Time planning

Why spend time on it?

About planning

'Planning is an unnatural process. It is much more satisfying to do something and the nicest thing about not planning is that failure comes as a complete surprise rather than being preceded by a long period of worry and depression'
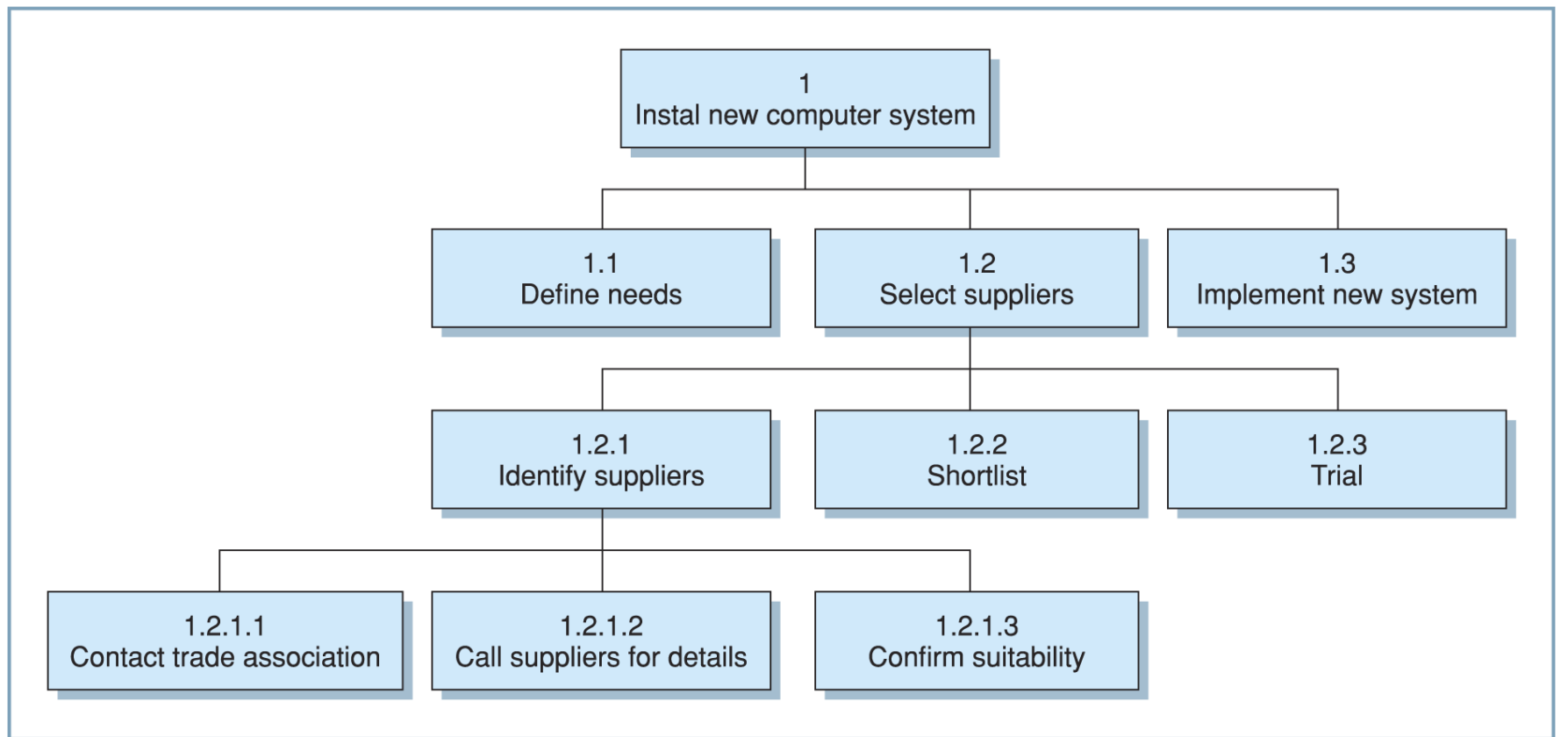
[Sir John Harvey c1800]

The WBS

Deconstruction of a project (chunk the elephant)

- Gives people responsibility for each manageable part
- Facilitates financial control, individual parts can have their consumption of resources tracked
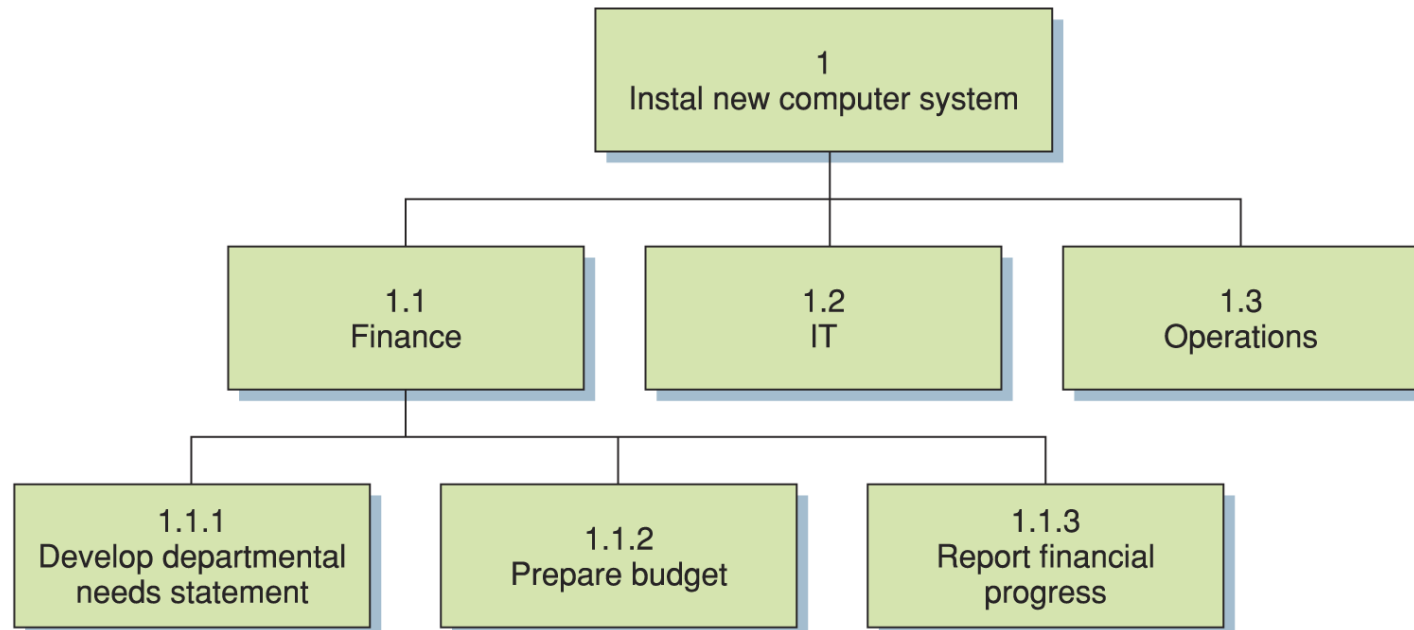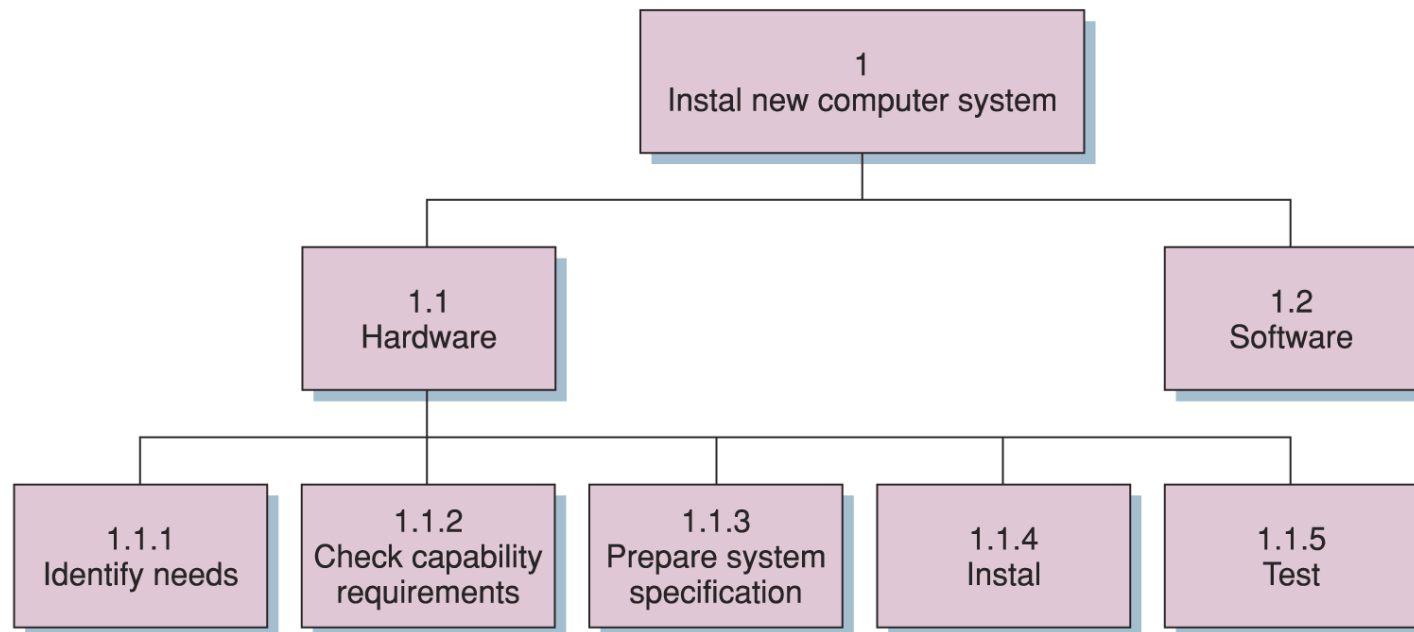- Bottom level will be a list of work packages

Work breakdown

Functional breakdown

Physical breakdown

A few words on planning

- No plan will survive its first encounter with the enemy.

- You can't create a plan based on what you know today. But you have to.

- You can make a team member promise unrealistic deadlines, but you can't make him/her keep them.

- If you don't plan for it, it will not happen.

Constructing a time plan

How long will it take to complete the project?

- How precise do you need to be?
- How long did it take last time?
- What could cause significant delay?
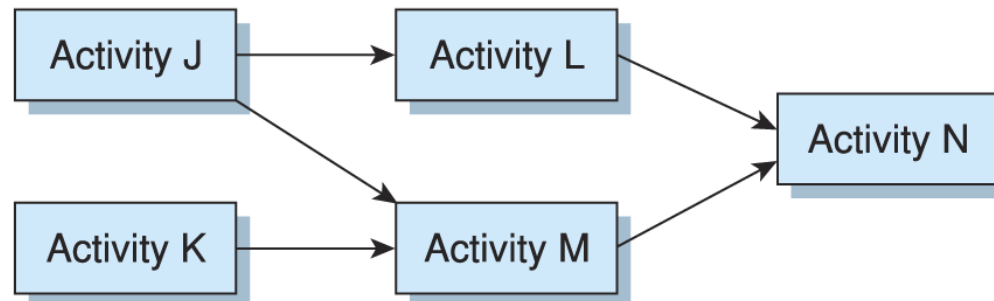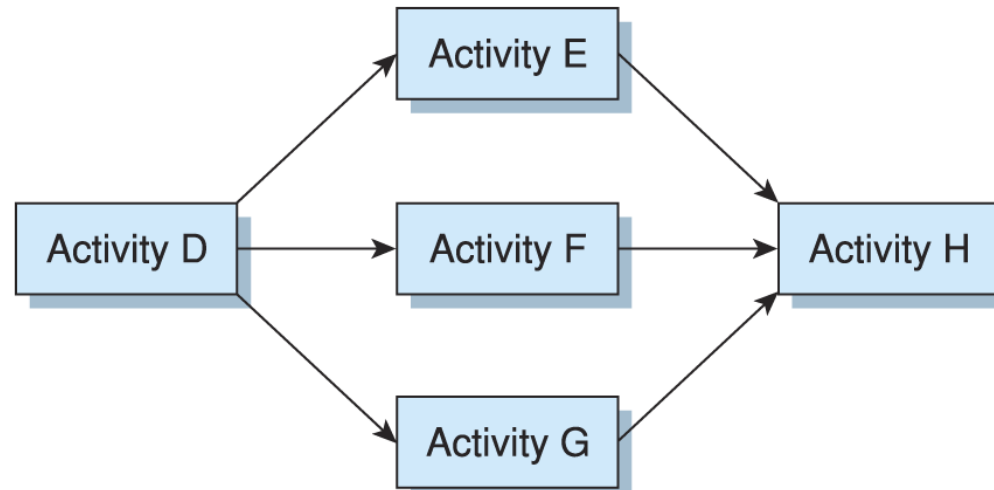- What other tasks might get in the way?

Estimates are guesses

- Beware treating these numbers in a scientific way
- Estimation continues through the project lifecycle
- The nearer the completion, the more certainty about time, resources and costs

Multiple dependencies

Activity notation
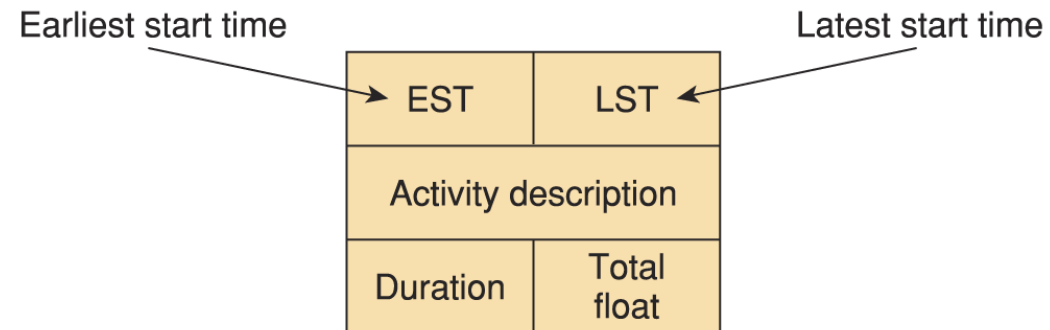
Activity network and the critical path
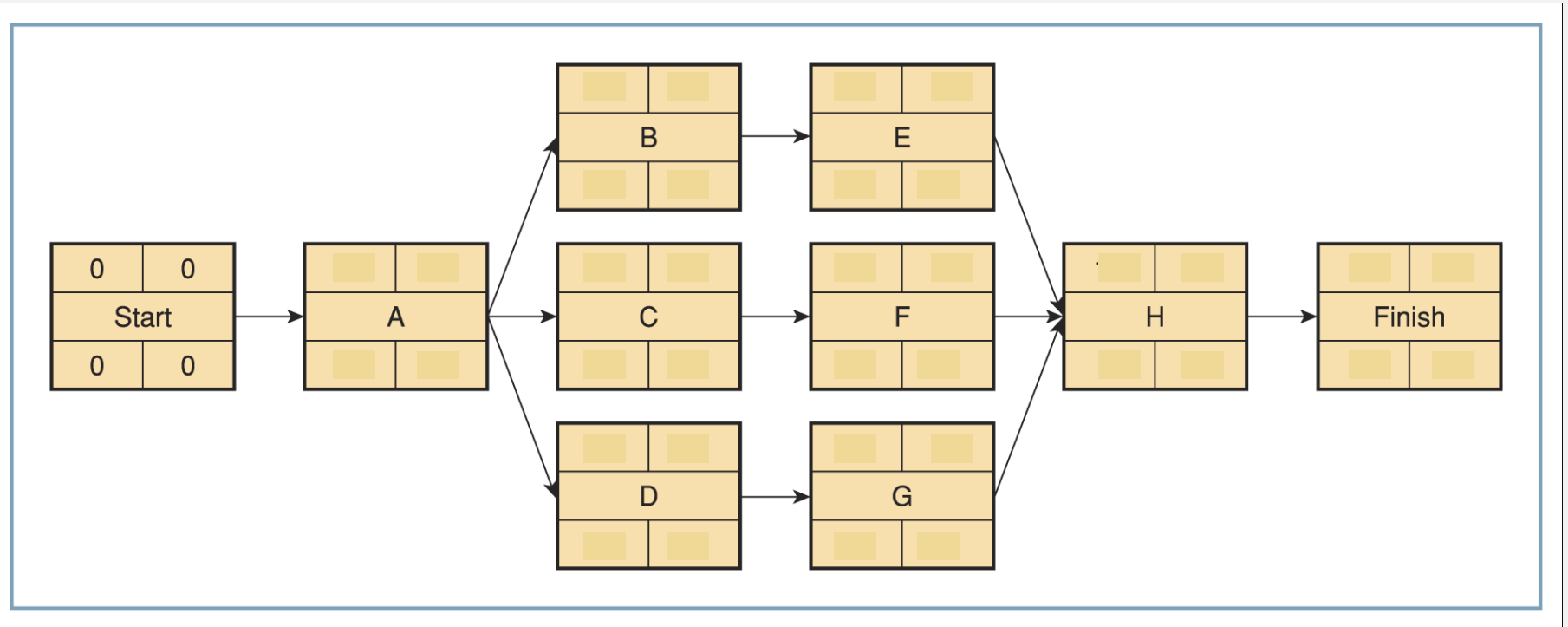
Constructing a time plan

- Knowing when activities will be carried out
- Amount of work (hours, days) required
- Resources
    - Capability – ability and limitations
    - Capacity – volume
    - Calendar – when available
- Time plan

Constructing a time plan

Activity A
6 days → Activity B
7 days

A → B
Finish-to-start

A
↓
→ B
Start-to-start

A
↓
→ ↓ B
Finish-to-finish

A
↓
→ ↓ B
Start-to-finish
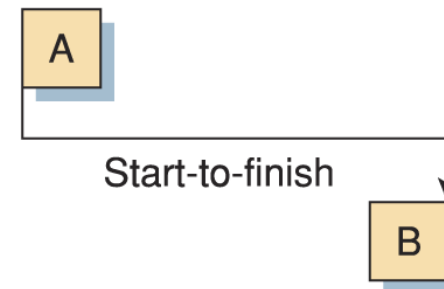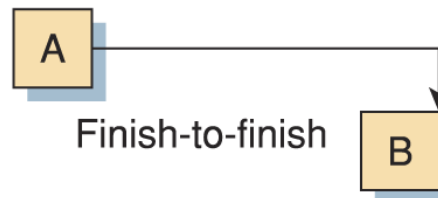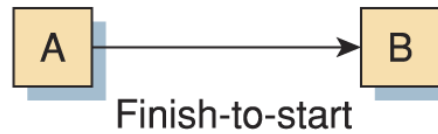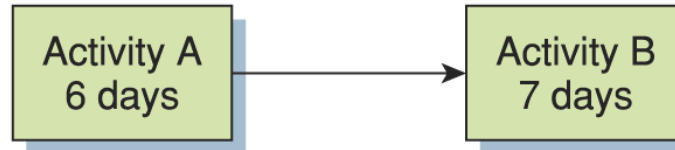
The Gantt chart

- Establishes a level of logic
- Time goes from left to right
- Activities arranged top to bottom in order of occurrence
- Viewing the forward schedule
  - Start at a given date and follow forward to determine the end date
- Viewing the backward schedule
  - Look at required completion date and work back to find start date

Using Gantt charts

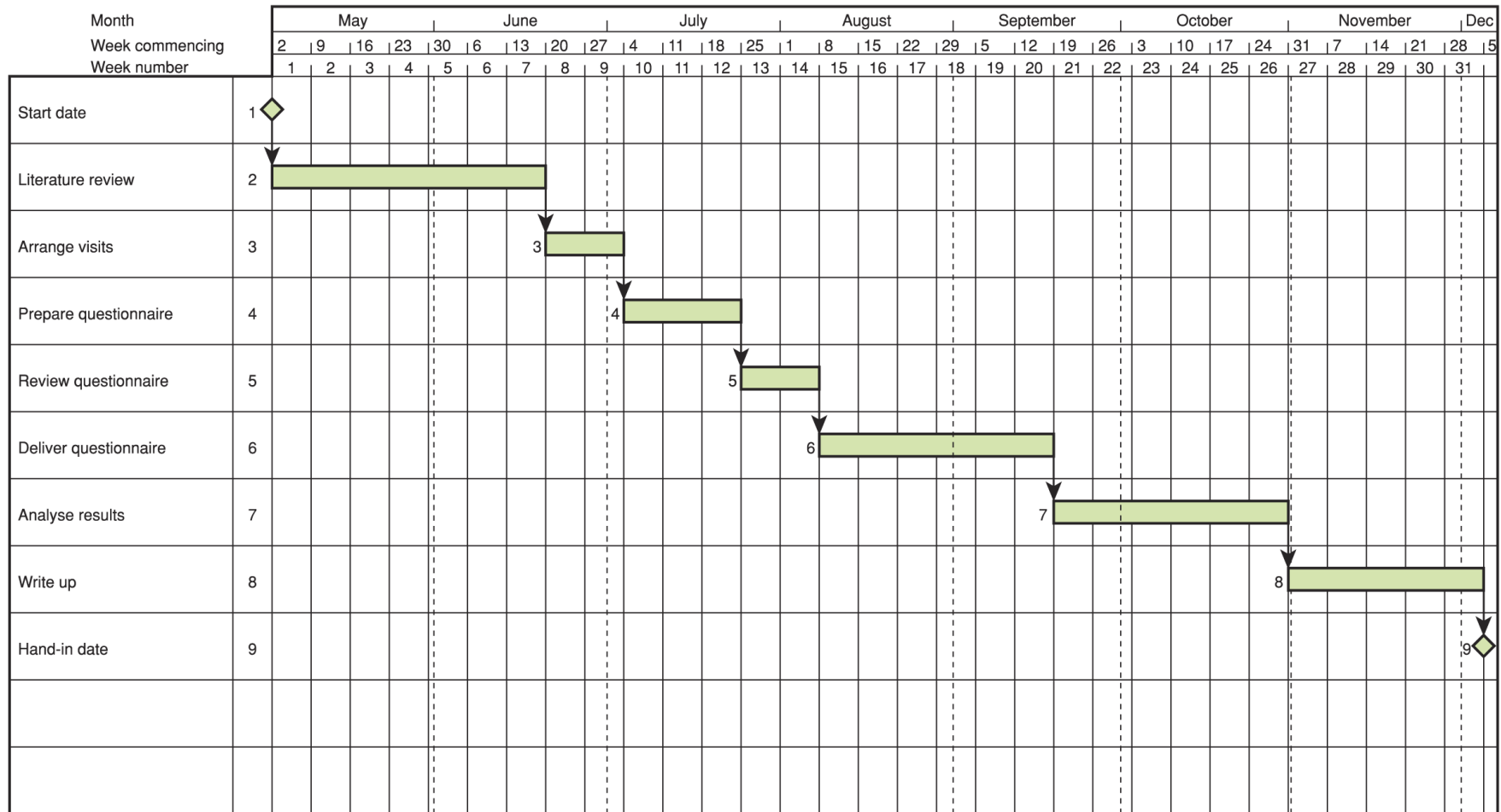| Month		May				June				July				August				September				October				November				Dec
Week commencing		2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	5
Week number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Start date	1	◇																															
Literature review	2																																
Arrange visits	3								3																								
Prepare questionnaire	4										4																						
Review questionnaire	5												5																				
Deliver questionnaire	6														6																		
Analyse results	7																			7													
Write up	8																											8					
Hand-in date	9																																9 ◇

Using Gantt charts

Positives
- Communicates the plan
- Easy to construct
- Readily understood
- Good for static environments
- Widely used
- Graphical interface for most project planning software

Limitations
- Difficult to update manually
- Does not equate time and cost
- Does not help in optimising resource allocation
- Perceived as a 'statement of reality'

NO!

YES!