A group of students are raising mealworms in their classroom. They decide to test insulation materials to design a more energy-efficient cardboard-box habitat for the mealworms. Here is the plan they made to determine which material would do the best job.

1. Construct three cardboard-box habitats the same in every way.
2. Cover habitat A with three layers of aluminum foil; cover habitat B with one layer of fluffy cotton; put habitat C into a much larger box with a lid so that air is trapped between the layers of the cardboard.
3. Use identical heat lamps as the energy source at one end of each habitat.
4. Stick one thermometer into each habitat through a slit on the top of the habitat.
5. Measure the temperature every 5 minutes for 1 hour. Record data in a table.

Evaluate this group’s investigation plan. What is good and what needs improvement?

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