

Standards:

SI #3: Use appropriate mathematics, tools and techniques to gather data and information.

Handouts:

None

On Board:

1. Take paper out of tray.
2. Get laptop from 9th period class (1-2 Period Only).
3. Get out your ear phones.
4. Open up your Fusion book to p. 43.
5. Get out your speeches or Fusion book pp. 28-39.
6. Log into your lap top.
7. Log into, "Think Central" from the "Little Leopard Techie Page."
8. Get out your Science Composition books.
9. Do Bell Work on the Smart board.
10. Pencil

Up For Grabs:

Materials:

laptops

Procedures:

1. Take attendance.
2. Do Bell Work.
3. Discuss Bell Work.
4. Go over procedure for the day.
5. Go over focus for the day.
6. Check over p. 43 in Fusion books.
7. Check over answers to Fusion book pp. 28-39. Students that did not do the assignments should be practicing speeches.
8. Do speeches.
9. Do digital lesson for Unit 1 Lesson 4 and take notes in your Science composition books.
10. Begin to work on Science, Technology, and Engineering Knowledge Builders Unit 1 Lesson 4 - Day 2 (Digital Lesson Review).

Homework:

Finish digital lesson for Fusion Unit 1 lesson 4 and taking notes in your composition books.

Science, Technology,
and Engineering Unit 1 -
Lesson 4

Day: 2

To Do...

Bell Work - Day 2

1. Take paper out of tray.
2. Get laptop from 9th period class (1-2 Period Only).
3. Get out your ear phones.
4. Open up your Fusion book to p. 43.
5. Get out your speeches or Fusion book pp. 28-39.
6. Log into your lap top.
7. Log into, "Think Central" from the "Little Leopard Techie Page."
8. Get out your Science Composition books.
9. Do Bell Work on the Smart board.
10. Pencil

Label This Bell Work: Science, Technology, and
Engineering Unit 1 - Lesson 4
Use one box.

Students compete in a short race at a track meet. Give an example of a qualitative observation?

Bell Work - Day 2

Label This Bell Work: Science, Technology, and Engineering Unit 1 - Lesson 4
Use one box.

Students compete in a short race at a track meet. Give an example of a qualitative observation?

Sample Answer: the colors of the students' faces as they ran.

Procedure

Today We will...

1. Take attendance.
2. Do Bell Work.
3. Discuss Bell Work.
4. Go over procedure for the day.
5. Go over focus for the day.
6. Check over p. 43 in Fusion books.
7. Check over answers to Fusion book pp. 28-39.
Students that did not do the assignments should be practicing speeches.
8. Do speeches.
9. Do digital lesson for Unit 1 Lesson 4 and take notes in your Science composition books.
10. Begin to work on Science, Technology, and Engineering Knowledge Builders Unit 1 Lesson 4 - Day 2 (Digital Lesson Review).

Focus

- You will learn that measurements are a way of quantifying observations.
- You will learn scientists use the International System of Units, prefixes, and scientific notation.
- You will learn that scientists use various tools to make measurements.
- You will learn that measurements can be evaluated by their precision and accuracy.

State Standard

SI #3: Use appropriate mathematics, tools and techniques to gather data and information.

Answers To Fusion Book p. 43 Engage Your Brain

1. Describe

T. thermometer

O. often used in investigations

O. observations and measurements

L. length measured by ruler

S. size of something

2. Describe

This is a close-up of a snowflake. A powerful microscope and computer were likely used to capture and produce this image.

Answers To Fusion Book p. 43 Engage Your Brain

3. Apply

Sample Answer: a product or process that advances scientific knowledge.

Sample Answer: to make a rough of approximate measurement.

Vocabulary

measurement - a quantitative description of something that includes a number and a unit, such as 42 meters.

quantitative - relating to information that is expressed by a number or quantity.

qualitative - relating to information that concerns quality or kind.

scientific notation - A method of expressing a quantity as a number multiplied by 10 to the appropriate power.

precision - the exactness of a measurement.

accuracy - a description of how close a measurement is to the true value of the quantity measured.

Scientist Speeches

1. If you did a speech get with your partner and practice until we are finished going over the answers to the Fusion books.
2. Please remember that both you and your partner need to participate in the speech. If you are doing your speech alone then you do not have to worry about it.

Answers To Science, Technology, and Engineering Knowledge Builders Unit 1 Lesson 3

Fusion Book pp. 28-39

5. A hypothesis should be testable so that scientists can find out if it is valid.
6. Sample Answer: The plant will die quickly because it cannot get enough nutrients from the rock.
7. Independent variable: amount of sunlight; dependent variable: rate of plant growth.
8. Sample Answer: Define a Problem, Forming a Hypothesis, Planning an Investigation, Identifying Variables, Collecting Data, Interpreting Data, Drawing Conclusions, Forming a Hypothesis, Planning an Investigation, Identifying Variables, Collecting Data, Interpreting Data, Drawing Conclusions.

Answers To Science, Technology, and Engineering Knowledge Builders Unit 1 Lesson 3

Fusion Book pp. 28-39

9. Your Answers should show an understanding of the appropriate methods for the type of investigation chosen. For example, in an experiment, only one variable should change.

10. Sample Answer: To see how a plant's growth is affected by a fertilizer, you may want to test the plant's growth in a lab or in natural conditions.

11. Defining a Problem: How do geckos stick to walls and ceilings? Forming a Hypothesis: Either the weak forces of hairs on the gecko's feet hold the gecko to a surface, or the hairs interact with a thin film of water on a surface; Collecting Data: The force of a gecko's hair against a surface was the same whether or not the surface was wet.

Answers To Science, Technology, and Engineering Knowledge Builders Unit 1 Lesson 3

Fusion Book pp. 28-39

12. Your drawing should show the toy car at a lower starting position along the ramp. All other variables should stay the same. Sample answer: height of ramp, type of toy car, ramp material, surface on which the ramp is set up.

13. You should of underlined:

Repeated trials, or repetition, allow investigators to obtain more accurate and reliable results.

Replication occurs when other scientists repeat a particular experiment.

14. The car attains a greater speed when it starts higher up the ramp. The findings are reliable because similar dat were obtained through several repetitions.

Answers To Science, Technology, and Engineering Knowledge Builders Unit 1 Lesson 3

Fusion Book pp. 28-39

15. Scientists replicate investigations in different environments to see if a finding can be applied anywhere. Testing Galileo's hypothesis on the moon demonstrated that it is valid where there is no air to interfere with the falling objects.
16. You should provide logical reasons for deciding whether a source is trustworthy.
17. Sample Answer: I would find plants of the same species that are similar in size. I would cover the soil around half of them with mulch, leaving the others uncovered. I would repeat the experiment in locations with different weather patterns, and I'd repeat them using other species of plants.

Answers To Science, Technology, and Engineering Knowledge Builders Unit 1 Lesson 3

Fusion Book pp. 28-39

18. independent; dependent
19. testable
20. hypothesis
21. data
22. replicated
23. scientific journal
24. Sample Answer: A dog with large, floppy ears has a better sense of smell than a dog with small ears.

Scientist Speeches

1. Get out your speeches.
2. We will present your speech to the class.
3. After your speeches please be sure your name, date, and number is on your paper and give it to Mr. McCully to be checked.

Classwork

1. Open up lap tops.
2. Log in and go to, "Think Central" from the, "Middle Leopard Techie" page.
3. Log into "Think Central."
4. Go to, "Things To Do" and click on the assignment given to you.
5. Do digital lesson for unit 1 for lesson 4.
6. Take notes in your composition books that will help you for the Open Note Quiz. Label your notes: Science, Technology, and Engineering Unit 1 Lesson 4 - Day 2 (Date).
7. Be sure to do all slides and answer all questions. BE SURE TO WORK QUIETLY.

WHEN YOU ARE FINISHED

8. Click the X to X out of the screen.
9. Be sure to go back to your, "Things To Do" and click done. DO NOT CLICK IT BEFORE YOU HAVE DONE ALL THE ACTIVITIES, TAKEN NOTES IN YOUR COMPOSITION BOOK, AND ANSWERED ALL THE QUESTIONS ON EACH PAGE.
10. Begin working on your Science, Technology, and Engineering Knowledge Builders Unit 1 Lesson 4 - Day 2 (Digital Lesson Review).

Homework

Finish digital lesson for Fusion Unit 1 lesson 4 and taking notes in your composition books.