

# Cornell Guided Notes

Biotechnology for Health (Biomedical Innovations) | 2027-02-09

Name

Period

Date

Lesson

Lesson focus

Design brief

Key words and questions

Prepared details and student notes

**Essential question**  
**What is today's target?**

Write a design brief that states the ER problem, criteria, and constraints for the prototype.  
Big idea: A design brief converts a problem statement into testable criteria and constraints that tell you exactly what a successful prototype must do.

**My notes, examples, and questions**

**Key words**  
**What vocabulary unlocks the lesson?**

- design brief
- floor plan
- process flow
- staffing
- human factors

**My notes, examples, and questions**

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## Cornell Notes - Continued

### Key words and questions

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**Must-know ideas**  
**What should I understand by the end?**

- The difference between a design criterion (what success looks like, measurable) and a constraint (a boundary the design cannot cross).
- How to write criteria that are specific enough to evaluate a prototype against.
- How naming real constraints -- space, staffing, budget, safety codes -- prevents the prototype from being unrealistic.

**My notes, examples, and questions**

**Process notes**  
**What happens during class?**

- 0-10: Review the design brief format: problem statement, criteria, constraints, and success definition
- 10-25: Draft the problem statement in one sentence, drawing from your inefficiency brief
- 25-45: List measurable design criteria: what must the solution do, and how will you measure it?
- 45-60: List constraints: space, staffing, budget, safety codes, infection control
- 60-75: Define success: what would a completed prototype demonstrate? Submit the brief.
- 75-80: Partner check: can your partner evaluate your prototype using only your criteria?

**My notes, examples, and questions**

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#### Steps and evidence What do I do and turn in?

- State the problem your ER redesign solves in one sentence.
- List measurable design criteria the solution must meet.
- List constraints: space, staffing, budget, safety codes.
- Define what a successful prototype would demonstrate.
- Submit the completed design brief.

Evidence: Pre-lab - Design brief with one-sentence problem statement, measurable criteria, real constraints (space, staffing, budget, safety codes), and a prototype success definition.

#### My notes, examples, and questions

#### Checks for understanding How do I know I got it?

- Your brief lists measurable criteria and real constraints.
- You can explain how criteria differ from constraints.

#### My notes, examples, and questions

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**Lab or safety notes**  
**What must I handle carefully?**

Supplies:

- Lab computers with CAD or floor-plan software
- Graph paper for hand sketches
- Ruler and pencil
- Printout of design brief
- Patient-flow diagram from prior week
- Shared project folder for exports

**My notes, examples, and questions**

### Summary

Today's lesson focused on Design brief. The main target was: Write a design brief that states the ER problem, criteria, and constraints for the prototype. The evidence of learning is Pre-lab: Design brief with one-sentence problem statement, measurable criteria, real constraints (space, staffing, budget, safety codes), and a prototype success definition.. In my own words, the most important idea from today is:

**My summary**

### My final question or connection