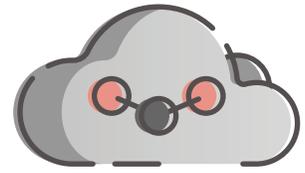




DINNER MENU

PHOTOSYNTHESIS

CIRCLE YOUR CHOICES



Carbon Dioxide CO₂

APPETIZER (EVERYONE SHARES)

- » Write the chemical equation for photosynthesis

ENTRÉE (SELECT ONE)



- » Draw a picture that shows what happens during photosynthesis.
- » Write two paragraphs about what happens during photosynthesis.
- » Create a rap or song that explains what happens during photosynthesis.

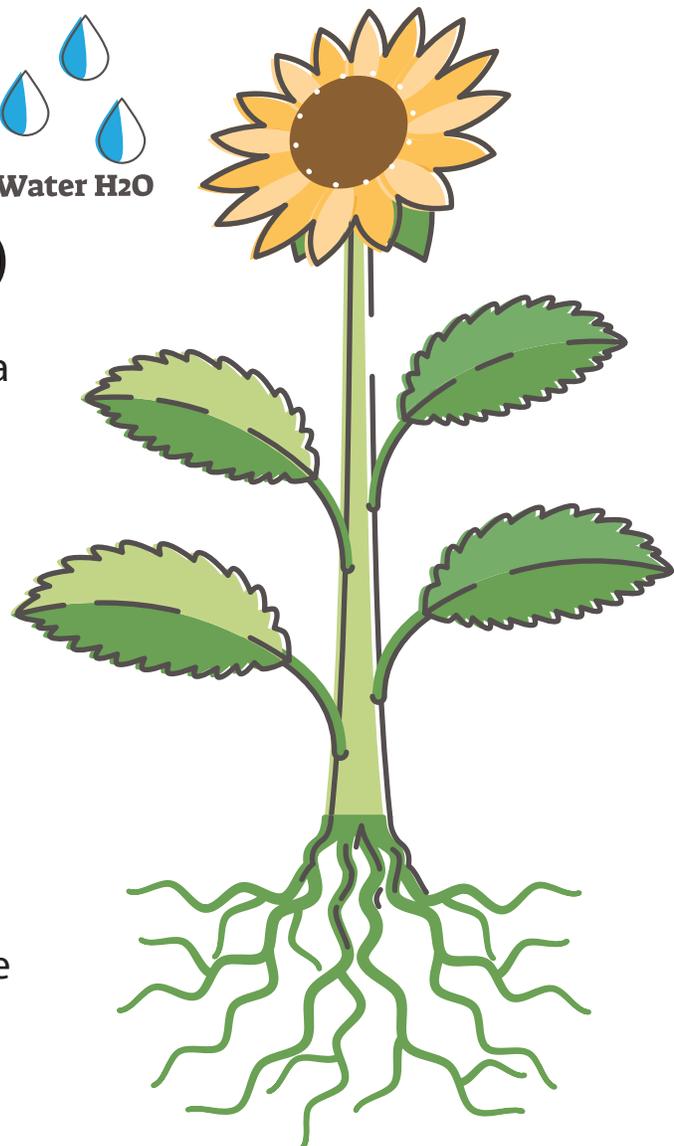
SIDE DISHES (SELECT AT LEAST TWO)

- » Define respiration in writing.
- » Compare photosynthesis to respiration using a Venn diagram.
- » Write a journal entry from the point of view of a green plant.
- » With a partner, create and perform a skit that shows the differences between photosynthesis and respiration.



DESSERT (OPTIONAL)

- » Create a test to assess the teacher's knowledge of photosynthesis.



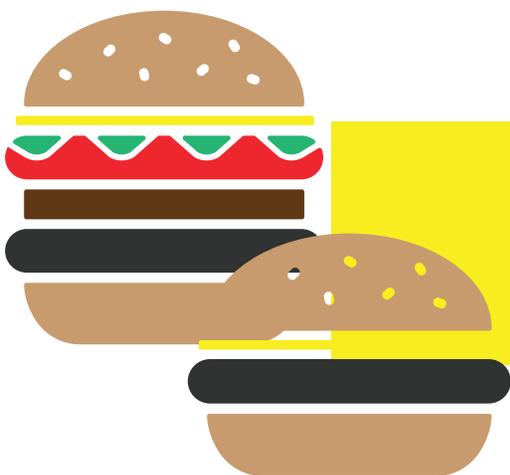
FAST FOOD MENU PROBABILITY UNIT

DIRECTIONS: EVERYONE MUST COMPLETE A DRINK AND SANDWICH YOU MAY SELECT AMONG THE SIDE DISHES AND YOU MAY DECIDE TO DO SOME OF THE DESSERTS ITEMS, AS WELL. CIRCLE YOUR CHOICES.

DUE DATE: _____

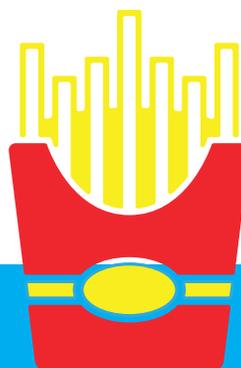
BEVERAGES (EVERYONE COMPLETES)

Complete the “frequency table” assignment on p. 506-507 of your textbook.



SANDWICHES (EVERYONE COMPLETES)

Create a list of 10 pairs of events. 5 pairs should contain events that are dependent; 5 pairs should contain events that are independent. Explain each classification.



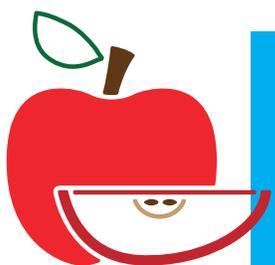
SNACKS & SIDES (CHOOSE 2)

FRIES

Work with a partner to analyze the game of “Primarily Odd.” See your teacher for game cubes and further instructions.

APPLE SLICES

Examine the attached list of functions and determine which functions represent probability distributions.



SNACKS & SIDES CONTINUED

CHICKEN NUGGETS

Design a "game spinner" that has this probability distribution:
 $P(\text{red}) = 0.1$; $P(\text{green}) = 0.2$; $P(\text{blue}) = 0.3$; $P(\text{yellow}) = 0.4$.
 Suppose a dart lands on a dartboard made up of four concentric circles.
 For the center of the board (the "bull's eye"), $r=1.5$; the remaining rings
 have widths of 1.5. Use your understanding of area and
 probability to determine the probability of 1) hitting a
 "bull's eye" and 2) landing in the outermost ring.



DESSERTS (CHOOSE 1)

MILKSHAKE

Figure the probability of "Murphy's Law" and make a case for whether or not it should indeed be a "law."



SUNDAE

Use a frequency table to chart the colors that your classmates wear for a week. Then, use probability to predict how many students will wear a certain color on a given day.



CIRCLE YOUR ANSWERS

2 SCOOPS OF ICE CREAM (EVERYONE MUST DO BOTH)

» **1st Scoop** — With a partner, select one idiom from the bulletin board. Discuss what you think the idiom means. Then look up the idiom in the books *Scholastic Dictionary of Idioms* or *Super Silly Sayings That Are Over Your Head: A Children's Illustrated Book of Idioms*. You can find copies in the class library.

» **2nd Scoop** — Read one of the books in the bin. Make a list of all of the idioms in the book and write their meaning.



CHOOSE YOUR TOPPINGS (CHOOSE 2)

» **Sprinkles** — Write an idiom you have heard used in your life and explain what it means. Draw a picture of what the main character of the story you read might do if he or she heard it.

» **Gummies** — Select an idiom from the bulletin board or one that you have heard used and add it to the story you read. Write at least 6 sentences.

» **Hot Fudge** — With a partner, create a short skit using an idiom from the bulletin board or one that you have heard used.



CHOOSE YOUR CONE/DISH (AT LEAST 1)

» **Waffle Cone** — Read *I'm Not Hanging Noodles on Your Ears and Other Intriguing Idioms From Around the World*

» **Sugar Cone** — Use the bookmarks on the laptop to visit several Websites that illustrate idioms from other cultures.

» **Dish/Cup** — Play the Idiom Game online and explore idioms around the world.



QUADRILATERALS MENU OF OPTIONS

DIRECTIONS: BELOW IS A MENU OF PROJECT OPTIONS AS WELL AS THE POSSIBLE POINTS YOU MAY EARN FOR SUCCESSFUL COMPLETION OF EACH PROJECT. CHOOSE ENOUGH PROJECTS TO EQUAL 100. YOU MAY ALSO PROPOSE ALTERNATE PROJECTS OR ADJUSTMENTS TO THE PROJECTS THAT ARE LISTED.

PROJECTS ARE DUE: _____

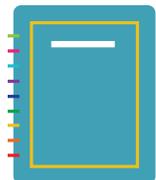
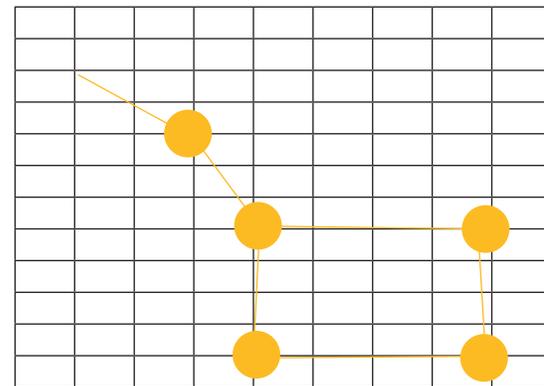


50 POINTS EACH

» Draw a rhombus QRST with diagonals of lengths 12 units and 16 units. Calculate the perimeter of the rhombus. Determine the lengths of the diagonals of a square that has the same perimeter as the original rhombus. Assume that the measure of $\angle RTS$ in the original rhombus is 53° . Find the value of as many angles and segments as possible. Write a study guide regarding the definitions and theorems regarding rhombi and squares. Use the values you determined as examples in your study guide.

» Create a poster with the figures formed by the coordinates given. For figure 1 use (3, 0), (8, 1), (9, 4), and (4, -5). For figure 2 use (0, 2), (8, 1), (12, -6), and (4, -5). For figure 3 use (0, 2), (5.6, 5.2), (12, -6), and (6.4, -9.2). Then, write a description of each figure in which you identify the type or types of quadrilateral you are describing as well as how you came to your conclusions.

» On graph paper, create a constellation that includes a rhombus and a parallelogram. The sides of either figure cannot be parallel to the x- or y-axis. Identify the coordinates of the vertices of each figure (do not use sets of coordinates found anywhere else on this menu of choices). Use the definitions and/or theorems about each figure, along with analysis of those figures' coordinates to prove that you do in fact have a rhombus and a parallelogram. Consider finding the distance between coordinates or determining if the lines that go through the coordinates are parallel or Perpendicular.

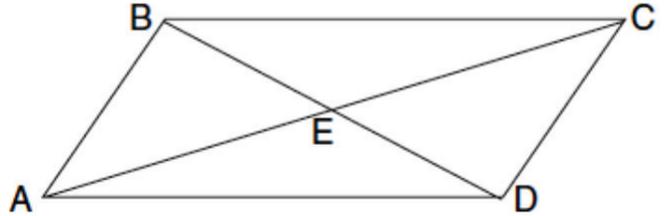


» Write a proof in the form of a poem to show that the diagonals of a rectangle are congruent.

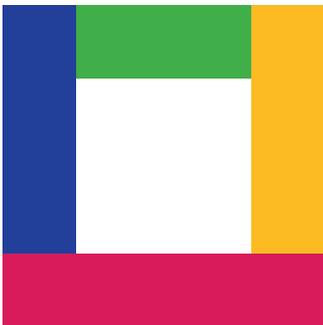
» Create a picture that includes a rhombus and a bisected isosceles trapezoid. Identify the coordinates of the vertices of each figure. Also, identify the coordinates of the endpoints of the bisector of the trapezoid. None of the sides of either figure may be parallel to the x- or y-axis.

30 POINTS EACH

» Write a play, song, or rap about the relationships of the segments and of the angles of parallelogram ABCD with diagonals AC and BD, which intersect at point E. For example, include information such as the segment that is parallel to AB (with the explanation that opposite sides are congruent), the angle congruent with $\angle BAC$ (with the explanation of how you know that), the measure of AE compared with the measure of AC (with the explanation of what you know about the diagonals of a quadrilateral), and pairs of angles that are supplementary (with the explanation of how you know that). Include at least 15 relationships and make sure you use the definition of a parallelogram as well as any theorems you have learned about parallelograms.



» Write a story in which the characters are the diagonals of a parallelogram, a rectangle, a rhombus, and a square. Have the diagonals talk with each other. In their discussion they should talk about, compare, and contrast their properties. For example, the diagonals of the parallelogram will explain that they do not have to be congruent while the diagonals of the square will explain that they must always be congruent. Four properties must be discussed by the diagonals of each type of quadrilateral. Hint—it may help to first make a chart showing the types of quadrilaterals in columns and the properties of the diagonals in rows.



» Fasten four congruent strips of paper with brads. Make sure that when you measure the distance between brads, a square is formed. Identify the measurements of the sides, diagonals, and angles of the square. Without unfastening the brads, move your strips so that one angle measures 70° . What are the two names of the second figure you formed? What are the measurements of the sides, diagonals, and angles? Draw the square that was formed. Identify properties of a

square and give the measurements of your square with the appropriate properties. Draw the other figure that was formed. Identify one name for this second figure, its properties and the corresponding measurements. Identify a second name for this second figure, its properties and its measurements.

20 POINTS EACH

- » Create a design using parallelograms, rectangles, rhombi, squares, and isosceles trapezoids. Have the figures be adjacent to one another as if they were tiles on a floor. Color the figures so that each type of figure has its own color. On a separate sheet of paper, list each color, the figure that was shaded in the color listed, and the properties of that color.
- » Create a PowerPoint presentation introducing parallelograms, rectangles, rhombi, squares, and trapezoids. For each figure include drawings, an introduction (definition) and further information (each theorem you have studied regarding that quadrilateral). Include any additional interesting facts.
- » Find 10 examples of objects around you that are rhombi, rectangles, or squares. For each parallelogram, describe where you found the figure and why you think that figure was used instead of a different shape.



10 POINTS EACH

- » Create a skit showing the classifications of the types of quadrilaterals.
- » Create a multi-panel cartoon in which five parallelograms explain how they know that they are parallelograms. Include the five different ways to show that a given quadrilateral under certain conditions is a parallelogram.
- » Create a picture book which includes the construction (compass and straightedge) of a parallelogram, rectangle, square, rhombus, and isosceles trapezoid. Use one construction per page but tell some sort of story with your book.

