Mammal Dissection: Organ Systems and Structure–Function

SBI3C | Student laboratory assignment | 1 of 4

Prepare for your investigation

Name: _____ Date: _____ Class: _____

Research question

How does the arrangement of organs support the survival of a mammal?

Learning goal: use the virtual model to gather evidence, explain mammal dissection: organ systems and structure–function and communicate a supported conclusion.

Materials: WorksheetGalaxy virtual laboratory, this assignment, calculator or spreadsheet if needed. Virtual observations only; do not recreate hazardous procedures or perform physical fitness tests without teacher approval.

1. Define two relevant scientific terms from the Background Information tab. (K/U)

2. Write a prediction or hypothesis with a scientific reason. (K/U, T/I)

3. Identify the variable or feature compared, the measured outcome and constants or consistent observation criteria. (T/I)

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Perform the virtual laboratory

Open the corresponding virtual lab and read Background Information. Follow the investigation instructions below. Record authentic simulated results; do not invent data.

- Review anatomical directional terms and organ-system functions.
- Complete all four stages of the virtual dissection. Select organs on the diagram to inspect them.
- Identify at least eight structures using the identification challenge; record your observations.
- Complete the organ-function table and answer the analysis questions in the Lab Report.
- Export your results or print your report to PDF for submission.

Record each completed observation using the simulator’s record control when available. Use Data & Graphs to review results. Export CSV if available; attach additional rows or screenshots when needed.

Record the exact settings and any changes to the method.

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Observations & results

Enter the actual results. Keep trial IDs consistent between continued tables. Attach the full exported data or extra sheets when the procedure requires more rows. Include units as displayed.

Data table 1

Trial / item	Structure	System	Function	Observation

Qualitative observations / sample calculation (show units where applicable)

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Analysis, conclusion & assessment

4. Present a labelled graph of a measured relationship, or an annotated diagram / comparison chart for qualitative investigations. Attach it separately. Explain the pattern using recorded evidence. (C, T/I)

5. Describe the external anatomy and orientation of the specimen. (K/U, A)

6. Choose four organs. Explain the function of each. (K/U, A)

7. Explain how the respiratory and circulatory systems work together. (K/U, A)

8. Trace the path of food through the digestive system and identify where nutrients are absorbed. (K/U, A)

Conclusion and evaluation: answer the research question, revisit the prediction using evidence, identify a model limitation and propose an improvement. (T/I, A)

Submit this assignment plus your completed Lab Report (printed or saved as PDF from the lab) and any supporting data/figures.

K/U: accurate concepts /10	T/I: method, data, reasoning /12	C: clear tables, units, report /8	A: explanation, conclusion, transfer /10

Total: /40