## **Grades 6-8 Core Subject Learning Tasks**

Click on the link below to take you to the specific subject you are looking for.

**Literacy** 

Math (math is organized by content strands)

Science

Social Studies

**Physical Education** 

#### Literacy (recommended: 1 hour/day)

Time/Grade	Description	Materials
6-8	Independently read a book of your choice	Independent reading materials
6-8	<b>Make a claim</b> about something that interests you in the book - a question you have, an action/event/interaction that could have gone differently, a theme that you want to explore - and write a paragraph about it using evidence from the story.	Independent reading materials
6-8	Prepare to write an <b>argument</b> . (This assignment can be repeated with a new topic.)  1. <b>Topic:</b> Select a topic (Are video games too violent?, Should all students wear school uniforms?, Should parents limit screen time?, Is online learning as good as face-to-face learning?, Should the school day be longer?)  a. Decide if you are for or against b. Conduct research c. Scientific research i. Statistics ii. Surveys iii. Quotes iv. Real World Examples  2. Write 3-5 Paragraphs stating your case. <b>Academic Language to consider:</b> Arguments for	Paper/pencil

	T	
	First In addition Furthermore  Counter Arguments (arguments against)	
	On the other had, some people would argue In addition They also say	
6-8	Write a <b>dialogue</b> to convince your teacher that you should be able to use your phone in class. Use facts and examples to support your argument.  Example:	Paper/pencil
	Juan: Mrs. White, I think in this day and age we should be able to use our phones in class to further our learning.  Mrs. Wrs. White: Interesting, Juan. Please say more.  Juan:	
6-8	Select a writing prompt below.  1. What do you see as the biggest problem facing people your age today?  2. Who do you admire most in history and why?  3. What's more important: being healthy or having lots of money? Explain why you think so.  4. How should cyber-bullying be tackled?  5. If you ran your school, how would you change things?  6. Does being fair mean treating everyone exactly the same? (Explain why / why not.)  7. What do you think the world will be like in 50 years time? What will have changed for the better? What will be worse?  8. Do you think humans will ever live on other planets? If yes, how would our society change? If no, how will we deal with problems like over-population and climate change on our own planet?  9. Which scientific discovery or invention has changed the world the most, in your opinion? Explain why.  10. "Many parents give children a weekly or monthly allowance regardless of their behavior because they believe an allowance teaches children to be financially responsible. Other parents only give children an allowance as a reward for completing chores or when they have behaved properly. Explain what you think parents should	Paper/pencil

	do and why." (from education.depaul.edu)	
6-8	DIRECTIONS: Imagine that you could step into the action of the text. At what point in the action would you step in? Who would you be yourself or some other type of character? What would you do? Would your actions affect the plot? In what way?  Describe the point in the action when you would step in:  Explain why you chose this part. Repeat this 3 times with a text.	Paper/pencil
6-8	Idioms are phrases that mean something different than what they say. For example, "time flies" means that we didn't realize so much time had gone by or "feeling blue" means feeling sad.  Make a list of idioms and what they mean.	Paper/pencil
6-8	<b>Develop a questionnaire</b> for someone you admire. Ensure that the questions you ask reflect the reasons you admire them. This can be someone you know or someone that you have never met.	Paper/pencil
6-8	"The truth of your experience can only come through in your own voice. If it is wrapped up in someone else's voice, we readers feel suspicious, as if we are dressed up in someone else's clothes."  Collect 6 short passages that <b>exemplify strong or distinctive voice</b> . What makes the voice in the passage strong?	Paper/pencil
6-8	You are your favorite author. <b>Design a three part advertising campaign</b> that will assist you and your publisher to convince one of the major movie studios to buy the movie rights and make a feature film based on the book.	Paper/pencil
6-8	Compose a letter to San Mateo's mayor Joe Goethals, explaining 1-2 key ideas on how to improve our community.  Your letter should include:  - Introduction to the mayor and explanation of who you are - 1-2 paragraphs explaining the key issues you see in our	Paper/pencil

	community - 1-2 paragraphs explaining your thoughts on how to address those issues - Closing paragraph	
6-8	Commercial Analysis: Keep track of the commercials you see on t.v. in one half-hour sitting.  Explain:  What is the product the commercial is selling  How they try to convince us to buy their product  Whether you think the commercial is effective or ineffective and why	Television Paper/pencil
6-8	Community Billboard/Advertisement Analysis Keep a list of billboards or advertisements you see your local community  - Analyze which advertisements are most effective and explain why	Paper/pencil

**Math** (recommended: 1 hour/day) Reach out to <u>Laura Evans</u> or <u>Julie Mamis</u> with questions. Key:

Content Strand RP, NS, EE, G, SP, E

Assignments that do not require online access

Online replacement/enrichment assignments

#### Ratios and Proportional Relationships (Grade 6 - 7 only)

Grade/Type	Description	Materials	
Grade 6-7 Hard copy	Find Your Unit Rate!  Write your name, period, & title on a paper and record Time yourself doing a repetitive action for one minute (walk stairs, snap fingers, jump rope, bounce a ball, list multiples of 2's, 3's, 5's, etc)  What is your unit rate? (How many times can you in one second?)  Make a table (like the one on the right) and a graph comparing time (x axis) to action (y axis).  Repeat the activity a second day. Does your unit rate stay constant? Compare results with a	Time (Sec.) Jumps 5 10 15 20 25 30 35 40 45 50 55	graph paper  Optional handout: Jumping Jack Graph  stopwatch, timer, or second hand on a clock or

	friend. Can you write equations for each of these?	watch
Grade 6-7 Online replacement /enrichment for Find Your Unit Rate!	Puncher's Chance  Write your name & this title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end.  https://whenmathhappens.com/2014/01/31/punchers-chance/	graph paper
Grade 6-7 Hard Copy	Price Two Plans  Write your name, period, & title on a paper and record your thinking. Research the cost of gym membership for two local gyms or two cell phone plans. Make a table for each and graph to show how much each will cost if you keep the plan for one full year. Can you write equations for each? Can you find the point of intersection? Which plan is the best deal if you have to cancel at 6 months? What did you find that surprised you? Example:    Month   2   4   6   8	graph paper  Gym or cell phone rates published online or tv!  Optional handout:  Gym  Membership Plans
Grade 6-7 Online replacement /enrichment for Price Two Plans	Online Option  Jack-in-the-Box  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end.  https://whenmathhappens.com/2013/08/02/jack-in-the-box/	graph paper
Grade 6-7 Hard copy	Shop and Compare  Write your name, period, & title on a paper and record your thinking.  Go to the grocery store, look at an ad, or look at a receipt.  Record the price per ounce of 2 different packages of the same item (for example: storebrand coffee and Starbucks coffee)  Often the grocery store label lists the price per ounce. What is the price per pound for each of your items? Use math to advocate for which brand you should buy, what size package and why. Try this out with a variety of products (meat, toothpaste, cereal). When is price most important? When is size most important? When is brand most important?	Trip to the grocery story, store ad, or receipt.

	What do you notice	and wonder?			
Grade 6-7 Online replacement /enrichment for Shop and Compare	Pac-Man  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end.  https://whenmathhappens.com/2017/01/04/pac-man/			graph paper	
Grade 7 Hard Copy	Write your name, per Are these deals the reason before you d		and record your think	king.	Calculator
	Take 50% off	Take 40% off to get a new price Then 10% off the new price	Take 30% off to get a new price Then 20% off the new price		
	Now calculate the discount for items that cost \$20, \$50, & \$100 Which deal seems to be the best? Worst? Why do you think this happened? Now try 25% off and then another 25% off that price. What do you notice and wonder?				
Grade 6-7 Online replacement /enrichment for Coupon Crazy	Mr. Clean  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end.  https://whenmathhappens.com/2014/11/21/mr-clean/			Graph paper	
Grade 7 Online replacement /enrichment for Coupon Crazy	Dueling Discount  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end. <a href="http://threeacts.mrmeyer.com/duelingdiscounts/">http://threeacts.mrmeyer.com/duelingdiscounts/</a>				
Grade 6-7 Hard Copy	Commercial Break  Write your name, period, & title on a paper and record your thinking  Don't stop that commercial! As it plays, try bouncing a ball the			TV show with commercials	

	entire time your tv show is on commercial break. Count and record your bounces. Next commercial break, do jumping jacks. No cheating! Count and record how many. Next commercial break, walk back and forth from the tv to the refrigerator over and over. Count how many trips you take and record. Now, combine all 3 activities (10 ball bounces, 10 jumping jacks, 1 trip to the refrigerator). Use mathematics to predict how many times you will complete all three activities. Show your thinking. Now test it with the next commercial break. How did you do? If you didn't predict correctly, what went wrong?	
Grade 6-7 Online replacement /enrichment for Commercia I break	Commercial Break  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end. <a href="https://whenmathhappens.com/2014/01/20/commercial-break/">https://whenmathhappens.com/2014/01/20/commercial-break/</a>	
Grade 6/7 Hard Copy	Paint Decorator  Write your name, period, & title on a paper and record your thinking.  A decorator can buy pink paint from two manufacturers. Paint A is made up from red and white paint in the ratio 1:3 Paint B is made up from red and white paint in the ratio 1:7  The decorator can mix the paints to produce different shades of pink.  If Paint A and Paint B come in the same size cans, what is the least number the decorator would need of each type in order to produce pink paint containing red and white in the following ratios?  1:4 1:5 1:6 use words and pictures to show how you arrived at your answers.	
Grade 6-7 Online replacement /enrichment for Paint Decorator	Boy or Girl  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end. <a href="https://whenmathhappens.com/2014/01/14/boy-or-girl/">https://whenmathhappens.com/2014/01/14/boy-or-girl/</a>	

#### **The Number System**

Time/Grade	Description	Materials	
------------	-------------	-----------	--

Grade 7 Hard Copy	Explore Terminating Decimals  Write your name, period, & title on a paper and record your thinking.  A terminating decimal is a decimal which has a finite number of decimal places, such as 0.25, 0.047, or 0.773 Investigate these fractions: <sup>2</sup> / <sub>3</sub> , <sup>4</sup> / <sub>5</sub> , 3/16, 7/12, <sup>5</sup> / <sub>8</sub> , 11/14, 8/15.  Which ones do you think can be written as a terminating decimal?  Once you've made your predictions, convert the fractions to decimals. What did you notice, wonder? Try out some other fractions.	Calculator to check answers
	No online option for above activity	
Grade 6 Hard Copy	Change in the Sofa  Write your name, period, & title on a paper and record your thinking.  Search your house for as many coins as you can find. Try to find at least 40 coins. Write an expression for how many coins of each type you find. Then show how you add them all.  Ex: 12 dimes, 29 pennies, 22 nickels, 50 quarters would be 12(0.10) + 29(0.01) + 22(0.05) + 50(0.25) =  Imagine you had a total of \$100 in dimes and nickels that lined up perfectly in the order of dime, nickel, dime, nickel, etc. How many dimes would you have? How many nickels would you have? Would the last coin be a dime or a nickel?	Change around the house.
Grade 6 Online replacement /enrichment for Change in the Sofa	Couch Coins  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end. <a href="https://www.101qs.com/1354-couch-coins">https://www.101qs.com/1354-couch-coins</a>	
Grade 6-8 Hard copy	Searching for Squares  Write your name, period, & title on a paper and record your thinking.  When the numbers 10 15 21 4 5 are lined up in this order each pair of adjacent numbers adds up to a square number.  10+15=25 and 25 is 5 x 5 15+21= 36 and 36 is 6 x 6  Can you arrange the numbers 1 thru 17 in a row in the same way so each adjacent pair adds up to a square?  Can you arrange them in more than one way? If not justify that your solution is the only one!	
Grade 6 Online	Square It Online Game Write your name, period, & title on a paper and record your thinking.	

replacement /enrichment for Searching for Squares	Try this game several times. See if you can beat the computer.  Try the larger grids. Try playing someone else in "two player."  Record at least 3 interesting "wins" on your paper <a href="https://nrich.maths.org/squareit">https://nrich.maths.org/squareit</a>	
Grade 6 Hard Copy	Groups and Arrays  Write your name, period, & title on a paper and record your thinking.  Make arrays with at least 30 or more pennies, cereal, dimes, candies, etc and write the multiplication problems that relate.  Write down how you figured out the answer. Now divide your items into two groups and write an equation to match your work.  Divide into 3 groups, 4 groups, 5 groups What do you notice and wonder as you keep dividing.	
Grade 6 Online replacement /enrichment for Groups and Arrays	Do You Have Enough Money?  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end. <a href="https://www.101qs.com/2061-do-you-have-enough-money">https://www.101qs.com/2061-do-you-have-enough-money</a>	
Grade 6 Hard Copy	Factor Multiple Puzzle  Write your name, period, & title on a paper and record your thinking.  A Puzzle that requires sorting based on factors, multiples and other important number attributes. There is more than one possible solution. Try to find at least 3 different ones and record them.	print for student Factor multiple Puzzle Handout Print some solutions
Grade 6 Online replacement /enrichment for Groups and Arrays	Missing Multipliers Online Game  Write your name, period, & title on a paper and record your thinking.  Try this game several times. See if you can solve it in fewer reveals each time. Try the larger grids. Try the Gabriels Game.  Record at least 3 of your solutions to any of the games on your paper. <a href="https://nrich.maths.org/mobile">https://nrich.maths.org/mobile</a>	
Grade 6/7 Hard Copy	Lost Numbers  Write your name, period, & title on a paper and record your thinking.  Jorge lost some parts of his number line. Find a fraction and a decimal that could fit in each box. Justify your answers with words and pictures.	

Grade 6/7	$2\frac{3}{4}$ $3\frac{1}{4}$ $B$ $C$	
Online replacement /enrichment for Lost Numbers	Write your name, period, & title on a paper and record your thinking.  Play a very fun fraction addition game against the computer.  Go to Calculation Nation and Select "Guest Pass"  Allow flash player. Scroll down to Drop Zone and select "challenge yourself"  Play the computer. Record 3 of the more interesting "one wholes" you created while playing. Example: ½ + ½ + ½ + ½ + ½ = 1 https://calculationnation.nctm.org/	
Grade 6/7 Online replacement /enrichment for Lost Numbers	Fraction Feud  Write your name, period, & title on a paper and record your thinking.  Play a very fun fraction addition game against the computer.  Go to Calculation Nation and Select "Guest Pass"  Allow flash player. Scroll down to Fraction  Feud and select "challenge yourself"  Play the computer. Record 3 of the more interesting wins you had  Example: ½ larger than ½  https://calculationnation.nctm.org/	
Grade 8 Hard Copy	Irrational or Rational?  Write your name, period, & title on a paper and record your thinking. Decide whether each of the following numbers is rational or irrational. If it is rational, justify it with math.  a. $0.66\overline{6}$ b. $\sqrt{4}$ c. $\sqrt{2} = 1.414213$ d. $1.414213$ e. $\pi = 3.141592$ f. 11 g. $\frac{1}{7} = 0.\overline{142857}$ h. $12.34565656\overline{56}$	Calculator
	No online option for above activity	
Grade 6,7,8	Explore the Duodecimal (Base 12) System	<u>Explore</u>

Hard Copy	Write your name, period, & title on a paper and record your thinking. Humans don't only use the base ten decimal system. In many parts of our lives, we use the duodecimal or base 12 system (clocks, calendars, feet). Explore using this system. Make yourself a set of base twelve blocks from graph paper. Think about when you exchange from units to "twelves" and "twelves" to "144's". Try doing some simple arithmetic in both the decimal and duodecimal systems.	Further
	No online option for above activity	

#### **Expressions and Equations**

Time/Grade	Description	Materials
Grade 8 Hard Copy	Counting Pennies  Write your name, period, & title on a paper and record your thinking.  Take a penny. Surround it by a ring of other pennies that must touch two others. How many pennies do you need to do this? Imagine surrounding this ring with more pennies. How many pennies will there be altogether? Draw to confirm your estimate.  What about a bigger ring? And another?  How many in the 9th ring? 100th ring? Can you predict how many in any ring?	Pennies or counters or cut out circles
Grade 6/7 Online replacement /enrichment for Counting Pennies	Penny Circles  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end. <a href="http://threeacts.mrmeyer.com/pennycircle/">http://threeacts.mrmeyer.com/pennycircle/</a>	
Grade 6-8 Hard Copy	The Equation Train  Write your name, period, & title on a paper and record your thinking.  CHOO + CHOO TRAIN  Replace letters with digits and have the sum be true. Is there more than one solution?	
Grade 6-8	Function Machine	

Online replacement /enrichment for The Equation Train	Write your name, period, & title on a paper and record your thinking.  Try this activity several times. Try the harder levels.  Record at least 3 of your solutions on your paper. <a href="https://www.mathplayground.com/functionmachine.html">https://www.mathplayground.com/functionmachine.html</a>	
Grade 8 Hard Copy	Burning Candles  Write your name, period, & title on a paper and record your thinking.  Two different candles are lit. They burn at different rates and one is 3 cm longer than the other.  The longer one was lit at 5:30 pm and the shorter one at 7 pm. At 9:30 pm they were both the same length.  The longer one burned out at 11:30 pm and the shorter one burned out at 11 pm.  How long was each candle originally?	Online solution Burning Candle Solution (print for student packet)
Grade 8 Online replacement /enrichment for Burning Candles	Candles Burning  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end.  https://tapintoteenminds.com/3act-math/candles-burning/	

#### Geometry

Time/Grade	Description	Materials
Grade 6-8 Hard Copy	How Many Do You See?  Write your name, period, & title on a paper and record your thinking.  This engaging puzzle sends students on a hunt for rectangles and triangles.	How Many Do you See Handout
	No online option for above activity	
Grade 6-8 Hard Copy	Square Proofs  Write your name, period, & title on a paper and record your thinking.  Fold a square into the shapes listed and then convince someone else you did it correctly. Your partner is the skeptic.  When you move to the next question switch roles.	Paper Folding
	No online option for above activity	
Grade 6-8 Hard Copy	Building with Packages Write your name, period, & title on a paper and record your thinking.	Packages or blocks

		T
	Find 5 identical cereal or other packages. How many different shapes can you build by connecting them face to face? Find a way of describing each one. How can you create the biggest and smallest surface area for your connected shapes?	
Grade 6-8 Online replacement /enrichment for Building with Packages	Nets of Solids  Write your name, period, & title on a paper and record your thinking.  Work through this net tutorial. Sketch at least 3 nets that you found interesting or surprising.  https://www.geogebra.org/m/pCv2EvwD	
Grade 6-8 Hard Copy	Cereal Boxer  Write your name, period, & title on a paper and record your thinking.  Follow the instructions and check your work with this online tool if you can. <a href="http://www.tinyurl.com/cerealboxer">http://www.tinyurl.com/cerealboxer</a>	Print Cereal Boxes Handout for students
Grade 6-8 Online replacement /enrichment for Cereal Box Surface Area	File Cabinet Surface Area  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end.  http://www.estimation180.com/filecabinet.html	
Grade 7-8 Hard Copy	Investigating Circles  Write your name, period, & title on a paper and record your thinking.  Find a circular object (plate, pennie, CD) make a point on its circumference this will be your start and end point as you roll it along a number line (tape measure, ruler, your homemade number line). How long is the circumference? Now take your circle and lay it on top of your line so the line is the diameter. How many times can you fit the diameter on the circumference line?  Repeat this with other circles- even your bike wheel? What do you notice? Wonder?	Paper or other circle. Measuring tool or number line. Teachers please make a paper ruler to send home with your students.
Grade 7-8 Online replacement /enrichment for	Celebrate Circles with Pi!  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and answer the questions  Act TWO: Record information and answer the questions.  Act THREE: Try to solve the problem before watching the	

Investigati ng Circles	answers. Try again after you know the answer. Try one or more of the questions listed at the end. <a href="https://tapintoteenminds.com/3act-math/tile-circle/">https://tapintoteenminds.com/3act-math/tile-circle/</a>	
Grade 6-8 Hard Copy	Investigating Measurement  Write your name, period, & title on a paper and record your thinking.  Measure at least 5 things around your house- you can find the volume, the length, the width, the area, the perimeter, and/or convert from centimeters to meters and/or meters to centimeters and/or yards to feet.	
	No online option for above activity	

#### **Statistics and Probability**

Time/Grade	Description	Materials
Grade 6-8 Hard Copy	Census Taker  Write your name, period, & title on a paper and record your thinking.  Encourage your family to look for the census in the mail. The data collected in a census changes lives! Take your own census to find out more about your community. Sit in a yard, park, or look out the window. Over the course of 15 minutes count something. How many squirrels or people or cars cross your path? What's the median number per hour? What might that tell you about your neighborhood?  Can you use this data collection to change lives? If you watch a crosswalk, do people use it? Do cars stop? Do they stop for some people more than others? Think of something you can collect data on that our community needs to know about. Predict what you might discover. Collect the data and see if it is true. Try collecting data over several days.	Timer Paper pencil
Grade 7-8 Online replacement /enrichment for Census Talk	Where Should I Live?  Write your name, period, & title on a paper and record your thinking.  Use census data to choose your future city. <a href="https://www2.census.gov/programs-surveys/sis/activities/history/dt-1_student.pdf">history/dt-1_student.pdf</a>	
Grade 6-8 Hard Copy	Word Sleuth  Write your name, period, & title on a paper and record your thinking.  Pick 4 different words, watch a tv show and graph how many times you hear each word. Try this again with a different tv show or the radio. What conjectures can you make based on this data?	

Grade 6-8 Online replacement /enrichment for <i>Word</i> <i>Sleuth</i>	Yellow Starbursts  Write your name, period, & title on a paper and record your thinking. What is the likelihood of yellow Starbursts?  Write your name, period, & title on a paper and record your thinking. Act ONE: Watch 2-3 times and answer the questions Act TWO: Record information and answer the questions. Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end. <a href="http://threeacts.mrmeyer.com/yellowstarbursts/">http://threeacts.mrmeyer.com/yellowstarbursts/</a>	
Grade 7 Hard Copy	Become a Data investigator!  Write your name, period, & title on a paper and record your thinking. Investigate a data question by reaching out to friends and family.  Choose yes/no question (can you roll your tongue? Do you play an instrument? Have you ever eaten frogs legs?)  Create a table and a graph to display your results.  What percentage of people you surveyed said yes? Why do you think you got that result? Are there any differences based on gender or age? What sampling method did you use?	CPM 8.2 lessons will help you understand sampling.
Grade 7 Online replacement /enrichment for Become a Data Investigato r	Data Investigation  Write your name, period, & title on a paper and record your thinking.  First watch this video  Now try the game a couple of times what do you notice?  Answer the questions on this worksheet and share with your teacher.  Now watch this video	
Grade 6-7 Hard Copy	Exercise!  Write your name, period, & title on a paper and record your thinking.  Jada wanted to know whether a dot plot, a histogram, or a box plot would best summarize the center, variability, and other aspects of her exercise data. Over two weeks she recorded how many minutes she exercised each day.  Here's her data:  12 25 30 0 15 45 11 0 20 22  Make a dot plot, a histogram or box plot. Use these to find the measures of central tendencies and decide what she can learn about her exercise habits. How would your exercise compare?	If you need support CPM Math Notes
Grade 6-7 Online replacement /enrichment	Dunk Tank  Write your name, period, & title on a paper and record your thinking.  Record your work on your paper. Write a reflection after playing the game.	

for Exercise!	http://files.pbslearningmedia.org/dlos/wnet/dlo2.html	
Grade 6/7 Hard Copy	Humpback Facts  Write your name, period, & title on a paper and record your thinking.  Researchers measured the lengths, in feet, of 20 male humpback whales and 20 female humpback whales. Here are two box plots that summarize their data.  Write at least five statements about humpback whales you can see from the data. Use math to justify your statements.  male female  length in feet	
Grade 6-7 Online replacement /enrichment for Humpback Facts	Online option  Exploring Measures of Central Tendency  Write your name, period, & title on a paper and record your thinking.  Record your work on your paper. Write a reflection after playing the game.  http://www.learnalberta.ca/content/mejhm/index.html?l=0&ID1=  AB.MATH.JR.STAT&ID2=AB.MATH.JR.STAT.CENT&lesson= html/object_interactives/central_tendency/use_it.html	
Grade 6/7 Hard Copy	Walking to School Write your name, period, & title on a paper and record your thinking. A teacher asked all the students in one class how many minutes it takes them to get to school. Here is a list of their responses: 20 10 15 8 5 15 10 5 20 5 15 10 3 10 18 5 25 5 5 12 10 30 5 10 1. What fraction of the students in this class say: a. it takes them 5 minutes to get to school? b. it takes them more than 10 minutes to get to school? 2. If the whole school has 720 students, can you use this data to estimate how many of them would say that it takes them more than 10 minutes to get to school? Explain your reasoning.	
Grade 6-7 Online replacement /enrichment for	Doritos Hot or Not  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times what do you wonder?Write at least two wonderings.  Act TWO and Act TWO B Write at least two wonderings.	

#### Walking to 1. About how many chips are in the bag (using the info on the School bag)? 2. If the ratio on the front of the bag is accurate, how many chips would you expect (theoretical) to be regular, and how many would you expect (theoretical) to be hot in one bag? Act THREE: 1. What is the most number of hot chips could you get in a row and still have more than a 1% chance of getting those hot chips in a row (from a full bag)? 2. What are your chances of getting 10 regular chips in a row from a full bag? 3. What other questions can you ask and anwer? Grade 8 Dice Rolling Write your name, period, & title on a paper and record your thinking. Hard Copy After a board game competition, the tournament director collects 50 dice from the games played and rolls each one until he gets bored and tries a different one. The scatter plot shows the number of times he rolled each die and the number of 6s that resulted during those rolls. Write 5 statements justified by mathematics about this scatterplot. What does this tell you about rolling 6s. Can you replicate this with dice of your own? number of 120 140 160 number of times die is rolled Grade 6-7 Desmos Scatter Plot Write your name, period, & title on a paper and record your thinking. Online <u>Desmos Scatter Plot Activity</u> Can you find the line of best fit? replacement Identity outliers? What else do you notice and wonder? /enrichment Note to teachers Desmos has many scatterplot activities you for can add to your class. Dice Rolling

Time/Grade	Description	Materials
Grade 8 Hard Copy	Stacking Cups  Write your name, period, & title on a paper and record your thinking.  Cups   height    Reasure the height of 1 cup, then 2 cups stacked together, then 3 cups stacked together. Organize the data in a table.  Do you see any patterns in your data? Show off your data as many ways as you can (t-table, graph, rule). Use your representation to answer the following questions:  How tall will 100 cups be? How many cups do you need to reach 100 inches or centimeters?	Graph paper Stacking paper or plastic cups, Ruler or tape measure. Teachers please make a paper ruler to send home with your students.
Grade 8 Online replacement /enrichment for Stacking Cups	Stack of Mixed Cups  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and try to sketch the graph  Act TWO: Record information on your graph try to be precise.  Create a table.  Act THREE: Compare your graph to the one in act 3. What do you notice and wonder? Can you create a graph, t table and write a rule for stacking one type of cup?	
Grade 8 Hard Copy	Stained Glass Graphing Part 1  Write your name, period, & title on a paper and record your thinking. Graph these lines. Then color in shapes the way you choose.  I) $y = -\frac{3}{2}x + 12$ 2) $y = \frac{3}{2}x + 12$ 3) $y = -\frac{3}{2}x - 12$ 4) $y = \frac{3}{2}x - 12$ 5) $y = \frac{4}{5}x + 4$ 6) $y = -\frac{4}{5}x + 4$	Graph paper

	7) $y = \frac{4}{5}x - 4$ 8) $y = -\frac{4}{5}x - 4$ 9) $y = 12$	
Grade 8 Online replacement /enrichment for Stained Glass Graphing	Save the Zogs  Write your name, period, & title on a paper and record your thinking.  https://www.mathplayground.com/SaveTheZogs/  Submit a reflection on what you learned or a screen shot of a completed game to your teacher.	
Grade 8 Hard Copy	Stained Glass Graphing Part 2  Write your name, period, & title on a paper and record your thinking.  Make up your own lines.  Model them after the equations above using similar equations and differences.  Graph them and make your own stained glass window graph.	Graph paper
Grade 8 Online replacement /enrichment for Stained Glass Graphing	Investigate Desmos Graph Art  Write your name, period, & title on a paper and record your thinking.  You don't have to submit art to the competition but explore how to use graphs to draw. Submit a copy of your creation to your teacher.  https://blog.desmos.com/articles/art-contest-launch/	
Grade 8 Hard Copy	Write your name, period, & title on a paper and record your thinking.  Story Time	

Grade 8 Online replacement /enrichment for Story Time	Write a story that matches this graph. What happened at at least five key points: For example what happened at the origin and farthest distance from starting point? Be creative and show your mathematical understanding.  Height off the Ground  Write your name, period, & title on a paper and record your thinking.  Act ONE: Watch 2-3 times and try to sketch the graph  Act TWO: Record information on your graph try to be precise  Act THREE: Compare your graph to the one in act 3. Do you have any errors can you explain this graph to a family member.  What might the graph of the girls walk up the slide look like?	
Grade 8 Hard Copy	Candle Burning Down Problem  Write your name, period, & title on a paper and record your thinking.  Two different candles are lit. They burn at different rates and one is 3 cm longer than the other.  The longer one was lit at 5:30 pm and the shorter one at 7 pm.  At 9:30 pm they were both the same length.  The longer one burned out at 11:30 pm and the shorter one burned out at 11 pm.  How long was each candle originally?	Online solution Candle Burning Down Solutions (print one or more of these for student packet)
Grade 8 Online replacement /enrichment	Candle's Burning  Write your name, period, & title on a paper and record your thinking.  What is the likelihood of yellow Starbursts?  Write your name, period, & title on a paper and record your thinking.	

for Candle Burning Down Problem	Act ONE: Watch 2-3 times and answer the questions Act TWO: Record information and answer the questions. Act THREE: Try to solve the problem before watching the answers. Try again after you know the answer. Try one or more of the questions listed at the end. <a href="https://tapintoteenminds.com/3act-math/candles-burning/">https://tapintoteenminds.com/3act-math/candles-burning/</a>	
Grade 8 Hard Copy	Painted Cubes  Write your name, period, & title on a paper and record your thinking.  How many of the small cubes have 3 blue faces?  How many have 2 blue faces?  How many have 1 blue face?  How many have not been painted at all? How many faces would be painted in a cube of any size?	Painted Cubes Handout  Painted Cubes Solution Print handout and solution for students
	No online option for above activity	

### Science 6-8 (recommended: 1 hour/day)

<u>Time</u>	<u>Lesson / Activity Choice</u>	<u>Links</u>
45-60	Nature Squares An outdoor observation activity involving biotic and abiotic factors in the environment and the roles of each.	Link to directions and documents to copy
60-90 2 days?	Deer Predation  An activity creating and interpreting data about predator-prey relationships using real data and graphing and math	Link to directions and documents to copy
60-90 Over 2 days?	Float My Boat! A engineering activity in floating and sinking, water displacement and density.	Link to directions and documents to copy
45-60 minutes	Human Population Graph and Extrapolation of data In this activity, students draw and interpret a graph based on expected human growth in countries across the world. Data is then interpreted and extrapolated.	Link to directions and documents to copy
30-60 minutes	Rubberband Hopper This is an engineering activity in which students make, test and modify a hopper that is driven by the energy from a rubber band.	Link to directions and documents to copy
30 mins every day for 2-5 days	Plant observation / Experiment Students will observe a plant to notice changes during the day with differing amounts of sunlight. They will plan and conduct a simple experiment with that plant.	Link to directions and documents to copy
60-120 minutes 2-3 days	Soil Observation & Analysis Students will dig a hole and analyze the top and underlying soil and its' qualities as well as evidences of life and water retention capabilities.	Link to directions and documents to copy

**Social Studies** (recommended: 1 hour/day) each of these activities should take 45 minutes minimum but could easily be extended beyond that)

Time/Grade	Description Use your textbook as a reference	Optional Materials
6-8	History relies on <b>primary sources</b> to provide information. A primary source is an immediate, <b>first-hand account</b> of a topic, from people who had a direct connection with it.  In your textbook or online find an example of a primary source document that relates to the area of study that interests you. <b>Read the primary source and write 4 sentences answering:</b> What does this document tell you about this person's point of view, how does this impact the facts? As a historian what can we truly learn from this primary source?  Sentence starter: The primary source I chose was	Optional online materials from the Library of Congress Collections
6-8	Oral histories are another source for history. Investigate/ask a family member about your family's oral history. Record it in an interview format, write the story, make a comic version or record a story your family finds important.  Must be at least 5 sentences. Sentence starter: In interviewing	Interested in listening to some oral histories? Check out NPR's StoryCore
6-8	Keep a written journal or recorded journal that records your experiences and feelings as you live through this interesting time. Try to write so that a future historian, with little knowledge of how we live, can understand what is going on right now and how it is impacting your daily life.  Must have at least 3 entries throughout the three weeks. If recording your voice, you must think about how you will submit it to your teacher.	Here's the diary of a modern day monk
6-8	Did you know our ideas about history change over time as we use science and primary documents to constantly update our knowledge. Find a section in your text book that interests you. Become a critical consumer of the text.  Write at least three questions you would like to ask about the section that could be researched? Explain	What to learn more about our changing history? Here's a good starting place.

	why you believe each question should be researched. Challenge: Can you find other sources with a different point of view? Can you find parts of your text that are out of date?	
6-8	Another way historians make sense of our past is looking at artifacts. Go outside if you can ( or look around your house) can you find a family artifact or something you are unfamiliar with? Don't touch it, its too fragile to be moved! Sketch it on paper with as much detail as possible. Think like a historian and a scientist.	Smithsonian Artifacts and Analysis
	Make an educated guess about what it is made from, how it was made, its value to your family, and its purpose.	
6-8	Pick three items of clothing from your closet. Don't look at the labels. Write down where you think the item was made. Now look at the label, were you correct? Draw a map to show how this item may have travelled to you. Challenge: With travel restrictions in place to prevent the spread of disease, is your item likely to be affected? How might this affect the origin country's economy? Neighboring countries?	Where does my stuff come from?
6-8	Natural events like climate change has affected human migrations in the past. Can you find a time in your social studies text where human culture was impacted by a natural event? What changes were prompted how did that affect neighboring counties. Create a timeline of events to show how a natural event affect your chosen culture. Alternatively imagine a Bay Area or USA affected by sea level rise, create an imaginary timeline of how the area will be impacted.	SF Bay Conservation  National Sea Level Rise map
6-8	Arts are another important resource to historians. Artists and musicians create a rich historical record. From your textbook find a picture of a piece of ancient or modern art or description of music. Answer these questions: What did I learn from this piece of art or music? What did the society of the time gain from this piece of art or music? Challenge: Create your own piece of art or music to share with our current day society or imagine you live in a different place and time and create something for that time and place.	Music and Art at the Smithsonian

	Sentence starter: The piece of art/music I found was on page It was important because	
6-8	Flip through your textbook and find a piece of literature (the top of the page will be colored yellow and be labeled either America's Literature and World Literature) Read the piece of literature and answer the following questions:  1. What information does this give us about the time period?  2. How does the setting of the story influence the plot? Support ideas with details from the story.	

Facing History and Ourselves Unit Plan- Identity and Community: An Introduction to 6th Grade Social Studies

#### Notes:

- Can be used 6-8 grades
- Lessons can be taught together as a mini unit or in isolation to supplement existing teacher plans

Lesson	<u>Description</u>	<u>Materials</u>
Lesson 1: Who am I?	Activities Overview:  - "Who am I" journal write  - Reading and analysis of Sandra Cisneros' poem "Who am I?"  - Identity Chart  - Journal Write - The story of your name	Lesson 1 Overview and Materials
Lesson 2: What Shapes Your Identity?	Activities Overview:	Lesson 2 Overview and Materials
Lesson 3: How Do Others Define Your Identity?	Activities Overview:	Lesson 3 Overview and Materials

Lesson 4: What Aspects of Our Identities Do We Show to Others?	Activities Overview:  - Journal Write: Hiding a Part of our Identities  - "We Wear the Mask" reading and analysis  - Mask Prep worksheet  - Mask Making  - Letter to your younger self	Lesson 4 Overview and Materials
Lesson 5: Who are We?	Activities Overview: - Journal Write: Class and School Community - School Identity Map	Lesson 5 Overview and Materials
Lesson 6: What is Community?	Activities Overview: - Chunking Worksheet - What is a Community? - Anticipation Guide - Definitions of Community - Journal Response - Communities You Belong To	Lesson 6 Overview and Materials
Lesson 7: What Makes San Mateo a Community?	Activities Overview:  - Image Analysis - San Mateo Communities - Categorizing Community Qualities - San Mateo - Interview with Community Member (over the phone or with a family member at home)	Lesson 7 Overview and Materials
Lesson 8: How Do Communities Define We and They?	Activities:  - "The Sneeches" Reading and Analysis  - "We and They" by Rudyard Kipling Reading and Analysis  - We and They worksheet  - Journal Write - Two options	Lesson 8 Overview and Materials
Lesson 9: What Does It Mean to Belong?	Activities:  - Writing Warm-Up: Being Included and Excluded - Reading and analysis, "The In Group" - Journal Writing - Three options	Lesson 9 Overview and Materials
Lesson 10: How Do Rules and Traditions Shape Communities ?	Activities: - "What is Law? What is Custom" handout - Suggestions for class contract - Final Journal Write: Reflections on unit	Lesson 10 Overview and Materials

Stand-Alone History Readings and Response Questions (Recommended for 8th Grade)

Topic: Democracy and Civic Engagement

Source: Facing History and Ourselves

Notes:

- Recommendation: Chunk the text and consider guiding questions in the margins to support comprehension for EL students

- Each response should be written in at least a paragraph

Topic:	Resources:
"Who We Are, Or Could Be, In Times of Crisis" - Focal Text: Rebecca Solnit's writings on Hurricane Katrina	Reading and Response Questions
"Believing in Others" - Focal Text: Jessica Jackley's Ted Talk on Kiva and microfinance	Reading and Response Questions
Excerpt from Walking with the Wind, by John Lewis	Reading and Response Questions
Background on the Chicano Movement - Focal Text: The Chicano Movement: Perspectives from the Twenty-First Century	Reading and Response Questions

#### Other Resources:

- Newsela.com now offering free access for all teachers throughout the rest of the school year
- Smithsonian's History Explorer
- Statistics in Schools Interactive data, practical plans bring the Census to the classroom
- National Geographic Education Top geography resource site provides global exploration opportunities
- Stanford History Education Group Read Like a Historian Resources

# **Physical Education** (40 minutes a day to meet mandated minutes of 400 minutes every 10 days).

<u>Time</u>	Lesson / Activity Choice	<u>Links</u>
2 weeks at 40 mins/day	Two Week Physical Education Log-OPENPHYSED	6-8 Curriculum Packet

40 mins.	PE Choice Board	<u>Link</u>
40 mins.	PE Monopoly Board	<u>Link</u>
40 mins.	<u>Stretches</u>	<u>Link</u>
40 mins.	Yoga Activity Cards	<u>Link</u>