

Stealing Bases

Activity	Time	Description
Activity 1	45 minutes	Youth will run the distance from first base to second base three times to find your running time. Then youth will compare your running time to the time to plate and pop time for different baseball teams to decide if they should try to steal a base against those teams.
Activity 2	15 minutes	Youth will learn about how the brain changes when you are posed with a new challenge.



Stealing Bases



“You can’t steal bases if you don’t get on base. It’s all about opportunities. Every time you get on base, it’s an opportunity.”

- Tim Raines

What does this quote mean to you?
What message is Tim Raines trying to send?



- What do you know about stealing bases in baseball or softball?
- What skills do you think it takes to successfully steal a base?
- How often do you think a player is successful in stealing the base?



Fastpitch Softball - Steal Running Times

- [Fast pitch softball base stealing examples](#)



- What did you notice?
- How do you think the player decides whether to try to steal the base?



MLB stealing bases compilation

- [MLB Unbelievably Fast Runners Stealing Bases Compilation](#)



- What did you notice?
- How do you think the player decides whether to try to steal the base?



Top MLB Base Stealers of All Time

Look at the # of bases stolen and the # of attempts for each player.
What do you NOTICE?
What do you WONDER?

Player	Stolen Bases	Stolen Base Attempts
Rickey Henderson	1406	1741
Lou Brock	938	1245
Ty Cobb	897	1112
Tim Lincecum	808	954
Vince Coleman	752	929

https://www.baseball-reference.com/leaders/SB_career.shtml

Timing to Steal a Base

- [Sport Science: Stealing a Base](#)



- How do we measure the time it takes for the pitcher to throw the ball to home plate, and for the catcher to throw the ball to second base?
- Why is it important for a runner to understand these times?

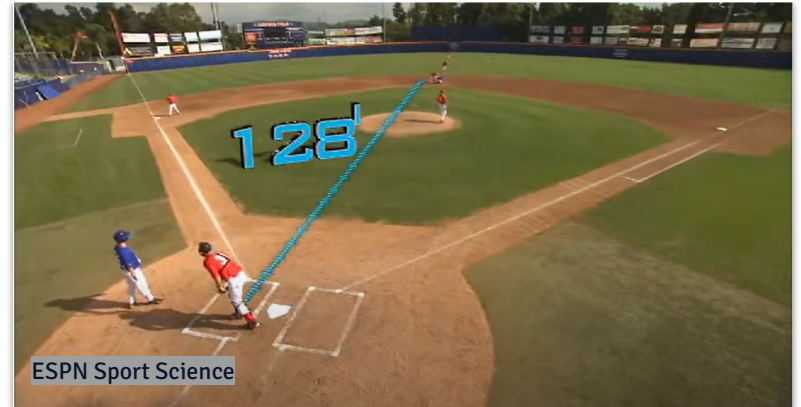
Timing to Steal a Base

Time to Plate



The time it takes for the pitcher to throw the ball to home plate (to the catcher)

Pop Time



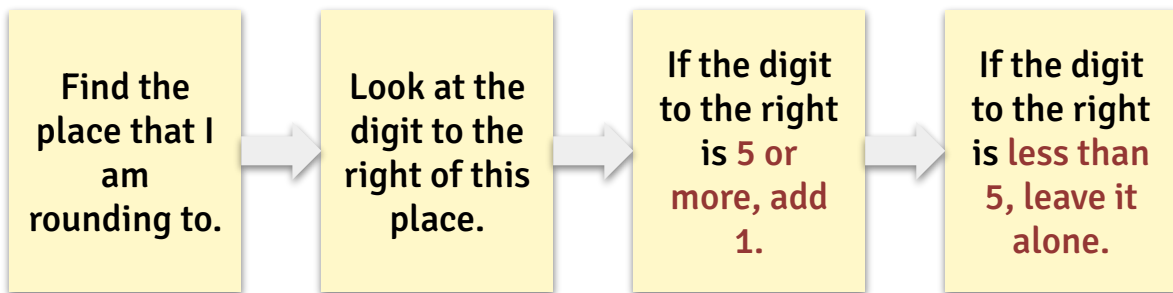
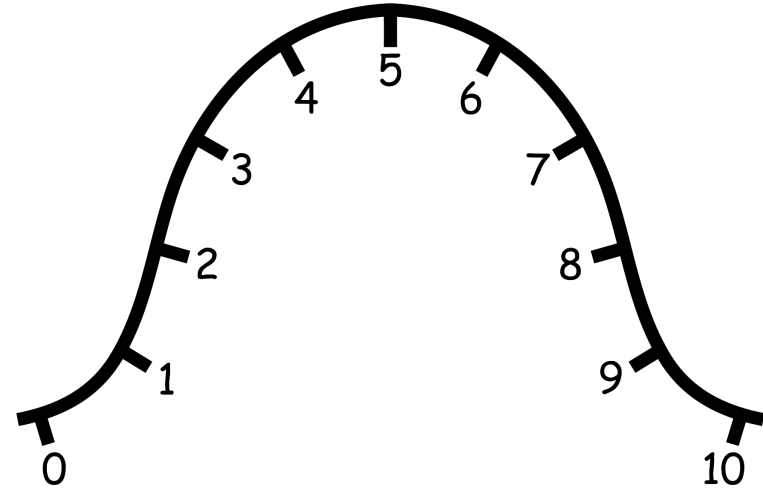
The time it takes for the catcher to throw the ball to the second base person

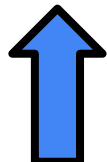

Rounding to the tenth of a Second

Round to the
nearest

6.45

6.50



5 or more,
let it soar. 
4 or less,
let it rest. 

You and your partner will measure each other's running time - the time it takes to run from first base to second base:

1. One partner will run from first base to second base as fast as they can. For safety, *do not slide to second base*, just tap it with your foot.
2. The other partner will use a stopwatch to measure their partner's running time to the nearest tenth of a second.
3. Record measurements on your worksheet.
4. Measure your running time three times.
5. Record your TYPICAL running time.
6. Switch roles.

Worksheet 1 - Use Running Time to Make Decisions

Directions: Time your partner's running time from one base to the next (round to the nearest tenth of a second). Repeat three trials and switch places and have your partner time your runs! Then decide on your typical running times.

	Trial 1 running time	Trial 2 running time	Trial 3 running time	Typical running time
Partner 1:				
Partner 2:				

How did you decide on your TYPICAL running time?

Compare your TYPICAL running time to the sum of the time to plate and pop time for different Little League teams by circling **< (less than)**, **> (greater than)** or **= (equal to)**. For each scenario, decide if you should try to steal a base by circling **Y (yes)** or **N (no)**.

Your typical running time _____ **<** time to plate 5 sec + pop time 4 sec
 (steal? **Y / N**) **>** (sum: _____)
 =

Your typical running time _____ **<** time to plate 4.3 sec + pop time 4.5 sec
 (steal? **Y / N**) **>** (sum: _____)
 =

Your typical running time _____ **<** time to plate 4.8 sec + pop time 5.7 sec
 (steal? **Y / N**) **>** (sum: _____)
 =

Bonus Play: Create two different inequalities that would allow you to successfully steal the base by making up the times for time to plate and pop time.

Your typical running time _____ < time to plate _____ + pop time _____

Your typical running time _____ < time to plate _____ + pop time _____

Finding your TYPICAL running time

	Trial 1 running time	Trial 2 running time	Trial 3 running time	Typical running time
Partner 1:	5.7 s	5.2 s	6.5 s	?

What is a “typical” running time for this runner?

A “typical” running time is not the best and not the worst running time, but is your "usual" time or your "most common" time.

Finding your TYPICAL running time

	Trial 1 running time	Trial 2 running time	Trial 3 running time	Typical running time
Partner 1:	5.7 s	5.2 s	6.5 s	5.7 s

This runner's TYPICAL ("most common") running time can be estimated as **5.7 seconds** because this is the middle running time.

What other ways might you estimate a typical running time?

Finding your TYPICAL running time

	Trial 1 running time	Trial 2 running time	Trial 3 running time	Typical running time
Partner 1:	5.7 s	5.2 s	6.5 s	?

What is a “typical” running time for this runner?

Find the **mean (average)** running time using the formula below:

$(\text{Trial 1 time} + \text{Trial 2 time} + \text{Trial 3 time}) / 3 = \text{mean running time}$

Example: $(5.7 + 5.2 + 6.5) / 3 = ?$

Finding your TYPICAL running time

	Trial 1 running time	Trial 2 running time	Trial 3 running time	Typical running time
Partner 1:	5.7 s	5.2 s	6.5 s	5.8 s

Find the **mean (average)** running time using the formula below:

$(\text{Trial 1 time} + \text{Trial 2 time} + \text{Trial 3 time}) / 3 = \text{mean running time}$

**Example: $(5.7 + 5.2 + 6.5) / 3 = 17.5 / 3$
 $= 5.8 \text{ seconds}$**

Compare Your Running Time to Time to Plate + Pop Time (Worksheet 1)

Your typical running time (____) is (steal? Y / N)	< > =	the time to plate (____) + pop time (____) (sum: _____)
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How do we add
time to plate and
pop time?

We need to add
decimals!

Compare Your Running Time to Time to Plate + Pop Time (Worksheet 1) EXAMPLE

Your typical running time (9.5 sec) is (steal? Y / N)	< > =	the time to plate (5.2 sec) + pop time (3.9 sec) (sum: _____)
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1. Line up the two numbers by the decimal point.
2. Add the tenths first, then the ones.
3. Drop the decimal point straight down.

$$\begin{array}{r} 1 \\ 5.2 \\ + 3.9 \\ \hline 9.1 \end{array}$$

Compare Your Running Time to Time to Plate + Pop Time (Worksheet 1) EXAMPLE

Your typical running time (9.5 sec) is (steal? Y / N)	>	the time to plate (5.2 sec) + pop time (3.9 sec) (sum: 9.1 sec)
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1. Line up the two numbers by the decimal point.
2. Add the tenths first, then the ones.
3. Drop the decimal point straight down.
4. How does your typical running time compare to this sum?

Should we try to steal? Why or why not?

BONUS: Create Your Own Inequalities! (Worksheet 1)

Your typical running time _____ < time to plate (??? sec) + pop time (??? sec)

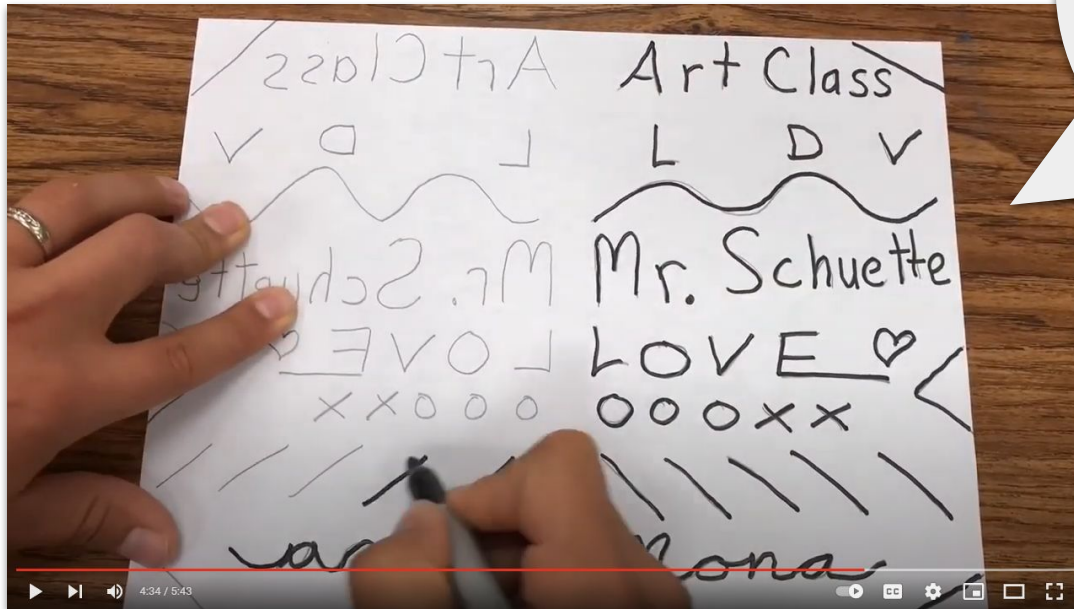
What times to plate
and pop times
would allow you to
steal a base?



- How can we use inequalities to decide when to steal base (or not)?
- Can you think of another game when you need to make decisions based on your running time or speed? How do you make those decisions?

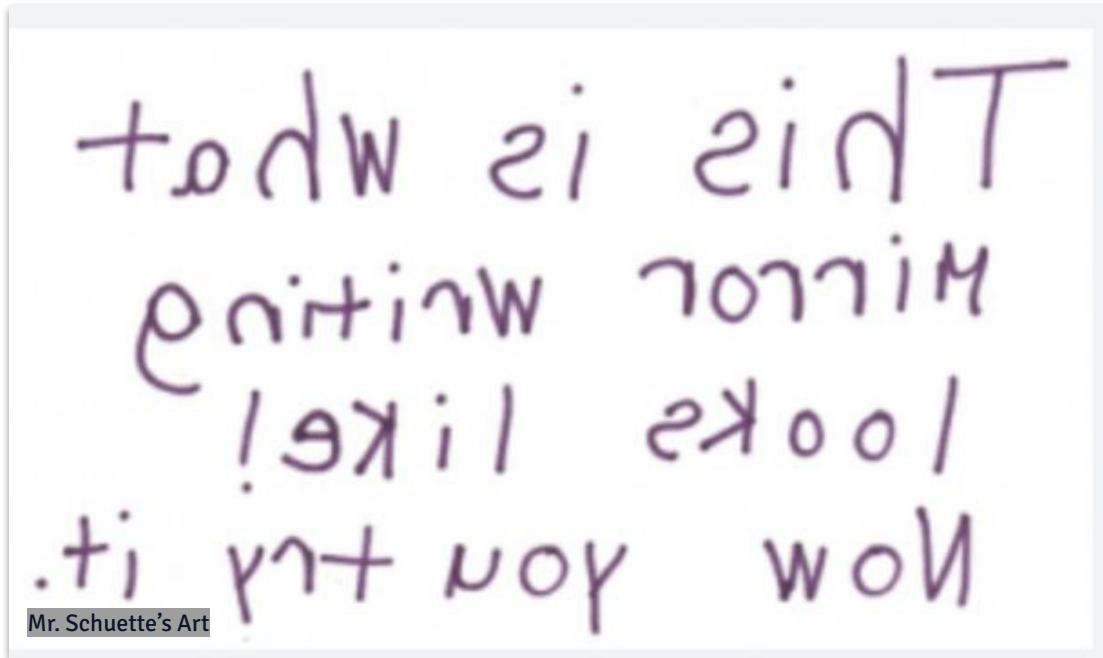
Mirror Writing!

- [How to do MIRROR Writing](#)



- What do you notice about mirror writing?
- What might be difficult for you when mirror writing? Why?

Activity 2: Growth Mindset and Mirror Writing (Worksheet 2)



Find a partner to share with. What did you notice about your mirror writing attempts?

What happens in our brains when we learn something new?

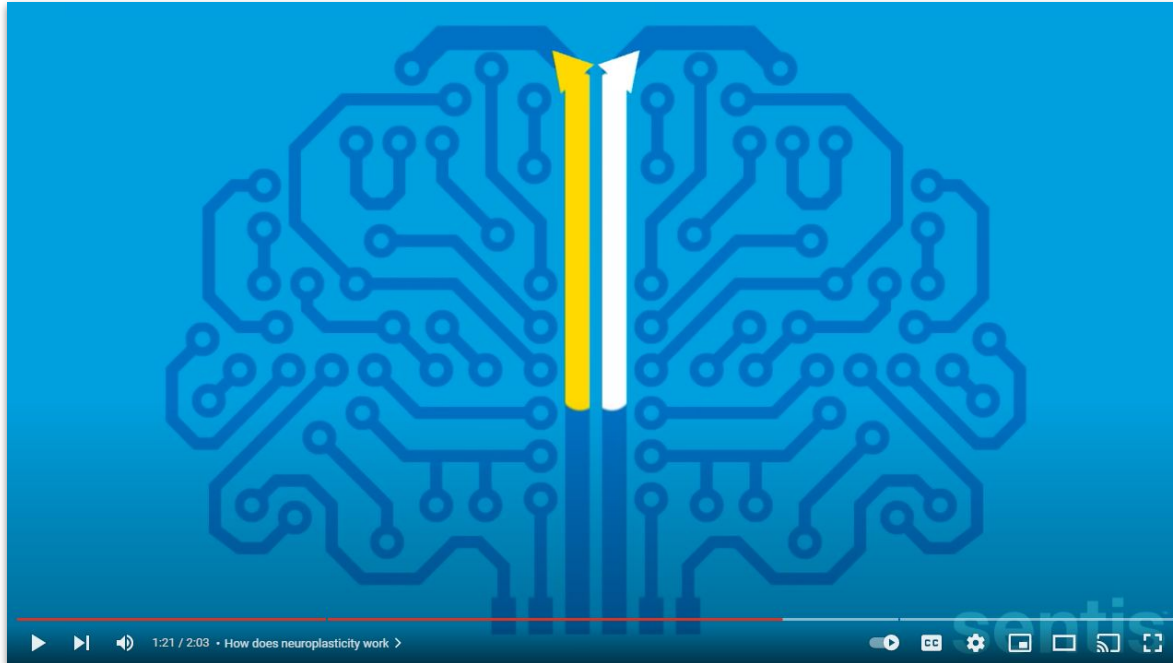
[The Neuroscience of Learning](#)



What did you discover about how our brains learn new things?

What happens in our brains when we learn something new?

Neuroplasticity



What did you discover about how our brains learn new things?



- What is something that is new/challenging that you would like to improve?
- Think of a time when you were learning a new skill in school, at home, or in sports. How did the video help you to understand why it was hard at first, but got easier over time?