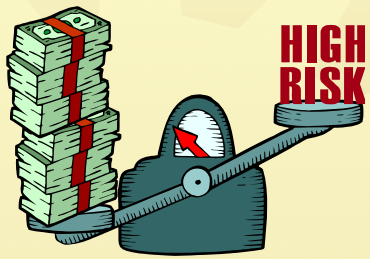
"Risk Management is the art and science of identifying, analyzing and responding to risk factors throughout the life of the project and in the best interests of its objectives."

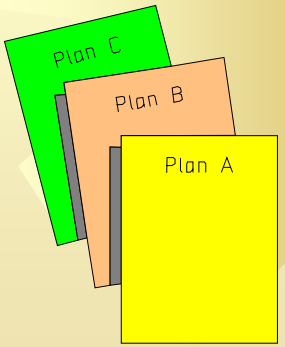
Source: PMI

Break Timer

Risk Plan Development







Break Timer

SkillRight

Risk Identification Methods

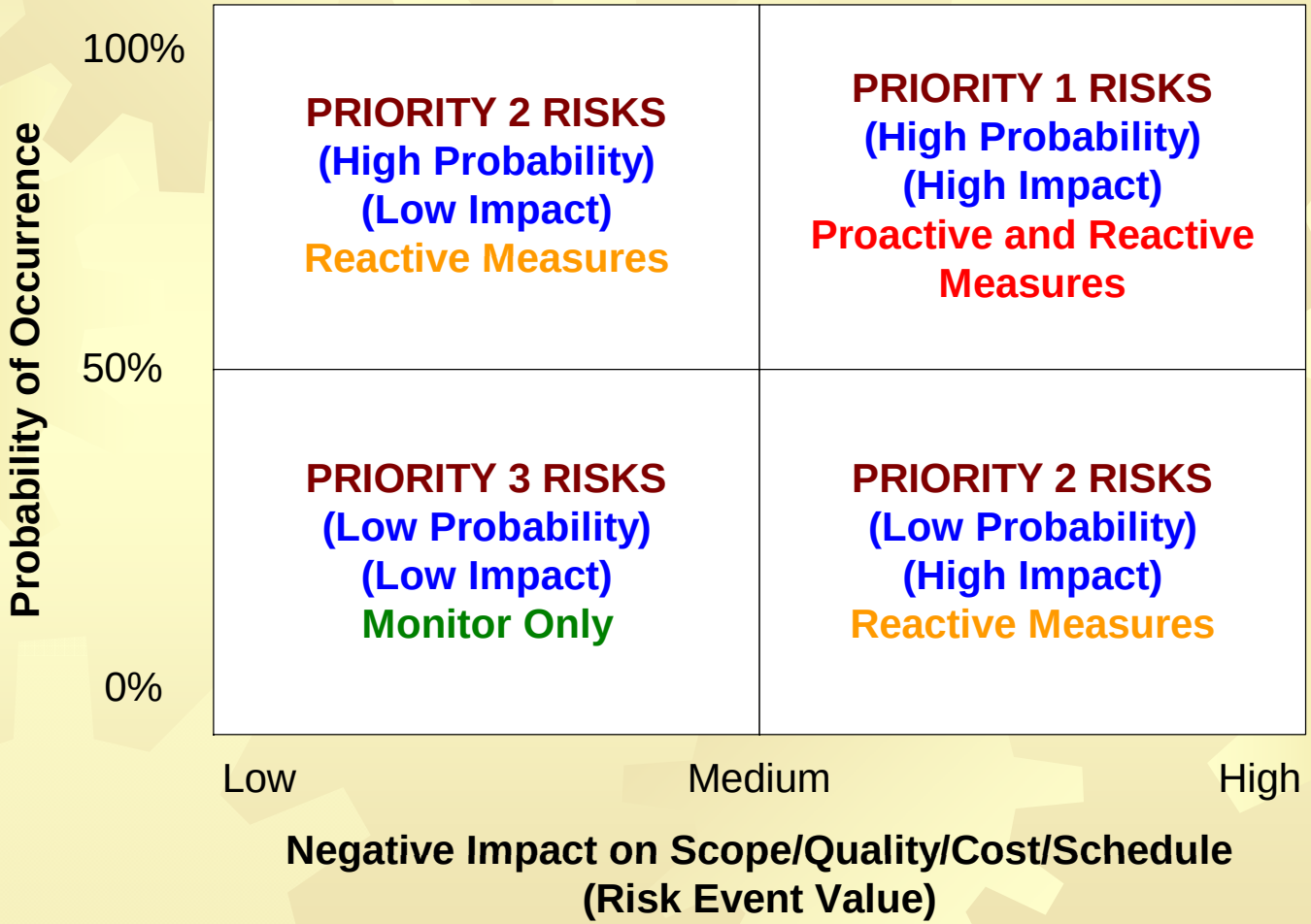
- Brainstorming
- Subject matter experts
- Historical data
- Lessons learned

Break Timer

Common Sources of Risk

- Quality requirements
- Schedule constraints
- Cost limitations
- New technology
- Project complexity
- Third-party performance
- Contract terms (legal)

Prioritizing & Planning



Break Timer

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Risk Worksheet

Project Manager: _____ **Date:** _____

Project Title: _____

Risk Description:

Risk Priority: 1 2 3 (Circle the Priority)

Probability %: **Risk Event Value (REV):**

Expected Monetary Value (EMV):

Impacts:

- ☐ Quality
- ☐ Schedule
- ☐ Cost
- ☐ Scope

Preventative Plan (Proactive Plan): (For Priority 1 Risks)

Contingency Plan (Reactive Plan): (For Priority 1 and 2 Risks)

Date of Last Review: _____ **Date of Last Review:** _____

Break Timer

SkillRight

Team Activity — Risk Management

- ***Time:*** 15 Minutes
- ***Instruction:***
  1) Identify at least one priority 1 or 2 risk for your team project.
  2) Complete a risk worksheet for the risk identified.
  3) Use the blank template following this page.

Section 3.0

End of Planning Phase

Break Timer