

Name: _____

Community _____

Math 7/Science Checklist: Q3 Weeks 5 & 6- February 12th-February 23rd

Big Ideas:

<p align="center">Math:</p> <ul style="list-style-type: none"> ● Writing Inequalities ● Graphing Inequalities on a Number Line ● Solving Inequalities ● Switching the Inequality Symbol 	<p align="center">Science:</p> <ul style="list-style-type: none"> ● Fossils and index fossils ● Evolution
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Upcoming Dates:

<u>Week 1</u>	<u>Week 2</u>
2/14: Math Study Guide test corrections due 2/21: Math Assessment	<input type="checkbox"/> 2/23 Science study guide due <input type="checkbox"/>

Shelfwork: Show All Work. Explore work is to be checked against the control and then marked complete. Complete individually unless noted with a "G"

Lesson	Explore	Expand	Extend
<input type="checkbox"/> Translating Inequalities HW Video <input type="checkbox"/> Lesson Check-in 2/12	<input type="checkbox"/> Matching inequalities Card sort (___✓,M,0) <input type="checkbox"/> Defining Word Problems (17-32) (___✓, M, 0)	<input type="checkbox"/> Review of Writing Expressions (___%)	<input type="checkbox"/> Purple Book Apply p.171 or choice Apply from Unit 6 in Discovery Ed (___%) OR <input type="checkbox"/> Create AND teach a green product card (use Extend rubric (___%))
Monday's work plan: (Add missing works from last checklist) Time Estimate:		Tuesday's work plan: Time Estimate:	
<input type="checkbox"/> Fossils HW Video <input type="checkbox"/> Lesson Check-In 2/13	<input type="checkbox"/> Dating the Earth-Stations with Summary and sketch (G) (___✓,M,0)	<input type="checkbox"/> Index Fossils Lab (G) (___%)	<input type="checkbox"/> The Cliff Dwellers: Sequencing Fossils in Time (G) (___%)
Wednesday's work plan: Time Estimate:		Thursday's work plan: Time Estimate:	
<input type="checkbox"/> Graphing inequalities HW Video <input type="checkbox"/> Lesson Check-In 2/14	<input type="checkbox"/> Graphing Inequalities Card Sort (___✓,M,0)	<input type="checkbox"/> Infinite Algebra Graphing Inequalities (___%)	<input type="checkbox"/> Purple Book Apply p.171 or choice Apply from Unit 6 in Discovery Ed (___%) OR <input type="checkbox"/> Create AND teach a green product card (use Extend rubric (___%))

Friday's work plan: Time Estimate:		Monday's work plan: Time Estimate:	
<input type="checkbox"/> Evolution HW Video <input type="checkbox"/> Lesson Check-In 2/15	<input type="checkbox"/> A Trip Through Geologic Time (___✓,M,0) <input type="checkbox"/> Evolution Versatile (___✓,M,0)	<input type="checkbox"/> Science Study Guide (___%) AND <input type="checkbox"/> Peppered Moth Online Lab (___%)	<input type="checkbox"/> Ask a Rock or Ask an Ice Core: Connecting Geologic Evolution and Climate Change (___%)
Tuesday's work plan: Time Estimate:		Wednesday's work plan: Time Estimate:	
<input type="checkbox"/> Switching the inequality sign <input type="checkbox"/> Check In 2/19	<input type="checkbox"/> Multi-Stepper Versatile (___✓, M, 0) <input type="checkbox"/> Solving Inequalities Dominos (___✓, M, 0)	<input type="checkbox"/> Purple Book 6.2, p.169 & 170 (___%)	<input type="checkbox"/> Purple Book Apply p.171 or choice Apply from Unit 6 in Discovery Ed (___%) OR <input type="checkbox"/> Create AND teach a green product card (use Extend rubric (___%))
Thursday's work plan: Time Estimate:		Friday's work plan: Time Estimate:	
<input type="checkbox"/> Re-loop: Periodic Table HW Video 2/20	<input type="checkbox"/> Chemistry Re-Loop with Stump the Test! (___✓, M, 0)		

Homework: (All assignments are to be done independently and are due the next day unless noted):

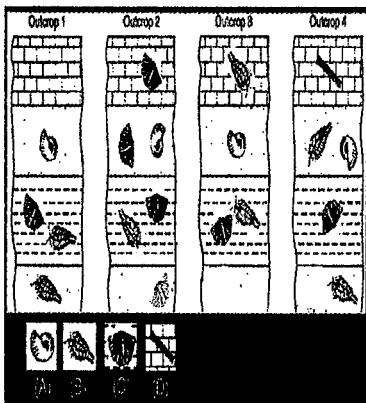
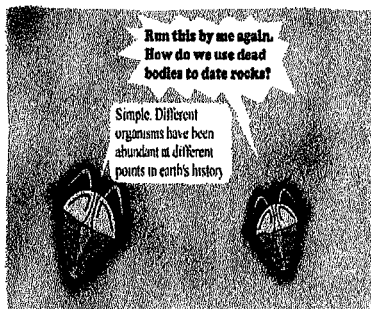
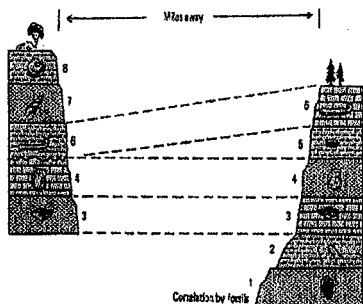
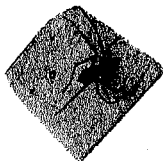
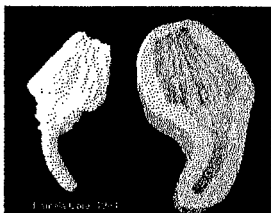
- Monday 2/12: **Fossils Powerpoint** video on EdPuzzle with guided notes
- Tuesday 2/13: **Graphing Inequalities AND Solving 1 Step Inequalities** videos with guided notes on EdPuzzle
- Wednesday 2/14: **Evolution** video with graphic organizer on EdPuzzle
- Thursday 2/15: **Switching the Inequality symbol AND Understanding Flipping the Inequality Symbol** videos on EdPuzzle with guided notes
- Friday 2/16: Review and organize binder and complete missing work as needed
- Monday 2/19: **Periodic Table Review** video with guided notes on EdPuzzle
- Tuesday 2/20: Review Test Taking strategies and Study for the Math test
- Wednesday 2/21: Complete missing assignments and **Begin test corrections** for check in on Monday.
- Thursday 2/22: **What makes a good Sample** video with guided notes on EdPuzzle for check in on Monday.
- Friday 2/23: Review and organize binder (Math and Science) and/or complete missing assignments

Lesson Requests:

Notes and formulas:

Fossils Guided Notes

Cues:



Fossils:

- Fossils: Remains or traces of an organism that lived in the past and are found in _____ rock.
- Fossils provide important evidence of how life and environmental conditions have changed.
- Many thousands of layer of sedimentary rock provide evidence for the long history of changing life forms whose remains are found in rocks.
- More recently _____ sedimentary rock is more likely to contain fossils resembling existing species.

Fossil Record:

The collection of fossils and their placement in chronological order (either through relative dating with order of layer formation or with radioactive dating) is known as the fossil _____.

- There are specific conditions necessary for fossil preservation (quick _____ and hard parts), so not all organisms are in the fossil record.
- Comparisons of living organisms today with fossils allow us to reconstruct _____ history.
- Fossils give clues about each of the following:
 1. Diversity of _____ things over the history of Earth.
 2. Past _____ and surface changes on Earth.
 3. Changes that have occurred with organisms over time.

Types of Fossils:

1. **Molds:** form when sediments bury an organism and the sediments change into rock.
 - a. The organism then _____ leaving a cavity in the shape of the organism.
2. **Cast:** form when a mold is filled with _____ or mud that hardens into the shape of the organism.
3. **Petrified:** Also called "permineralized" and form when _____ soak into the buried remains, replacing the remains and changing them into rock.
4. **Preserved:** form when entire organisms or parts of organisms are prevented from decaying by being trapped in _____, ice, tar or _____.
5. **Carbonized:** form when organisms or parts, like _____, flowers or fish are pressed between layers of soft mud or clay that hardens squeezing almost all of the decaying organism away, leaving the carbon _____ in the rock.
6. **Trace:** form when the mud of sand hardens to stone where a footprint, _____ or burrow of an organism was left behind.

Index Fossils:

- Certain fossils, called "index fossils" can be used to help find the _____ ages of rock layers.
- To be an index fossil an organism must have the following:
 1. Lived only during a _____ part of Earth's history.
 2. Many fossils of the organisms must be found in rock layers.
 3. The fossil also must be found over a _____ area of Earth.
 4. The organism must be unique.
- The shorter the time period it lived, the better an index it is.
- A key example is a trilobite (a group of hard-shelled animals whose body had three sections and lived in shallow waters and became extinct 245 million years ago).
- If a trilobite is found in a rock layer, it can be compared with trilobites from other layers to estimate the age of the layer in which it formed.

Which fossil in the diagram to the right would make the best index fossil and why?

By the end of this lesson you will be able to _____.

Equations can have _____ solution(s). Inequalities can have _____ solution(s).

Example 1. Graph the inequality on a number line.

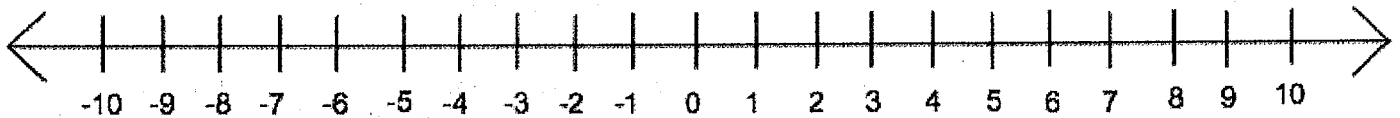
$$x > 6$$

What can you say about the values of x ? _____

Is 6 a solution for x ? _____ What do we use to show this on the number line? _____

Values that are greater than 6 go in what direction on the number line? _____

Graph $x > 6$



Example 2. Graph the inequality on a number line.

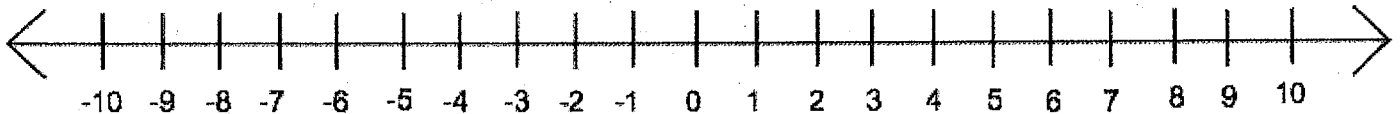
$$x \leq 5$$

What can you say about the values of x ? _____

Is 5 a solution for x ? _____ What do we use to show this on the number line? _____

Values that are less than 5 go in what direction on the number line? _____

Graph $x \leq 5$



Example 3. Graph the inequality on a number line.

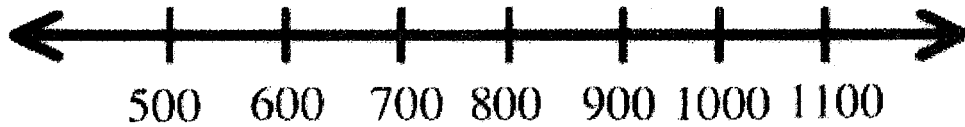
The school holds up to 800 students

Is 800 a solution for the inequality? _____ What do we use to show this on the number line? _____

In which direction are the solutions to the inequality? _____

How do you write this inequality? _____

Graph the inequality.



Example 4.. Graph the inequality on a number line.

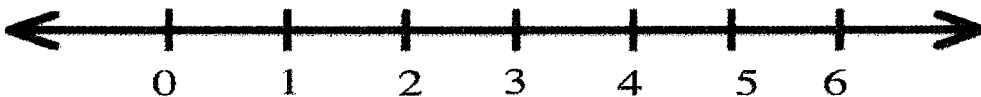
Each group has more than 3 students

Is 3 a solution for the inequality? _____ What do we use to show this on the number line? _____

In which direction are the solutions to the inequality? _____

How do you write this inequality? _____

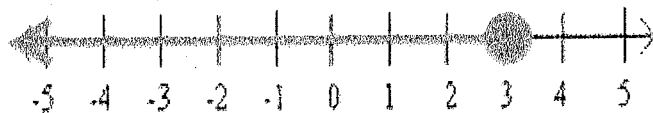
Graph the inequality.



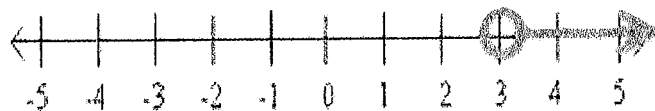
Now it's your turn!

Write out each inequality in words. Then match the inequality with the correct number line graph.

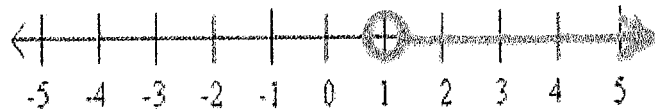
1. $x \geq 1$



2. $x > 3$



3. $x \leq 3$



4. $x < -2$



5. $x \geq -2$



6. $x > 1$



By the end of this lesson you will be able to _____

Example 1 - Determine if the following value is a solution to the inequality.

$$5 + x \leq 12$$

What do you need to do to determine if 7 is a solution to the inequality? _____

Is 7 a solution to this inequality? _____

Let's try a few more...

$$x - 12 > -8$$

Is 5 a solution to the inequality? _____

$$4x \leq 20$$

Is 10 a solution to the inequality? _____

$$\frac{x}{5} \leq -3$$

Is -15 a solution to the inequality? _____

How is solving an inequality different than solving an equation?

While the process is _____, the answers are _____.

Example 2 Solve for the variable x.

$$x - 14 > 6$$

What do I need to do?

Step 1. _____

Let's try a few more...

1. $x + 20 < 6$

2. $2x \geq 35$

3. $\frac{x}{7} \leq -3$

Now it's your turn!

Determine whether the value is a solution to the inequality.

1) Is -3 a solution to the inequality $x + 7 \geq -2$? _____

2) Is 8 a solution to the inequality $-3x < -30$? _____

3) Is 10 a solution to the inequality $\frac{x}{4} > 2\frac{1}{2}$? _____

Solve for the variable x in the inequality.

4) $x - 9 < -3$

5) $\frac{x}{2} < -5.5$

6) $5x \leq -30$

7) $x + 11 > -20$

Evolution

What it is:

Evidence

1.

2.

1.

4.

Biological Classification

Levels:

Natural Selection

2.

3.

Changes in Env. Conditions:

Darwin info:

1.

By the end of this lesson you will be able to _____.

When you divide by a negative value, to keep the inequality true, do what? _____

When you multiply by a negative value, to keep the inequality true, do what? _____

Now it's your turn!

1) $-2x > -10$ 2) $\frac{x}{-5} \leq 6$ 3) $\frac{-x}{3} \geq 15$ 4) $-x - 9 < -5$ 5) $5x + 2 > -13$ 6) $\frac{x}{5} - 3 \leq -2$

Switching the Inequality Sign Video 2

When do we flip the inequality sign? _____

But, Why?

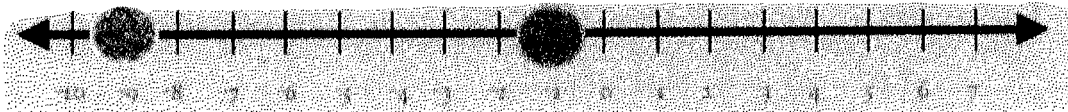


The pink dot (P) is -6 and the purple dot (B) is 2 so Pink is less than Purple

written mathematically, $P < B$

If we add two to each side, $P = -4$ and $B = 4$ so P is still $<$ B

If I subtract 5 from both sides, $P = -9$ and B will $= -1$ so P is still $<$ B



If I take the same inequality $-6 < 2$ and multiply both sides by 2 I get $-12 < 4$. Still true.
But what if I multiply $-6 < 2$ by a NEGATIVE 2?



$-6 \times -2 = 12$ and $-2 \times 2 = -4$ so now we have $12 < -4$ THAT CAN'T BE RIGHT!

So we _____ the inequality symbol to make it right

When you are collecting data, why do you need a sample? _____

What makes a good sample?

- _____
- _____
- _____

What is a random sample? _____

Determine if the following situation is a good random sample.

1. Your teacher is going to give a prize to 10 students in the class. Your teacher puts every students' name into a basket and pulls out one name at a time.

2. Your school cafeteria is going to make some changes to the menu. They ask the first 150 students in the cafeteria what they would change about the menu.

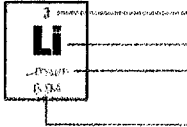
3. Your school is going to get some new physical education equipment. They ask all of the boys in each class what equipment they would prefer.

4. Your PTA is going to pay for a cultural arts assembly. They ask 200 randomly selected students in the hallways all over the building.

5. Your school is going to have a fundraiser. They ask 5 random students what events they would like to have in order to raise money for the school.

The Periodic Table of the Elements

1 H Hydrogen (1.01)																	2 He Helium (4.00)
3 Li Lithium (6.94)	4 Be Beryllium (9.01)																
11 Na Sodium (22.99)	12 Mg Magnesium (24.31)																
19 K Potassium (39.10)	20 Ca Calcium (40.08)	21 Sc Scandium (44.96)	22 Ti Titanium (47.87)	23 V Vanadium (50.94)	24 Cr Chromium (52.00)	25 Mn Manganese (54.94)	26 Fe Iron (55.85)	27 Co Cobalt (58.93)	28 Ni Nickel (58.69)	29 Cu Copper (63.55)	30 Zn Zinc (65.39)	31 Ga Gallium (69.72)	32 Ge Germanium (72.61)	33 As Arsenic (74.92)	34 Se Selenium (78.96)	35 Br Bromine (79.90)	36 Kr Krypton (83.80)
37 Rb Rubidium (85.47)	38 Sr Strontium (87.62)	39 Y Yttrium (88.91)	40 Zr Zirconium (91.22)	41 Nb Niobium (92.91)	42 Mo Molybdenum (95.94)	43 Tc Technetium (98)	44 Ru Ruthenium (101.07)	45 Rh Rhodium (102.91)	46 Pd Palladium (106.42)	47 Ag Silver (107.87)	48 Cd Cadmium (112.41)	49 In Indium (114.82)	50 Sn Tin (118.71)	51 Sb Antimony (121.76)	52 Te Tellurium (127.60)	53 I Iodine (126.90)	54 Xe Xenon (131.29)
55 Cs Cesium (132.91)	56 Ba Barium (137.33)	57 La Lanthanum (138.91)	72 Hf Hafnium (178.49)	73 Ta Tantalum (180.95)	74 W Tungsten (183.84)	75 Re Rhenium (186.21)	76 Os Osmium (190.23)	77 Ir Iridium (192.22)	78 Pt Platinum (195.08)	79 Au Gold (196.97)	80 Hg Mercury (200.59)	81 Tl Thallium (204.38)	82 Pb Lead (207.2)	83 Bi Bismuth (208.98)	84 Po Polonium (209)	85 At Astatine (210)	86 Rn Radon (222)
87 Fr Francium (223)	88 Ra Radium (226)	89 Ac Actinium (227)	104 Rf Rutherfordium (178.49)	105 Db Dubnium (265)	106 Sg Seaborgium (266)	107 Bh Bohrium (264)	108 Hs Hassium (265)	109 Mt Meitnerium (266)	110 Ds Darmstadtium (265)	111 Rg Roentgenium (272)	112 Cn Copernicium (285)						



58 Ce Cerium (140.12)	59 Pr Praseodymium (140.91)	60 Nd Neodymium (144.24)	61 Pm Promethium (145)	62 Sm Samarium (150.36)	63 Eu Europium (151.96)	64 Gd Gadolinium (157.25)	65 Tb Terbium (158.93)	66 Dy Dysprosium (162.50)	67 Ho Holmium (164.93)	68 Er Erbium (167.26)	69 Tm Thulium (168.93)	70 Yb Ytterbium (173.05)	71 Lu Lutetium (174.97)
90 Th Thorium (232.04)	91 Pa Protactinium (231.04)	92 U Uranium (238.03)	93 Np Neptunium (237)	94 Pu Plutonium (244)	95 Am Americium (243)	96 Cm Curium (247)	97 Bk Berkelium (247)	98 Cf Californium (251)	99 Es Einsteinium (252)	100 Fm Fermium (257)	101 Md Mendelevium (261)	102 No Nobelium (261)	103 Lr Lawrencium (262)

Groups are _____

Periods are _____

Notes:

Now you try!

1. Your teacher is going to give a prize to 10 students in the class. Your teacher puts every girls' name into a basket and pulls out one name at a time.
-

2. Your school cafeteria is going to make some changes to the menu. They ask the 20 students randomly selected from each grade level what they would change about the menu.
-

3. Your school is going to get some new basketball equipment. They randomly select 15 members of the baseball and soccer team to get their opinion.
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4. Your PTA is going to pay for a cultural arts assembly. They put all 10 of the options in a bag and pull out one.
-

5. Your school is going to have a fundraiser. They ask 5 girls and 5 boys from each class to see what events they would like to have in order to raise money for the school.
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