# MANAGING LIFE'S PROJECTS

## PRESENTED BY
## THE PROJECT MANAGEMENT INSTITUTE

**Using Project Planning for Successful Results**

# Who We Are

- **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

# Managing Projects

Terminology

Five Process Groups

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

- Initiating (Define)
- Planning  (Plan)
- Executing (Do)
- Monitoring & Controlling (Checkins; Monitor Progress)
- Closing     (Review)

# 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 |

# Project Manager

For Business Projects:

- 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

For Future City:                              (You decide what works best for your team)

- Entire team develops starting plan
- Teacher or Sponsor may act as project manager; with a student as "deputy" project manager  *OR*
- Rotate project manager duty between team at different stages of project

    - Lead check-in sessions
    - Ensure plan is followed or modified as needed

## Take ownership of your project.

# Project Management

- 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.**

# Sponsor

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

- Future City Examples
  - Teacher
  - Engineering advisor
  - Parent
  - Mentor

**Be accountable to someone who cares.**

# Stakeholders

- 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

Team members;
Teachers;
Parents;
Engineering
Advisors;
Judges



Other teams;
Other students;
Other teachers
/ coaches not
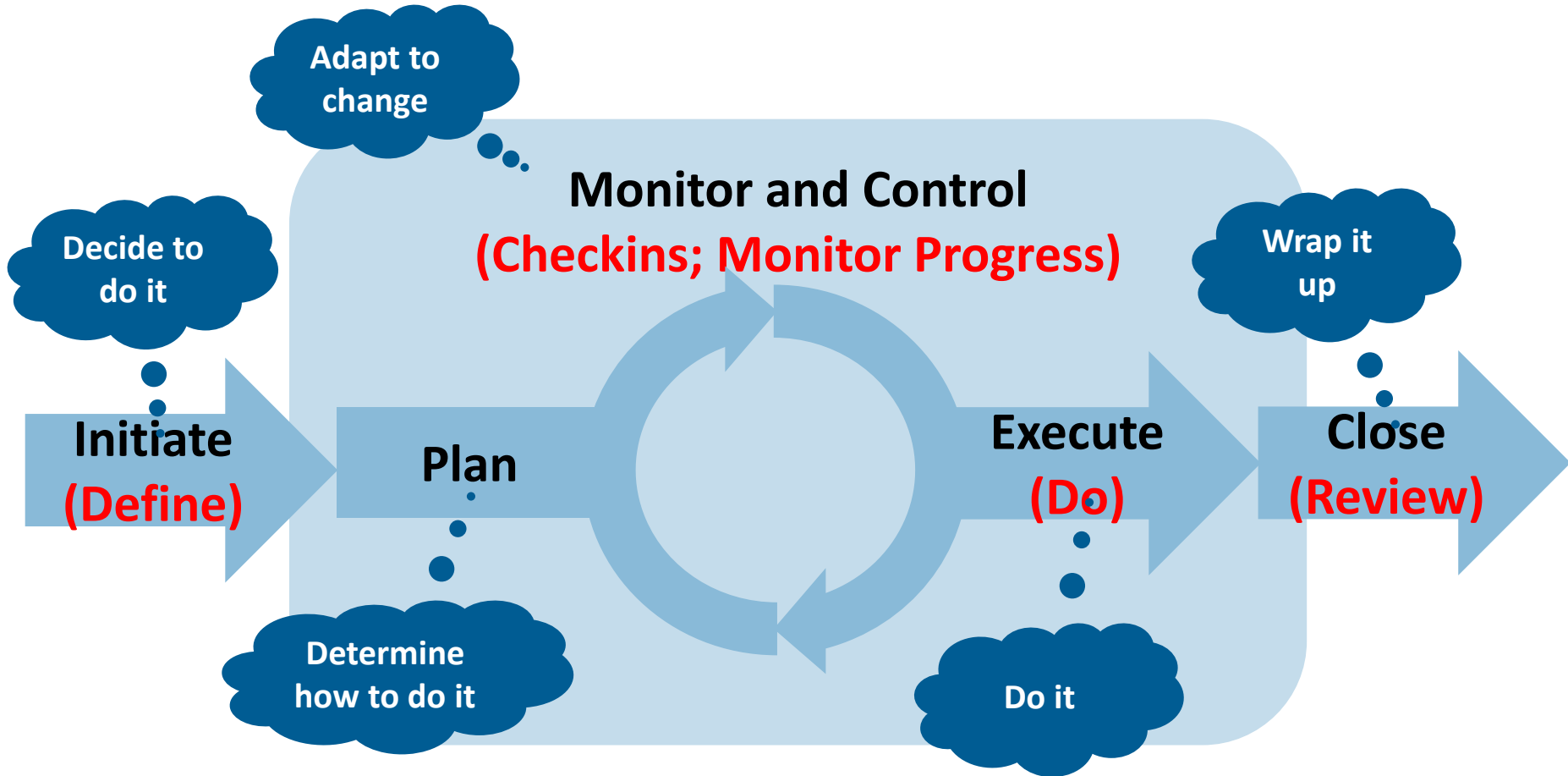involved in FC;
Other family
members

**Your project impacts more people than you might think!**

# Managing Projects

Terminology → Five Process Groups
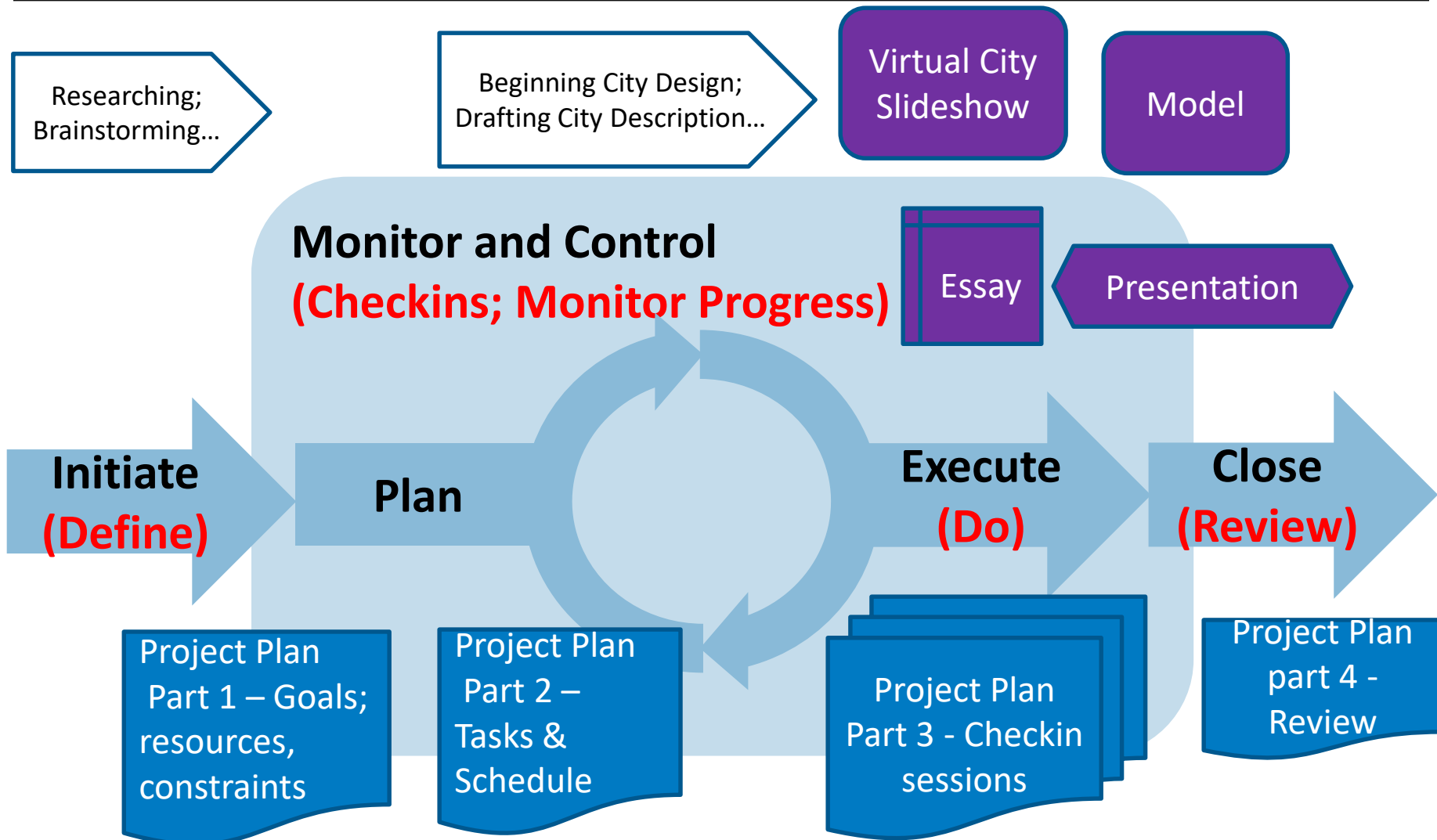
- Project
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# Process Groups



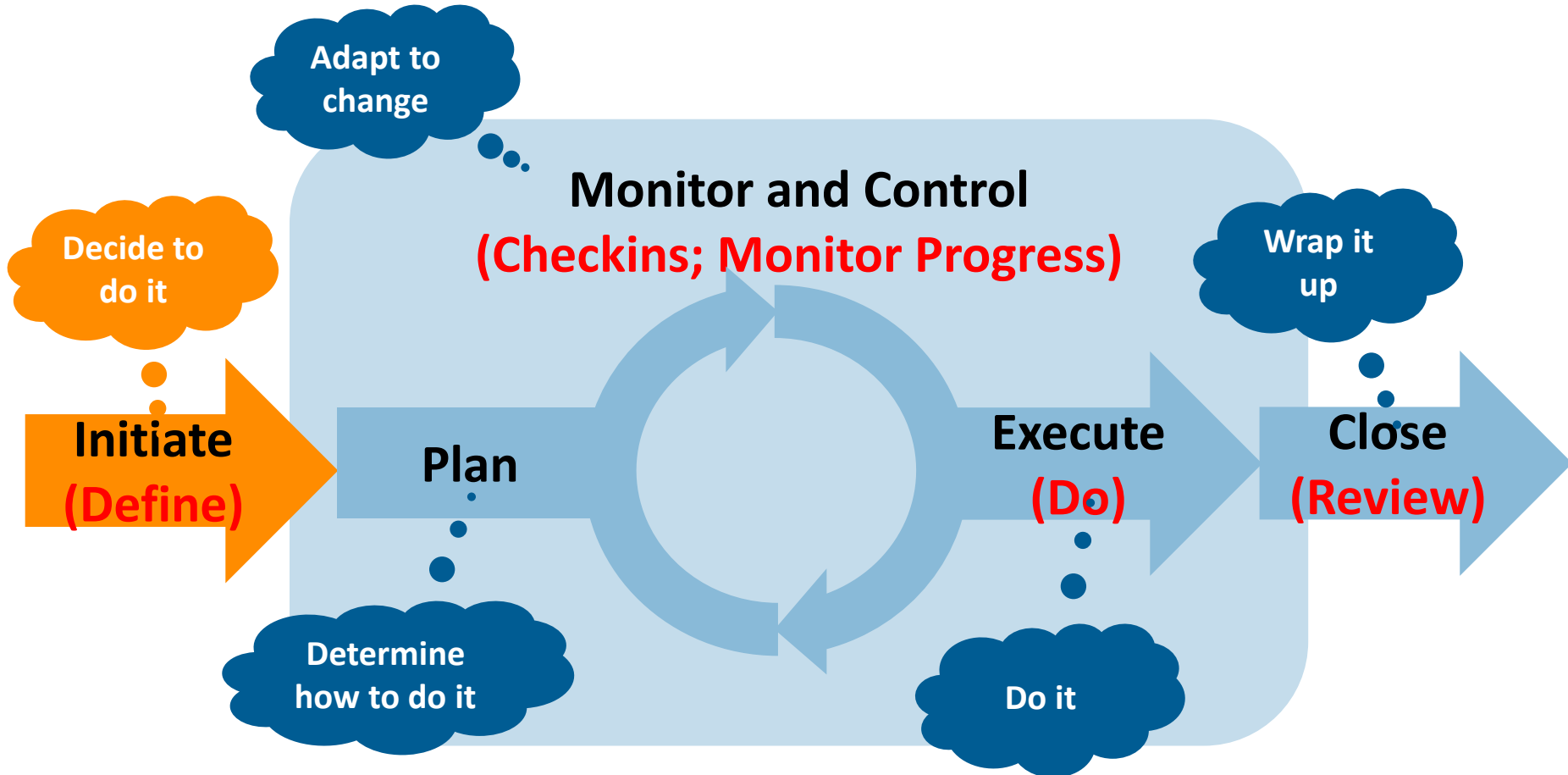Next, we will talk more about each process group.

# Process Groups

Researching; Brainstorming...

Beginning City Design; Drafting City Description...

Virtual City Slideshow

Model

**Monitor and Control (Checkins; Monitor Progress)**

Essay

Presentation

**Initiate (Define)**

**Plan**

**Execute (Do)**

**Close (Review)**

Project Plan Part 1 – Goals; resources, constraints

Project Plan Part 2 – Tasks & Schedule

Project Plan Part 3 - Checkin sessions

Project Plan part 4 - Review

**Future City Deliverables through process phase timeline.**

# Initiate



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 – Develop your Goals for Project Plan Deliverable 1

| Decide | We call it |
|---|---|
| What you are going to do | Scope and Requirement; (Deliverables) |
| Why you are going to do it | Vision and Purpose;(Challenge & Building background) |
| What it means to finish | Success Criteria;(Specs –what does being done mean ?) |
| 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

- Capture Resources, Constraints, Assumptions, and Goals
  - 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

- On business projects it's called the "Project Charter"

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

# Write it down – Project Plan Part 1

**PMI**
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**Our project resources:**

**What team will need to complete project**

**Constraints on our project:**

**Things that limit options**

**Assumptions we have about our project:**

**Things you are pretty sure are true.**

**Our goals for this project (pick at least two more goals)**
**1. Our team will successfully create a system of public spaces for our Future City.**

**2.**

**3.**

**4.**

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

future CiTy
COMPETITION

# Reach Agreement

- Promote the project to the sponsor and other stakeholders

- Modify if needed

- Get agreement

- Get commitment for resources
  - Money
  - Supplies
  - People

- Get authorization to start

Start with agreement – a solid foundation for your project.

# Plan: Determine How to Do It
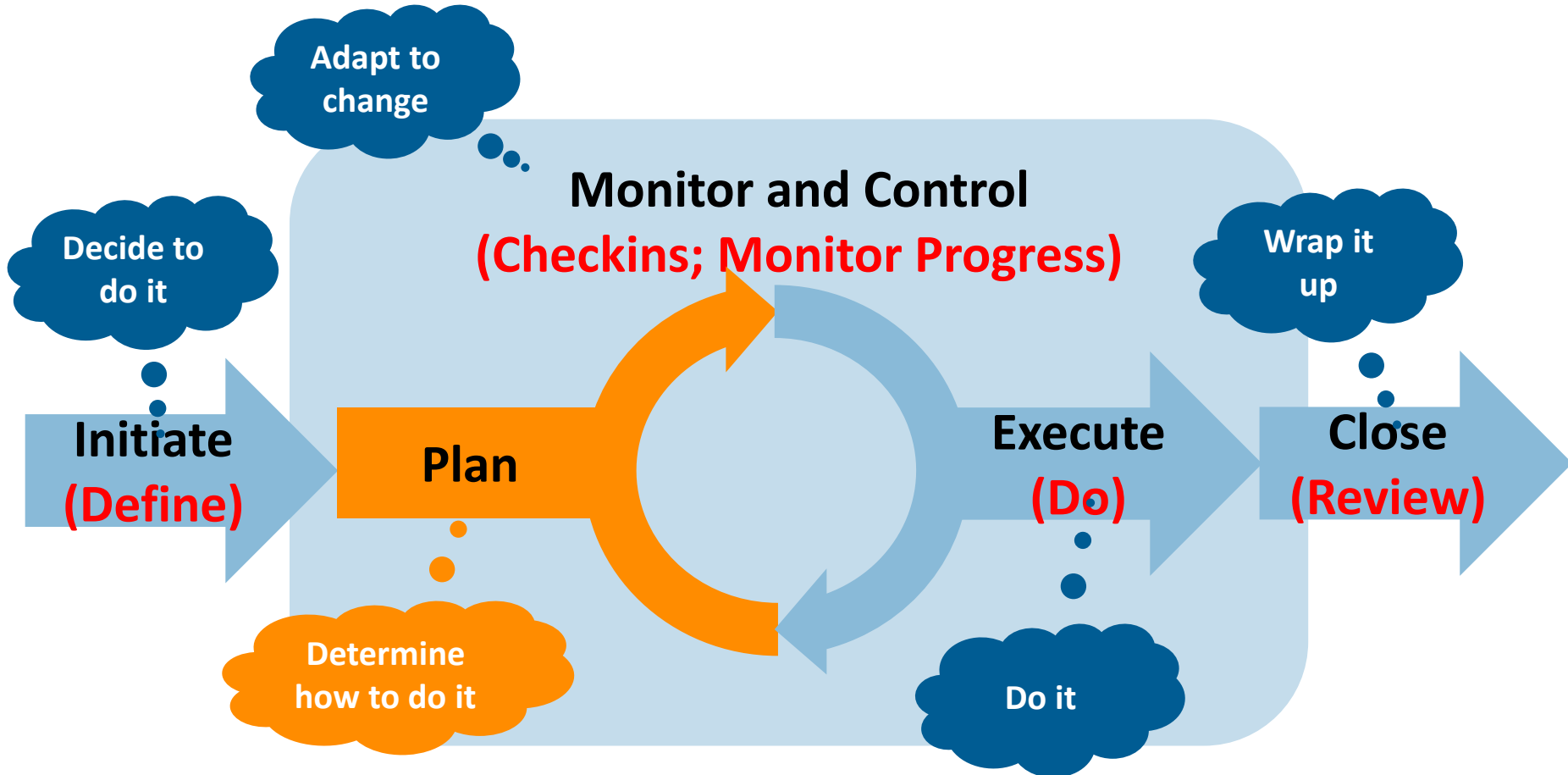


Before you do it, determine how you are going to do it.

# Plan: Determine How to Do It

**SCOPE** – research; brainstorm solutions; identify tasks

**TIME** – identify milestones; create schedule

**COST** – Create budget for purchased materials

**QUALITY** – Ensure deliverables are high performing

**RISK** – make contingency plans for things that go wrong

**PURCHASING** – Manage what you buy to stay on budget

**PEOPLE** – **Team knows assignments, is motivated**

**COMMUNICATION** – Makes sure all stakeholders stay informed.

A plan fits the pieces of your project together

3.20

# Plan Scope

## Define your Future City project deliverables in detail

- Research / brainstorm solutions in order to answer these questions:
  - What are the specifications?
  - How would you describe your city?
  - What does your virtual city design look like?
  - How would your city model lay out on a map?
  - What are the constraints or limitations on how your work must be done?
- Get input from your stakeholders
- We call this "collecting requirements"

## Organize the work

- List the high-level work tasks to complete the project deliverables
- Arrange the tasks in the order that they must be done in
- This will be the first step of creating your team schedule in project plan part 2

## Define your end result.

**Scope**

- Begin Project Plan
- Learn Specifications
- Collect Materials
- Develop Initial City Design
- Test Design using SimCity
- Develop Virtual City Slideshow
- Develop Scale Model Design
- Research Essay
- Write Essay
- Complete Model Construction
- Plan Presentation
- Complete Project Plan

Define your end result.

# Plan Quality

- Determine what quality means for your Future City project


- Determine how you will ensure quality

- Add these tasks to your task list

**Examples**

- Quality means:
    - Model securely built
    - Moving parts work correctly
    - Presentation delivered flawlessly

- How we will ensure quality:
    - Inspect all pieces to make sure securely fastened
    - Test moving parts before adding to model; have plenty of batteries
    - Rehearse presentations in front of teachers; sponsors

Ensure your project produces quality outputs.

# Plan Risk

- 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.

# Plan Risk

**Identify Risks**

- Discuss as a team
- Make a list of risks that could effect the project (example: can't get model materials )

**Assess – Decide which ones are important**

- For each risk Ask:
- Probability – How likely is it to happen?
- Impact – How big of an effect will it have?

**Plan – Determine actions to add to task list to control important risks.**

- For the most likely or most impactful risks:
- Include activities to change probability
- Include activities to change impact

**Take initiative to reduce threats and increase opportunities!**

# Plan Cost

- Estimate how much each activity will cost

  - Write down your best guess for cost of materials for each task in your task list

- Add up all the estimates to determine the total cost of the project

Estimate the cost of your project

# Plan Purchasing

- Determine what materials you need

- Determine how you will acquire them

**Examples**

- What you need:
  - poster board
  - bottlecaps
  - styrofoam

- How to acquire:
  - Purchase poster board
  - Get bottlecap donations from friends & family
  - Save all Styrofoam from shipment packaging

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

# Plan Communication

**Communication**

| Examples of Future City Project Communication |
|---|
| Between team members |
| To team sponsors |
| To parents |
| Presenting to judges |
| **Styles of Project Communication** |
| Formal and Informal |
| Official and Unofficial |

- Communication is essential for project success

- Poor communication can cause:
  - Misunderstandings
  - Wasted time and effort
  - Low project team morale

**Use good communication skills to avoid missteps.**

**Communication**

**Think About what you will need to do to communicate effectively
(some examples…)**

| Purpose | Activity |
|---|---|
| Make sure team members know what to do | Team planning meeting |
| Make sure work is on schedule | Checkin meeting |
| Make sure work is right / get advice | Sponsor meeting |
| Prepare presentation | Rehearsal sessions |

**Add any necessary activities to work task list**

**Use the communication activity to achieve the results you want**

# Plan Time – Task Estimates



Time

- Define the detailed activities for each scope work task in the list

- Put the activities in sequence

- Estimate the calendar time (days or weeks) for each activity

Determine the order and duration of activities.

# Plan People

- Assess the project team – use members' best strengths

- Acquire any training needed (such as SimCity, or presenting skills)

- Determine how the team will be motivated and rewarded – does someone on the team have a role they want to play?

- Assign project team members to roles

- Assign project team members to activities

**Your project needs a trained, organized, motivated team.**

Time

- Estimate the resources (labor) for each activity

- Create a schedule

Determine the order and duration of activities.

# Schedule example

| | Monday | Tuesday | Wednesday | Thursday ... | | (Weekend) |
|---|---|---|---|---|---|---|
| **Week 1 :** | **Engineering Design Process activity** | | **Teams set and city named** | | | |
| **Week 2:** | Research requirements; Specifications Brainstorm solutions Work on project plan part 1 | | | Project plan part 1 – Initial completion | | |
| **Week 3:** | Virtual city design; Identify work tasks; Draft city description; Map city model; | | | | | |
| **Week 4:** | Eng Advisor visits; | Identify quality, risk, communication, cost, & procurement planning tasks; Make team member assignments; Test with SimCity | | | | |
| **Week 5:** | Sequence tasks, estimate, and layout schedule on calendar; Test with SimCity | | | Project plan part 2 (schedule) – initial completion | | |
| **Week 6:** | Eng Advisor visits | Create slideshow; Work on scale model; Research essay | | Team checkin meeting; make any adjustments | | |
| **Week 7:** | Create slideshow; Work on scale model; Work on essay | | Final Slideshow due Slideshow Finished | | | |
| **Week 8:** | Scale model design completed | Work on Essay | | Team checkin meeting; make any adjustments | | |
| **Week 9:** | Work on essay | Done With Essay | Final Essay Due | List of materials | | |
| **Week 10:** | Gather model materials Prepare presentation | | Purchase Order info due for model supplies | Team checkin meeting; make any adjustments | | |
| **Week 11:** | Model construction; Prepare presentation | After School painting | Model construction; Prepare presentation | | | |
| **Week 12:** | Model construction; Prepare presentation | | Model due | Team checkin meeting; make any adjustments | | |
| **Week 13:** | Practice Presentation | Finalize visual aides | Practice; Review Session (part 4) | Final Project Plan Due | | COMPETITION DAY |

# More About Plans

- Write down your plan
- Compare your plan to your Project Charter (Part 1) and address differences
- Get agreement from stakeholders
  - Sponsors
  - Advisors
  - Project Team
- Measure your project progress against your plan
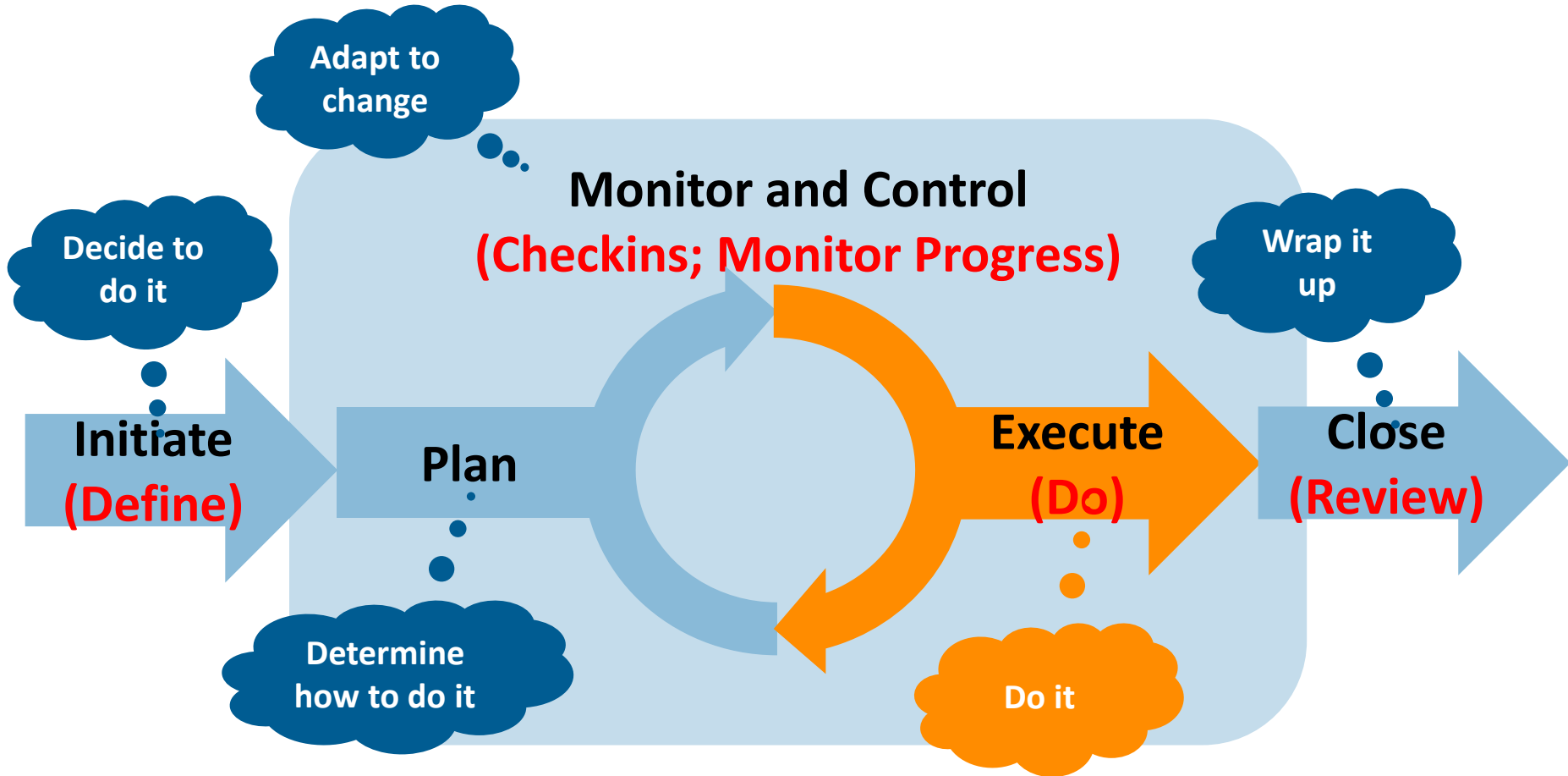- Know that your plan will change

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

# Plan: Determine How to Do It

| Scope | Time | Cost | Quality |
|-------|------|------|---------|
| Risk | Purchasing | People | Communication |

An integrated plan shows you how to reach your goals.

# Execute
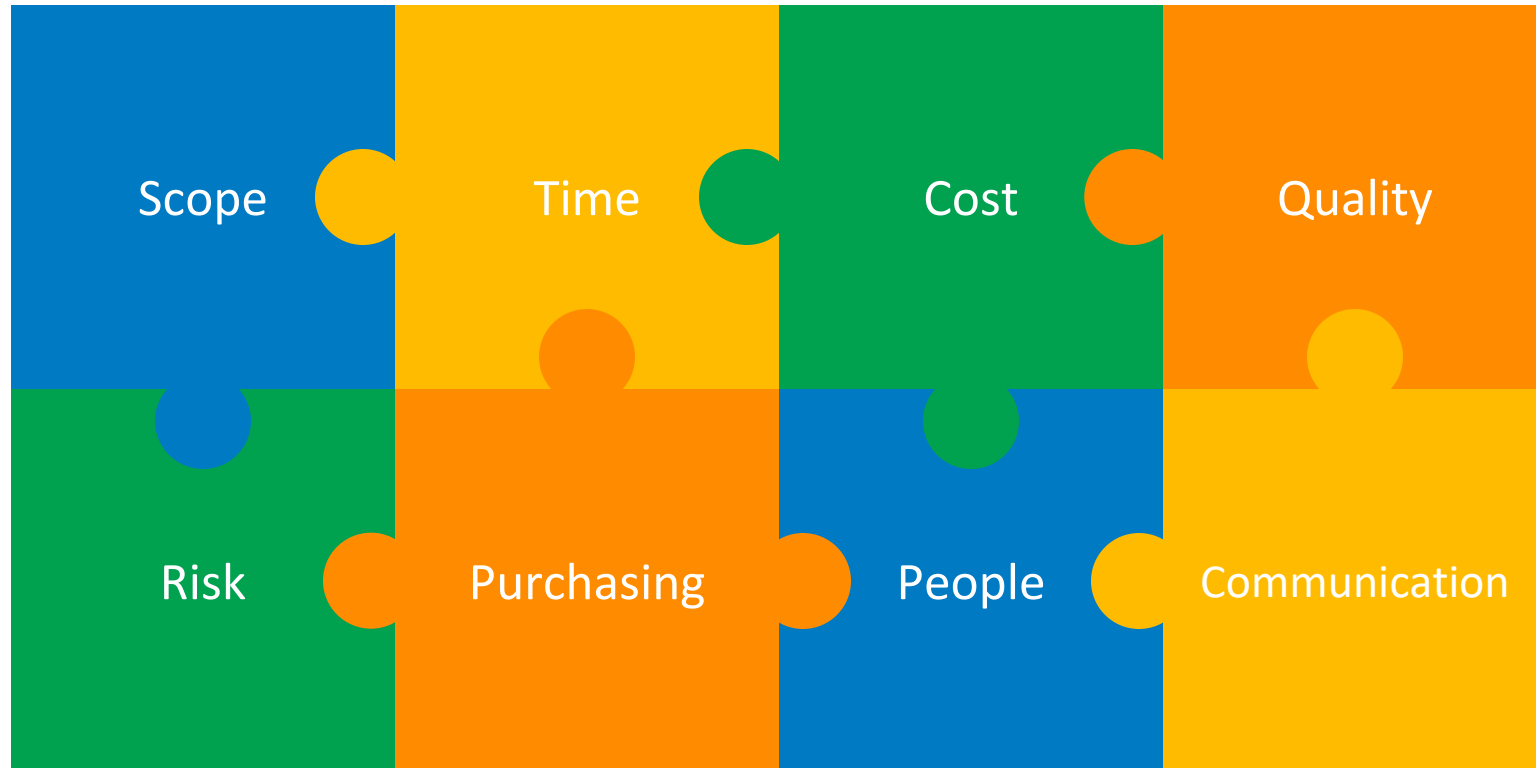


Now that you have a plan, follow it.

# Execute (Do)

## Follow your Plan

- Scope of Work
- Time
- Cost
- Quality
- Risk
- Communications

## Produce the Output

- Project Plan
- City Design
- Virtual City Slideshow
- Model
- Essay
- Presentation

**A good plan makes executing easier.**

# Execute – Project Manager's Role

## Project Manager

- Lead the check in sessions – Help the team:
  - Measure progress against the plan
  - Measure quality against the plan
- Make changes to plan when needed to get back on schedule or ensure quality
- Keep team members and stakeholders informed of important decisions and matters

The Project Manager coordinates plan for the project.
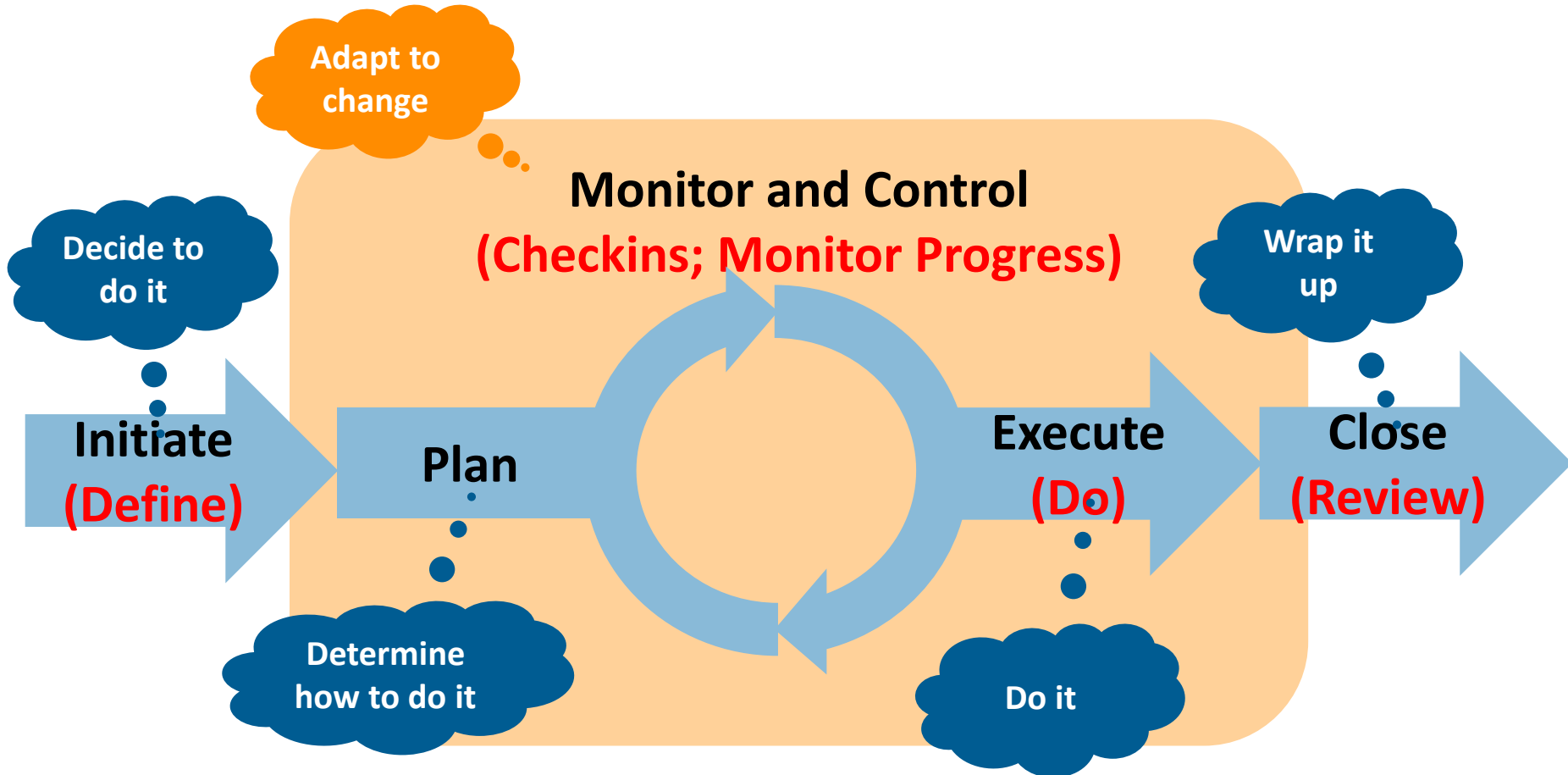
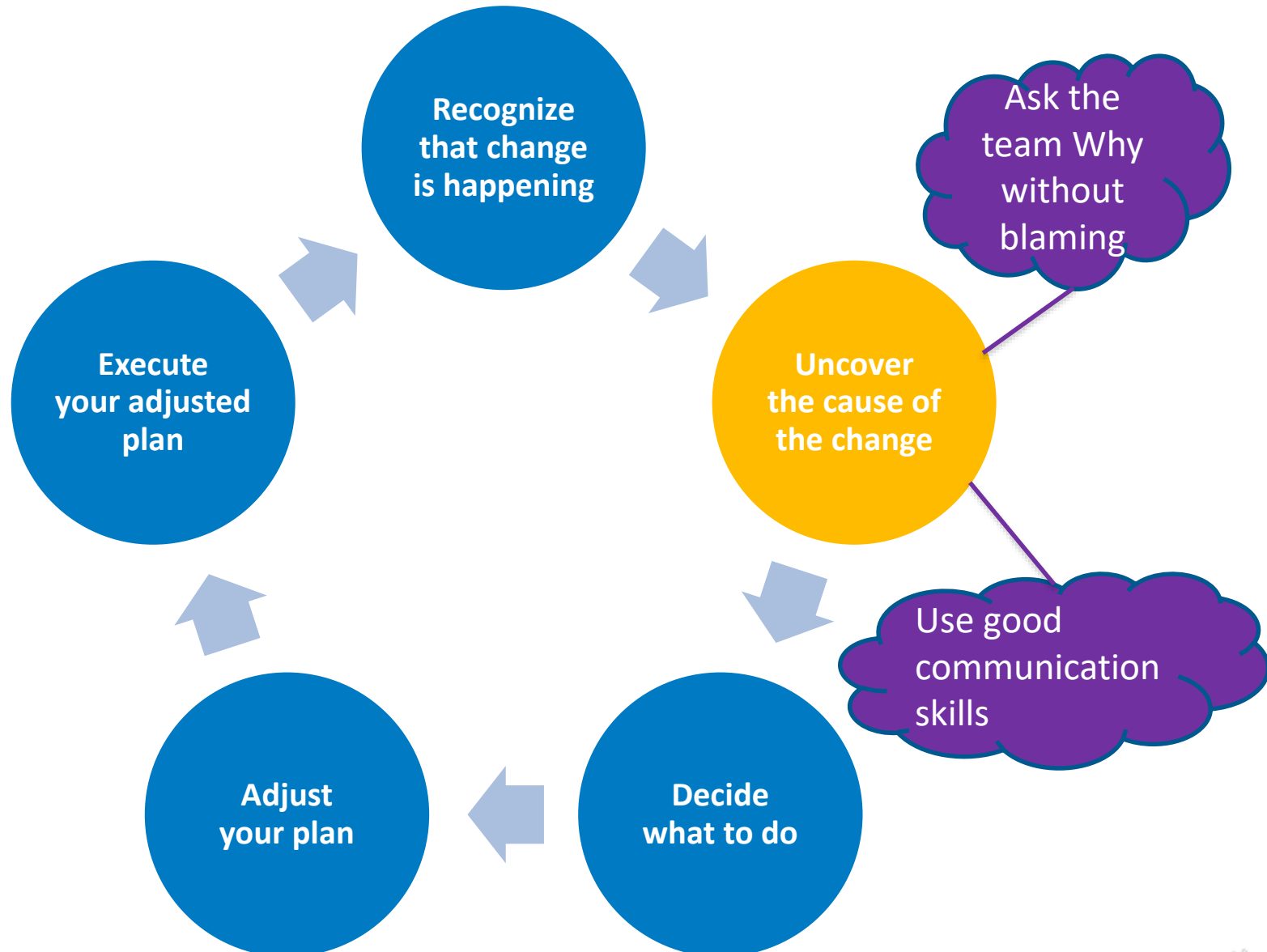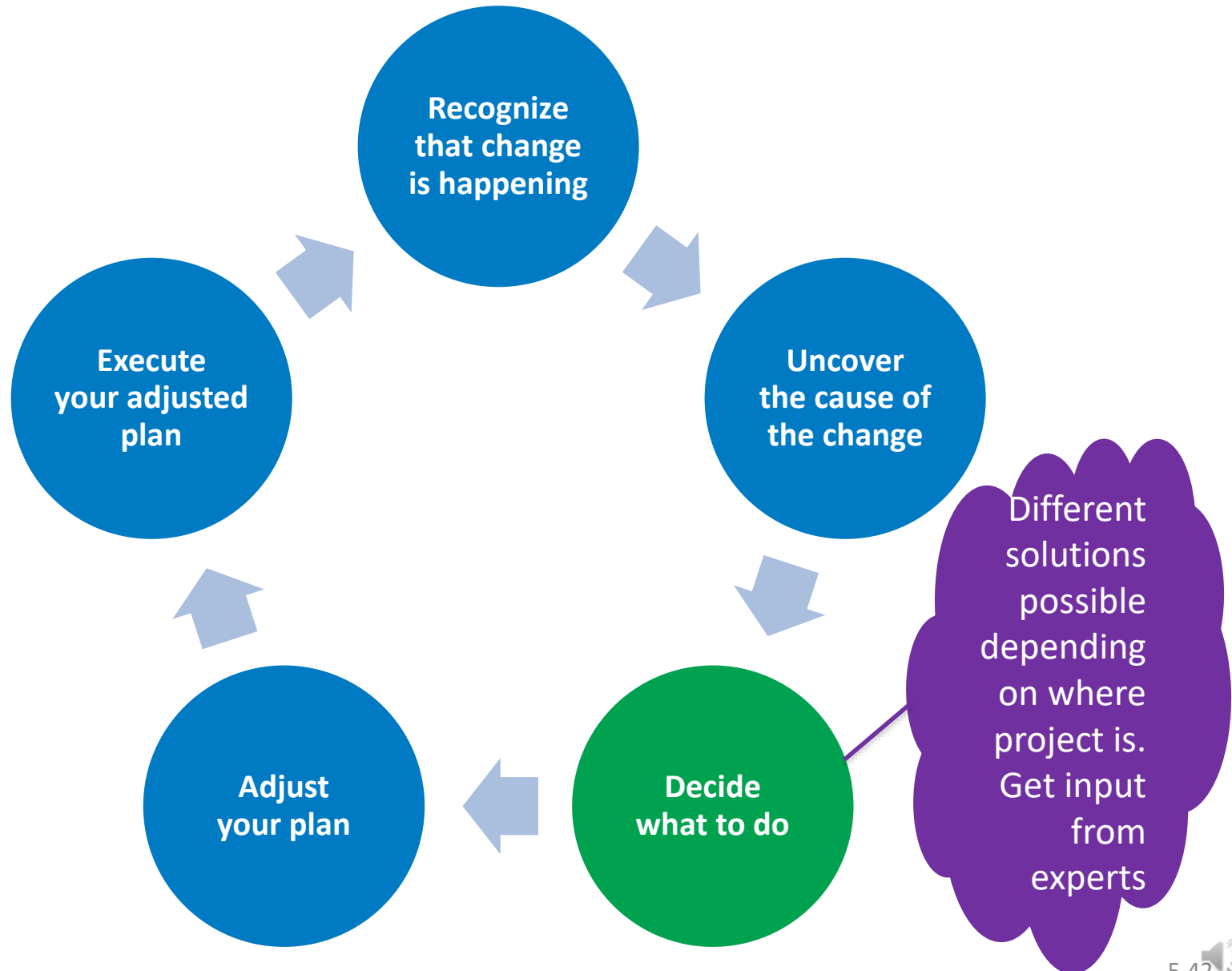When things change, adapt.

# Recognize Change



Examine deliverables, quality, and schedule.

Recognize that change is happening

Notice if they are not where they should be

Execute your adjusted plan

Uncover the cause of the change

Adjust your plan

Decide what to do

# Uncover the Cause



Recognize that change is happening

Uncover the cause of the change

Ask the team Why without blaming

Use good communication skills

Decide what to do

Adjust your plan

Execute your adjusted plan

# Decide What to Do

# Adjust Your Plan

# Execute Your Adjusted Plan



**Communicate changes to stakeholders; Now use your updated plan.**

Execute your adjusted plan

Recognize that change is happening

Uncover the cause of the change

Decide what to do

Adjust your plan

# Check-in Report (Part 3) Example

| | |
|---|---|
| **What have you completed recently?** | |
| **What are you working on now?** | |
| **When do you think the current task will be done?** | |
| **What do you need to keep your work on track?** | |
| **Additional Notes** | |

# Close – (Review, Reflect, Share)

# Close: Lessons Learned
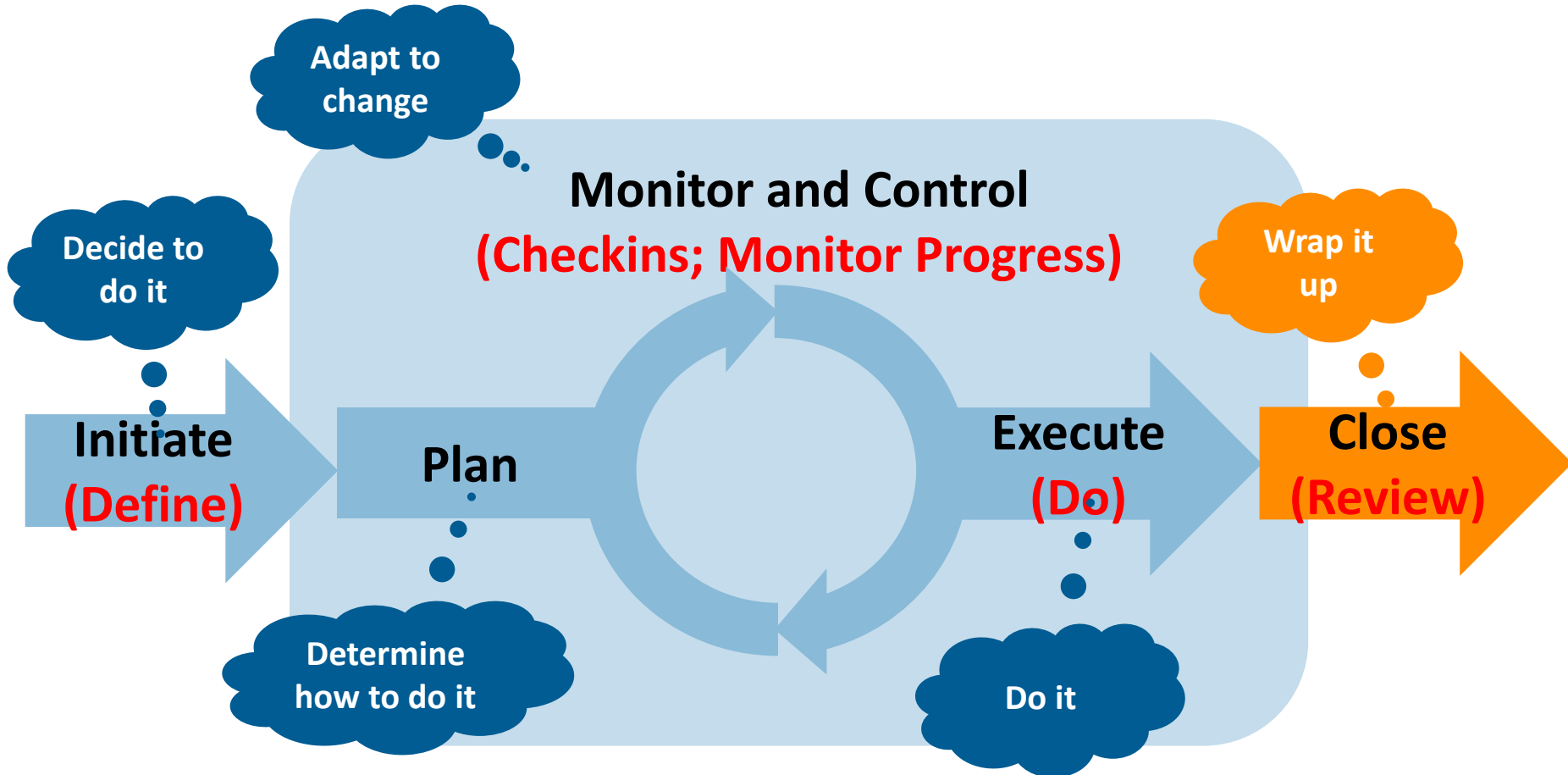
- Talk to everyone involved and get honest feedback
  - What went well
  - What you could improve next time
  - What you achieved

- Write it down so you remember it for the next project

"Those who cannot remember the past are condemned to repeat it"
- George Santayana

## TEAM REFLECTION

**1. Look back at your original project goals from the Define stage.** Did your team fully meet your stated goals for the project? Were there some goals that were met more completely than others?

**2. Look back at your original ideas for your city.** Did any of the ideas change as you went through the process of creating your final city? Describe one way your city changed and why.

**3. Consider your team.** How well did your Future City team work together? What do you know now about being part of a team that you didn't know before?

**4. What was the most valuable experience** you gained from the Future City Competition?

"Those who cannot remember the past are condemned to repeat it"

- George Santayana

# Close: Wrap It Up

## Confirm that the project is finished – By Team

- Make sure that the plan's work is completed
- Make sure that the plan's activities have been done
- Make sure that the plan's outputs are produced

## Collect records – By Team

- Save records that can help a future project – notes, plans, presentations, final essay, designs, etc.
- Gather lessons learned and save them for the future

## Satisfy stakeholders – By Sponsors / Stakeholders

- Get agreement that everything is finished
- Turn in the project's deliverables on time at the correct locations
- Celebrate and thank everyone!

# Summary
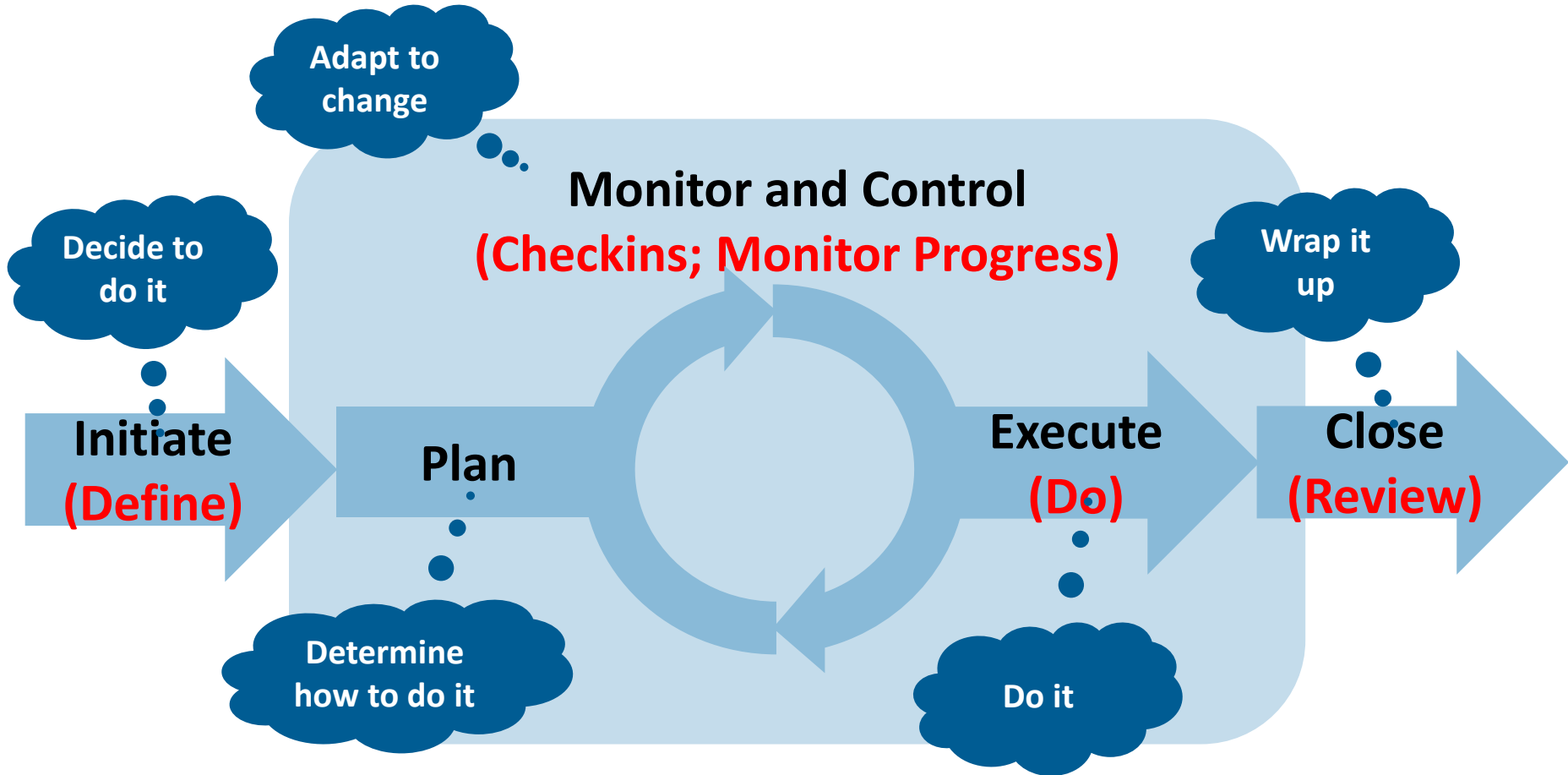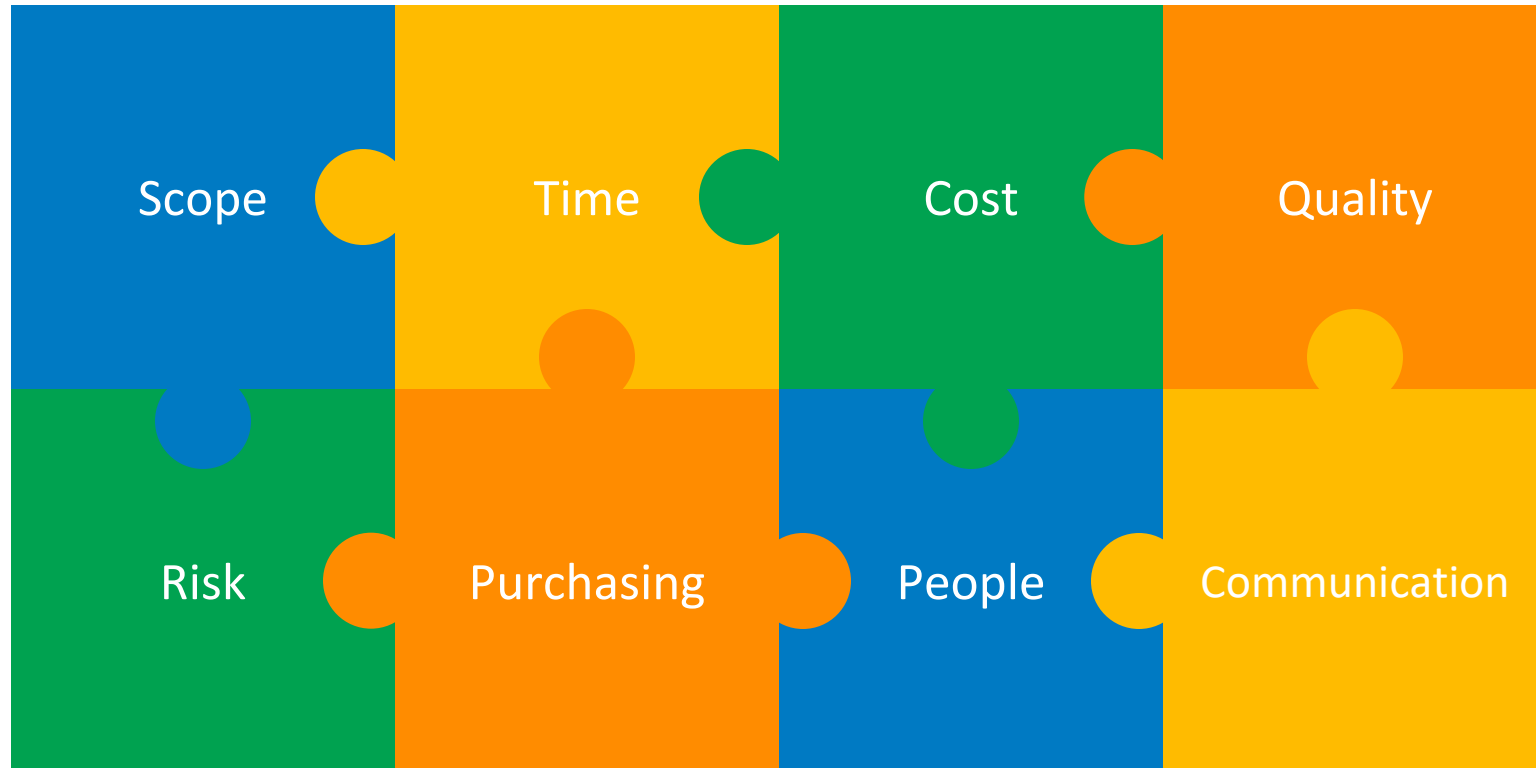


Put it all together.

# Initiate: Decide To Do It

Think about it

Write it down

Reach agreement

**Make sure your project is worth doing.**

# Plan: Determine How To Do It



**An integrated plan shows you how to reach your goals.**

# Execute: Do It

## Follow the Plan

- Scope
- Time
- Cost
- Quality
- Risk
- Communications

## Do the Work

- Project Team
- Project Manager
- Stakeholders

## Produce the Output
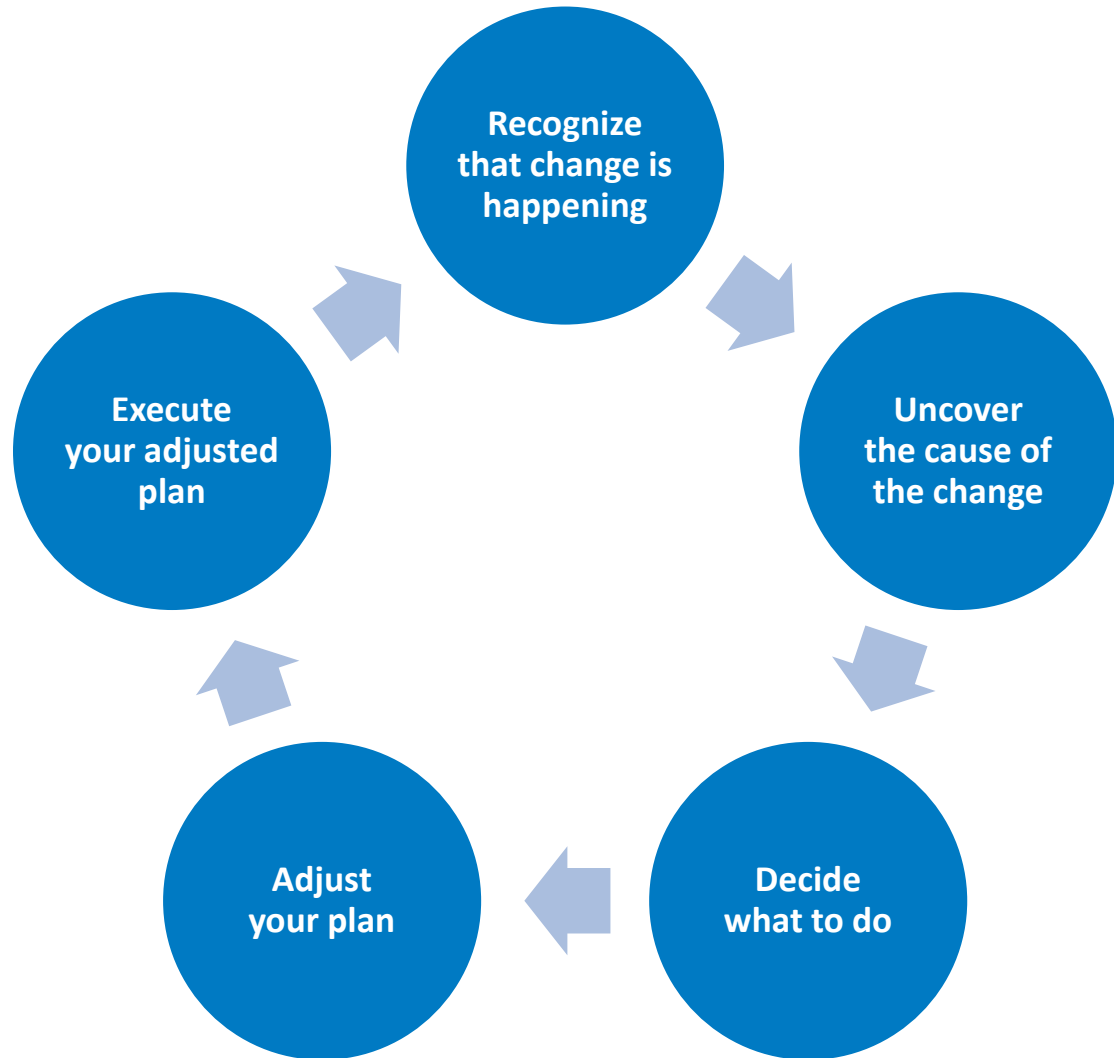
- Project Plan
- City Design
- City Slideshow
- Model
- Essay
- Presentation

**A good plan makes executing easier.**

# Monitor and Control

## When things change ... adjust



Recognize that change is happening

Uncover the cause of the change

Decide what to do

Adjust your plan

Execute your adjusted plan

**Change is a process that you can control.**

# Close: Wrap It Up

Confirm that the project is finished

Collect records

Satisfy stakeholders

**Get agreement that the project is closed.**