Design & Lead an Age-Appropriate Movement Activity

PSK4U | Student laboratory assignment | 1 of 4

Prepare for your investigation

Name: _____ Date: _____ Class: _____

Research question

How can observations from this virtual investigation explain design & lead an age-appropriate movement activity?

Learning goal: use the virtual model to gather evidence, explain design & lead an age-appropriate movement activity 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.

• Select an age band and a fundamental movement skill.

• Choose an activity, equipment, space and challenge level; document your rationale.

• Use the design studio to compare at least three variants, changing one variable at a time.

• Identify two safety precautions and two inclusive modifications.

• Write a timed lesson plan: introduction, warm-up, skill practice, game and cool-down.

• Conduct a supervised demonstration or role-play where feasible, collect feedback and revise the plan.

• Submit the completed lab report, data table and reflection.

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	Age	Skill	Format	Challenge	Duration

Data table 1 — continued (2)

Trial / item	Participants	Fit index	Flags

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. Analysis: Which variables affected the planning indicators, and why? (K/U, A)

6. Reflection: What feedback would you collect during delivery, and how would you revise the activity? (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