

MANAGING LIFE'S PROJECTS

PRESENTED BY
THE PROJECT MANAGEMENT INSTITUTE
DELAWARE VALLEY CHAPTER

Turning ideas into reality!

Acknowledgement



The “Managing Life’s Projects” program was created by the Project Management Institute - Delaware Valley Chapter.

PMI Educational Foundation supports the chapter’s efforts to bring project management to nonprofit, civic, and community organizations. The program is available at www.pmief.org.

What You Will Learn

- How to achieve goals
- How to decide whether a goal is worth your effort
- How to plan ahead
- How to break big jobs into smaller objectives
- How to follow a plan
- How to deal with unknowns
- How to adapt to changes
- How to make the best use of time and money
- *How would project management on the moon differ from managing projects on Earth?*

Apply the time-tested principles of project management to reach your goals.

- **Project Management Institute**

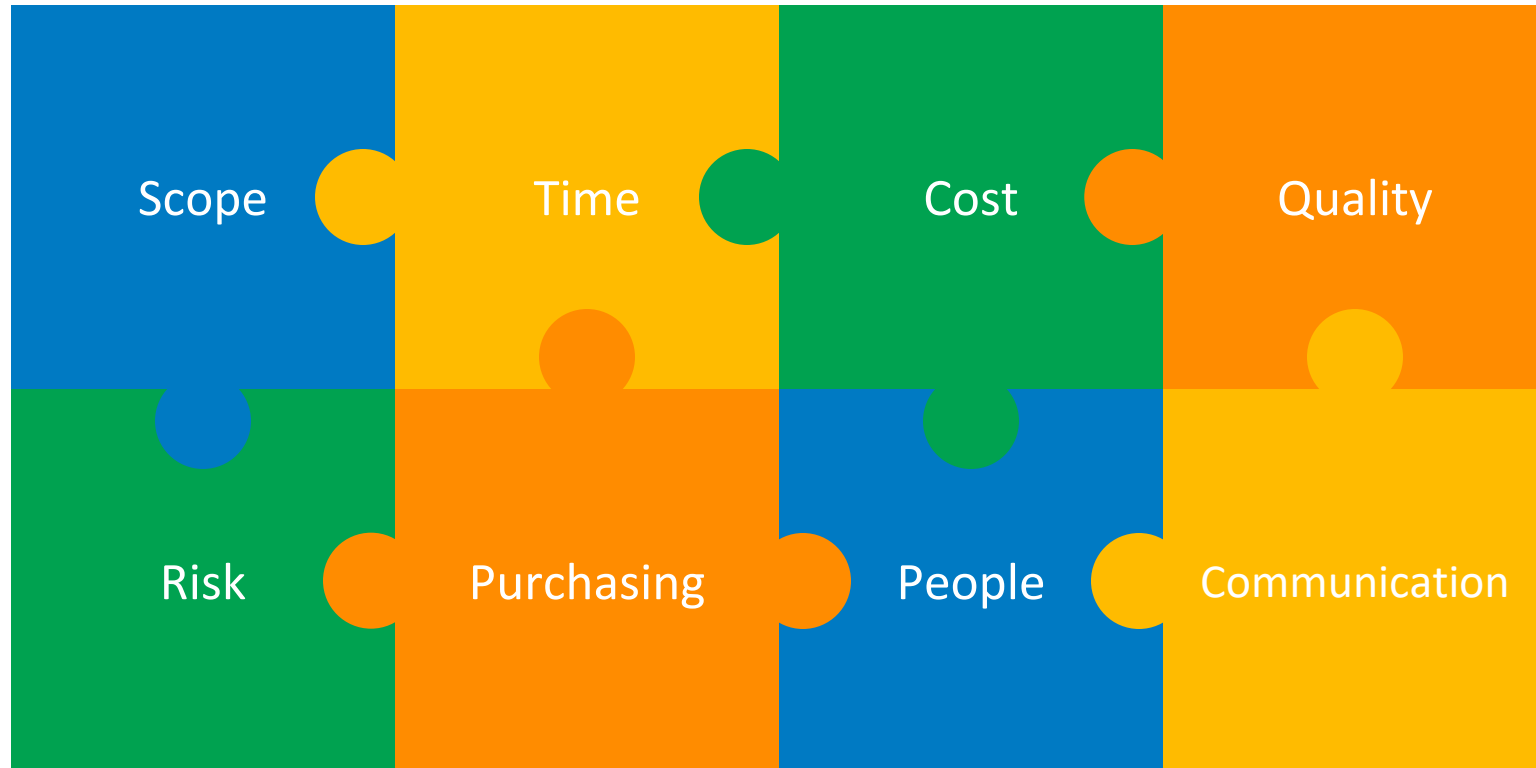
- The PMI is an international organization founded to:
- Promote professional project management principles and techniques;
- Create and deliver an educational program that strengthens local project management professionals' skills;
- Provide world-class PMI certification and training

- **Delaware Valley Chapter**

- The local PMI chapter serving the Greater Philadelphia area, South Jersey, Delaware, Eastern Shore Maryland.

- **Introduce yourself**
 - What is your name?
 - Why are you here?
 - What do you hope to get from this group?
 - What do you think would be different managing a project on the moon from managing one on earth?

Plan: Determine How to Do It



How would each these be different on the Moon?

Terminology

- Project
- Project management
- Project manager
- Sponsor
- Stakeholder

Five Process Groups

- Initiating
- Planning
- Executing
- Monitoring & Controlling
- Closing

Characteristics of a Project

- It has a beginning and an end
- It creates a unique end result
- Projects involve:
 - People
 - Time
 - Budget
 - Interrelated tasks
- A project is not
 - Simple enough to be accomplished without a plan
 - Regular, repeated, routine work
 - An activity that has no result

A project is temporary, and it produces something.

Examples of Projects

Projects	Not Projects
Moving into a new home	Listening to a weather report
Writing a research paper	Brushing your teeth every night
Preparing and serving a meal	Answering the telephone
Delivering a rocket ship	Running a base on the moon

What types of projects could occur on the Moon?

- The Project Manager is “in charge” of the project
- The Project Manager should
 - Plan the project
 - Make sure the project follows the plan
 - Respond to changes
 - Communicate with everyone involved

Take ownership of your project.

- An approach to managing and controlling a project
- A set of knowledge, skills, tools, and techniques that help meet a project's goals

Follow a known approach that makes projects successful.

- Funds the project
- Might provide other resources
- Oversees the project manager
- Promotes the project

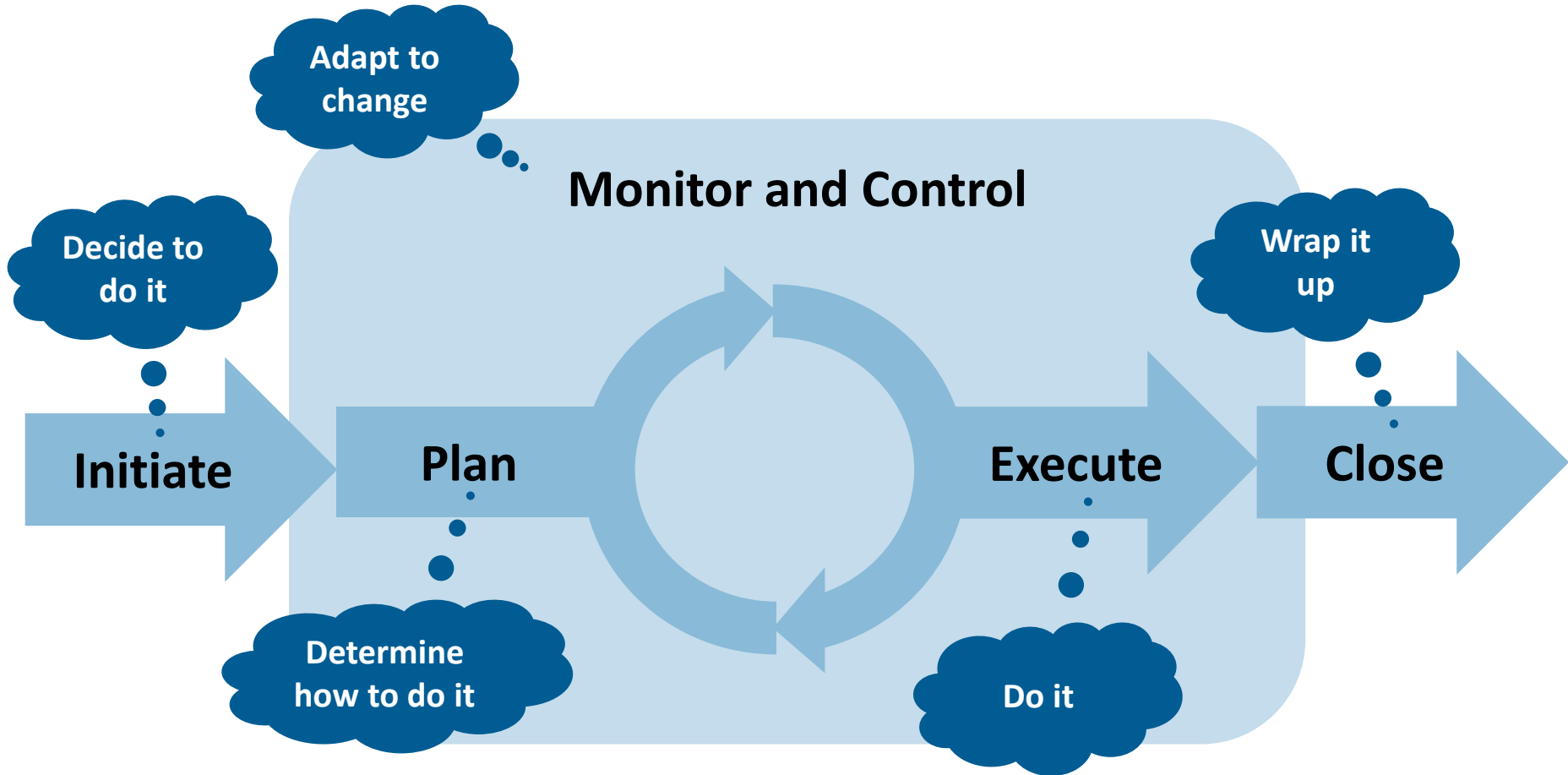
- Examples
 - Member of an executive management team
 - Chair of the Board of Directors
 - Executive Director of a community organization

Be accountable to someone who cares.

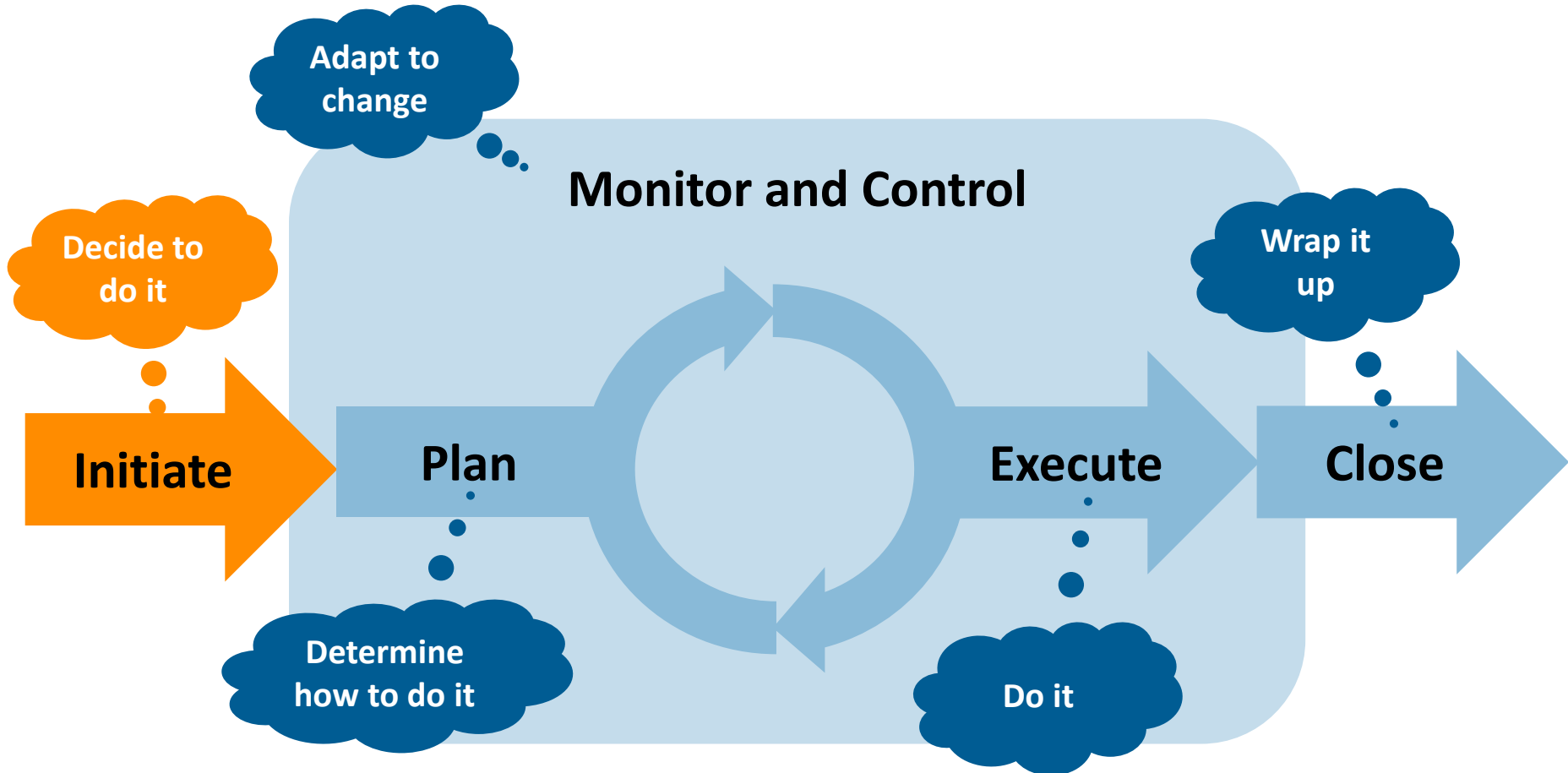
- Can be people or organizations
- Can be involved or just interested in the project
- Can care about the project or the project's result
- Can be in favor of the project or against it



Your project impacts more people than you might think!



Next, we will talk more about each process group.



Initiating happens before you commit to the project.

Before you commit...



Think
about it

Write it
down

Reach
agreement

Make sure your project is worth doing.

Think about it

Decide	We call it
What you are going to do	Scope and Requirements
Why you are going to do it	Vision and Purpose
What it means to finish	Success Criteria
What you will need	Budget and Resources
How long it will take	Milestone Schedule
Who is affected	Stakeholders
Who will run the project	Project Manager
Who will pay for the project	Sponsor

Write it down

- Develop a common understanding among stakeholders
- Give people a sense of ownership
- Remember what the team decided
- Pass the vision to new team members

- Keep it high-level
- Keep it concise

- It's called the "Project Charter"

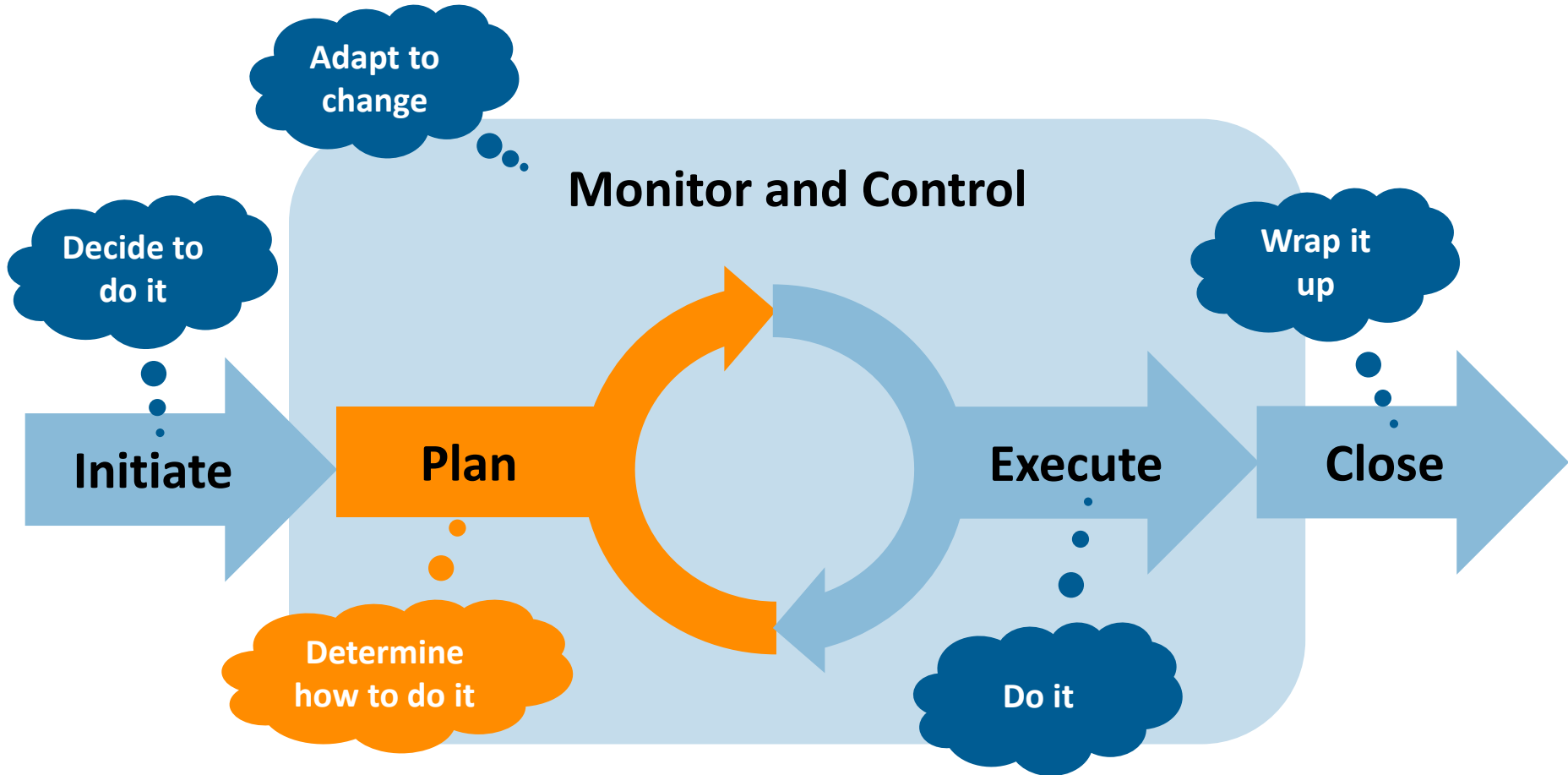
If it's worth doing, it's worth writing down.

- Promote the project to the sponsor and other stakeholders
- Modify the charter if needed
- Get agreement on the charter
- Get commitment for resources
 - Money
 - Supplies
 - People
- Get authorization to start

Start with agreement – a solid foundation for your project.

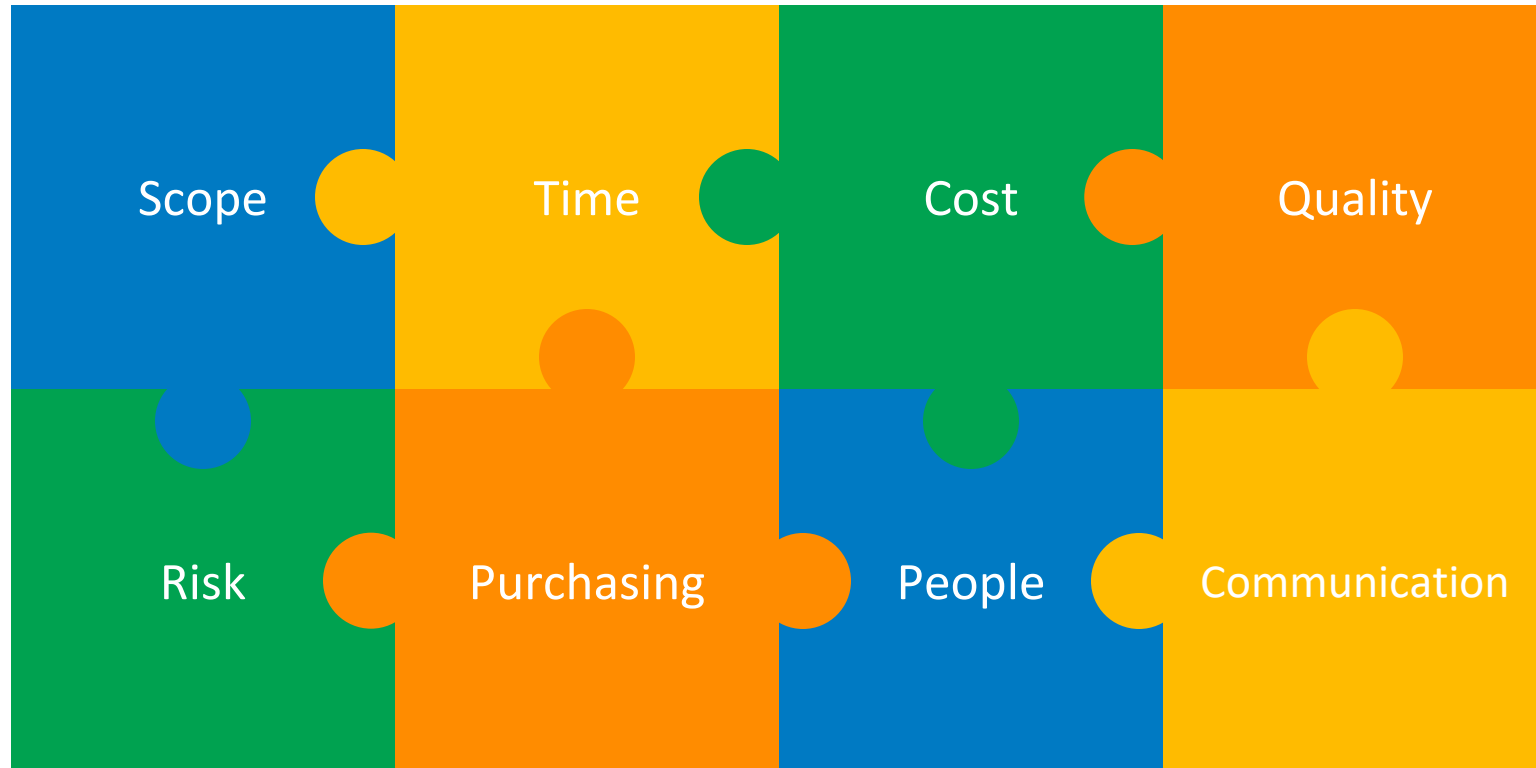
- Select an example project
- Discuss each element of the project charter
- Write a draft project charter
- Be ready to share your experience with the group
- *Based on what you know about a project charter, describe some information about the Moon project that should be on the project charter.*

Plan: Determine How to Do It



Before you do it, determine how you are going to do it.

Plan: Determine How to Do It



A plan fits the pieces of your project together

Define the project's output in detail

- Answer these questions:
 - What are the outputs?
 - What characteristics does each output have?
 - What does each output do?
 - How good does each output need to be?
 - What are the constraints on how the work must be done?
- Get input from your stakeholders
- We call this “collecting requirements”

Organize the work

- List the high-level work elements to produce the outputs
- Define the inputs, work, and outputs for each work element
- We call this a “Work Breakdown Structure (WBS)”

Define your end result.

Example Requirements

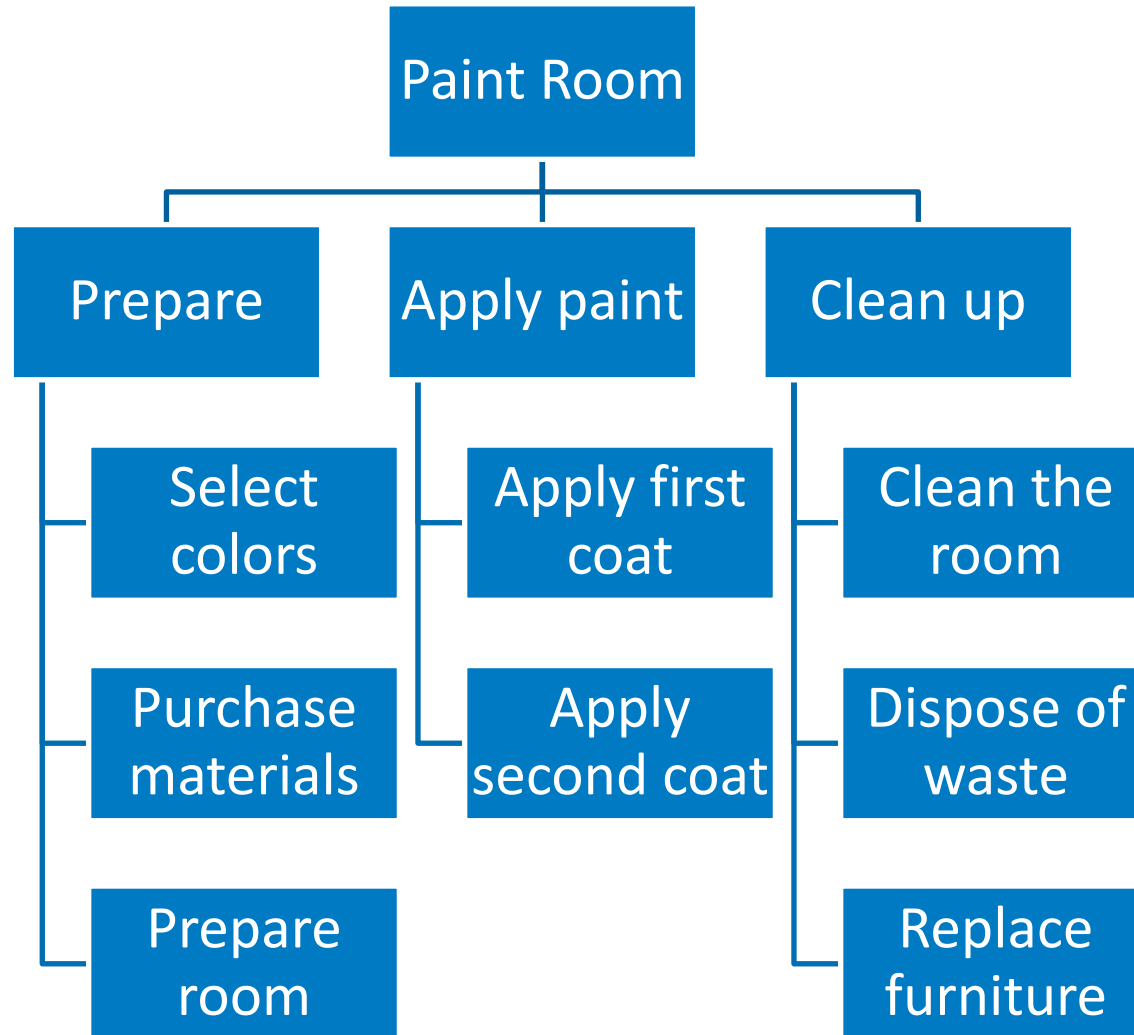
- Project outputs
 - Paint the bedroom
 - Ceiling is white flat
 - Wall is blue satin
 - Trim is blue semi-gloss
 - There will be no holes in the walls

- Constraints on how the work must be done
 - Painting will occur between 8:00am and 5:00pm
 - Work will be completed in one week
 - Work includes disposing of empty cans
 - Left-over paint is to be saved for the owner

Define your end result.

Example WBS

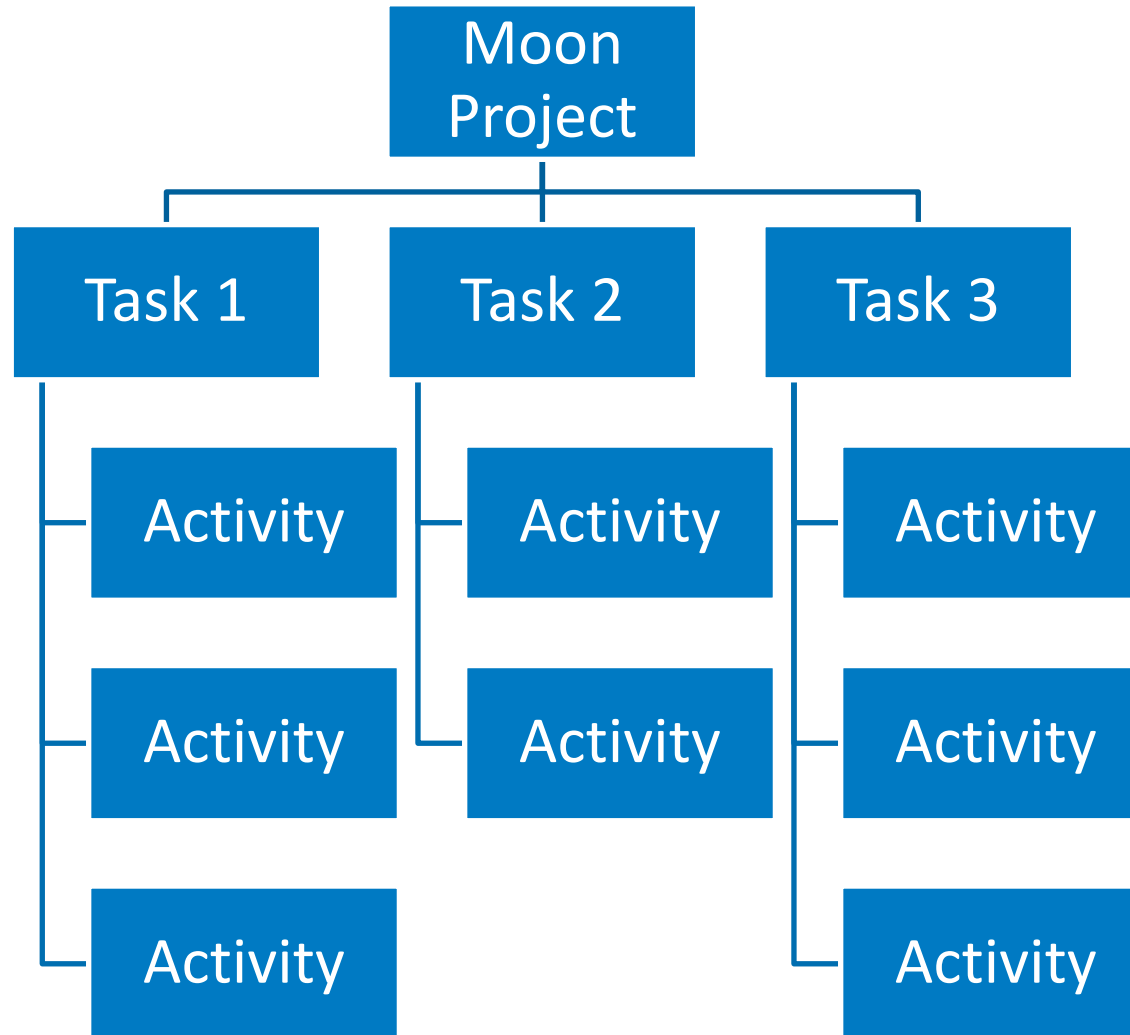
Scope



Define the high-level work to be done.

Example WBS

Scope



Define the high-level work to be done.

- Collect requirements for your project
- Define the outputs of your project in detail
- List *constraints* on how the work is to be done
- Create a Work Breakdown Structure

Plan Time



Time

- Define the detailed activities for each WBS element
- Put the activities in sequence
- Estimate the resources (labor and supplies) for each activity
- Estimate the calendar time (days or weeks) for each activity
- Create a schedule

Determine the order and duration of activities.

Example Activity List

Time

Activities for the “Prepare Room” WBS Element

Activity	Labor	Resources
Remove furniture	1 hour	Space for furniture
Clean walls	1 hour	Bucket, sponge, soap, water
Repair holes in wall	2 hours	Spackle, sandpaper
Cover areas not being painted	2 hours	Tape, drop cloths

The activity list helps identify the resources you need.

Example Activity List

Time

Activities for the “Name Element” WBS Element

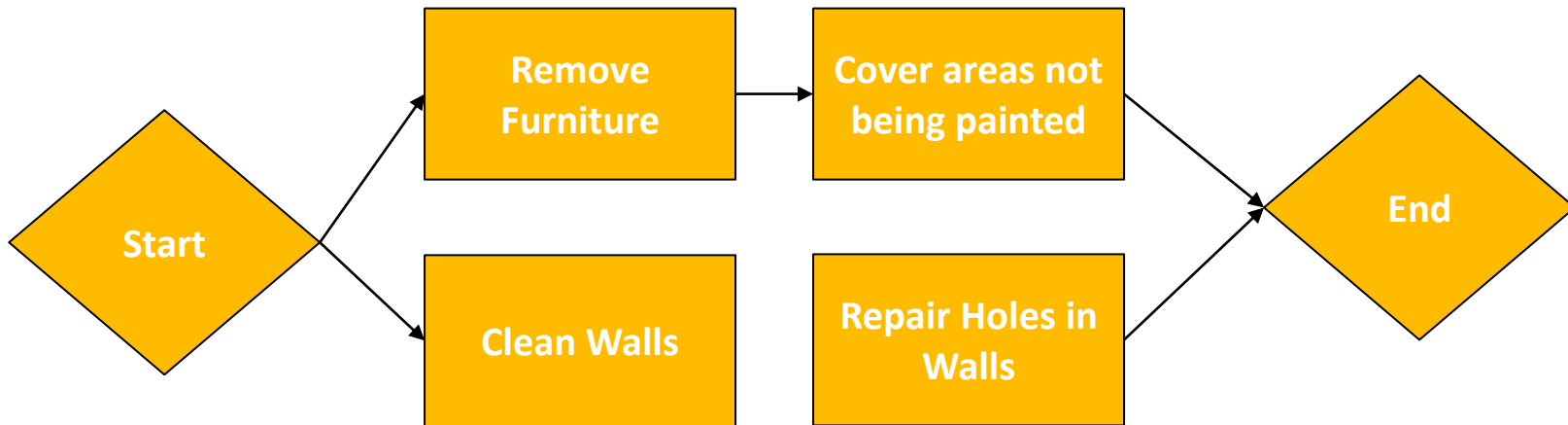
Activity	Labor	Resources
Activity 1	? days	Resources ?
Activity 2	? days	Resources ?
Activity 3	? days	Resources ?
Activity 4	? days	Resources ?

Lunar day is 100 Earth days (see <https://svs.gsfc.nasa.gov/12739>)

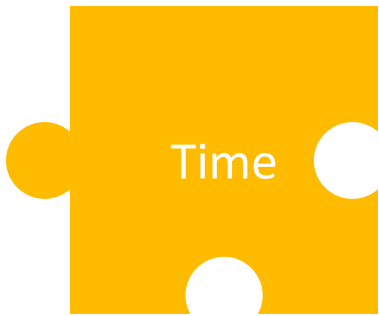
Example Schedule

Time

Activities for the “Prepare Room” WBS Element

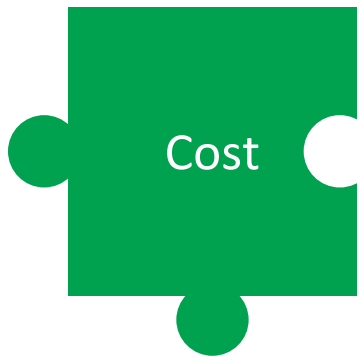


A schedule shows the activity sequence and time.



Plan Time: Your Turn

- Break the WBS structure down into activities needed to paint a room
- Sequence the activities
- Determine the resources needed
- Estimate the time for each activity
- Develop a schedule



Plan Cost

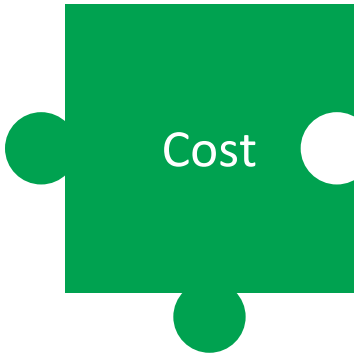
- Estimate how much each activity will cost
- Include the cost for
 - Labor
 - Supplies
 - Overhead (like office space and equipment)
- Add the estimates to determine the total cost of your project

Estimate the cost of your project

Plan Cost: Example

Activity	Labor	Resources	Labor Cost	Supplies Cost
Remove furniture	1 hour	Space for furniture	\$20	none
Clean walls	1 hour	Bucket, sponge, soap, water	\$20	\$5
Repair holes in wall	2 hours	Spackle, sandpaper	\$50	\$10
Cover areas not being painted	2 hours	Tape, drop cloths	\$50	\$70

Estimate the cost of each activity.



Plan Cost: Your Turn

- Estimate the cost of labor and supplies for your project

Activity	Labor	Resources	Labor Cost	Supplies Cost

- Determine what quality means for your project
- Determine how you will ensure quality

Examples

- Quality means:
 - Walls are smooth
 - Paint covers the old color
 - Carpet is free of damage from paint
- How we will ensure quality:
 - Inspect spackled walls before painting
 - Inspect after each coat for coverage
 - Cover carpet and inspect at end of job

Ensure your project produces quality outputs.

Plan Quality: Your Turn

Quality

- For your project
 - What does quality mean?
 - How will you ensure quality?
 - *What processes should be in place in the moon?*
 - *Why would process improvement be important on the moon?*

- Risks are uncertain future events that can affect your project
- There are two types of risks
 - Threats have a negative impact on your project
 - Opportunities have a positive impact on your project

If you know about a risk, you can manage it.

Identify

- Talk to others
- Make a list

Assess

- Probability – How likely is it to happen?
- Impact – How big of an effect will it have?

Plan

- Include activities to change probability
- Include activities to change impact
- Include cost or time buffers

Take initiative to reduce threats and increase opportunities!

Plan Risk: Example

Risk

Risk	Probability	Impact	Owner	Action Plan
Paint does not cover well	Medium	High	Bob	Buy a paint sample and try it ahead of time
Paint gets onto carpet	High	High	Joe	Use drop cloths Get emergency cleaning supplies
Customer could order more work	Medium	High	Bob	Create a customer satisfaction plan
Might run out of paint	Medium	Low	Jane	Identify nearest paint store Have truck and credit card on-site
Painter could be injured	Low	Low	Joe	Carry liability insurance

Be proactive – stop problems before they happen!

Plan Risk: Your Turn

Risk

- Plan risks for your “Moon” project

Risk	Probability	Impact	Owner	Action Plan

Purchasing

- Determine what goods and services you need
- Determine how you will acquire them

Examples

- What you need:
 - Ladder
 - Brushes and rollers
 - Paint
- How to acquire:
 - Rent a ladder
 - Buy brushes and rollers at Lowes
 - Buy paint at Sherwin Williams

Have what you need at the time that you need it.



Purchasing

- For your project
 - Determine what goods and services you need
 - Determine how you will acquire them
 - *How will goods and services be delivered to the moon?*

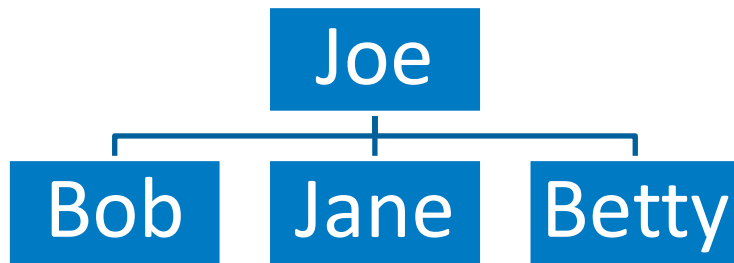
- Acquire your project team
- Assign your project team members to roles
- Assign your project team members to activities
- Train your project team
- Determine how you will motivate and reward your team

Your project needs a trained, organized, motivated team.

Plan People: Example

People

Organization Chart



Responsibility Assignment Matrix

Activity	Team Members			
	Joe	Bob	Jane	Betty
Clear Room	P	S		
Repair walls			P	
Tape				P
Paint	S	P	S	S
Inspector	P			

P=Primary Responsibility

S=Secondary Responsibility

Organize your team for roles and activities.



People

- For the Moon project:
 - Decide how you will acquire your project team
 - Assign your project team members to roles
 - Assign your project team members to activities
 - Determine how you will train your project team
 - *Why will cross-functional training be important?*

Communication

- Communication is essential for project success
- Poor communication can cause:
 - Misunderstandings
 - Wasted time and effort
 - Low project team morale

Types of Communication

Internal and External

Vertical and Horizontal

Written and Oral

Verbal and Non-verbal

Formal and Informal

Official and Unofficial

90% of a project manager's time is spent communicating.

Communication

Purpose	Skill
Hear what others are really saying	Active listening
Understand and uncover deeper meaning	Questioning and probing
Tell others what they can expect	Setting and managing expectations
Increase knowledge	Educating
Improve performance	Coaching
Convince others to act	Persuading
Encourage the team	Motivating
Minimize disruption due to conflicts	Resolving conflict

Use the skill to achieve the results you want

Communication

Stakeholder	Frequency	Type	Purpose
Home Owner	Once	Written	Provide a complete description of the painting job and what the end product will be
Team	Daily	Oral	Overall plan for the project and daily updates as project progresses
Team	Once	Demonstration	Instruct team on painting techniques for walls and trim
Home Owner	Daily	Oral	Provide updates on the progress of the project at the end of each day and if there are any issues with completion

Plan to communicate – who, when, how, and why.

Communication

- Plan communication for the Moon project
 - How will face-to-face communication be impacted?
 - What will Conflict Resolution look like?
 - How can morale be maintained?

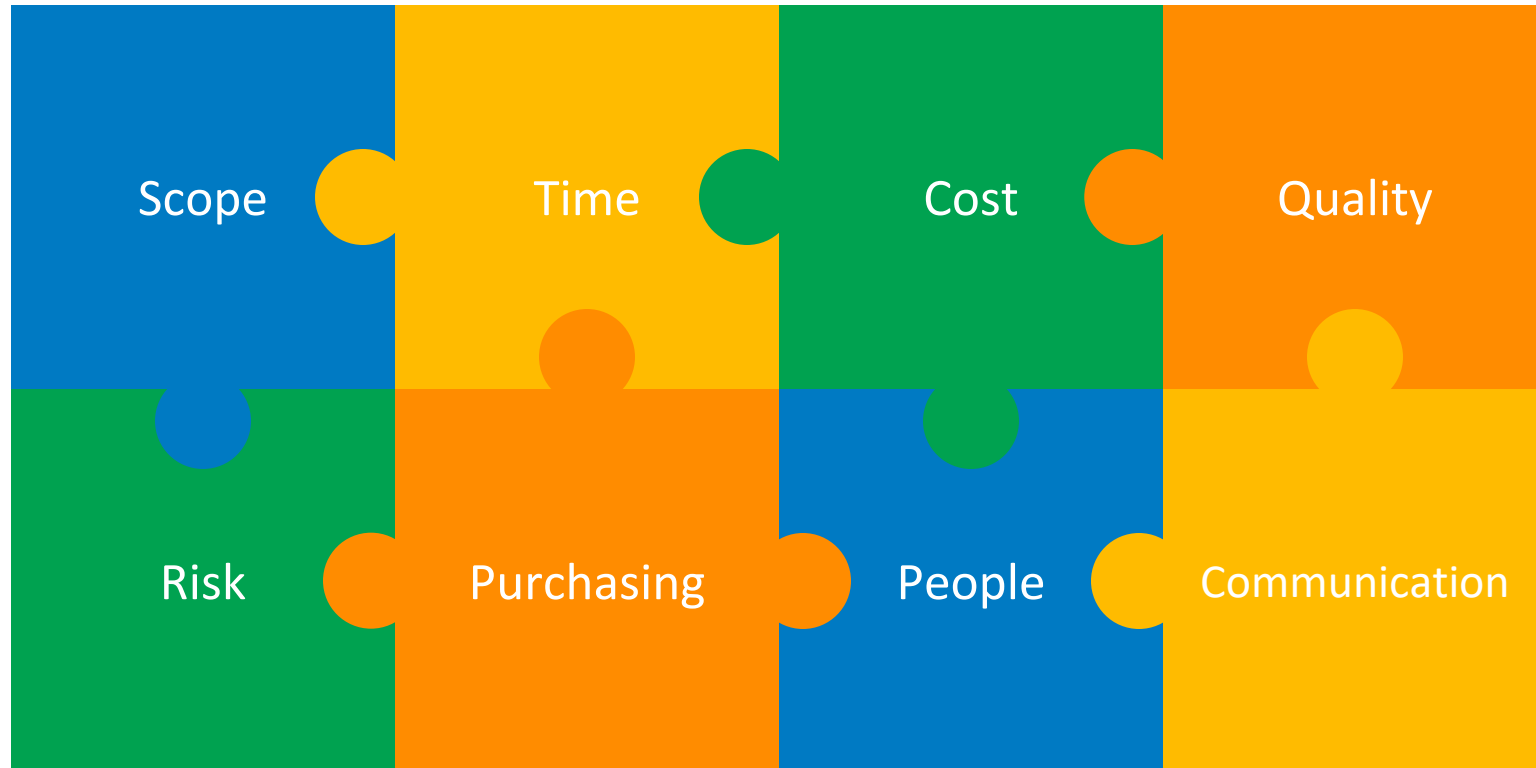
More About Plans

- Write down your plan
- Compare your plan to your Project Charter and address differences
- Get agreement from stakeholders
 - Sponsor
 - Customers
 - Project Manager
 - Project Team
- Measure your project progress against your plan
- Know that your plan will change

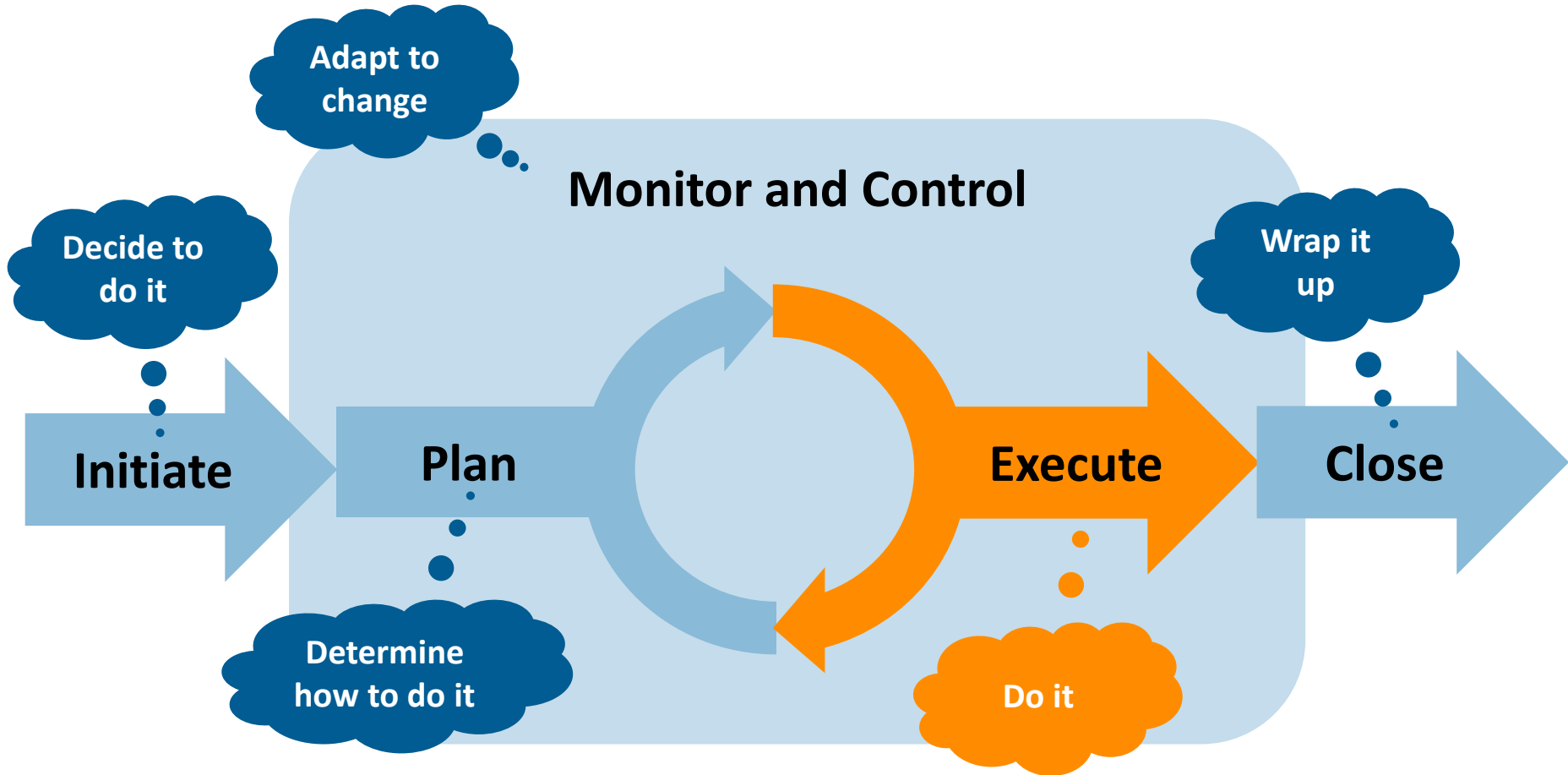


Your plan is an agreement of how to accomplish your goal.

Plan: Determine How to Do It



How long will it take to plan a project for execution on the Moon?



Now that you have a plan, follow it.



Follow
your Plan

- Scope
- Time
- Cost
- Quality



Produce
the Output

- Product
- Service
- Result

A good plan makes executing easier.

Project Manager

- Carry out your plan
- Organize and train the project team
- Assign work to the project team
- Direct and manage the team's activities
- Communicate with stakeholders
- Measure your progress against your plan
- Measure quality against your plan

The Project Manager has overall responsibility for the project.

Project Team

- Does the work

Sponsor

- Funds the project
- Promotes the project

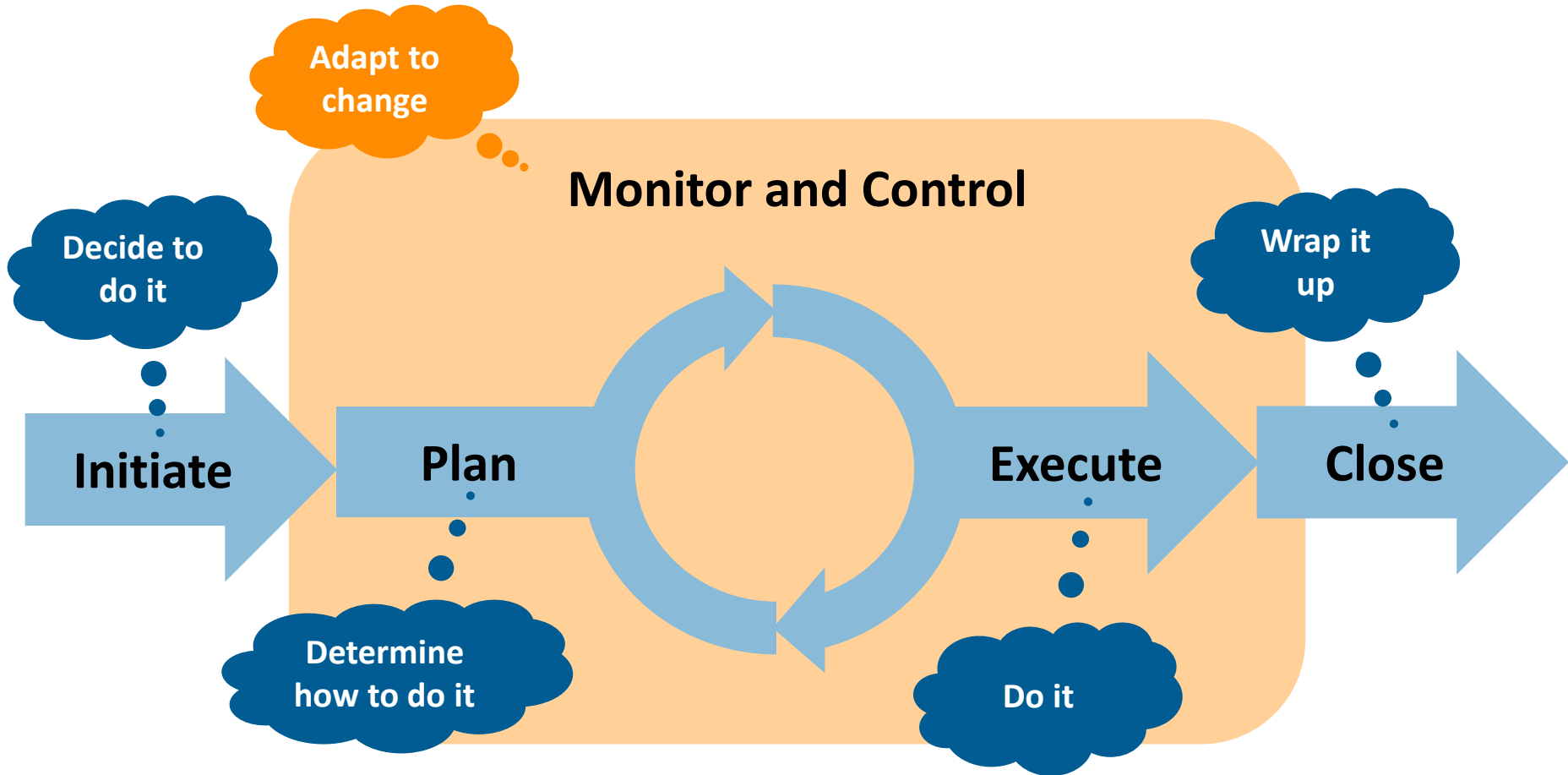
Stakeholders

- Stay informed and engaged

People are the key to success!

Execute - Example

- Perform all of the planned activities:
 - Prepare
 - Apply paint
 - Clean up
- Execute risk mitigations
- Inspect for quality
- Communicate with stakeholders



When things change, adapt.

When Things Change ... Adjust



Change is a process that you can control.

Recognize Change



Measure your results

- Look at your cost, schedule, and products
- Compare your results to your plan
- Departure from your plan is a sign of change

Listen to your stakeholders

- Listen to customers and others affected by the project
- Listen to the people doing the work
- Notice when they are talking about change

Recognize Change - Examples

Measure Results	Listen to Stakeholders	Recognize Change
Product deviates from requirements	I want something else I did unplanned work	Scope
Spending too much money	I need more money	Cost
Work is behind schedule	I need more time	Schedule
Product is defective	I don't like the product	Quality
No response to calls/emails	I didn't know	Communications
Mitigation not working	I'm worried about...	Risk
Supplies not received	I did not receive...	Purchasing
Stakeholders skip meetings	I haven't seen him/her...	Stakeholder Engagement

Recognizing change is the first step to controlling it.

Find out why change is happening

- Talk to the people who are closest to it
- Ask “why,” listen, then ask “why” again
- Focus on the cause, not on assessing blame

Convert data into usable information

- Data: We are two days behind schedule.
- Information: Three workers were out sick last week.

Get past the symptoms and find the root cause.

Recommend action

- Corrective action
- Preventative action
- Defect repair

Get agreement

- Talk to the people who are affected

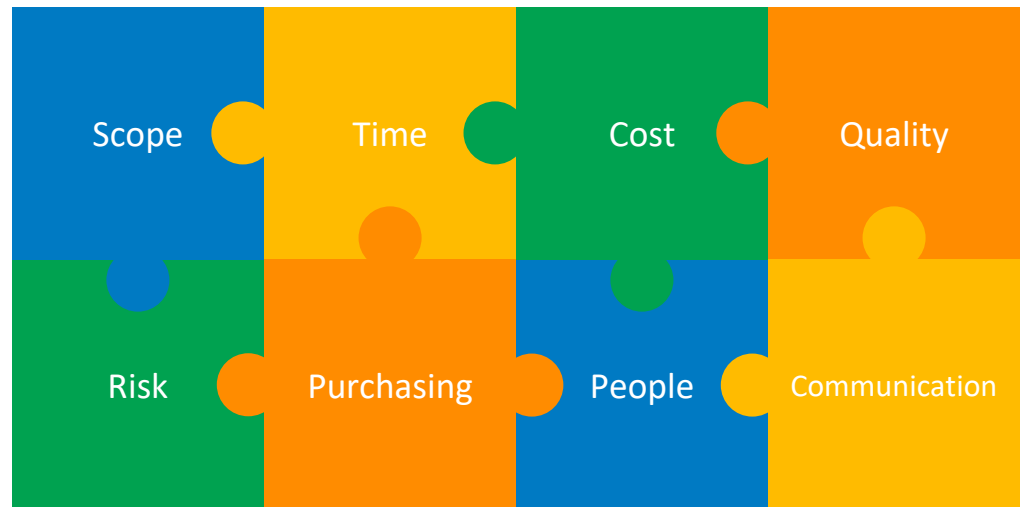
Accept or reject the change

- Write down the decision

Control the change – don't let it control you.

Adjust Your Plan

- Determine how your decision affects each aspect of your plan.
- Adjust your plan to reflect the change.
- Involve stakeholders in the process.



What unique characteristics of a Moon project make responding to change difficult?

Execute Your Adjusted Plan



Communicate

- Tell stakeholders about your adjusted plan



Execute

- Follow your adjusted plan

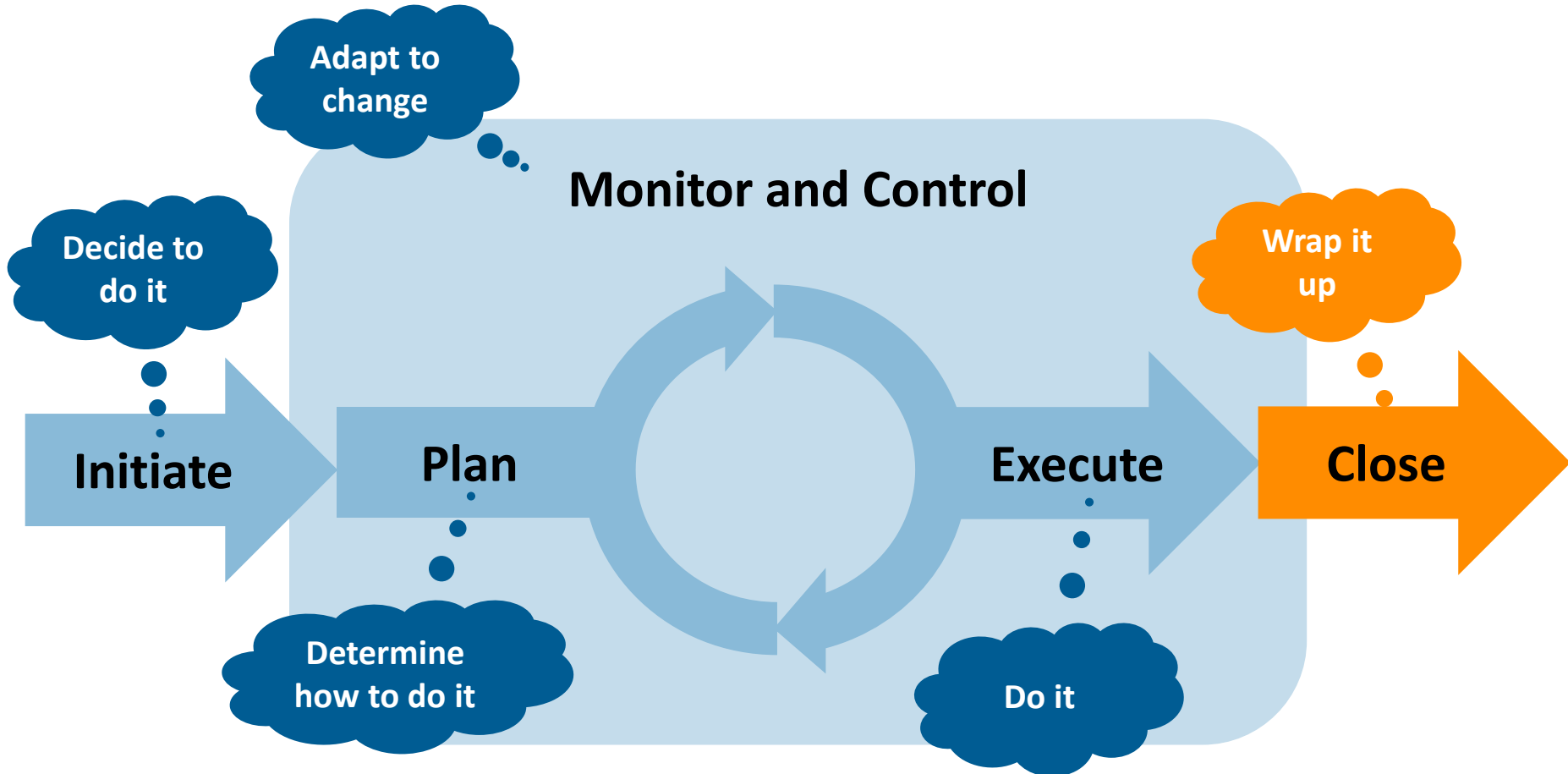
Follow through on your decision.

When Things Change ... Adjust



Don't panic. Follow the process and control the change.

- Follow the steps in this section for one of these painting project change scenarios:
 - When you arrive to begin painting, you are surprised to find that the walls are covered with shiny silver wallpaper. “Did it myself in 1981,” says the homeowner proudly.
 - One of your helpers refuses to use a roller because her tiny artist’s brush is more accurate. “It’s worth the extra time to do it right,” she advises.
 - You ran out of trim paint, and don’t have enough to paint around the window. But no one will notice, because the curtains will cover the trim.



Cross the finish line!

Close: Wrap It Up

Confirm that the project is finished

- Make sure that the plan's scope is complete
- Make sure that the plan's activities are complete
- Make sure that the plan's outputs are produced

Collect records

- Save records that can help a future project
- Gather lessons learned and save them for the future

Satisfy stakeholders

- Turn over the project's output to whoever will use it
- Make sure bills are paid and subcontracts are closed
- Get agreement that everything is finished
- Celebrate and thank everyone!

- Talk to everyone involved and get honest feedback
 - What went well
 - What you could improve next time
 - What you achieved
- Write it down so you remember it for the next project

“Those who cannot remember the past are condemned to repeat it”

- George Santayana

Contributors



Executive Sponsor: James Snyder

Co-Authors:

Marie Hegarty
Jerry Pearson



Major Contributors:

Ramesh Arumugam
Kristi Baldwin
Marcos Beolchi de Arruda
John A. Gaffney
Carol L. Haines
Matthew D. Rusnak
Vicki Sama
Haifa Tyler
Robert Weidner
Sandra Williams

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Project Examples

- NASA, (8mins)
 - [Mars](#)
 - What are they worried about
 - How many people had to get involved
 - How many different transportation modes were required
- Lockheed Martin, (2:04mins)
 - [Skunk Works](#)
 - What do you think are the deliverables?
- Military
 - [Helmet](#)

- Who is going to???
 - College
 - Military
 - Work
- Do you have a plan to get there?
- What are the requirements?
- Do you have a road map to achieve those requirements?

“The very act of writing your goals down increases your likelihood of achieving them by 1,000%...” Brian Tracy

Lessons Learned

- Break up into teams of 4
 - Try to get in a group looking to achieve the same requirements (military, school, work)
- Take 15mins
 - Define requirements
 - Layout draft road map
- Back Brief 5mins per group