

| Points | 3 | 2 | 1 | 0 |
|---|---|---|---|--|
| Title stated accurately and clearly | Title is accurate, brief, easily read and invites interest. | Title is clear, brief, easily read. | Title is unclear, does not accurately describe activity or is illegible | No title given |
| Method/steps stated clearly using bullets. | Explains method/steps clearly using bullets. Easy to follow | Method/steps could be a little more clear. | Method/steps very hard to follow; unclear. | Method/steps not listed |
| Rational for method used | States clearly why the group used the steps listed. | Somewhat unclear as to why specific steps were used. | Demonstrated confusion as to why method/steps were used | No explanation given as to why method/steps were used |
| Calculations shown clearly | Clearly, accurately shows calculations related to steps | Calculations could be shown more clearly relating to steps. | Calculations difficult to follow, inaccurate, or do not justify result. | No calculations shown. |
| Results stated, relates to objective | Clearly states results and relates result to objective (our sun is one of 200 billion in our galaxy). Shows this in an impactful way. | Results stated and related to objective. | Results unclear or did not relate result to objective. | No results stated or did not relate result to objective. |

Supplemental Worksheet/Questions

(For teacher or student help)

1. Count how many lentil beans will fit into one cubic centimeter (one milliliter). _____

Using some more lentil beans, repeat step 1 two more times.

2. Find the average of the above three numbers: _____ This is the number we will use for number 6 below.

3. How many centimeters are in one meter? _____

4. What is the formula for the volume of a cube? _____

5. Using the information from numbers 3 and 4 above, calculate how many cubic centimeters are in one cubic meter:

There are _____ cm^3 in one cubic meter

6. To find the number of lentil beans in one cubic meter, refer to the answer to #'s 3 and 5.

There are _____ lentil beans in one cubic meter.

*Do you think this number is close to 200 billion?

7. Write out the number 200 billion: _____

8. To find how many cubic meters will equal 200 billion lentil beans, take 200 billion and divide it by your answer from number 6.

It will take a volume of approximately _____ m³ to contain 200 billion lentil beans.

9. Using a meter stick or metric tape, find the volume of the classroom in cubic meters.

_____ m³

10. Comparing the numbers from #'s 8 and 9, how many classrooms would it take to contain 200 billion lentil beans? _____

****Finally, look at the one lentil bean representing our sun!!**