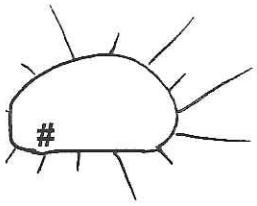

Scientist: Key

Date: ____-____-____ HR: ____

Unit 1 REVIEW – The Scientific Method

1. Understands the steps of the Scientific Method

Write the Scientific Method Steps in order, below:

1. Question - specific idea that can be tested
2. Knowledge Probe – read about the topic, ask advice, think about background knowledge
3. Prediction – an 'if, then statement' with scientific reasoning
4. Investigation Plan – create a materials list and procedure (step-by-step)
5. Observation – perform the experiment, record data on a table
6. Data Analysis – look for patterns in data, find the mean, graph data
7. Explanation – an answer to your question with evidence and reasoning

2. Generates scientific questions based on observations, labs, and research

Not based on opinion!

Which of the following is the best example of a good scientific question?

a. How fast does a Ford truck travel to the corner store?

b. What tastes better, pop or lemonade?

c. Does the thickness of the paper in a paper airplane affect the speed it travels?

d. Which plant is more beautiful, daisies or roses?

Develop a strong scientific question you think scientists could test in class.

Which type of marker lasts longer, expo or sharpie?

3. Analyze information from a data table to answer scientific questions (step #6)

% of questions answered correctly in Jeopardy practice

Student	Round 1	Round 2	Round 3	Average
Bart	54%	66%	73%	64%
Homer	69%	98%	64%	77%
Marge	88%	92%	85%	88%
Maggie	93%	96%	95%	95%

____ + ____ + ____ = ____ ÷ 3

over →

Mrs. Roy chose Maggie to compete in the Jeopardy challenge.
Did she make the best choice? (YES) or No (circle one)
Why or why not?

① Maggie has the highest average, overall.

② She was the most consistent in her 3 rounds of correctly answering questions. (highest %s)

Mr. Thelen selects Homer because he has the highest score of all the rounds.
Did he make the best choice? YES or (No) (circle one)
Why or why not?

① Homer didn't do as well in round 1 & 3.

② His average % in not as high as others.

4. Identifies the need for evidence in making scientific decisions (explanations) step #7
conclusions

Why are scientific explanations so important? It sums up what you've learned! "Explanations" answer your experiment question, the focus of your entire investigation.

Name 3 components that are required within your scientific explanation. (or conclusion)

cucumbers eats 1. Claim → a statement that answers your question

enjoy eat 2. Evidence → data (information) that supports your claim

ranch rats 3. Reasoning → the argument used to say why the evidence answers the question