

# SUMMER ASSIGNMENTS

*In a 2009 government web cast, Secretary of Education Arne Duncan described summer learning loss as “devastating.” This is what researchers have often referred to as the “summer slide.” It is estimated that school summer breaks will cause the average student to lose up to one month of instruction, with disadvantaged students being disproportionately affected (Cooper, 1996)*

On the following pages you will find summer assignments for each grade and in a number of disciplines. The purpose of these assignments is NOT to make summer feel like a time of drudgery or to make school a 12 month experience. Our goal is to sharpen the students’ minds and to give them opportunities for learning that might not be able to happen during the regular school year.

On the following pages you will find assignments for students by class year and by subject. The following is an outline of what students should find:

9<sup>th</sup> Grade: ELA Summer Reading, Science/Math Packet

10<sup>th</sup> Grade: ELA Summer Reading, Social Studies

11<sup>th</sup> Grade: ELA Summer Reading, Social Studies

12<sup>th</sup> Grade: ELA Summer Reading

Studio Art Students in Grades 10, 11, 12: Assignment

NB: Students enrolled in an Advanced Placement class have specific assignments for that class. This assignment is given by the teacher of the class.

9<sup>th</sup> Grade students in AP World History will be contacted by their teacher, Mr. Roche.



## Summer Reading 2019-2020

Students are required to read one title from the grade that they will be entering in the fall. Students are encouraged to read more, but only one book will be assessed. These assessments will be held during the week of September 9th, and their weight will be equal to half a test grade. Students must bring the book to class for the assessment. All students will be permitted to use the book for the assessment. The assessment will be written in nature and designed by the teacher to best serve his/her students. We encourage parents to read with their students and help them to make an appropriate book choice. Students enrolled in AP Language and Composition or in AP Literature and Composition will have a different summer assignment and will not complete this assignment. All students entering 10th through 12th grades are encouraged to continue sharpening their SAT test-taking skills through Khan Academy.

### Students entering 9th Grade

*\*\*Fahrenheit 451--* Ray Bradbury

*Ender's Game--* Orson Scott Card

*Monster--* Walter Dean Myers

*Persepolis-* Marjane Satrapi

*Girl in Hyacinth Blue-*Susan Vreeland

### Students entering 10th Grade

*\*\*Separate Peace--*John Knowles

*Book Thief--* Markus Zusak

*The Glass Castle--*Jeannette Walls

*Dr. Jekyll and Mr. Hyde -* Robert Louis Stevenson

*Murder on the Orient Express --* Agatha Christie

### Students entering 11th Grade

*\*\*The Scarlet Letter --*Nathaniel Hawthorne

*Founding Brothers--*Joseph Ellis

*Orphan Train--*Christina Baker Kline

*Their Eyes Were Watching God--* Zora Neale Hurston

*Killer Angels--* Michael Shaara

**Students entering 12th Grade**

*\*\*The Sun Also Rises--Ernest Hemingway*

*The Secret Life of Bees--Sue Monk Kidd*

*Catch-22-- Joseph Heller*

*Paper Towns--John Green*

*Into Thin Air--John Krakauer*

**\*\*These texts are generally included on the AP Literature and Composition exam. Please consider these texts if AP Literature is a goal or if you are want to be well-read for college.**

**Social Studies Department**  
**American Government Summer Assignment**

**Student Name:** \_\_\_\_\_

Students will need to identify at least **3** confirmed candidates leading into the 2020 Presidential election. **For each of the 3**, you must complete the following snapshot...

1. What is the name of your candidate?
2. Is the candidate a Democrat or a Republican?
3. What is their political experience up to this point? Have they been a Senator / Representative, local or state civil servant, military experience, etc.
4. What issues have they taken a lead on pushing / pursuing ( a minimum of three)? i.e. climate change, immigration, taxes, social programs, education, healthcare, etc.
5. Opinion - Do you think they have a chance of defeating President Trump in the upcoming 2020 election? Please explain (4-6 sentences).

**Social Studies Department**  
**U.S. History Summer Assignment**

**Student Name:** \_\_\_\_\_

**Current Event:** Select an article from a **trusted news source** examining an issue of government in **each** of the following areas; local, state and federal. The **three** current events will be due on the first day of the 2019-20 Academic Year in your respective Social Studies class.

**Article Title:**  
\_\_\_\_\_

**Check one:**            **Local:** \_\_\_\_\_            **State:** \_\_\_\_\_            **Federal:** \_\_\_\_\_

**Source (Publication):** \_\_\_\_\_

**Author(s):** \_\_\_\_\_

**Who:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Where:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**When:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Summary of Article:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## Summer Assignment 2019

Students who have previously taken Art Appreciation, Capstone or Art 1 please choose one of the following to complete before the first day of school. This piece will be your first grade for the quarter. The size must be 11x14" or larger. The choice of medium/s is up to you. Make sure you do a realistic, detailed version of your subject matter.

Draw an object submerged in water. You can submerge it in a clear container and view from the side, view it from above, or have the object half in and half out of the water to observe the distortion.

A Still Life that contains at least 3 shiny objects. Make sure you consider the light reflection and images seen in the shiny objects.

A Self Portrait (drawn from real life in a mirror - not from a photograph) that is drawn from an interesting angle.

## Freshmen Science Math Readiness Summer Packet

### To all Freshmen, 9<sup>th</sup> Grade Students:

The Freshmen Science Courses (Biology or Physics 9) are math based science courses in which we see the need for your child(ren) to be abreast on the material listed on the next few pages. The attached packet is for students to complete over the summer and bring with them on the first day of class to be assessed accordingly. All work is to be completed on loose leaf. Final answers for each calculation problem should be boxed. Graphing problems must be completed on graph paper. This packet will be reviewed during the first few weeks of school. Since each lesson in these courses contain some kind of mathematical reference, this packet will be referred to during the entire school year. We advise all students to secure this packet.

Each section of the packet is clearly headed, followed by instructions, and a Khan Academy video explaining how to solve each problem or expression. For further clarification, you can create a Khan Academy account at [www.khanacademy.org/math](http://www.khanacademy.org/math) to view endless math equations, problems, and expressions.

Parents, thank you in advance for assuring your child(ren) will complete this packet before school begins. Students, we look forward to seeing you in September.

If you have any questions or concerns, then please contact Ms. Diane Antes, Physics 9 Teacher, Science Dept Chair, at [dantes@archwood.org](mailto:dantes@archwood.org).

Have a great summer,

Mrs. Mary Harkins  
Principal  
Archbishop Wood High School  
[mharkins@archwood.org](mailto:mharkins@archwood.org)

Ms. Diane L. Antes  
Physics 9 Teacher  
Science Dept. Chair  
Archbishop Wood High School  
[dantes@archwood.org](mailto:dantes@archwood.org)



**FRESHMEN SCIENCE MATH READINESS SUMMER PACKET**

**DIRECTIONS:** On Loose Leaf paper and Graph paper, show all the work required to solve each problem (not just answers). Make sure to put your name on the top of the first page. If you have more than 1 page, then staple your packet.

**Basic Multiplying & Dividing:** Solve each.

[www.khanacademy.org/math/arithmetric/arith-review-negative-numbers/arith-review-mult-divide-negatives/v/multiplying-positive-and-negative-numbers](http://www.khanacademy.org/math/arithmetric/arith-review-negative-numbers/arith-review-mult-divide-negatives/v/multiplying-positive-and-negative-numbers)

1.)  $(-2)(-4) =$

2.)  $15/3 =$

3.)  $8(-1) =$

4.)  $-21/(-7) =$

5.)  $26(-12) =$

6.)  $-300/6 =$

7.)  $(-73)1 =$

8.)  $-72/-9 =$

9.)  $7(3) =$

10.)  $0/-20 =$

**Percent:** Read the word problem then solve to find the correct percentage.

[www.khanacademy.org/math/pre-algebra/pre-algebra-ratios-rates/pre-algebra-percent-problems/v/finding-percentages-example](http://www.khanacademy.org/math/pre-algebra/pre-algebra-ratios-rates/pre-algebra-percent-problems/v/finding-percentages-example)

11.) Dean ordered a set of beads. He received 70 beads, and 10% of them were orange. How many orange beads did Dean receive?

12.) The art club had an election to select a president. 9 out of the 12 members of the art club voted in the election. What percentage of the members voted?

13.) A school assembly had 30 students in attendance, and 20% of them were first-graders. How many first-graders were at the assembly?

14.) Brenda's Diner sold 10 milkshakes last week. 40% of the milkshakes had whipped cream on top. How many milkshakes with whipped cream were sold?

15.) At the sewing store, Ava bought a bag of mixed buttons. She got 21 buttons in all. 21 of the buttons were large. What percentage of the buttons were large?

16.) Ben earns \$12,800 a year. About 15% is taken out for taxes. How much is taken out for taxes?

17.) What percentage of 80 is 50?

18.) 20 is what percentage of 25?

19.) What is 60% of 0?

20.) Find 10% of the number 50.

**Integers:** Solve each expression.

[www.khanacademy.org/math/arithmetic/arith-review-negative-numbers/arith-review-add-and-sub-integers/v/adding-integers-with-different-signs](http://www.khanacademy.org/math/arithmetic/arith-review-negative-numbers/arith-review-add-and-sub-integers/v/adding-integers-with-different-signs)

21.)  $6 + -12 + -2 =$

22.)  $3 - -13 =$

23.)  $\underline{\hspace{2cm}} \times (-8) = 32$

24.)  $-190 \div 2 =$

25.)  $(-10) \div \underline{\hspace{1cm}} = 5$

26.)  $-16 - -27 =$

27.)  $\underline{\hspace{1cm}} \times (-9) = (-54)$

28.)  $-60 \div -12 =$

29.)  $8 + 15 + 14 =$

30.)  $-5 + - 8 =$

31.)  $-5 \times 5 =$

32.)  $-4 \times -9 =$

**Exponents:** Solve each expression.

[www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-scientific-notation/v/scientific-notation-old](http://www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-scientific-notation/v/scientific-notation-old)

33.)  $10^3 =$

34.)  $10^{-3} =$

35.)  $(1/2)^5 =$

36.)  $10^9 =$

37.)  $1^0$

Write the following expressions using exponents.

38.)  $45 \times 45 \times 45 \times 45 =$

39.)  $(-0.7) \times (-0.7) \times (-0.7) \times (-0.7) \times (-0.7) \times (-0.7) \times (-0.7) \times (-0.7) =$

Solve.

40.)  $10^4 + 0^{12} =$

41.)  $2^6 \div 4^2 =$

42.)  $0^7 - 1^{15} =$

43.)  $9^3 \div 18 =$

**Measurement Conversions:** Solve each.

[www.khanacademy.org/math/in-fifth-grade-math/big-heavy/volume-1/v/conversion-between-metric-units](http://www.khanacademy.org/math/in-fifth-grade-math/big-heavy/volume-1/v/conversion-between-metric-units)

44.)  $37 \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$

45.)  $20 \text{ m} = \underline{\hspace{2cm}} \text{ cm}$

46.)  $34 \text{ m} = \underline{\hspace{2cm}} \text{ mm}$

47.)  $20 \text{ m} = \underline{\hspace{2cm}} \text{ km}$

48.)  $29 \text{ km} = \underline{\hspace{2cm}} \text{ m}$

49.)  $36 \text{ km} = \underline{\hspace{2cm}} \text{ cm}$

50.)  $100 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

51.)  $24 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

52.)  $8.3 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

**Metric System:** Answer each.

[www.khanacademy.org/math/cc-fourth-grade-math/cc-4th-measurement-topic/cc-4th-unit-sense/v/metric-distance](http://www.khanacademy.org/math/cc-fourth-grade-math/cc-4th-measurement-topic/cc-4th-unit-sense/v/metric-distance)

53.) The metric unit of measurement for mass is \_\_\_\_\_.

54.) The metric unit of measurement for weight is \_\_\_\_\_.

55.) The decimal equivalent for a meter is \_\_\_\_\_.

56.) The decimal equivalent for a centimeter is \_\_\_\_\_.

57.) When you move the decimal point two places to the left to convert a metric unit, it is the same as

\_\_\_\_\_ the measurement by 100.

58.) When you move the decimal point two places to the right to convert a metric unit, it is the same as

\_\_\_\_\_ the measurement by 100.

**Scientific Notation:** Convert the following numbers into scientific notation.

[www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-scientific-notation/v/scientific-notation](http://www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-scientific-notation/v/scientific-notation)

59.)  $3,400 =$  \_\_\_\_\_

60.)  $0.000023 =$  \_\_\_\_\_

61.)  $4.50 =$  \_\_\_\_\_

62.)  $1,000,000 =$  \_\_\_\_\_

63.)  $0.00671 =$  \_\_\_\_\_

Convert the following numbers into standard notation.

64.)  $2.30 \times 10^4 =$  \_\_\_\_\_

65.)  $1.76 \times 10^3 =$  \_\_\_\_\_

66.)  $1.901 \times 10^{-7} =$  \_\_\_\_\_

67.)  $1.76 \times 10^0 =$  \_\_\_\_\_

68.)  $5.40 \times 10^1 =$  \_\_\_\_\_

**Word Problems:** Solve the following word problems using the equation. ( $W = F \times X$ );  $W =$  Work unit of measure joules ( $J$ );  $F =$  Force unit of measure Newtons ( $N$ );  $X =$  displacement unit of measure meters ( $m$ )

[www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-alg-expression-word-problems/v/writing-basic-expressions-from-word-problems-examples](http://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-alg-expression-word-problems/v/writing-basic-expressions-from-word-problems-examples)

69.) A book weighing 1.0 newton is lifted 2 meters. How much work was done?

70.) A force of 15 newtons is used to push a box along the floor a distance of 3 meters. How much work was done?

71.) It took 50 joules to push a chair 5 meters across the floor. With what force was the chair pushed?

72.) A force of 100 newtons was necessary to lift a rock. A total of 150 joules of work was done. How far

was the rock lifted? ( $P=W/t$ );  $P$ =Power unit of measure Watts (W);  $W$ =Work unit of measure joules (J);

$t$ =time unit of measure seconds (s)

73.) A set of pulleys is used to lift a piano weighing 1,000 newtons. The piano is lifted 3 meters in 60 seconds.

How much power is used?

74.) How much work is done using a 500-watt microwave oven for 5 minutes?

**Factoring and Distributing:** Solve by factoring or distributing.

[www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions](http://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions)

75.)  $2(x + 3) =$       76.)  $2(x + 3 + y) =$       77.)  $-5(2x - 3) =$       78.)  $-5(-8w + p) =$

79.)  $20 + 32w =$       80.)  $84 + 36z =$       81.)  $(2x - 6)(5x + 7) =$

82.)  $(y - 10)(4y + 2) =$

**Solving One Step Equations:** Solve each word problem. A linear equation is of the form  $y=mx+b$

Use the displacement formula to solve 83-86;  $X = Vt$ , where  $X$  is the displacement traveled,  $V$  is the velocity and  $t$  is the time.

[www.khanacademy.org/math/algebra/one-variable-linear-equations/alg1-one-step-add-sub-equations/v/adding-and-subtracting-the-same-thing-from-both-sides](http://www.khanacademy.org/math/algebra/one-variable-linear-equations/alg1-one-step-add-sub-equations/v/adding-and-subtracting-the-same-thing-from-both-sides)

- 83.) A car travels at 40 km/hr for 2 hours and at 55 km/hr for 2 hours. How far has the car traveled? What is its average velocity?
- 84.) How long will it take an airplane to travel 1,250 kilometers if it is traveling at 150 km/hr?
- 85.) A car is traveling at 5 m/s. How far has it gone in 12 seconds?
- 86.) A train travels 600 kilometers in 1 hour. What is the train's velocity in meters/second?
- 87.) There were 32 students in Jaden's class eating lunch. Then, more students joined Jaden's class. Now there are 86 total students eating lunch. How many students joined Jaden's class?
- 88.) Kari, Katelynn, and Morgan went out for dinner and split the bill evenly. The total bill was \$46.68. How much did each pay?

**Fractions (adding, subtracting, multiplying and dividing):** Solve each.

[www.khanacademy.org/math/pre-algebra/pre-algebra-fractions](http://www.khanacademy.org/math/pre-algebra/pre-algebra-fractions)

89.)  $6/12 + 2/10 =$       90.)  $4/8 + 3/4 =$       91.)  $1/2 \times 2/5 =$       92.)  $1 \frac{1}{4} \times 3 \frac{5}{6} =$

93.)  $1/4 \div 9/10 =$       94.)  $8/10 \div 2/5 =$       95.)  $12/25 - 11/25 =$       96.)  $1 \frac{2}{7} - 4/7 =$

**Order of Operations:** Solve each.

Remember, PEMDAS (Please Excuse My Dear Aunt Sally) stands for: Parentheses Exponents Multiplication Division Addition Subtraction

[www.khanacademy.org/math/pre-algebra/pre-algebra-arith-prop/pre-algebra-order-of-operations/v/more-complicated-order-of-operations-example](http://www.khanacademy.org/math/pre-algebra/pre-algebra-arith-prop/pre-algebra-order-of-operations/v/more-complicated-order-of-operations-example)

97.)  $14 + 18 \div 2 \times 18 - 7 \cdot 2.15 \times 18 + 12 \div 3 + 9 =$       98.)  $15 \times 18 + 12 \div 3 + 9 =$

99.)  $(11 + 42 - 5) \div (11 - 4) =$

100.)  $(10 + 59 - 3^2) \div (24 - 4) =$

**Basic Graphing:** Graph the following sets of data on graph paper: Example for #1 (X=0, Y=0); (X=1, Y=2); (X=2, Y=4) go across both rows until all seven are graphed then go to #2 and repeat. These must be completed on graph paper.

[www.khanacademy.org/math/basic-geo/basic-geo-coord-plane/coordinate-plane-4-quad/v/plot-ordered-pairs](http://www.khanacademy.org/math/basic-geo/basic-geo-coord-plane/coordinate-plane-4-quad/v/plot-ordered-pairs)

101.)  $X = \{0, 1, 2, 3, 4, 5, 6\}, \quad Y = \{0, 2, 4, 6, 8, 10, 12\}$

102.)  $X = \{0, 1, 2, 3, 4, 5, 6\}, \quad Y = \{0, 3, 6, 9, 12, 15, 18\}$

103.)  $X = \{0, 1, 2, 3, 4, 5, 6\}, \quad Y = \{0, 1, 4, 9, 16, 25, 36\}$

104.)  $X = \{0, 1, 2, 3, 4, 5, 6, 7\}, \quad Y = \{6, 4, 2, 0, 2, 4, 6, 8\}$

105.)  $X = \{0, 1, 2, 3, 4, 5, 6\}, \quad Y = \{500, 250, 130, 62, 29, 15, 6\}$

**Linear Equations:** A linear equation is of the form  $y = mx + b$ . *In physics an example is the displacement formula,  $X = vVt$ , where  $X$  is the displacement traveled,  $V$  is the velocity and  $t$  is the time.*

[www.khanacademy.org/math/in-in-grade-9-ncert/in-in-chapter-4-linear-equations-in-two-variables/in-in-graph-of-a-linear-equation-in-two-variables/v/graphs-of-linear-equations](http://www.khanacademy.org/math/in-in-grade-9-ncert/in-in-chapter-4-linear-equations-in-two-variables/in-in-graph-of-a-linear-equation-in-two-variables/v/graphs-of-linear-equations)

Find the slope of the line and the y-intercept of each.

106.)  $y = 3x + 4$

107.)  $y = -2x + 8$

108.)  $y = \frac{1}{2}x$

109.)  $y = -\frac{3}{4}x - 1$

110.)  $y = x + 5$