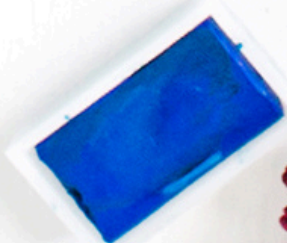


# SECONDARY EDUCATIONAL HANDBOOK



ROBERT HALMI SR.  
ACADEMY OF  
FILM AND TELEVISION



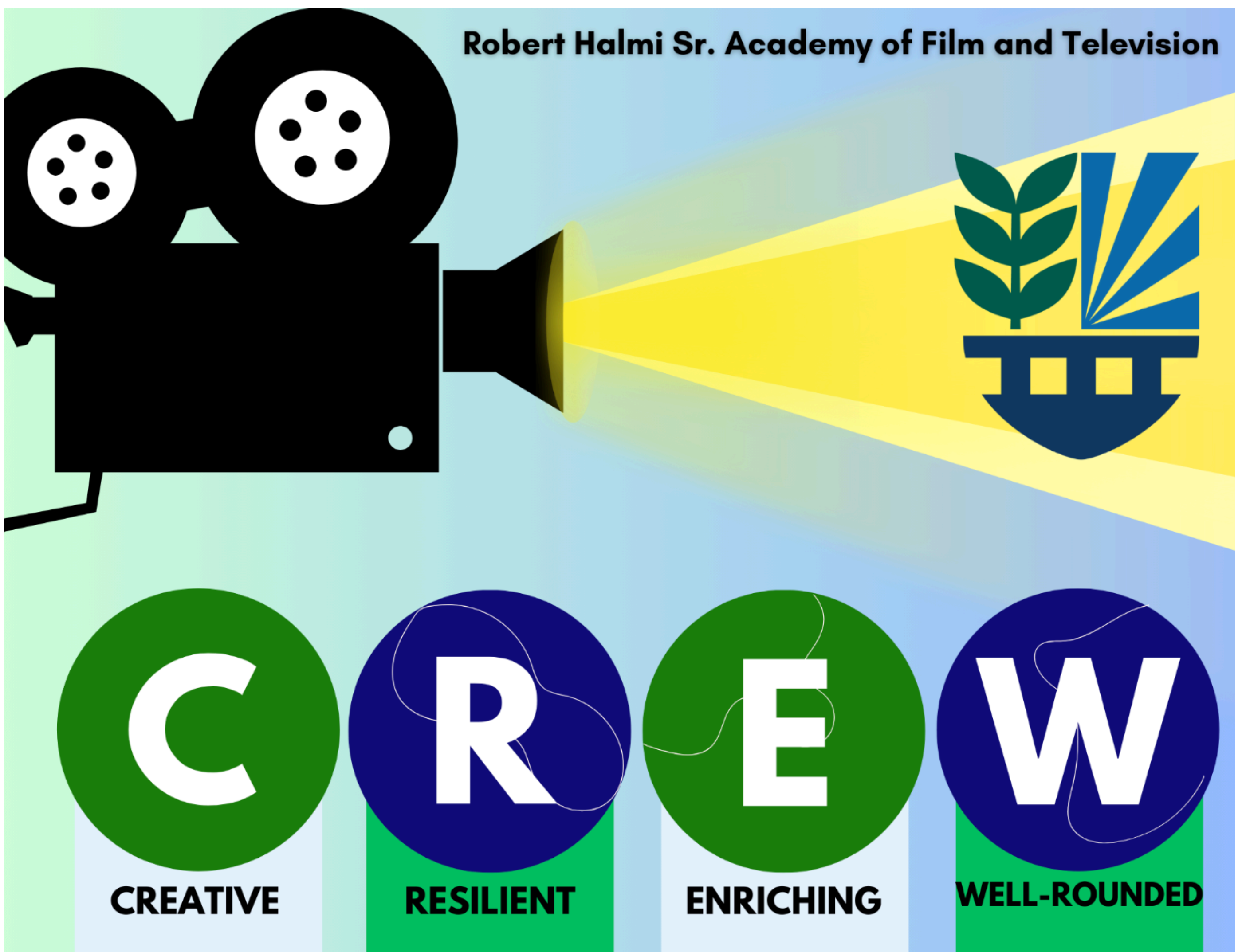




ROBERT HALMI SR.  
ACADEMY OF  
FILM AND TELEVISION

# TABLE OF CONTENTS

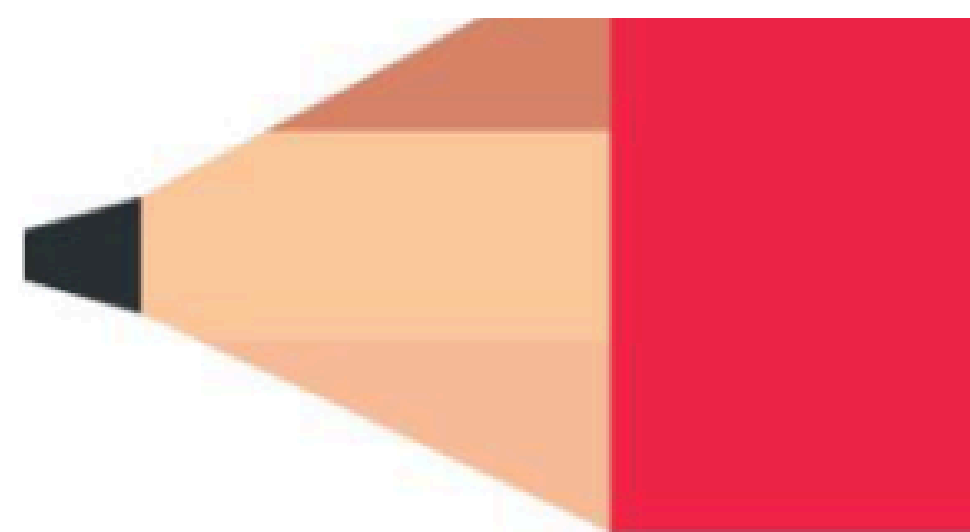
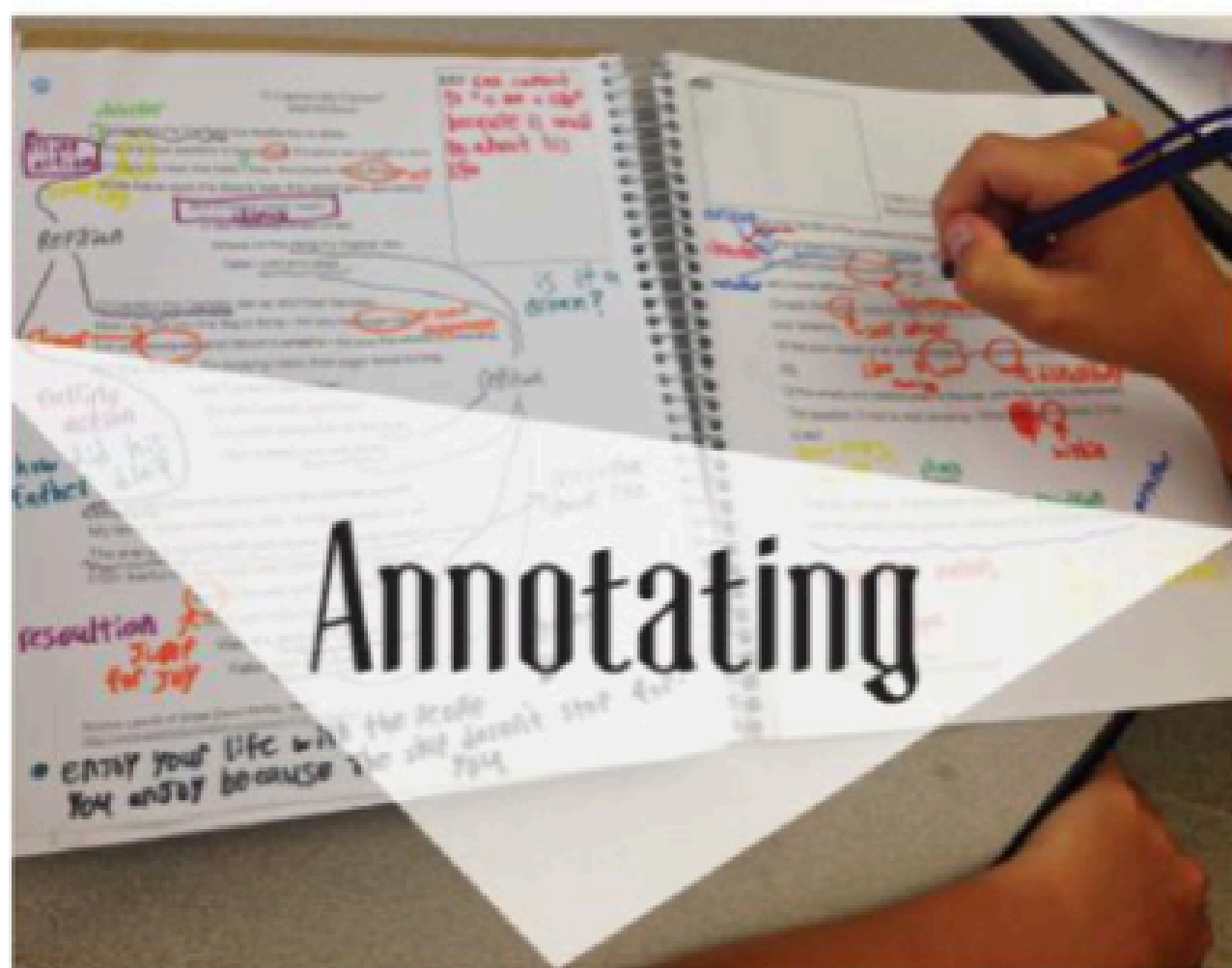
I. READING & WRITING STRATEGIES.....	PG. 1 – PG. 17
II. GLOBAL STUDIES REFERENCE.....	PG. 18 – PG. 25
III. ALGEBRA REFERENCE .....	PG 26 – 44
IV. CTE REFERENCE .....	PG 45 – 59
V. GLOSSARY .....	PG 62 – 65
VI. PBL PRODUCT MENU .....	PG 66





# Annotating 101

## ALL ABOUT



### What is Annotating?

ANNOTATING is taking notes directly on a text. These notes reflect your thinking about the text.

### ¿Qué es anotar?

ANOTAR es tomar notas directamente sobre un texto. Estas notas reflejan su pensamiento sobre el texto.

### What should you annotate for?

- The objective of the lesson or prompt (what you should be looking for?)
- Clarifying questions you have (about the text, vocabulary, etc.)
- Summarizing the Central Idea
- Golden Lines that stand out to you
- Connections to literary elements or other texts

### ¿Para qué deberías anotar?

- El objetivo de la lección o mensaje (¿qué debería buscar?)
- Aclarar dudas que tengas (sobre el texto, vocabulario, etc.)
- Resumir la idea central
- Líneas Doradas que te destacan
- Conexiones con elementos literarios u otros textos.

### Self - Assess Your Annotations:



### Autoevalúe sus Anotaciones:



◆ I underlined key ideas.

◆ I highlighted key ideas.



◆ Bullets in Level 1

◆ I asked Clarifying Questions

◆ I summarized what I read

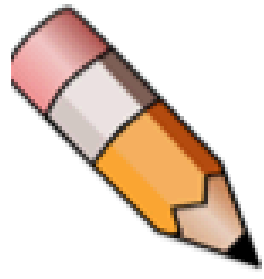


◆ Bullets in Levels 1 and 2

◆ I interpreted the text

◆ I connected to my knowledge of Literary Elements and Figurative Language





## ANNOTATION TOOL BOX

- **CIRCLE** Unknown Words

3 Why does Alan use the compressed nitrogen?



- **HIGHLIGHT** / **UNDERLINE** KEY DETAILS related to the **MAIN IDEA**

### Excerpt from *Fly for Your Life*

by John Frizell

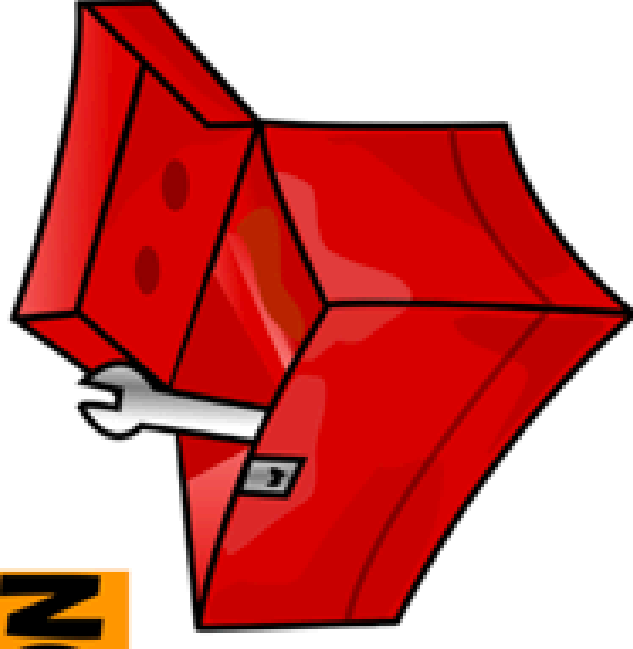
1 Alan knew there was no way back to the base and no way the crew there could help him remotely—the other crawler was down for maintenance. He could go down this side of the stream for 23 kilometers, to a flat area where the flowing liquid would spread out and be shallow enough to cross; then go back 23 kilometers to the far side of the bridge. **One problem: he would definitely run out of air before he got there.**



## CAJA DE HERRAMIENTAS DE ANOTACIÓN

- **CIRCULA** Palabras desconocidas

3 ¿Por qué Alan usa el nitrógeno comprimido?



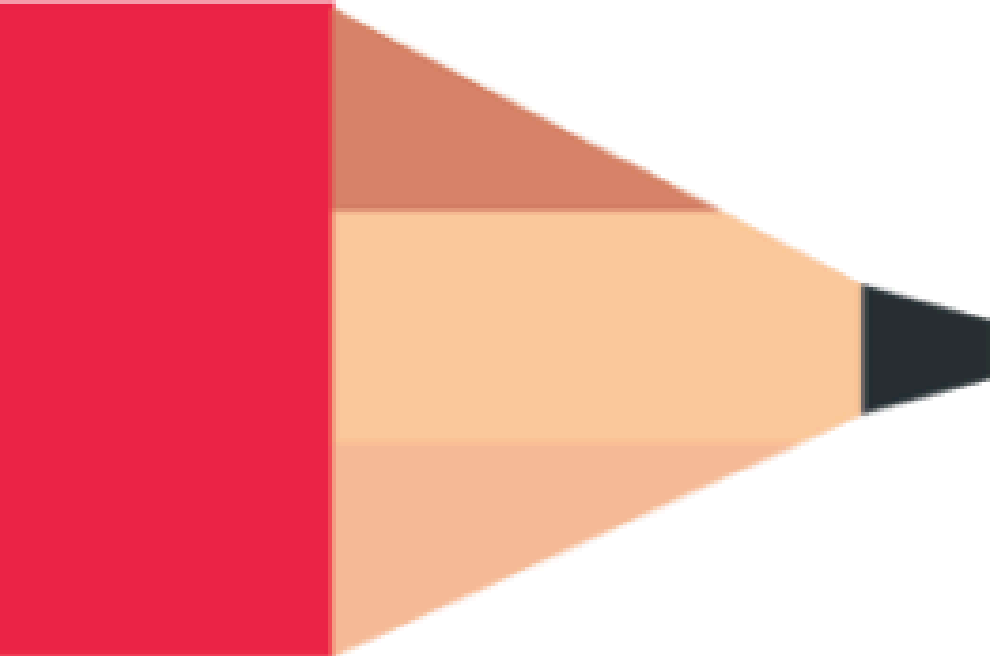
- **DESTACAR** / **SUBRAYAR** **DETALLES CLAVE** relacionados con la **IDEA PRINCIPAL**

### Extracto de *Vuela por tu vida*

Por John Frizell

Alan sabía que no había forma de regresar a la base y que no había forma de que la tripulación pudiera ayudarlo de forma remota: el otro rastreador estaba fuera de servicio por mantenimiento. Podría bajar por este lado del arroyo durante 23 kilómetros, hasta una zona plana donde el líquido que fluye se esparcirá y sería lo suficientemente poco profundo para cruzar; luego retroceda 23 kilómetros hasta el otro lado del puente. **Un problema: definitivamente se quedaría sin aire antes de llegar allí.**





## ALL ABOUT THE

# Cornell Notes

### What is it?

CORNELL NOTES are one way of taking effective notes. They help you to organize and summarize what you have learned, and can be used in any class.

### Steps:

Here is a model of Cornell Notes used to explain the Secondary Educational Handbook.

1. DRAW THESE LINES TO DIVIDE THE PAGE.

2. LABEL ALL SECTIONS AS SHOWN.

3. IN THE **NOTES** SECTION, WRITE DOWN NOTES FROM THE BOARD OR THE TEXT.

4. CREATE CATEGORIES FOR YOUR NOTES IN THE **CUE** BY CREATING SUBTITLES TO THE NOTES OR BY ASKING QUESTIONS THAT CAN BE ANSWERED IN THE SIDE NOTES.

5. SUMMARIZE WHAT YOU HAVE LEARNED.

The diagram shows a rectangular page divided into three main sections by lines. At the top is a section labeled 'Title'. Below it is a large section labeled 'Notes'. To the left of the 'Notes' section is a narrow section labeled 'Cue'. At the bottom of the page is a section labeled 'Summary'. Arrows point from the 'Cue' label to the left margin and from the 'Summary' label to the bottom margin.



## Herramientas útiles

# Notas de Cornell

### ¿Qué es?

LAS NOTAS DE CORNELL son una forma de tomar notas efectivas. Le ayudan a organizar y resumir lo que ha aprendido y se pueden utilizar en cualquier clase.

### Pasos:

Aquí hay un modelo de Cornell Notes utilizado para explicar el Manual de Inglés / Estudios Sociales.

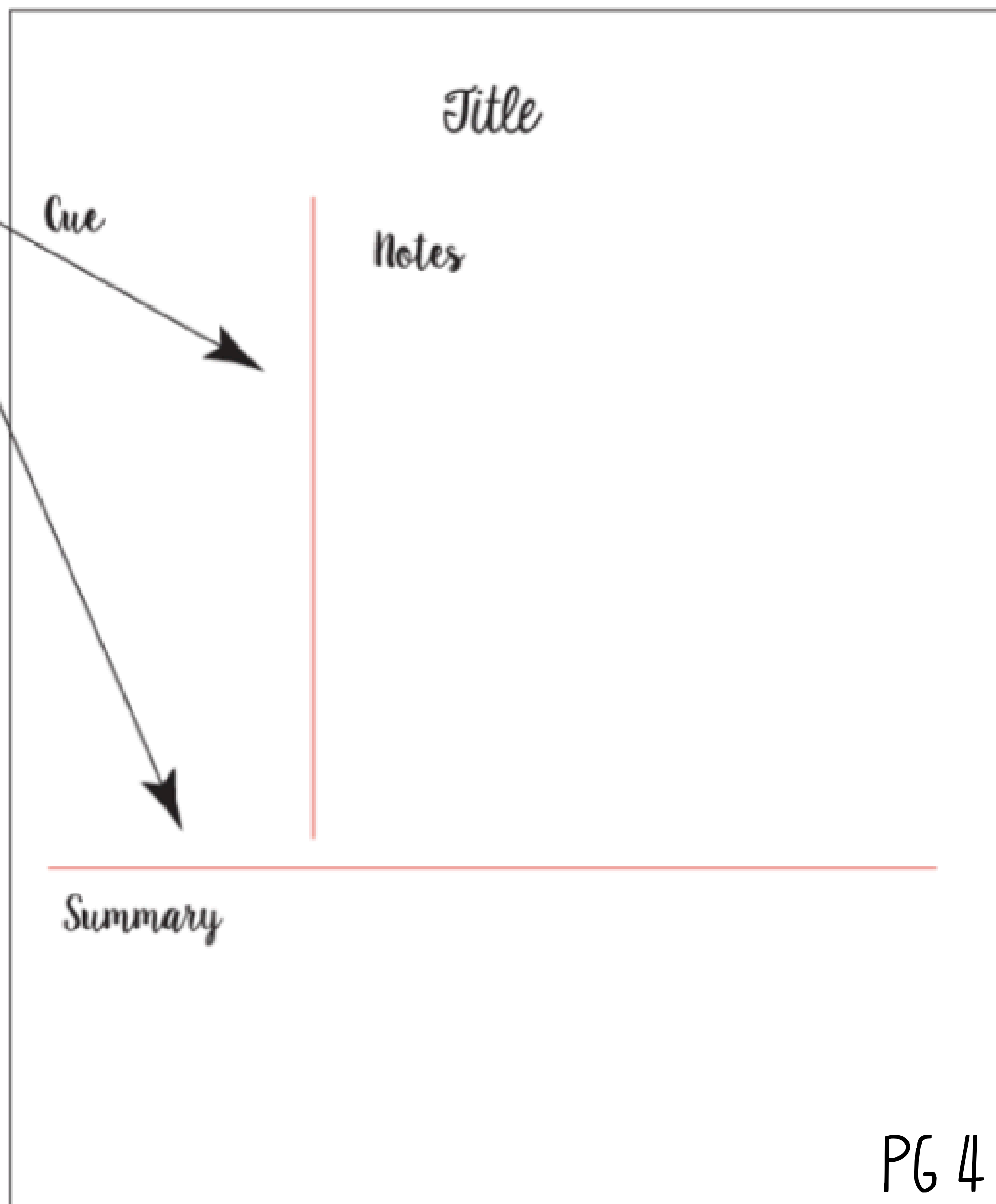
1. DIBUJA ESTAS LÍNEAS PARA DIVIDIR LA PÁGINA.

2. ETIQUETE TODAS LAS SECCIONES COMO SE MUESTRA.

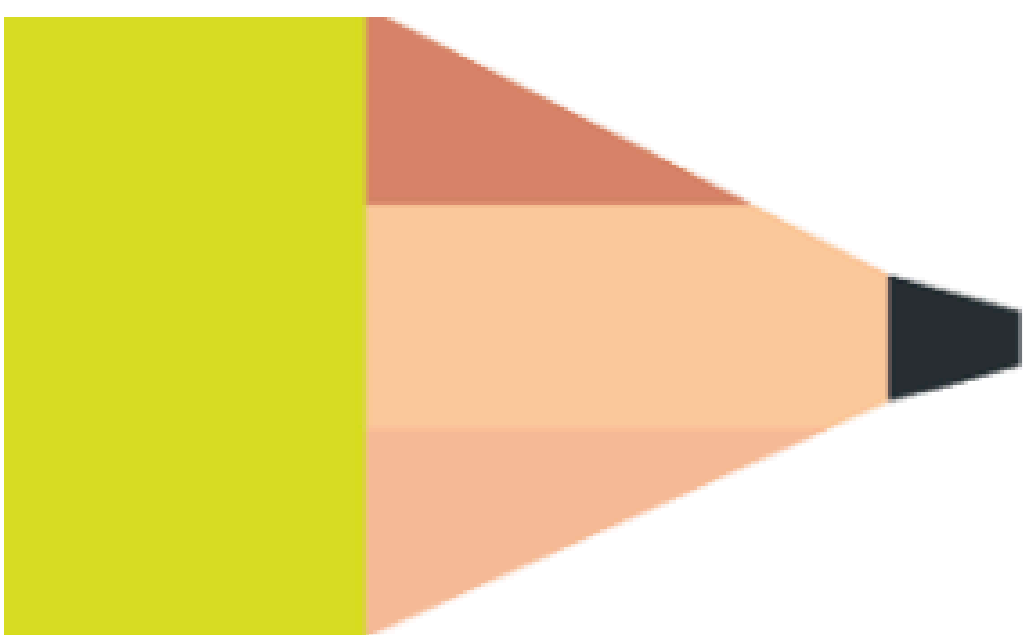
3. EN LA SECCIÓN **NOTAS**, ESCRIBA NOTAS DE LA PIZARRA O DEL TEXTO.

4. CREE CATEGORÍAS PARA SUS NOTAS EN **CUE** CREANDO SUBTÍTULOS PARA LAS NOTAS O HACIENDO PREGUNTAS QUE PUEDAN RESPONDERSE EN LAS NOTAS LATERALES.

5. RESUME LO QUE HAS APRENDIDO.







# Thinking Maps

## USEFUL TOOLS

QUESTIONS FROM TEXTS,  
TEACHERS AND TESTS

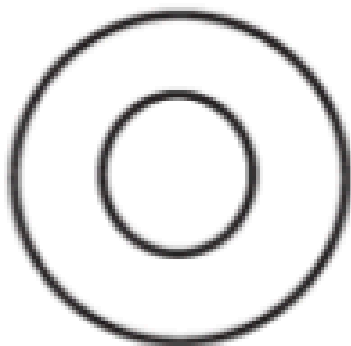
THINKING PROCESSES

THINKING MAPS  
AS TOOLS

How are you defining this thing  
or idea? What is the context?  
What is your frame of reference?

DEFINING IN  
CONTEXT

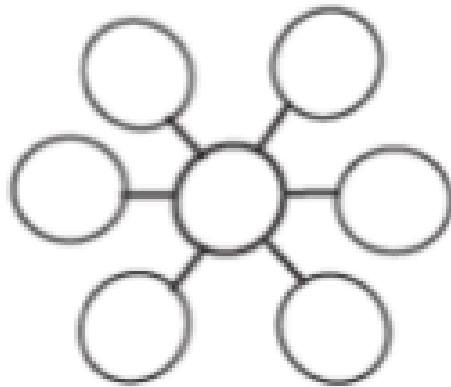
*Circle Map*



How are you describing this?  
Which adjectives would best  
describe this?

DESCRIBING  
QUALITIES

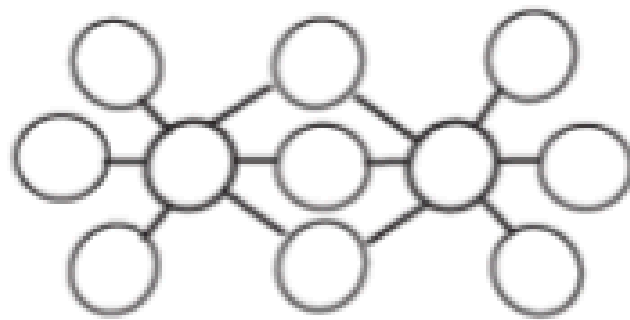
*Bubble Map*



What are the similarities and  
different qualities of these things?

COMPARING  
+ CONTRASTING

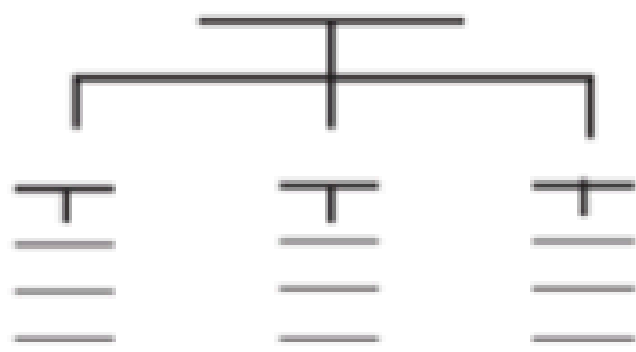
*Double  
Bubble  
Map*



What are the main ideas,  
supporting ideas, and details  
in this text?

CLASSIFYING

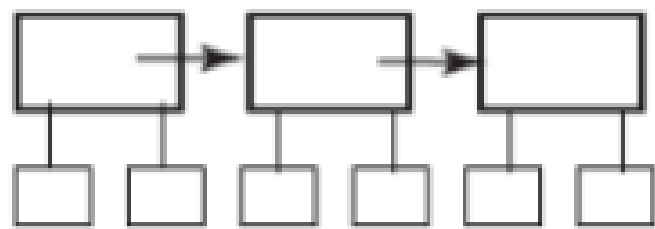
*Tree  
Map*



What happened? What is the  
sequence of events?

SEQUENCING

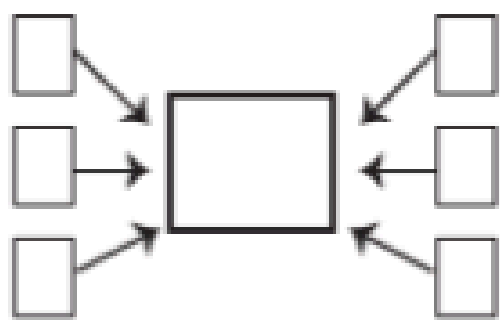
*Flow  
Map*



What are the causes and effects  
of this event? What might happen  
next? Why is this important?

CAUSE + EFFECT

*Multi  
Flow  
Map*



What is the analogy being used?  
Why is it being used?

SEEING ANALOGIES

*Bridge  
Map*



# Herramientas útiles

## Mapas Conceptuales



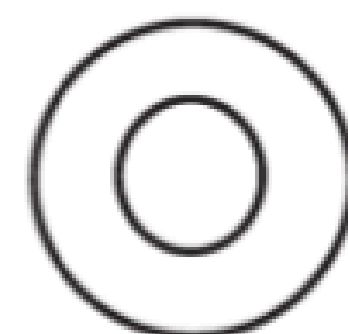
PREGUNTAS DE TEXTOS,  
PROFESORES Y EXÁMENES

PROCESO DE  
PENSAMIENTO

MAPAS COMO  
HERRAMIENTAS

**DEFINIENDO EN  
CONTEXTO**

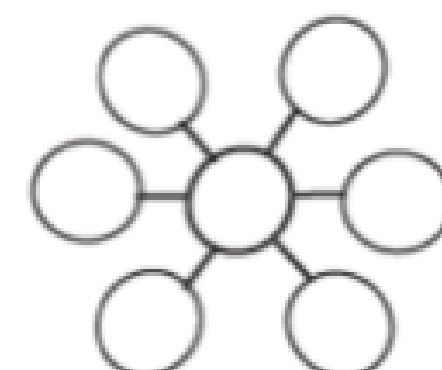
*Mapa de  
Circulo*



¿Cómo defines esta cosa o idea?  
¿Cuál es el contexto? ¿Cuál es tu  
marco de referencia?

**DESCRIBIENDO  
CUALIDADES**

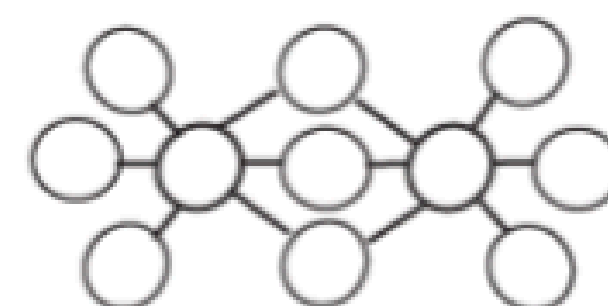
*Mapa de  
Burbujas*



¿Cómo estás describiendo esto? ¿Qué  
adjetivos describirían mejor esto?

**COMPARANDO +  
CONTRASTANDO**

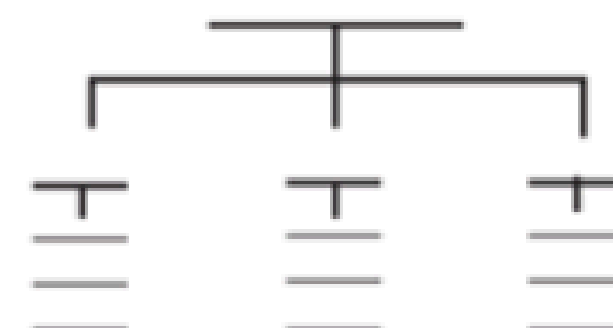
*Mapa de  
Doble  
Burbujas*



¿Cuáles son las similitudes y  
diferentes cualidades de estas cosas?

**CLASIFICANDO**

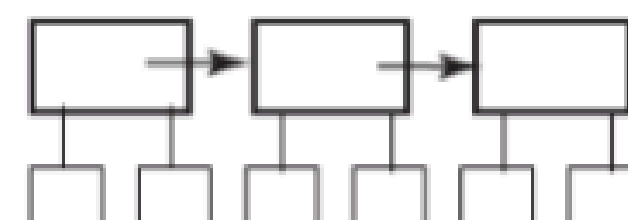
*Mapa de  
Arbol*



¿Cuáles son las ideas principales, las  
ideas secundarias y los detalles de  
este texto?

**SECUENCIACIÓN**

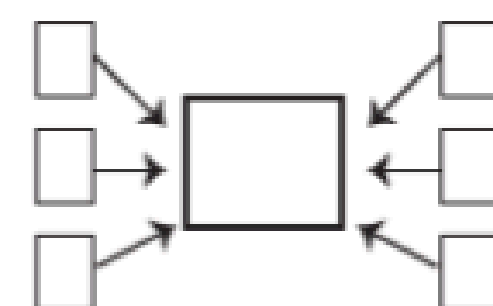
*Mapa de  
Flujo*



¿Qué pasó? ¿Cuál es la secuencia de  
eventos?

**CAUSA +  
EFECTO**

*Mapa  
Multi-  
flujo*



¿Cuáles son las causas y efectos de  
este evento? ¿Qué podría pasar a  
continuación? ¿Porque es esto  
importante?

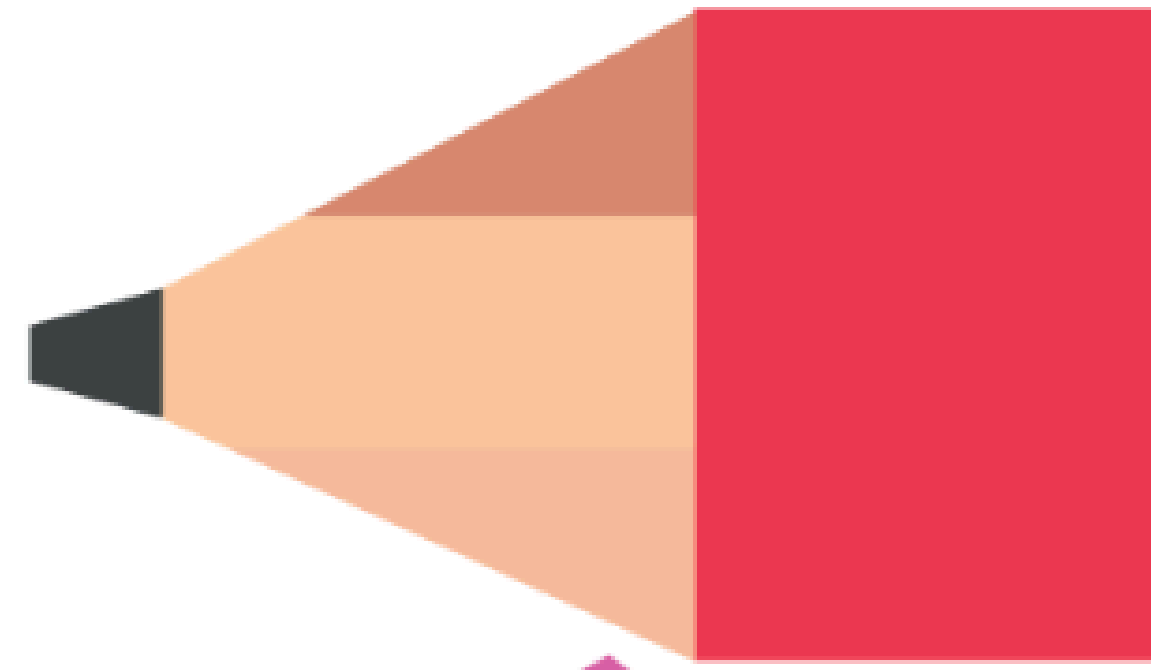
**VIENDO  
ANALOGÍAS**

*Mapa del  
Puentes*



¿Cuál es la analogía que se utiliza?  
¿Por qué se utiliza?





---

## ALL ABOUT TI-IE

---

### *What is it?*

SHORT ANSWER RESPONSES are questions that require a longer response (generally a paragraph). They also require EVIDENCE from the text to support your answer.

### *How to answer an SAR:*

#### **Title: RACER Format:**

**R** (Restate the question being asked)

**A** (Answer the question being asked; Also known as your **claim**)

**C** (Cite evidence- direct quotations from the text introduced with a transition phrase)

**E** (Explain evidence- How does your evidence support your claim?)

**R** (Conclusion sentence- restate the question again and start with "This shows...")

# Sample SARs

QUESTION: HOW DOES CHAVEZ CREATE SYMPATHY FOR THE FARM WORKERS IN PARAGRAPH 1?

1

Chavez creates sympathy by explaining how they suffered. The farmers had to live in horrible conditions, and some even died on the job. Truly, these farm workers suffered!

2

Chavez creates sympathy for the farm workers by explaining how the farmers suffered. The text describes how "Thirty-two Bracero farm workers lost their lives in a tragic accident." (line 3) This proves that no one really cared about these workers, because they didn't even know their names! Truly, when the audience heard these horrific details, they were able to sympathize with the struggle of the farm workers.

3

Chavez creates sympathy for the farm workers by explaining how the farmers suffered. The text describes how "Thirty-two Bracero farm workers lost their lives in a tragic accident." (line 3) This proves that no one really cared about these workers, because the growers didn't even know their names! The text goes on to describe their "savage" living conditions, under trees and near garbage and rats. This line proves that the farmers were not even treated like humans. Truly, Chavez used his tools of rhetoric to captivate the audience with the plight of the farm workers.



## ALL ABOUT THE

# ESSAY

### *What is it?*

ESSAYS are an opportunity to deeper explore the text in a multi-paragraph format.

### *How to answer an essay:*

*Although you will receive a more detailed format from your ELA teacher, here are some general guidelines:*

#### Introduction Paragraph:

- a) **Hook:** Use a quote or an interesting fact
- b) **Historical Context:** Describe the time period using the 5 W's to paint a scene of the topic to the reader
- c) **Connection:** Why does this topic matter?
- d) **Thesis Statement:** What is your answer to the question & what will you be proving in the essay?

#### Body Paragraph

- a) Use **RACER** format
- b) Include **evidence** from the text
- c) Be sure there is a **concluding sentence**

#### Conclusion Paragraph

- a) **Summarize** main points
- b) **Restate thesis** statement

#### ESSAY GUIDELINES:

SAMPLE INTRODUCTION

Part of Introduction	Color	Writing
<div>Hook</div> <ul style="list-style-type: none"><li>Interesting Fact</li><li>Quote</li></ul>	<div></div>	<p>Martin Luther King Jr., a civil rights activist, once said, "Injustice anywhere, is a threat to justice everywhere." In this quote, Martin Luther King Jr. highlights the importance of standing up for equality no matter where it is encountered.</p>
<div>Historical Context</div> <ul style="list-style-type: none"><li>5 W's</li><li>Describe the social and political climate of Germany</li></ul>	<div></div>	<p>In 1936, Germany was forced into an armistice, ending World War I. The Treaty of Versailles ended the war but also declared reparations on Germany. At this time, Germany's economy was devastated and their currency was worthless. Many people suffered which led to extreme ideals, one being racism. Race can be defined as one's skin color and physical features. The idea of one superior race, the Aryan race, dominated Germany.</p>
<div>Connection</div> <ul style="list-style-type: none"><li>Make a connection to today (T-W)</li></ul>	<div></div>	<p>Today, we still see the effects of racism, however, some significant historical figures have pushed forth change.</p>

NOTES:

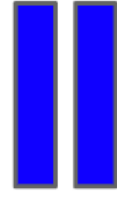


# CREATING YOUR THESIS STATEMENT

Subject of Body Paragraphs



Topic



THESIS

STATEMENT

Race was a barrier in the 1936 Olympics because \_\_\_\_\_ and it was overcome by \_\_\_\_\_.

Title/Topic  
Jesse Owens and the 1936 Berlin Olympics

In "Jesse Owens and the 1936 Berlin Olympics", race was a barrier in the 1936 Olympics because \_\_\_\_\_ and it was overcome by \_\_\_\_\_.

NOTES:



## USEFUL TOOLS



## Formatting Citations

*When you add a citation to your writing, you must properly format it.*

The text states, "Thirty-two Bracero farm workers lost their lives in a tragic accident." (line 3)

Transition into the citation.

Write the citation.

Reference where the citation is from (line #, page# or paragraph #)



### Useful Transitions

The text states...

According to line 3...

(Author's name) states...

This can be seen when the author states...

This is evident in line 3...

This is supported by...

For example...



## USEFUL TOOLS

## TRANSITION WORDS

### Time

After a while	Currently	Immediately	Recently
Afterwards	During	In the future	Soon
At last	Finally	Later	Suddenly
At present	First, (second, third, etc.)	Meanwhile	Then
Briefly	Gradually	Now	Finally
In the beginning	At the end	In addition to	Today
Tomorrow	Yesterday	That day	Overtime
As soon as	Sometimes	As long as	Before
Earlier	Presently	Simultaneously	So far

### Place

Above	Beside	In front of	Outside
Across	Beyond	Inside	To the east (west etc.)
Among	Between	In the middle	Toward
Behind	Farther	Nearby	Within
Below	Here	Next to	

### Order of Importance

The most significant	The most important	The primary reason	Above all
Equally important	Furthermore	Indeed	A major factor
Especially	In fact	Moreover	A major reason
Finally	In particular	Of major concern	Another significant
One of the greatest	Another factor	Another example	Another argument
Initially	First, second, third...	Primarily	

### Comparisons and Contrasts

The best thing	The worst thing	In contrast	In comparison
On the other hand	However	Unlike the	Similarly
Again	Also	In the same way	Likewise
Yet	On the contrary	Nevertheless	After all
At the same time	Otherwise	Though	Nonetheless

### Conclusions and Summations

In conclusion	In summary	Finally	In closing
All in all	As has been noted	In any event	In other words
As I have shown	Thus	Accordingly	As mentioned earlier

### Cause and Effect

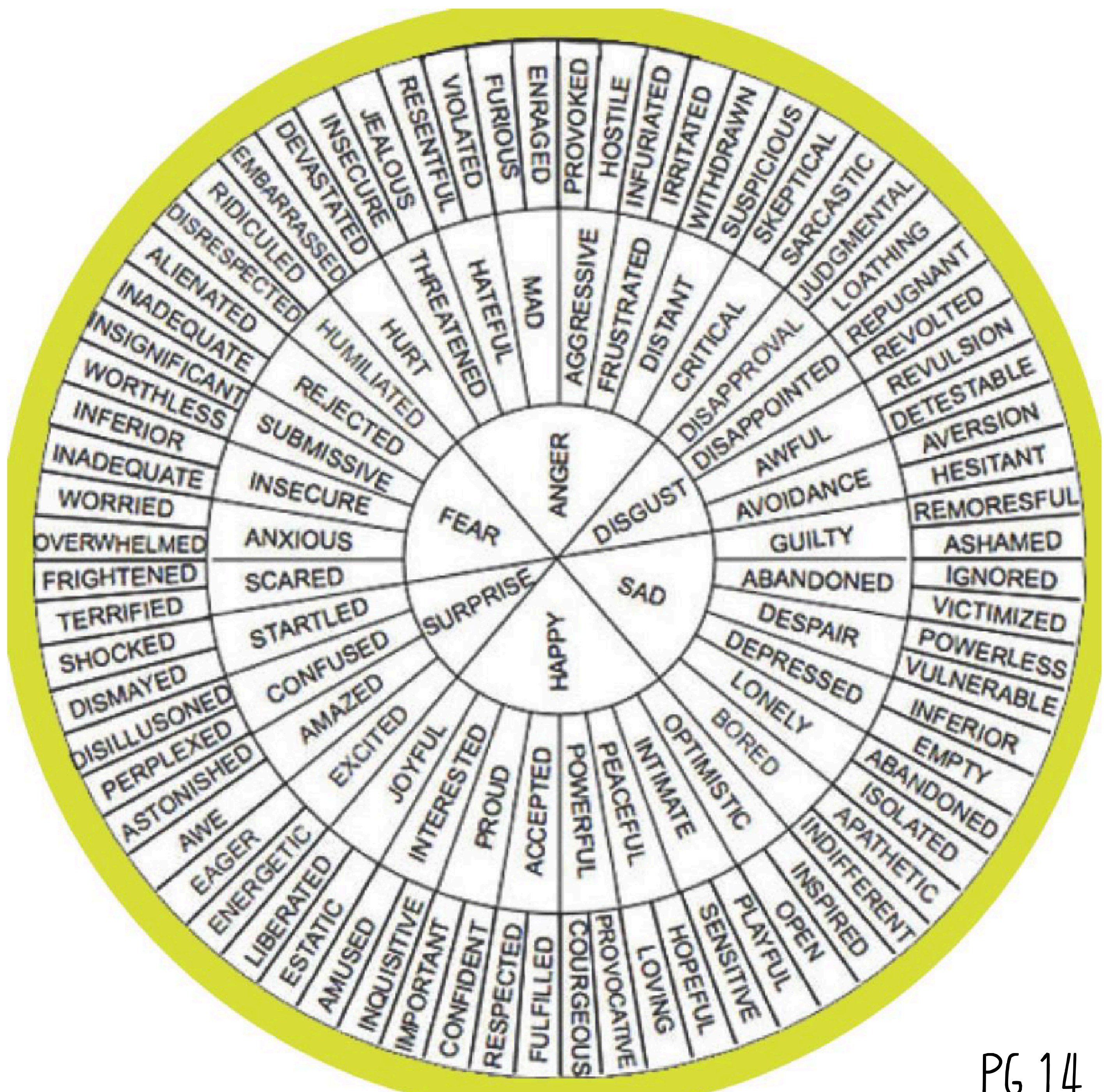
As a result	Due to	Therefore	Leads to
Because	If...then...	Thus	Consequently
Accordingly	For this purpose	Then	To this end



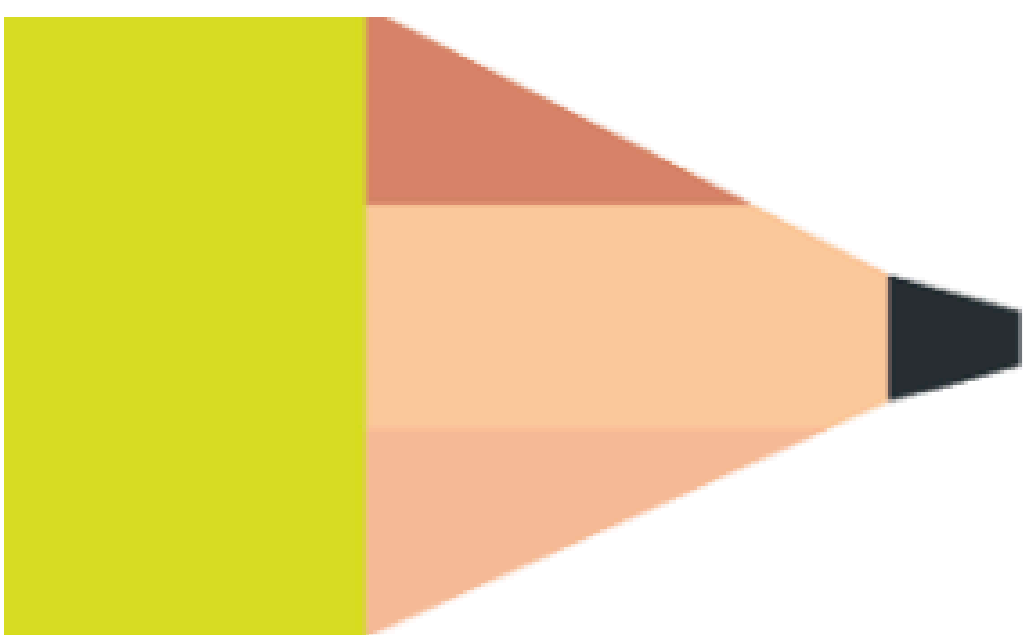
# USEFUL TOOLS

## Word Wheel

*Add some juicy words to your writing! Start with the words in the middle, and work your way outwards to make your writing more interesting!*







# Thinking Maps

## USEFUL TOOLS

QUESTIONS FROM TEXTS,  
TEACHERS AND TESTS

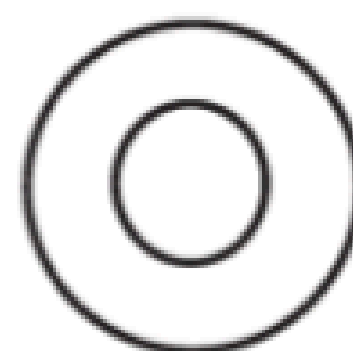
THINKING PROCESSES

THINKING MAPS  
AS TOOLS

How are you defining this thing  
or idea? What is the context?  
What is your frame of reference?

DEFINING IN  
CONTEXT

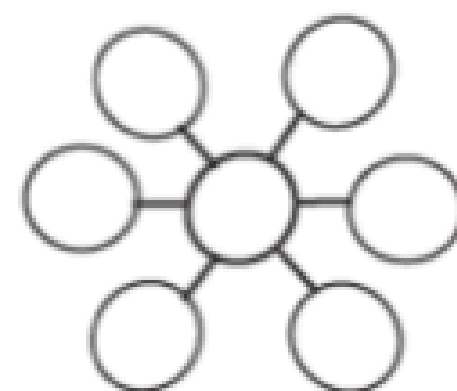
*Circle Map*



How are you describing this?  
Which adjectives would best  
describe this?

DESCRIBING  
QUALITIES

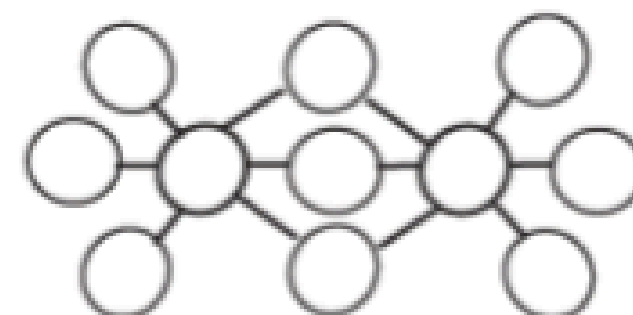
*Bubble Map*



What are the similarities and  
different qualities of these things?

COMPARING  
+ CONTRASTING

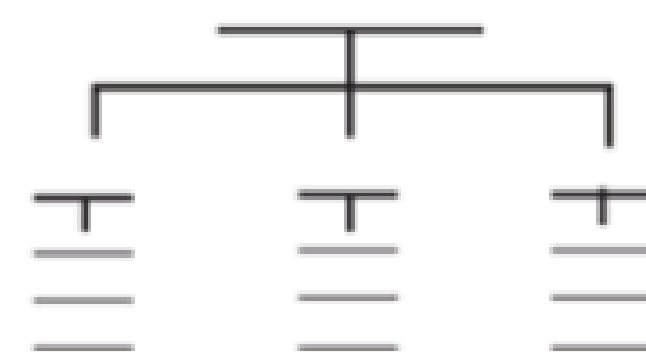
*Double  
Bubble  
Map*



What are the main ideas,  
supporting ideas, and details  
in this text?

CLASSIFYING

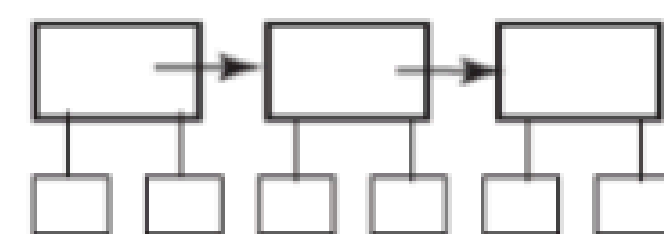
*Tree  
Map*



What happened? What is the  
sequence of events?

SEQUENCING

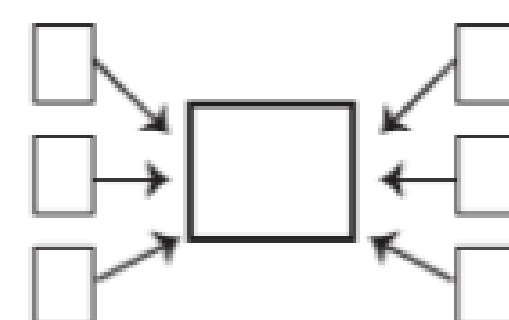
*Flow  
Map*



What are the causes and effects  
of this event? What might happen  
next? Why is this important?

CAUSE + EFFECT

*Multi  
Flow  
Map*



What is the analogy being used?  
Why is it being used?

SEEING ANALOGIES

*Bridge  
Map*





# Herramientas útiles

## Mapas Conceptuales



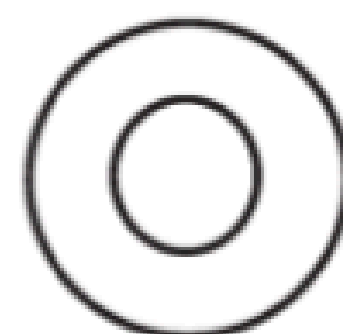
PREGUNTAS DE TEXTOS,  
PROFESORES Y EXÁMENES

PROCESO DE  
PENSAMIENTO

MAPAS COMO  
HERRAMIENTAS

**DEFINIENDO EN  
CONTEXTO**

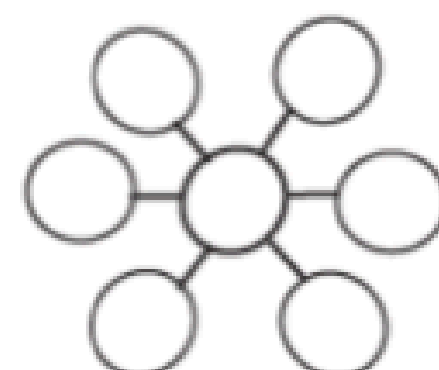
*Mapa de  
Circulo*



¿Cómo defines esta cosa o idea?  
¿Cuál es el contexto? ¿Cuál es tu  
marco de referencia?

**DESCRIBIENDO  
CUALIDADES**

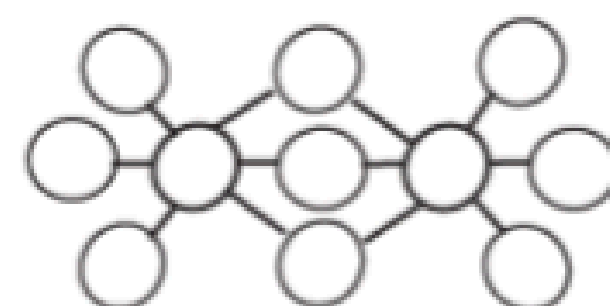
*Mapa de  
Burbujas*



¿Cómo estás describiendo esto? ¿Qué  
adjetivos describirían mejor esto?

**COMPARANDO +  
CONTRASTANDO**

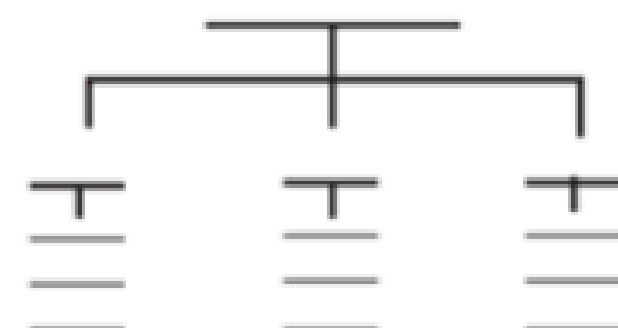
*Mapa de  
Doble  
Burbujas*



¿Cuáles son las similitudes y  
diferentes cualidades de estas cosas?

**CLASIFICANDO**

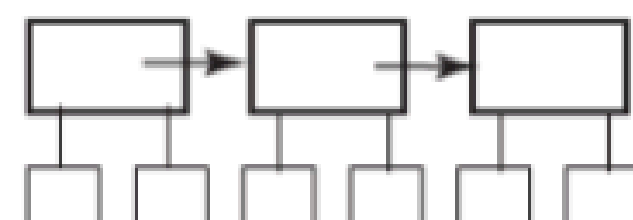
*Mapa de  
Arbol*



¿Cuáles son las ideas principales, las  
ideas secundarias y los detalles de  
este texto?

**SECUENCIACIÓN**

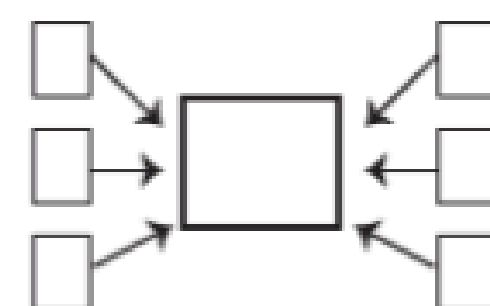
*Mapa de  
Flujo*



¿Qué pasó? ¿Cuál es la secuencia de  
eventos?

**CAUSA +  
EFECTO**

*Mapa  
Multi-  
flujo*



¿Cuáles son las causas y efectos de  
este evento? ¿Qué podría pasar a  
continuación? ¿Porque es esto  
importante?

**VIENDO  
ANALOGÍAS**

*Mapa del  
Puentes*



¿Cuál es la analogía que se utiliza?  
¿Por qué se utiliza?

SIMPLIFYING TRENDING TEST

WORDS

SIMPLIFICACIÓN DE PALABRAS DE

PRUEBA DE TENDENCIA

Trending Test Words	Synonyms (Break it Down!)
1. Reveal	Expose, disclose, tell
2. Suggest	hint(s), imply
3. Develop	Form, cultivate
4. Effect	Consequence, outcome, result
5. Contribute	Add to, give
6. Affect	influence
7. Support	Help, assist
8. Establish	Form, create
9. Indicate	show
10. Relate	connect
11. Conclude	Infer, gather, decide
12. Impact	influence
13. Express	Communicate, show, reveal

Palabras de prueba de tendencia	Sinónimos (¡Hazlo mas Fácil!)
1. Revelar	Exponer, revelar, contar
2. Sugerir	pista(s), implicar
3. Desarrollar	Formar, cultivar
4. Efecto	Consecuencia, resultado
5. Contribuir	Añadir a, dar
6. Afectar	influencia
7. Apoyar	Ayuda, asistir
8. Establecer	Formar, crear
9. Indicar	mostrar
10. Relatar	conectar
11. Concluir	Inferir, reunir, decidir
12. Impacto	influencia
13. Expresar	Comunicar, mostrar, revelar.

# GLOBAL STUDIES ENDURING ISSUES



## Conflict

**Conflict** is a serious disagreement or argument. There can be conflict between individuals, groups of people, and even nations.



## Desire for Power

**Power** is the influence or control over the behavior of people and it is a part of every human interaction. You can see the effects of power in your relationships with your family and friends, and in schools, sports, business, and government.



## Inequity

**Inequity** is a lack of fairness or justice. When there is inequity, one person or group of people do not have as much power or opportunity as others.



## Need for and Impact of Innovation

An **innovation** is a new method of addressing a problem. Innovations have positive and negative impacts. A new method used to address a problem.



## Impact of Interconnectedness

**Interconnectedness** is the state of having connections or relationships with other people. For example, the more people you know from a neighborhood, the more interconnected you are with it.



## Impact of Ideas and Beliefs

Our **ideas and beliefs** shape the way we look at the world. Ideas and beliefs can come from one's conclusions from observation, religion, parents, books, or friends.



## Environmental Impact

Our **environment** is the area around us in which we live. We are affected by our environment and we have an effect on it. This is true of your local environment (your home, your classroom, and your neighborhood) and the larger environment (your state, your country, and the world).



## Scarcity

**Scarcity** is the state of not having enough of something. Everything we use in our daily life comes from the Earth and there is a limited supply of resources on this planet. Some places have access to more water than others, some have access to oil. Since resources are scarce, we trade for them.



## Population Growth

**Population growth** occurs when more people are born than die and for most of global history, the number of people on Earth has increased.



# SOCIETY

people with a common culture that influences their interactions

# HUMAN- ENVIRONMENT INTERACTIONS

the ways humans adapt to, modify and use the physical geography of a location

# ACHIEVEMENTS + INNOVATION

new and lasting ideas

# POLITICS

laws and leaders

# ECONOMY

how people use resources to meet needs and wants

# WORLD MAP: CONTINENTS, OCEANS, LATITUDE & LONGITUDE



# World Geography Highlights

England, Island –  
Start of Industrial Rev.  
Never Conquered by  
Napoleon or Hitler

Greece,  
Mountainous –  
Isolated Polis

Egypt,  
Nile

Tigris,  
Euphrates of  
Mesopotamia

China,  
Yangtze,  
Huang He  
(Yellow  
River)

India,  
Ganges  
and  
Deccan  
plateau

Japan,  
Island –  
Isolated  
From Early  
Imperialism  
Protection  
From  
Mongols

Incas – Manipulate  
Andes with Terrace  
Farming

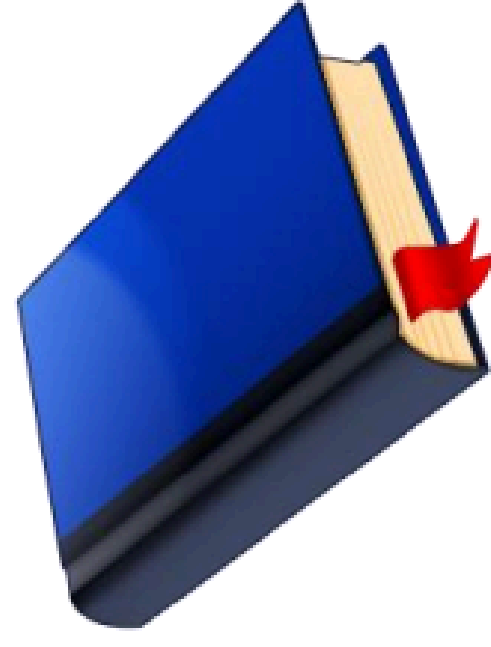
Amazon River

MAJOR EARLY  
CIVILIZATIONS  
WORLD MAP  
REFERENCE



# Primary & Secondary Sources

**A Primary Source** is a **FIRST** hand account of an event. It is an original document from the time period being studied



**A Diary or Journal**



**A Newspaper from the time period**



**Autobiographies**

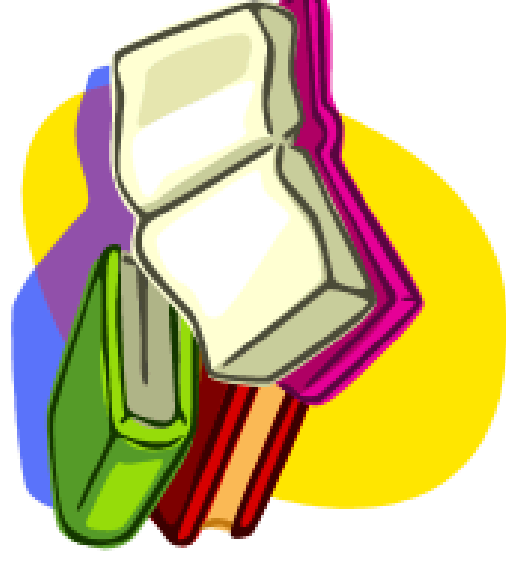


**Historical Documents**

**A Secondary Source** is a **SECOND** hand account of an event. It is a document created after the time period being studied



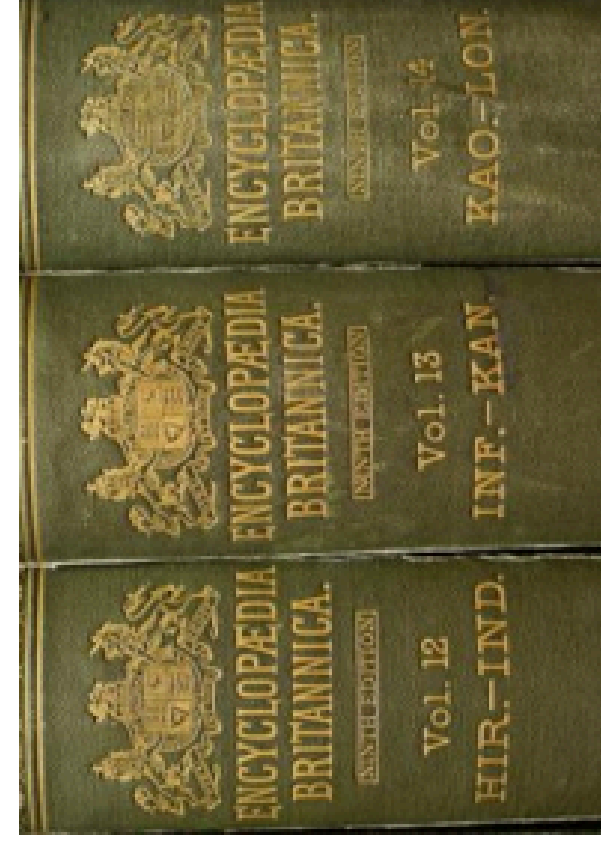
**Biographies**



**Textbooks**

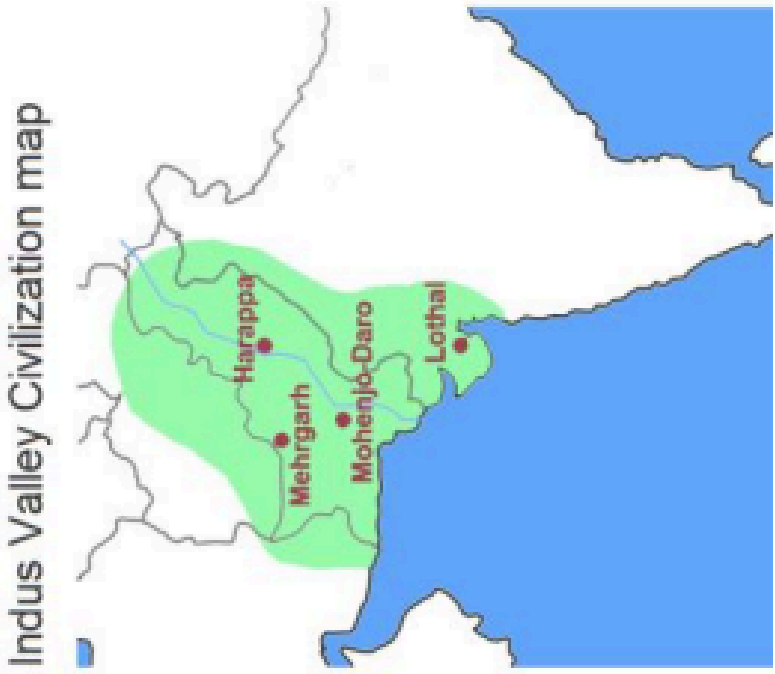
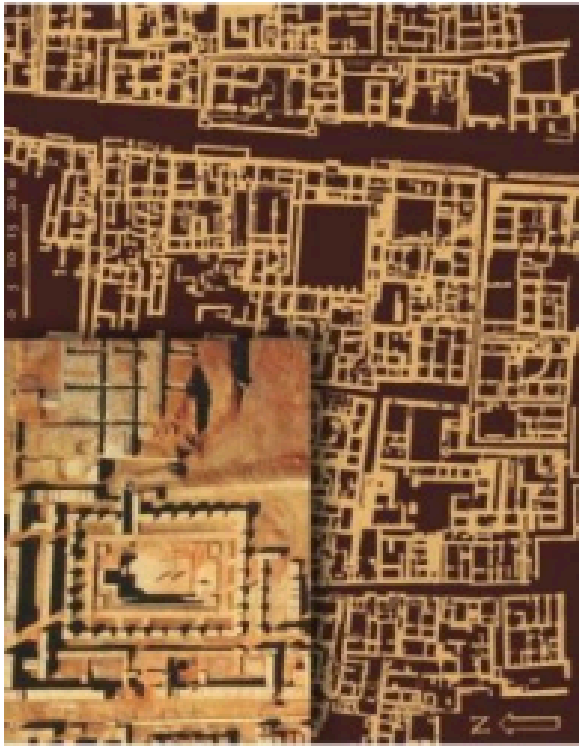
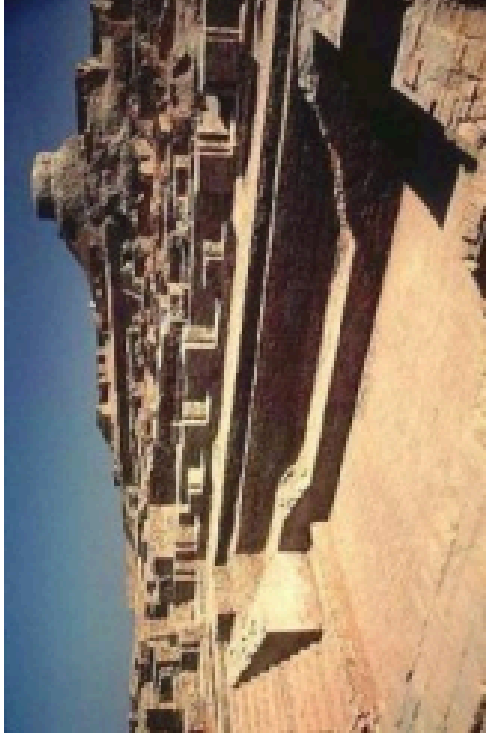



**Most websites about the topic being studies**



**Encyclopedias**

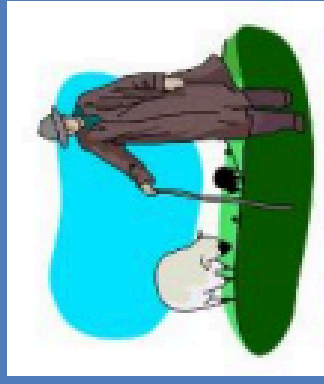
# Indus Valley

River	Writing	Buildings	Key Concepts	
<b>Indus River</b> 	<b>Sanskrit</b> <div> अ आ इ ई ए ऐ ओ औ  क ख ग घ ङ  च छ ज झ ञ </div>	<b>Grid Pattern Cities</b> 	<b>Mohenjo Daro &amp; Harappa</b> 	<b>Hinduism</b> 



# Economic Systems

## Traditional Economy



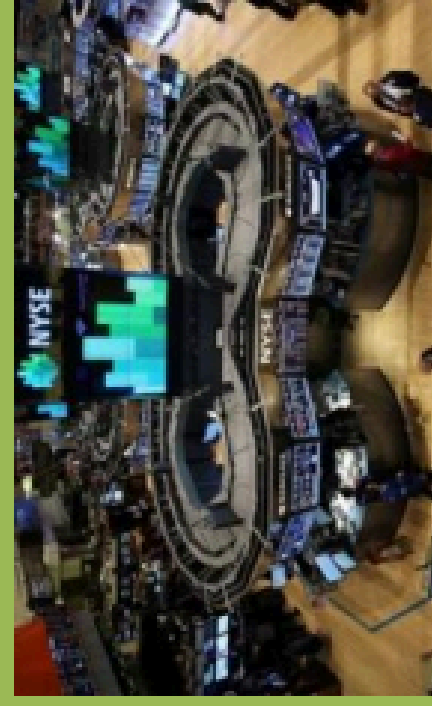
The economic questions are answered by tradition. Trades are passed down by families. This system is typically found in developing countries

## Command Economy



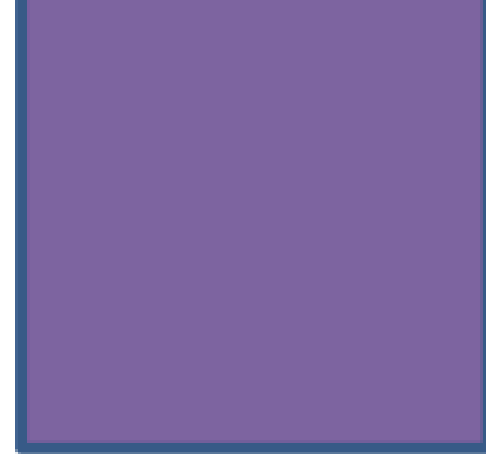
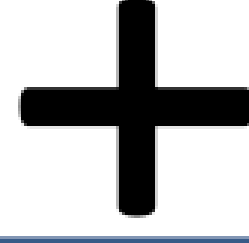
The economic questions are answered by the Government. All decisions concerning the economy are made by the government. This system is typically found in communist countries

## Market Economy (Free Market/ Capitalism)



The economic questions are answered by individuals who choose to participate in the economy. Business are owned by individuals. Decisions are made based on the profit motive of the owner of the business

## Mixed Economy



The economic questions are answered by a combination or mixture of these systems. Mixed Economies have aspects of two or more of the 3 economic systems.



# Enduring Issues Essay Checklist

Did you complete each of these tasks in your essay?



## Introduction



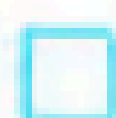
- Introduce the issue
- Define the issue
- Introduce the impact
- State if the issue has continued or changed over time

## Body Paragraph #1 (Define the Issue)



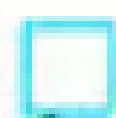
- Topic Sentence (\_\_\_\_\_ can be defined as . . .)
- Cite evidence from **three** documents
- Explain **all three** pieces of evidence
- Outside information (Any information that relates to the event and issue being discussed that is not in the documents)
- Transition sentence

## Body Paragraph #2 (Significance/Impact)



- Topic Sentence (\_\_\_\_\_ has affected people by . . .)
- Cite evidence from **three** documents
- Explain **all three** pieces of evidence
- Outside information (Any information that relates to the event and issue being discussed that is not in the documents)
- Transition sentence

## Conclusion (Continuity or Change)



- Based on this evidence, Continuity/change is seen with this enduring issue. (Continuity OR change, it can be both as long as you can explain)
- An analysis of these three documents suggests that there is continuity/change with this enduring issue as evidenced by . . .



# ALGEBRA REVIEW

## VARIABLES on BOTH sides

- ① Determine what you have on both sides of the equation:

constants? variables? → variables!

$$3x - 8 = 5x$$

- ② Which variable should be removed to isolate the constant? →  $3x$ !

- ③ How do you remove  $3x$ ?  
Subtract  $3x$

$$\begin{array}{r} 3x - 8 = 5x \\ -3x \quad -3x \\ \hline \end{array}$$

$$\frac{-8}{2} = \frac{2x}{2}$$

- ④ Now solve the one-step equation!

$$-4 = x$$

$$\boxed{x = -4}$$

\* When you have **constants** and **variables** on both sides, you can remove any term first!

# Memorize the Squares

$1^2 = 1$

$2^2 = 4$

$3^2 = 9$

$4^2 = 16$

$5^2 = 25$

$6^2 = 36$

$7^2 = 49$

$8^2 = 64$

$9^2 = 81$

$10^2 = 100$

$11^2 = 121$

$12^2 = 144$

$13^2 = 169$

$14^2 = 196$

$15^2 = 225$

$16^2 = 256$

$17^2 = 289$

$18^2 = 324$

$19^2 = 361$

$20^2 = 400$

$21^2 = 441$

$22^2 = 484$

$23^2 = 529$

$24^2 = 576$

$25^2 = 625$

$26^2 = 676$

$27^2 = 729$

$28^2 = 784$

$29^2 = 841$

$30^2 = 900$





# CONSECUTIVE integers

↑  
in order

## consecutive integers

Find 3 consecutive integers whose sum is 54.

Let  $n$  = 1<sup>st</sup> integer

$n+1$  = 2<sup>nd</sup> integer

$n+2$  = 3<sup>rd</sup> integer

$$n + (n+1) + (n+2) = 54$$

$$3n + 3 = 54$$

$$3n = 51$$

$$n = 17$$

integers:

17, 18, 19

## consecutive EVEN integers

Find 3 consecutive even integers whose sum is 54.

Let  $n$  = 1<sup>st</sup> integer

$n+2$  = 2<sup>nd</sup> integer

$n+4$  = 3<sup>rd</sup> integer

$$n + (n+2) + (n+4) = 54$$

$$3n + 6 = 54$$

$$3n = 48$$

$$n = 16$$

integers:

16, 18, 20

## consecutive ODD integers

Find 3 consecutive odd integers whose sum is 57.

Let  $n$  = 1<sup>st</sup> integer

$n+2$  = 2<sup>nd</sup> integer

$n+4$  = 3<sup>rd</sup> integer

$$n + (n+2) + (n+4) = 57$$

$$3n + 6 = 57$$

$$3n = 51$$

$$n = 17$$

integers:

17, 19, 21

multiply each term of the **first** polynomial/  
by each term of the **second** polynomial/  
↪ **distributive property** on repeat!

$$(x+3)(x-7) \Rightarrow \begin{array}{l} x(x) + x(-7) + 3(x) + 3(-7) \\ x^2 - 7x + 3x - 21 \\ \boxed{x^2 - 4x - 21} \end{array}$$

# (multiplying) POLYNOMIALS

strategy 1

$$(x+3)(x^2-2x+1)$$

$$\begin{array}{l} x^3 - 2x^2 + x + 3x^2 - 6x + 3 \\ x^3 + x^2 - 5x + 3 \end{array}$$

↪ in Standard Form  
degree: 3  
leading coefficient: 1

strategy 2

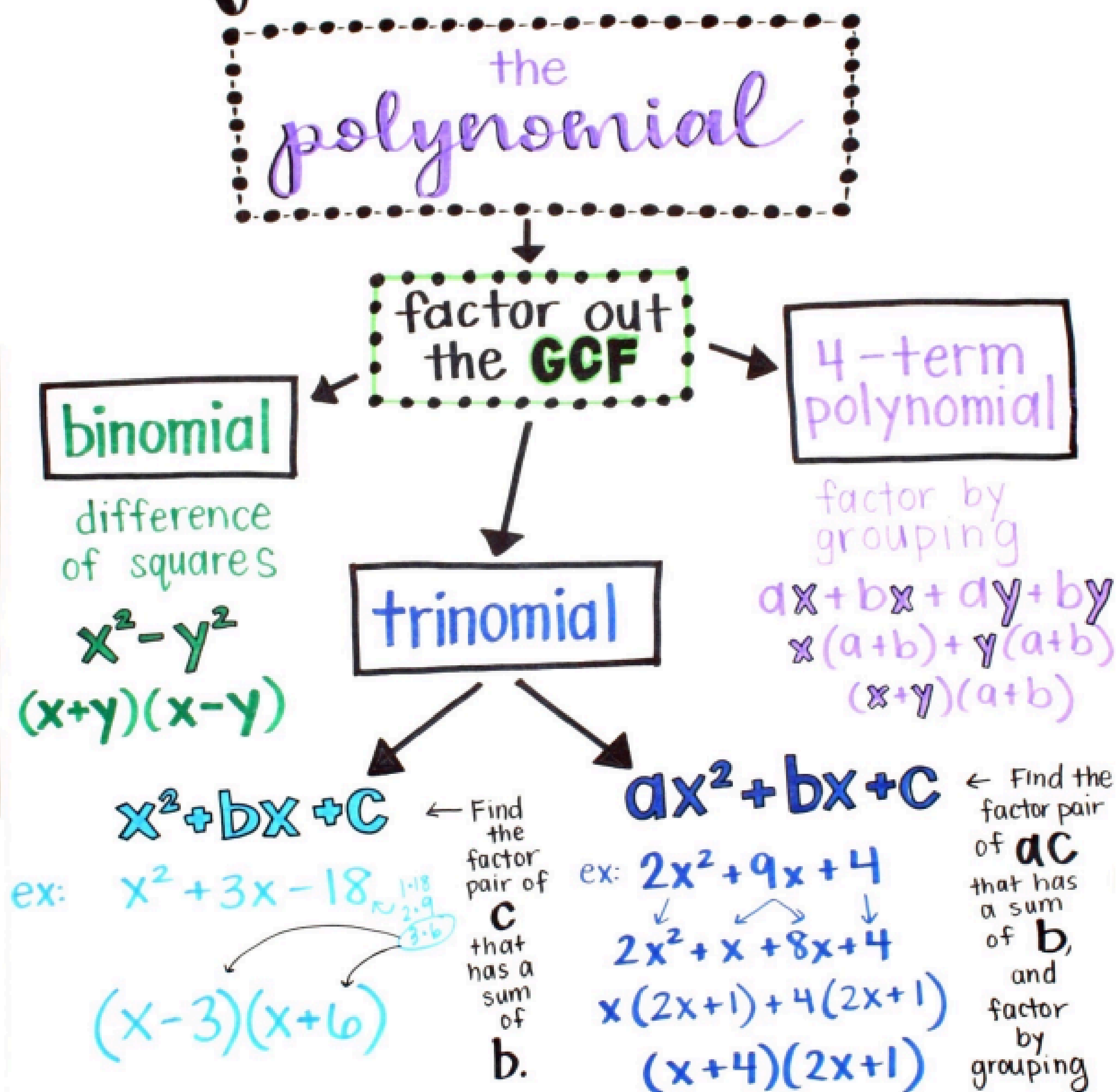
$$(x+3)(x^2-2x+1)$$

	$x^2$	$-2x$	$1$
$x$	$x^3$	$-2x^2$	$x$
$3$	$3x^2$	$-6x$	$3$

then combine  
like terms as shown  
in strategy 1

# FACTORING

## flow chart





## Completing the Square

The process of  
creating a  
perfect square  
trinomial equation  
to factor & solve.

$$\begin{aligned} x^2 + 8x - 9 &= 0 \\ x^2 + 8x &= 9 \\ &\quad \boxed{+16} \quad \boxed{+16} \end{aligned}$$

$$\begin{aligned} x^2 + 8x + 16 &= 25 \\ (x+4)^2 &= 25 \end{aligned}$$

$$\sqrt{(x+4)^2} = \pm\sqrt{25}$$

$$x+4 = \pm 5$$

$$x = -4 \pm 5$$

$$x = \{1, -9\}$$

## The Quadratic Formula

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

This formula is used for  
quadratic equations in the form:

$$ax^2 + bx + c = 0$$

# Is it a FUNCTION?

## Yes

## No

table

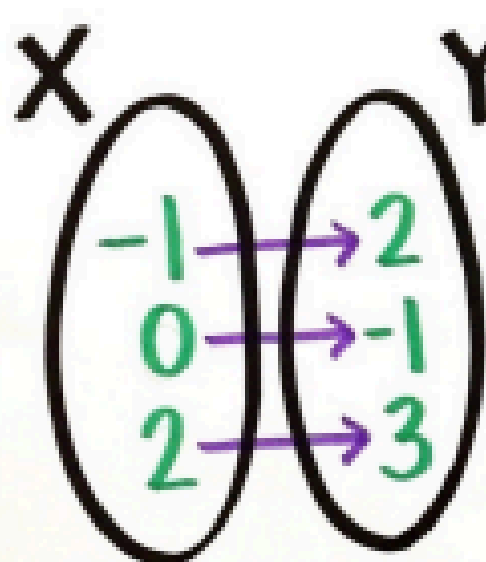
x	y
-1	2
0	-1
2	3

each x-value has a unique y-value  
\*no x-values repeat

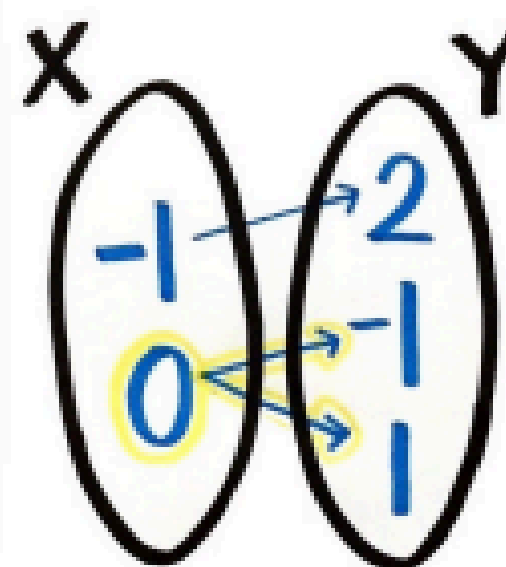
x	y
-1	2
0	-1
0	1

the x-value of 0 has two y-values, -1 and 1

mapping

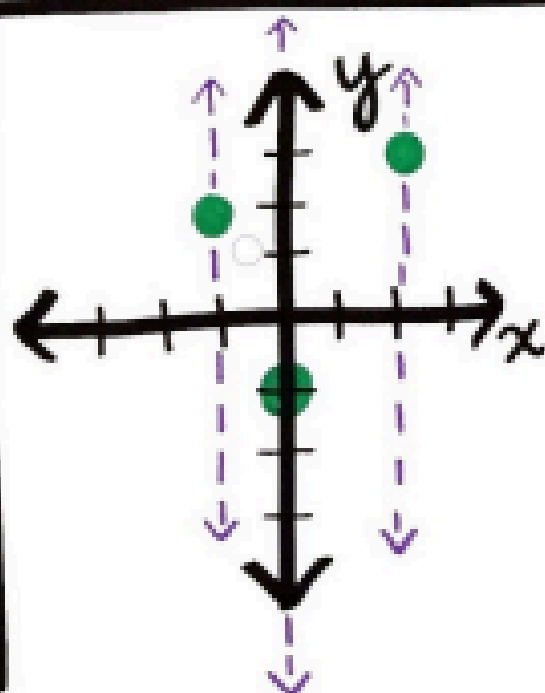


each x-value maps onto one y-value

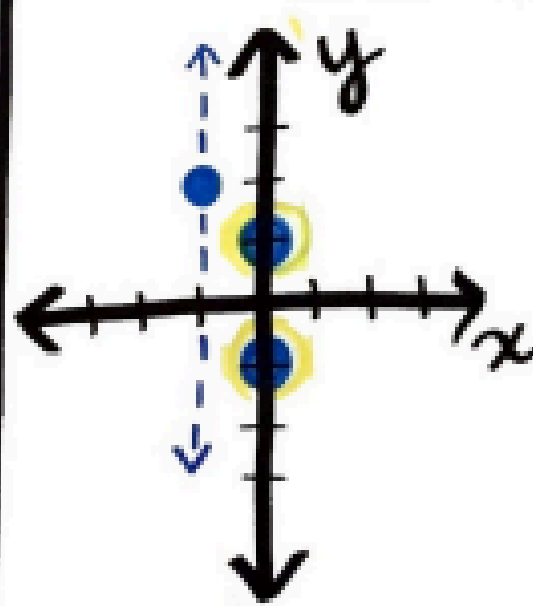


the x-value of 0 maps onto two y-values, -1 and 1

graph



Passes the Vertical Line Test!



Does NOT Pass the Vertical Line Test!

# GRAPHING

## Linear Functions

Form	To Graph
<p>Standard form</p> <p>can't be negative</p> $Ax + By = C$ <p>integers with a GCF = 1</p>	<p>① Find the x &amp; y intercepts</p> <p>② slope: <math>-\frac{A}{B}</math> y-int: <math>\frac{C}{B}</math></p> <p>③ make a table</p>
<p>slope-intercept form</p> <p>the slope!</p> $y = mx + b$ <p>the y-int!</p>	<p>① Find the x &amp; y intercepts</p> <p>② Plot the y-int (b) and use the slope (m)</p> <p>③ make a table</p>
<p>point-slope</p> $y - y_1 = m(x - x_1)$ <p>the slope</p> <p>the point</p>	<p>① Plot the point <math>(x_1, y_1)</math> and use the slope</p>



# EXPONENTIAL functions

$$y = 2^x$$

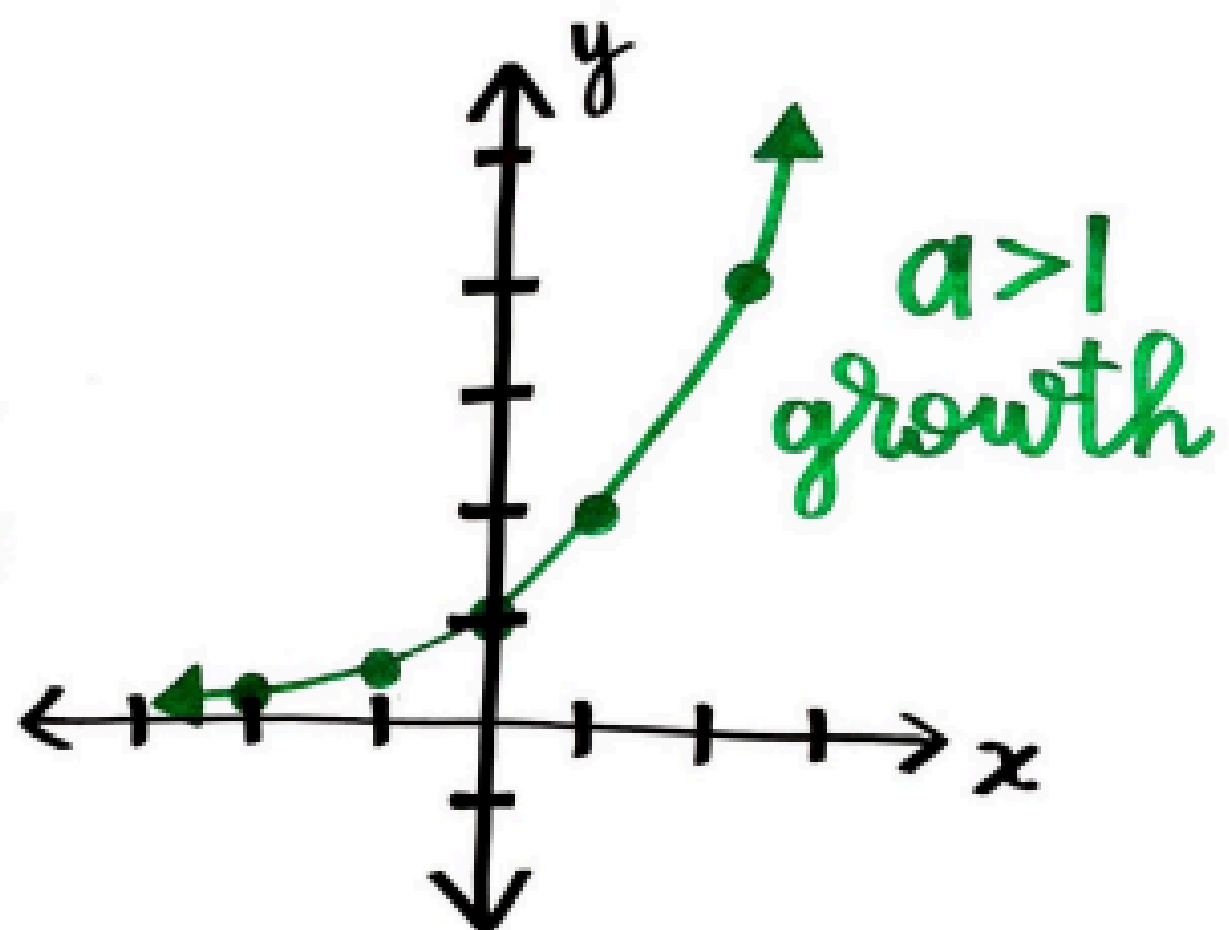
look  
at the  
pattern  
↓  
multiply  
by 2

x	y
-2	1/4
-1	1/2
0	1
1	2
2	4

$$\leftarrow 2^{-2} = \frac{1}{2^2}$$

$$\leftarrow 2^{-1} = \frac{1}{2^1}$$

y-int: 1



domain: all reals  
range:  $y > 0$

$$y = \frac{1}{2}^x$$

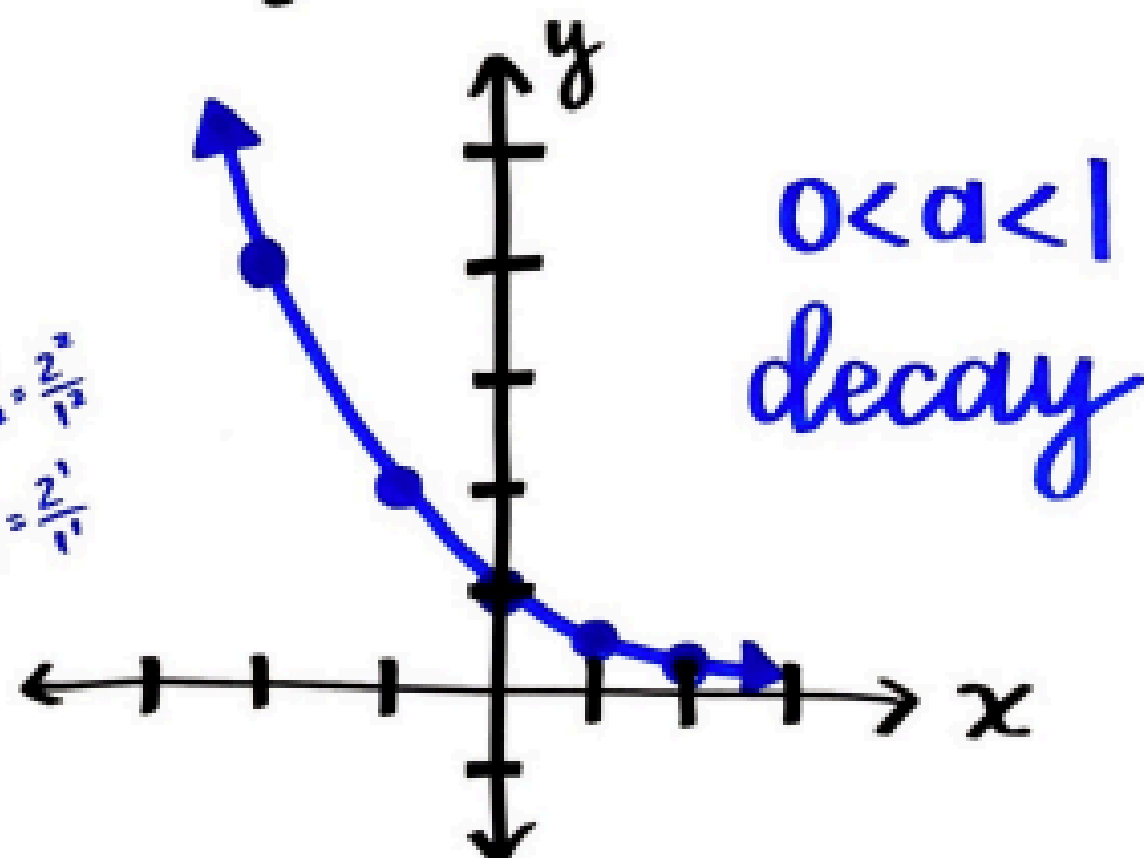
look  
at the  
pattern  
↓  
multiply  
by 1/2

x	y
-2	4
-1	2
0	1
1	1/2
2	1/4

$$\leftarrow \frac{1}{2}^{-2} = \frac{1}{2^{-2}} = \frac{2^2}{1}$$

$$\leftarrow \frac{1}{2}^{-1} = \frac{1}{2^{-1}} = \frac{2^1}{1}$$



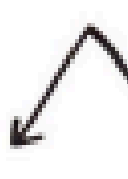
y-int: 1



domain: all reals  
range:  $y > 0$

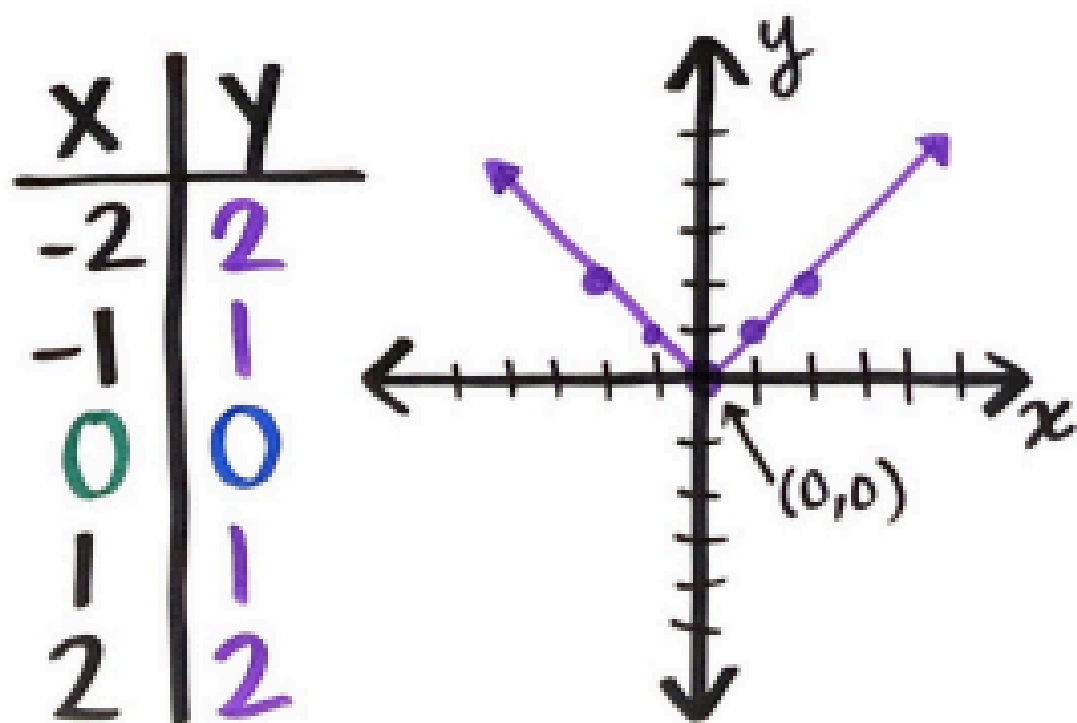
# Absolute Value FUNCTIONS

$$f(x) = a |x - h| + k$$

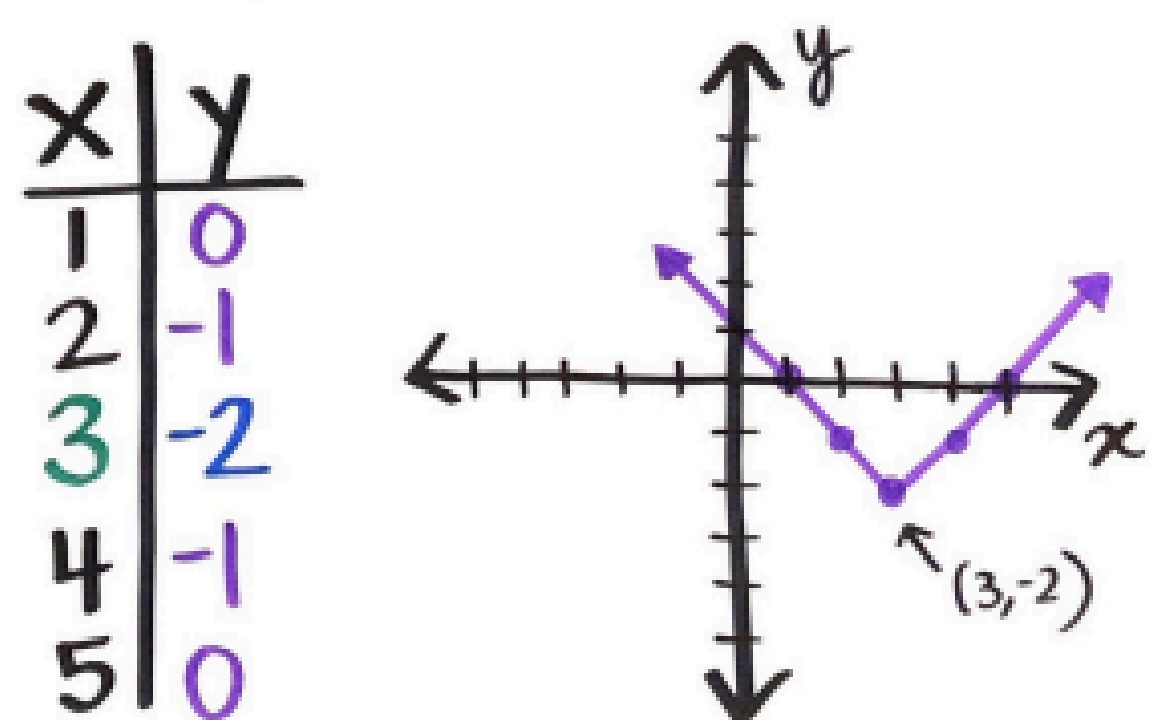
$|a| > 1$  vertical stretch (narrow)   
 $0 < |a| < 1$  vertical compression (wide)   
 $-a$  vertical reflection 

vertex:  $(h, k)$   
 $h$ : horizontal shift  
 $k$ : vertical shift  
 $(3, -2)$ : right 3 units  
 down 2 units

$$f(x) = |x|$$



$$f(x) = |x - 3| - 2$$



# LITERAL Equations

Perimeter of a rectangle  $\rightarrow$   $P = 2(\ell + w)$

$\uparrow$  perimeter       $\uparrow$  length       $\uparrow$  width

To solve this equation for  $\ell$ :

$$\frac{P}{2} = \frac{2(\ell + w)}{2}$$

Divide both sides by 2

$$\begin{array}{r} \frac{P}{2} = \ell + w \\ -w \quad \quad w \\ \hline \end{array}$$

Subtract the width  $w$

$$\frac{P}{2} - w = \ell \Rightarrow \boxed{\ell = \frac{P}{2} - w}$$



$$a_1 = 3 \quad a_n = 2a_{n-1} + 1 \quad n \geq 2$$

$\nwarrow$  1<sup>st</sup> term                       $\nwarrow$  previous term                       $\nwarrow$  2<sup>nd</sup> term and up

$$a_1 = 3 \quad a_2 = 2(3) + 1 \quad a_3 = 2(7) + 1$$

$$a_2 = 7 \quad a_3 = 15$$

# RECURSIVE formulas

arithmetic

$$a_n = a_{n-1} + d$$

$$-8, -3, 2, 7, \dots$$

$$a_1 = -8 \quad a_n = a_{n-1} + 5$$

$$n \geq 2$$

geometric

$$a_n = a_{n-1} \cdot r$$

$$5, -15, 45, -135, \dots$$

$$a_1 = 5 \quad a_n = a_{n-1} \cdot (-3)$$

$$n \geq 2$$

# Geometric sequences

$$a_n = a_1 \cdot r^{n-1}$$

$a_n$  is the  $n^{\text{th}}$  term  
 $a_1$  is the 1<sup>st</sup> term  
 $r$  is the common ratio (the multiplier)

Write an equation for the  $n^{\text{th}}$  term of the sequence:

3, 6, 12, 24, ...

$$a_1 = 3 \quad r = 2 \quad \rightarrow \quad a_n = a_1 \cdot r^{n-1}$$

$$a_n = 3 \cdot 2^{n-1}$$

Find the 12<sup>th</sup> term of the sequence.

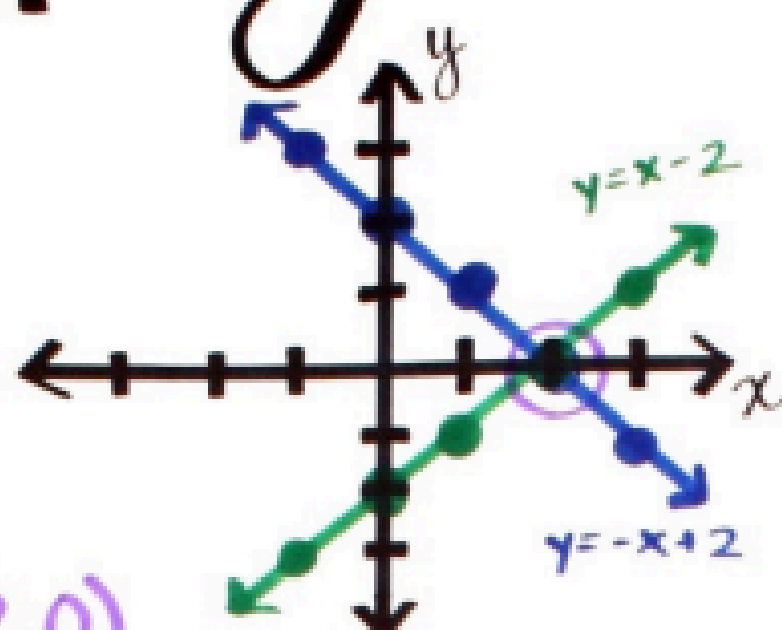
$$a_{12} = a_1 \cdot 2^{12-1} \rightarrow a_{12} = 3 \cdot 2^{11}$$

$$a_{12} = 6,144$$

# graphing

$$\begin{cases} y = x - 2 \\ y = -x + 2 \end{cases}$$

solution: (2,0)  
consistent & independent



# substitution

$$\begin{cases} y = x - 2 \\ x + y = 2 \end{cases}$$

$$\begin{aligned} x + (x - 2) &= 2 \\ x + x - 2 &= 2 \\ 2x - 2 &= 2 \\ 2x &= 4 \\ x &= 2 \end{aligned}$$

solve for y!

$$\begin{aligned} y &= x - 2 \\ y &= 2 - 2 \\ y &= 0 \end{aligned}$$

solution: (2,0)

# Systems of EQUATIONS

## elimination + or -

$$\begin{cases} x + 2y = 4 \\ 3x - 2y = 12 \end{cases} \rightarrow \begin{aligned} x + 2y &= 4 \\ 4 + 2y &= 4 \\ 2y &= 0 \\ y &= 0 \end{aligned}$$

$$\begin{aligned} x + 2y &= 4 \\ + 3x - 2y &= 12 \\ \hline 4x &= 16 \\ x &= 4 \end{aligned}$$

solution: (4,0)

## elimination x one or both!

$$\begin{cases} 2(x + 2y = 4) \rightarrow 2x + 4y = 8 \\ 6x - 4y = 24 \end{cases} \rightarrow \begin{aligned} 2x + 4y &= 8 \\ + 6x - 4y &= 24 \\ \hline 8x &= 32 \\ x &= 4 \end{aligned}$$

now solve for y

$$\begin{aligned} 2x + 4y &= 8 \\ 2(4) + 4y &= 8 \\ 8 + 4y &= 8 \\ 4y &= 0 \\ y &= 0 \end{aligned}$$

solution: (4,0)



# Finding the **INVERSE** Function



Original function:  $f(x) = 3x + 2$

① Replace  $f(x)$   
with  $y$

$$y = 3x + 2$$

② **Inverse** the  $x$   
and  $y$  values

$$x = 3y + 2$$
$$\begin{array}{r} -2 \\ \hline \end{array}$$

③ Solve for  $y$

$$\frac{x - 2}{3} = \frac{3y}{3}$$

④ Replace  $y$   
with  $f^{-1}(x)$

$$f^{-1}(x) = \frac{x - 2}{3}$$

The **INVERSE** Function!

# GRAPHING quadratics!

$$f(x) = 2x^2 + 4x - 6 \rightarrow a = 2, b = 4, c = -6$$

Axis of  
Symmetry

$$x = \frac{-b}{2a}$$

$$x = \frac{-(4)}{2(2)}$$

$$x = -1$$

The Vertex

$$y = 2x^2 + 4x - 6$$

$$y = 2(-1)^2 + 4(-1) - 6$$

$$y = -8$$

$$\text{vertex: } (-1, -8)$$

vertex form:

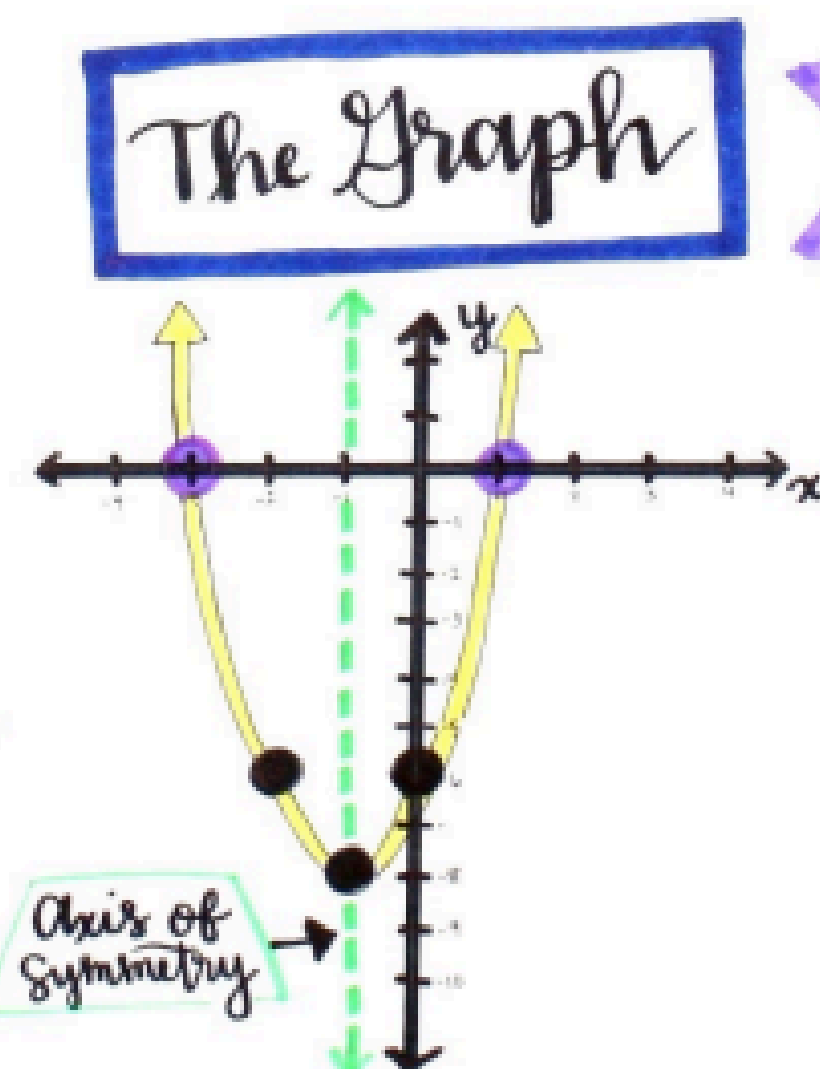
$$f(x) = a(x - h)^2 + k$$

$$f(x) = 2(x + 1)^2 - 8$$

Table of  
Values

x	y
-3	0
-2	-6
-1	-8
0	-6
1	0

The  
Vertex



Axis of  
Symmetry

The Graph

The Roots

are the  
x-intercepts  
of the graph  
 $x = \{-3, 1\}$

which is also  
the solution  
or zeros  
of  $2x^2 + 4x - 6 = 0$

# Evaluating FUNCTIONS

the function of  $x$   
 $f(x)$  is read as " $f$  of  $x$ "

$$\text{If } f(x) = x^2 + 4x,$$

find  $f(2)$ :

$$f(x) = x^2 + 4x$$

$$f(2) = 2^2 + 4(2)$$

$$f(2) = 4 + 4(2)$$

$$f(2) = 4 + 8$$

$$f(2) = 12$$

find  $f(-3)$ :

$$f(x) = x^2 + 4x$$

$$f(-3) = (-3)^2 + 4(-3)$$

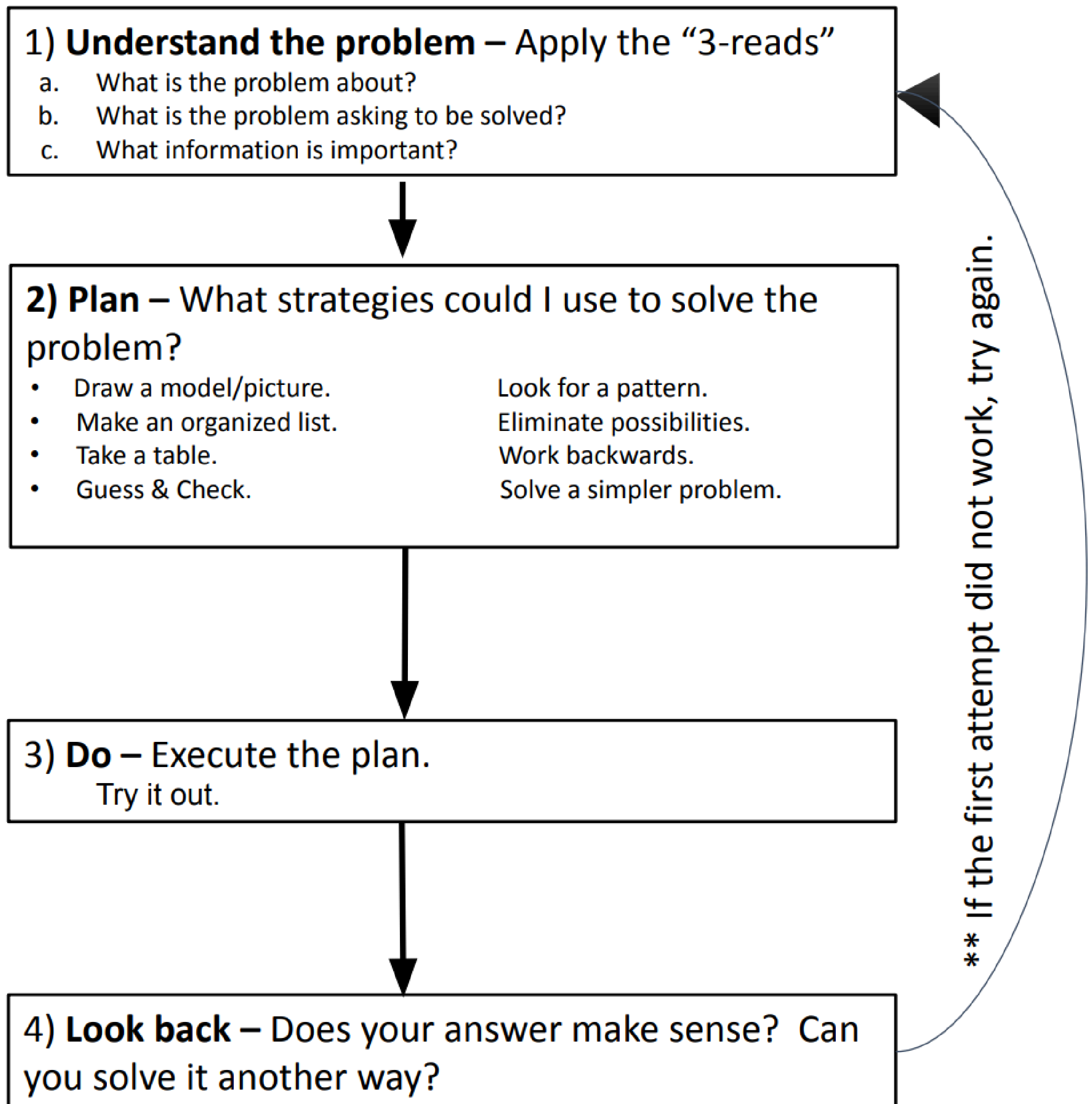
$$f(-3) = 9 + 4(-3)$$

$$f(-3) = 9 - 12$$

$$f(-3) = -3$$



# Polya's 4-Step Problem Solving Method



Reference Sheet for Algebra I (NGLS)

Conversions

- 1 mile = 5280 feet
- 1 mile = 1760 yards
- 1 pound = 16 ounces
- 1 ton = 2000 pounds

Conversions Across  
Measurement Systems

- 1 inch = 2.54 centimeters
- 1 meter = 39.37 inches
- 1 mile = 1.609 kilometers
- 1 kilometer = 0.6214 mile
- 1 pound = 0.454 kilogram
- 1 kilogram = 2.2 pounds

Quadratic Equation	$y = ax^2 + bx + c$
Quadratic Formula	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
Equation of the Axis of Symmetry	$x = -\frac{b}{2a}$
Slope	$m = \frac{y_2 - y_1}{x_2 - x_1}$
Linear Equation Slope Intercept	$y = mx + b$
Linear Equation Point Slope	$y - y_1 = m(x - x_1)$

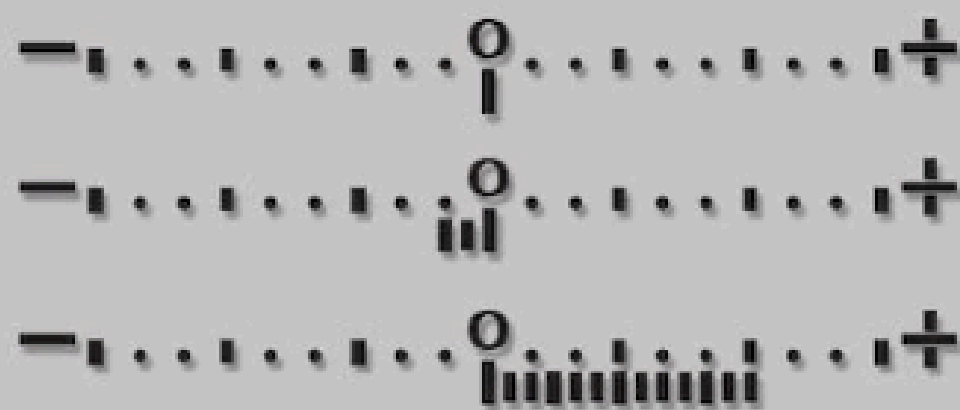
Exponential Equation	$y = ab^x$
Annual Compound Interest	$A = P(1 + r)^n$
Arithmetic Sequence	$a_n = a_1 + d(n - 1)$
Geometric Sequence	$a_n = a_1r^{n-1}$
Interquartile Range (IQR)	$IQR = Q_3 - Q_1$
Outlier	Lower Outlier Boundary = $Q_1 - 1.5(IQR)$
	Upper Outlier Boundary = $Q_3 + 1.5(IQR)$

# CAMERA SETTING CHEAT SHEET

## EXPOSURE



KEEP THE LIGHT METER AT "0" FOR A BALANCED EXPOSURE  
EXPOSE FOR THE LIGHTS TO NOT BLOWN OUT THE WHITES



OPTIMAL EXPOSURE

UNDEREXPOSED

OVEREXPOSED

## APERTURE

SMALLER f/STOPS REPRESENT LARGER APERTURES, MORE LIGHT THROUGH THE LENS AND SHALLOWER DOF

f/1.4

f/2

f/2.8

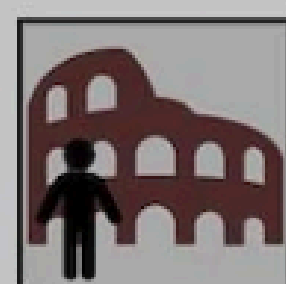
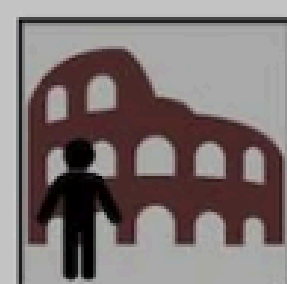
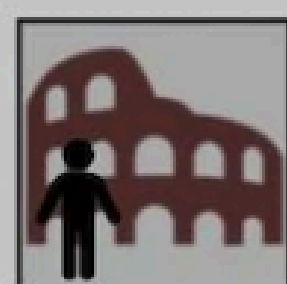
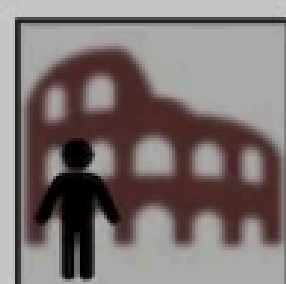
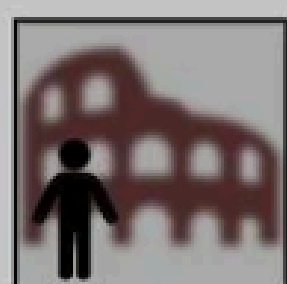
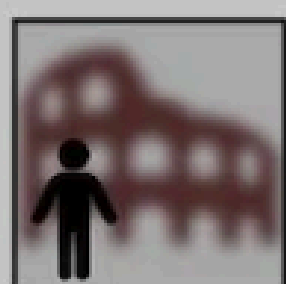
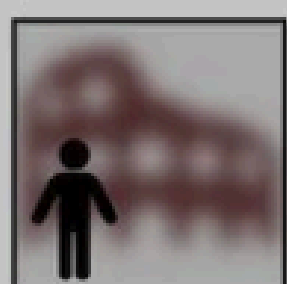
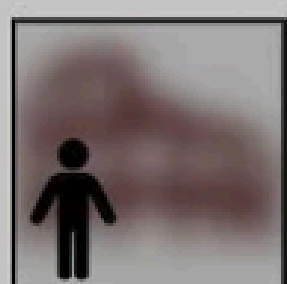
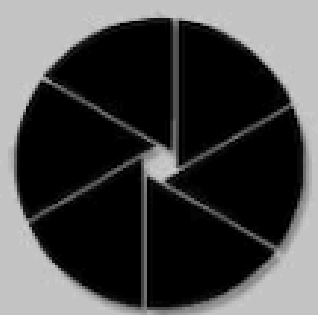
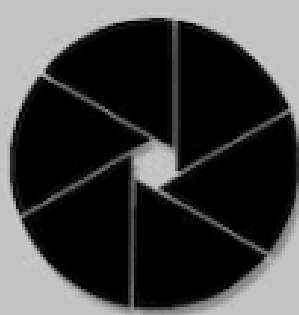
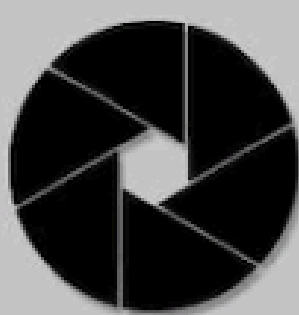
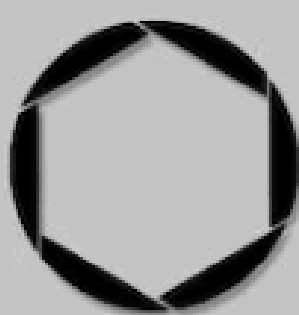
f/4

f/5.6

f/8

f/11

f/16



SHALLOW DEPTH OF FIELD  
BRIGHTER

DEEP DEPTH OF FIELD  
DARKER

## SHUTTER SPEED

THE LENGTH OF TIME WHEN THE DIGITAL SENSOR INSIDE THE CAMERA IS EXPOSED TO LIGHT

1"

1/4

1/15

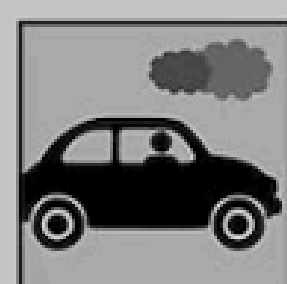
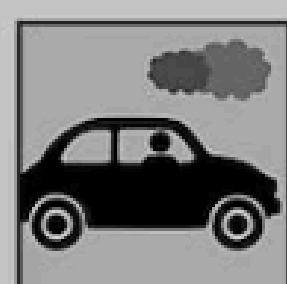
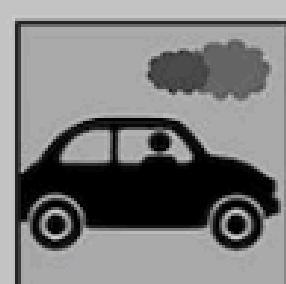
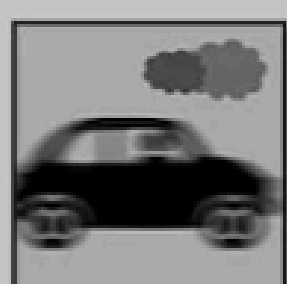
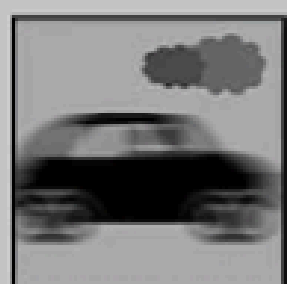
1/60

1/125

1/250

1/500

1/1000



LONGER EXPOSURE  
BLUR ACTION / BRIGHTER

SHORTER EXPOSURE  
DARKER / FREEZE ACTION

## ISO

THE SENSITIVITY OF THE IMAGE SENSOR OR THE FILM TO THE LIGHT  
LOW ISO TO USE DURING DAY TIME - HIGH ISO DURING NIGHT TIME

100

200

400

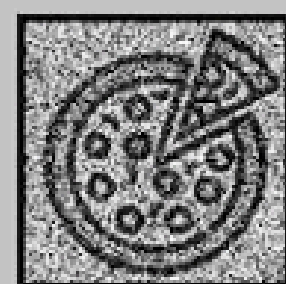
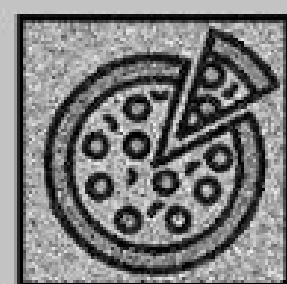
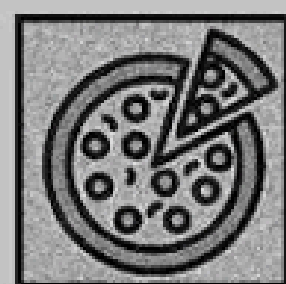
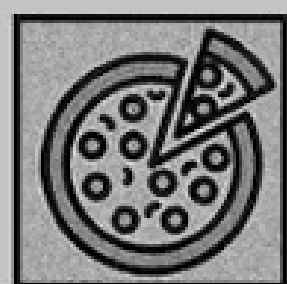
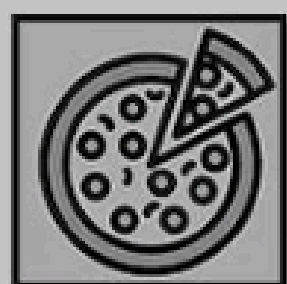
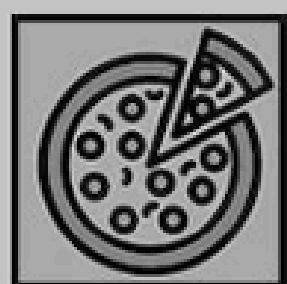
800

1600

3200

6400

12800



LOW SENSITIVE TO LIGHT  
LOW NOISE / HIGHER QUALITY

HIGH SENSITIVITY TO LIGHT  
LOWER QUALITY / HIGH NOISE

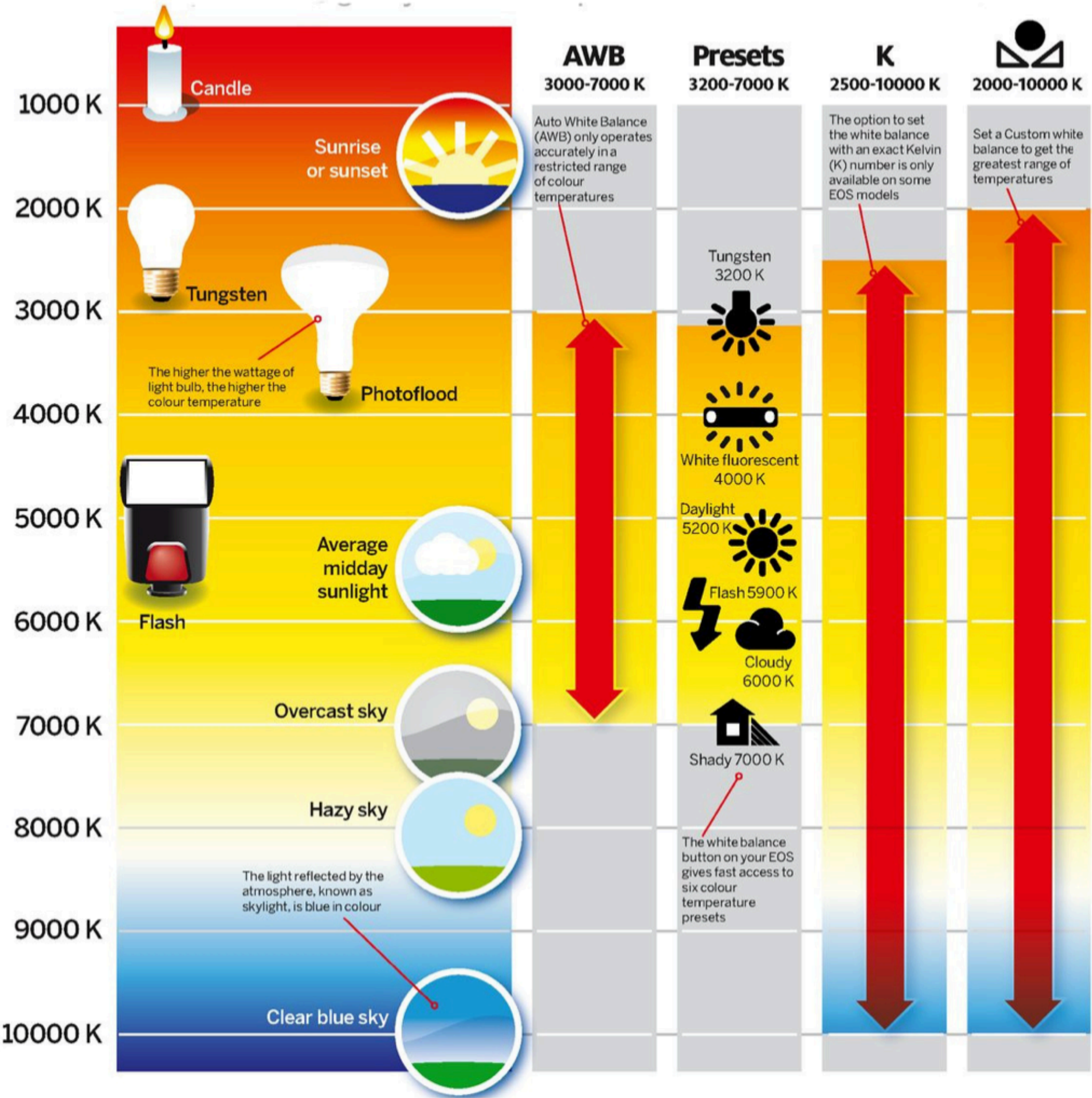


## The color itself

Intensity of the color

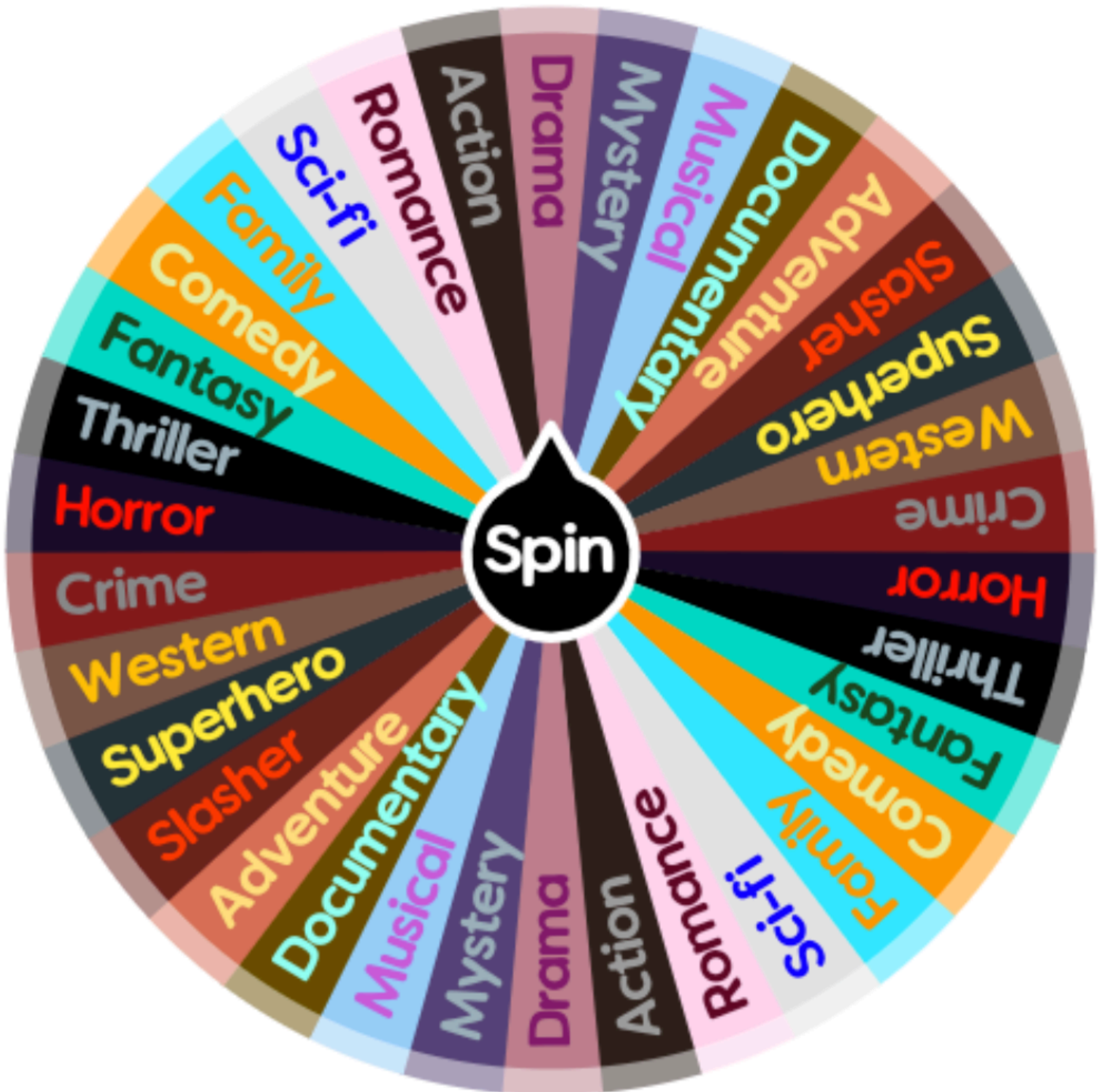
Darkness or lightness of a color

# Color temperature and the Kelvin scale





# Genre Wheel



## Shot Size Cheatsheet





## Camera Level & Shot Size



OVERHEAD



EYE LEVEL



SHOULDER LEVEL



HIP LEVEL



KNEE LEVEL



GROUND LEVEL



EXTREME CLOSEUP (ECU)

CLOSEUP (CU)

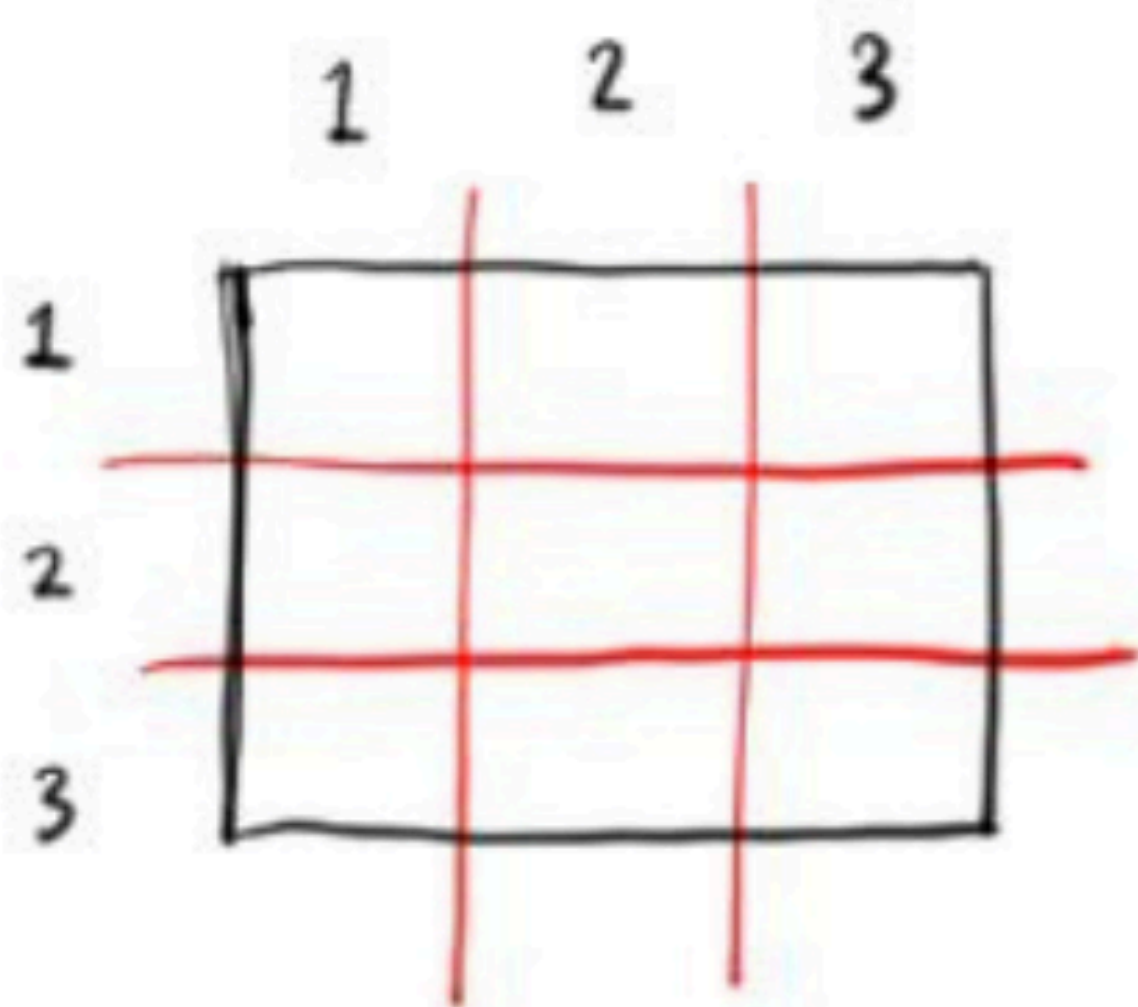
MEDIUM CLOSEUP (MCU)

MEDIUM SHOT (MS)

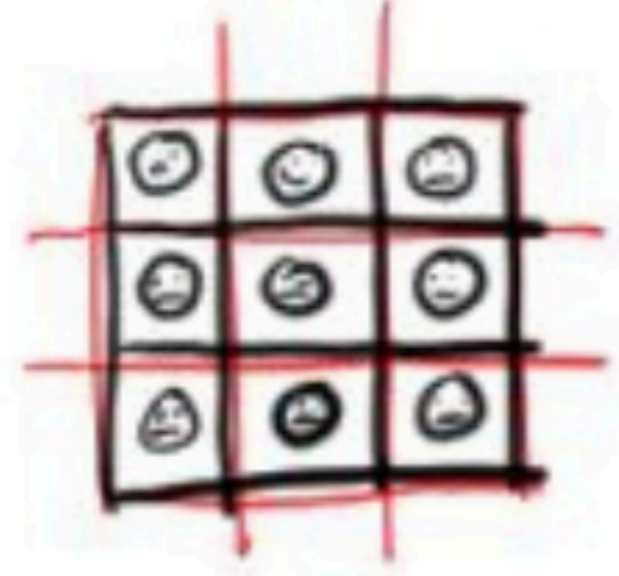
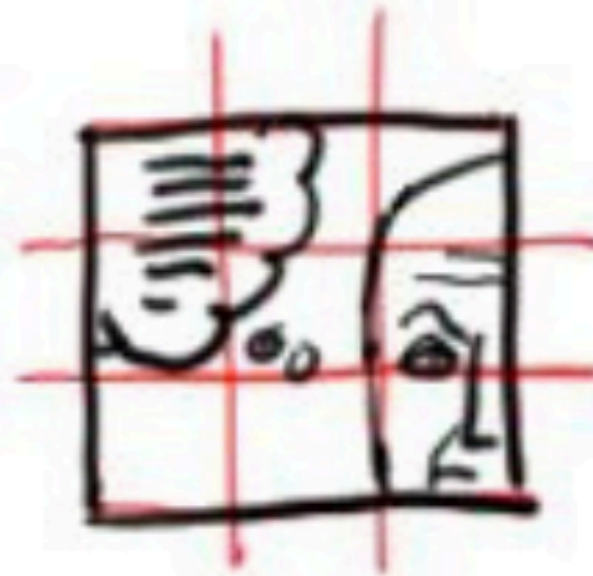
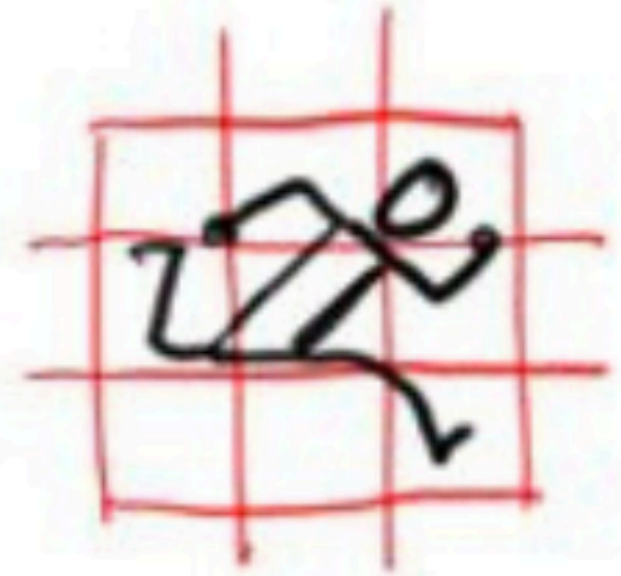
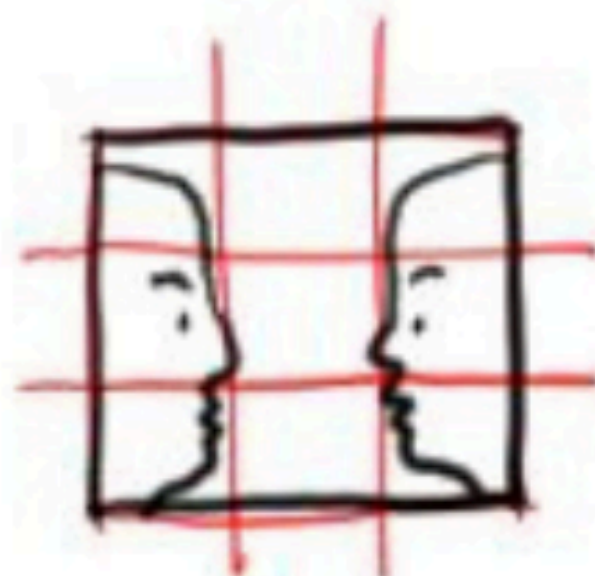
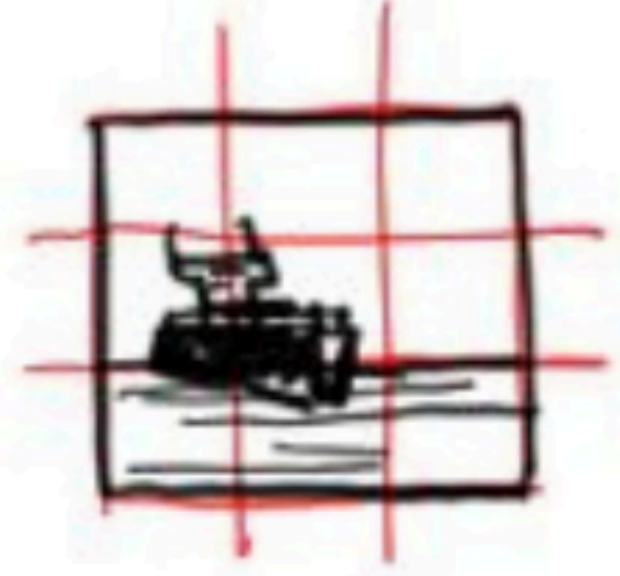
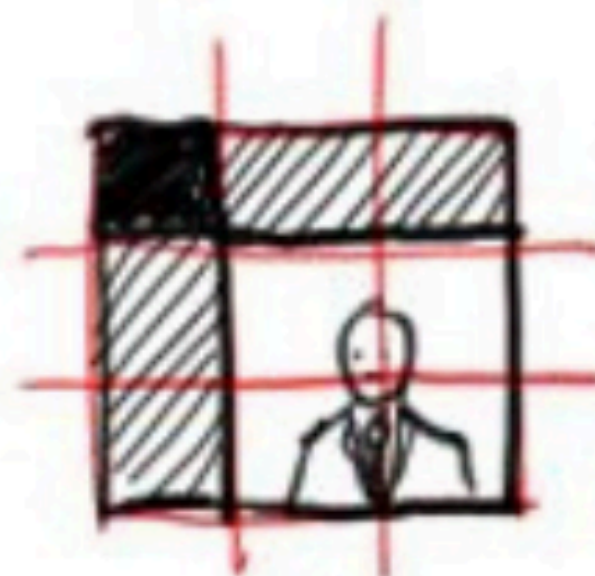
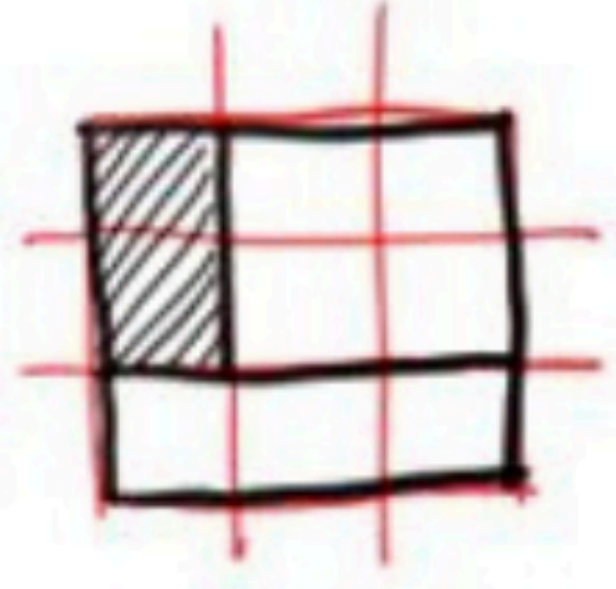
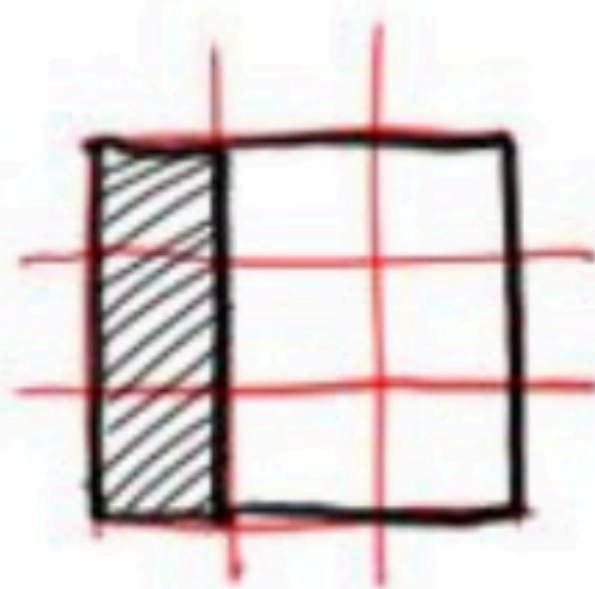
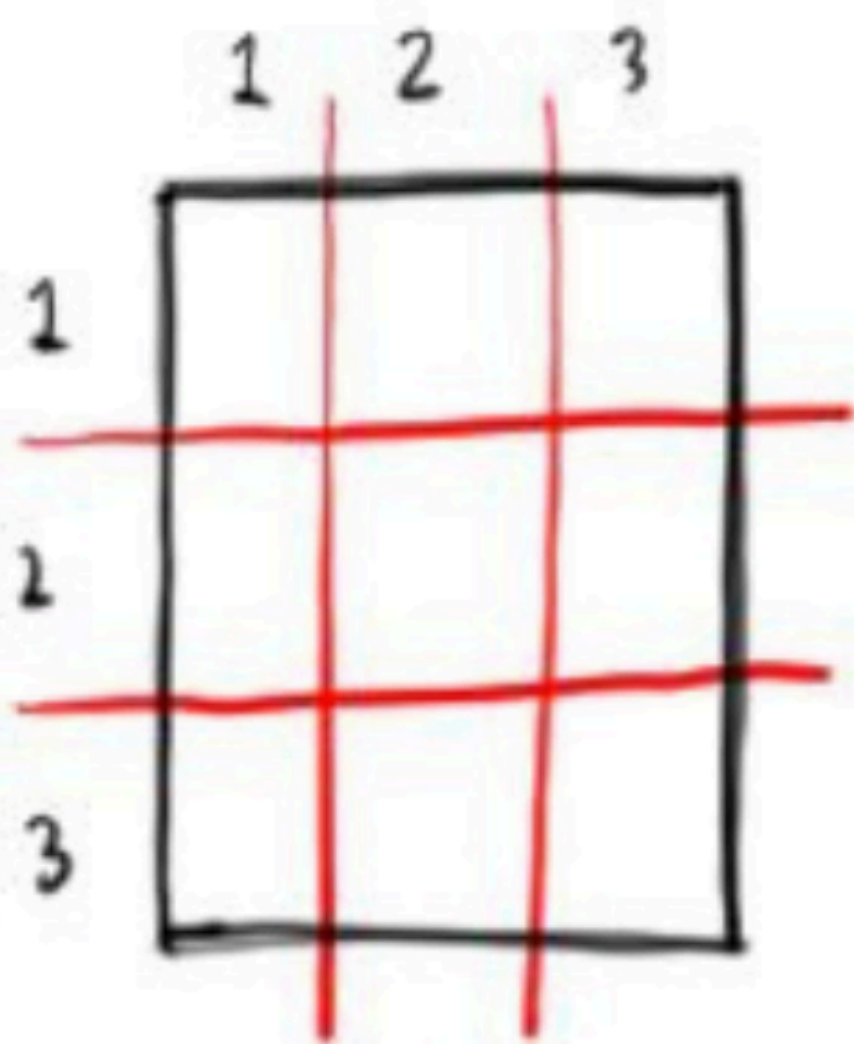
COWBOY SHOT (CS)

MEDIUM FULL SHOT (MFS)

FULL SHOT (FS)



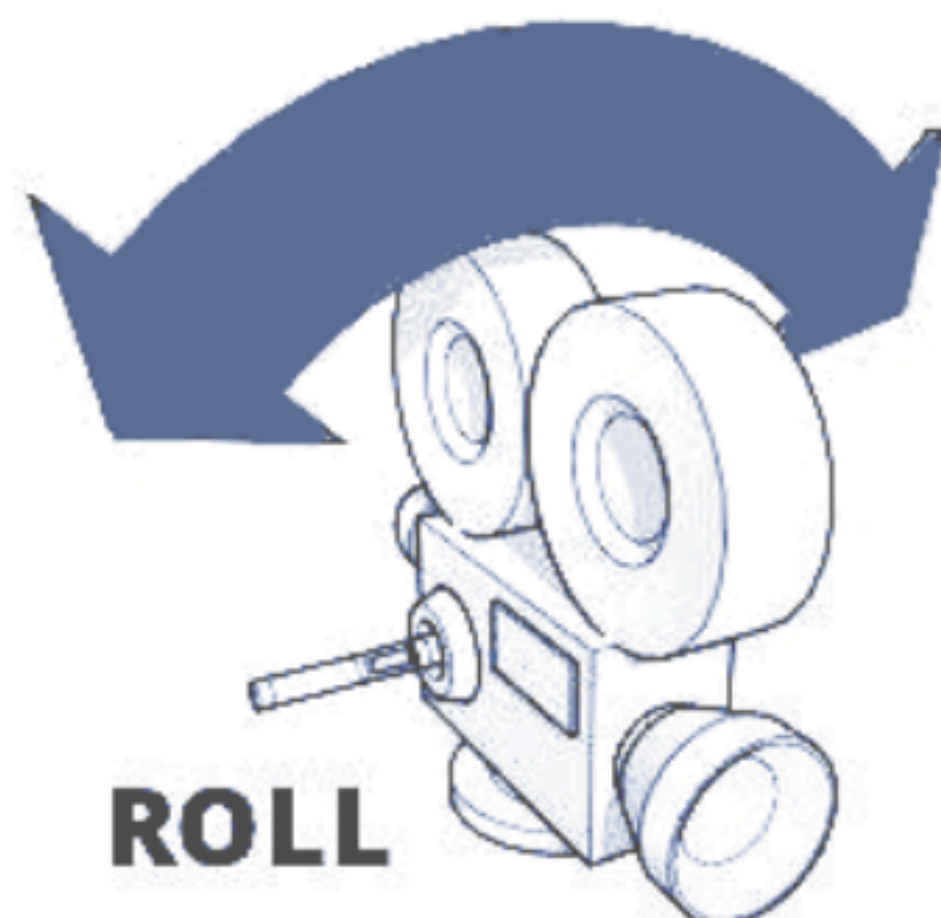
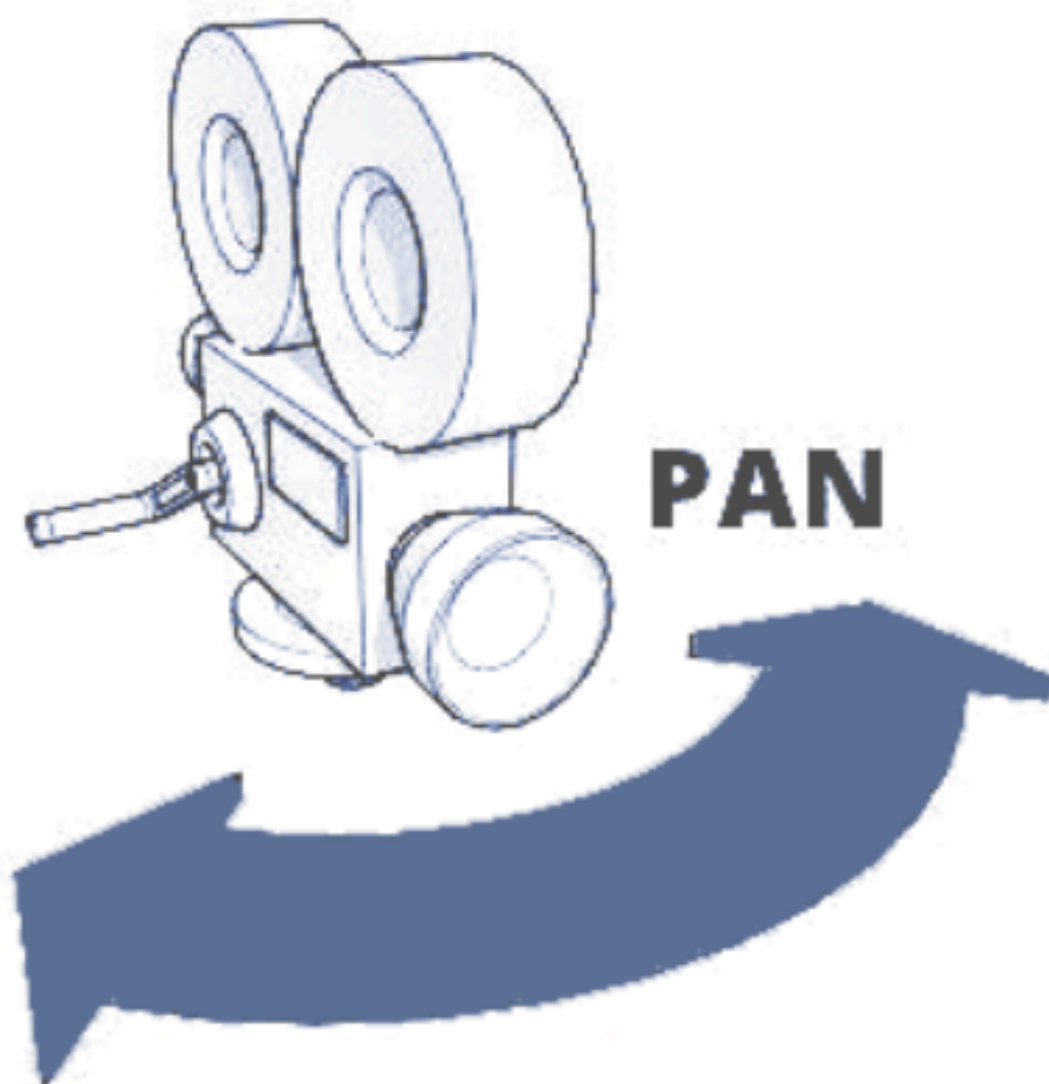
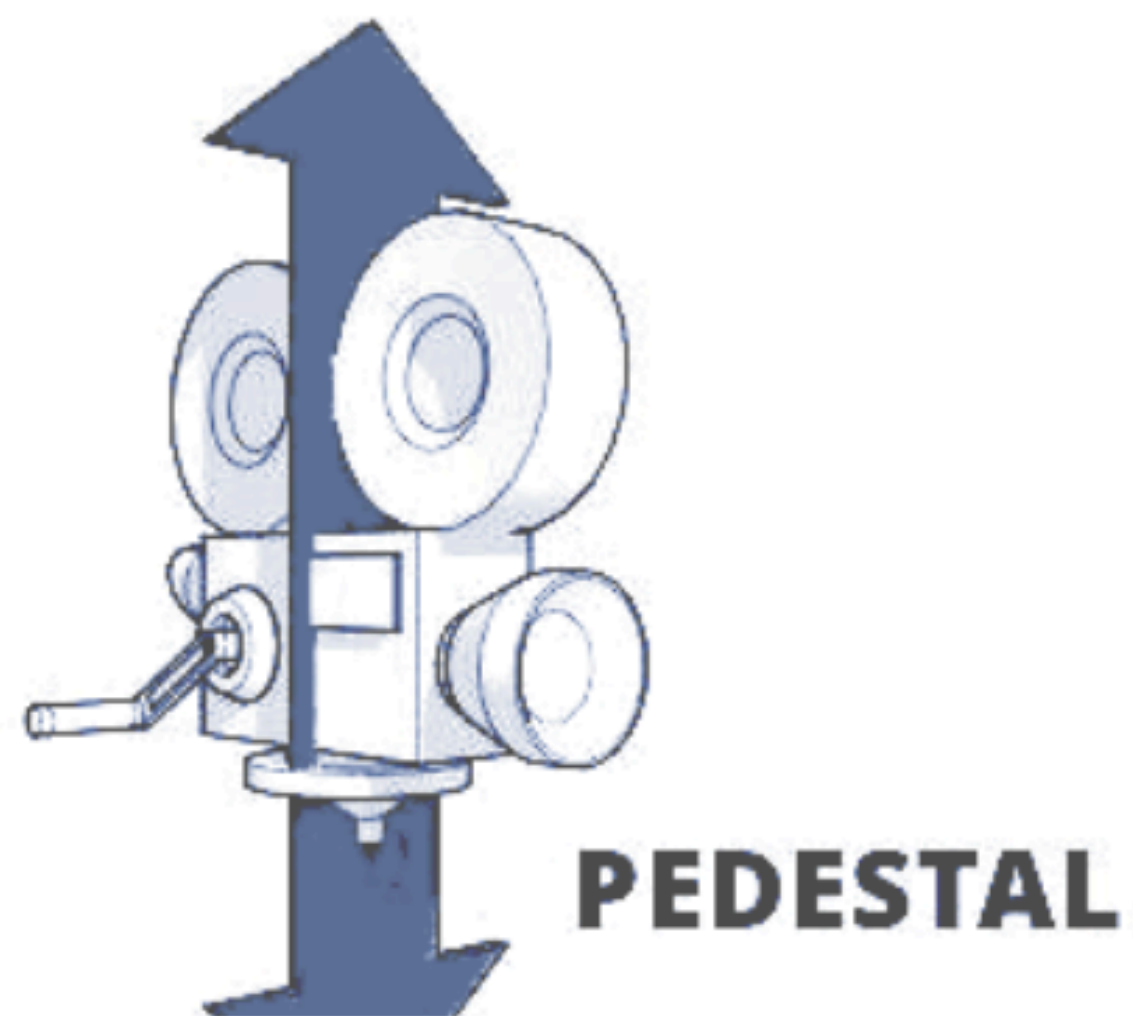
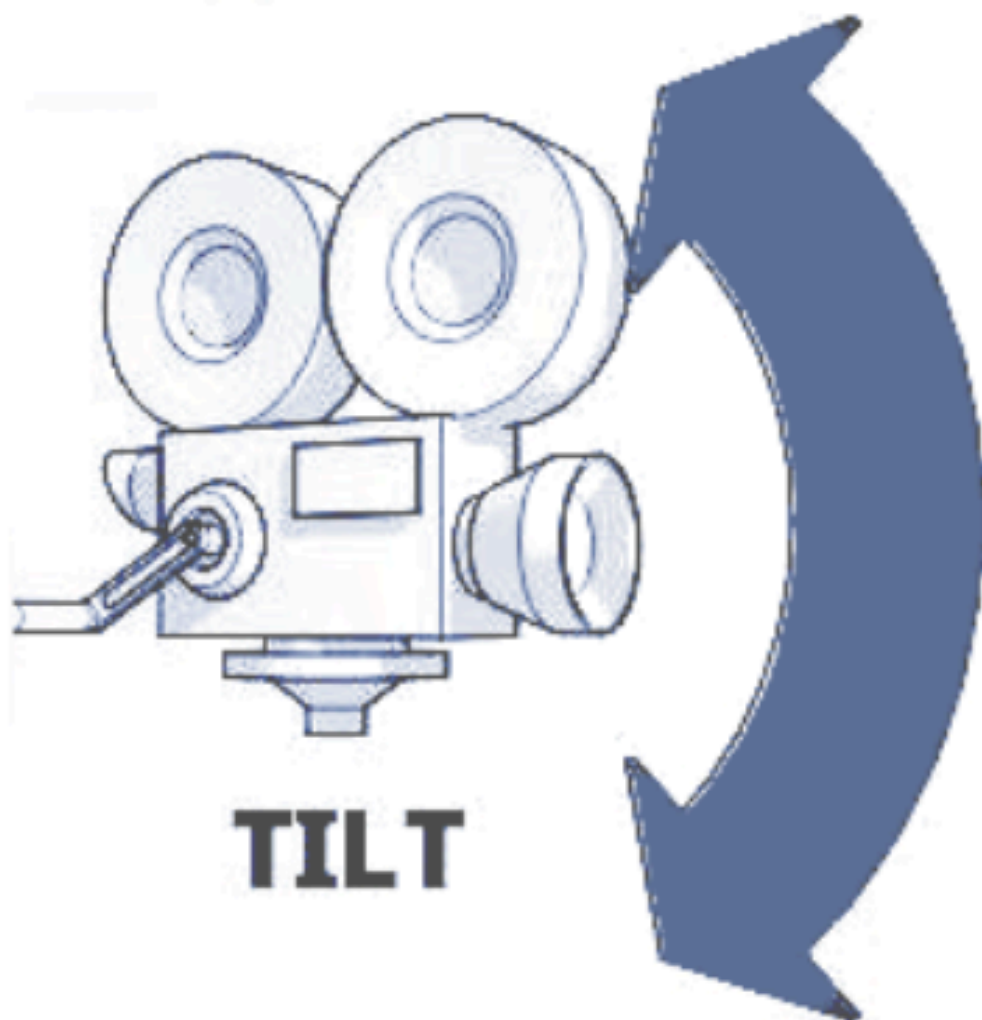
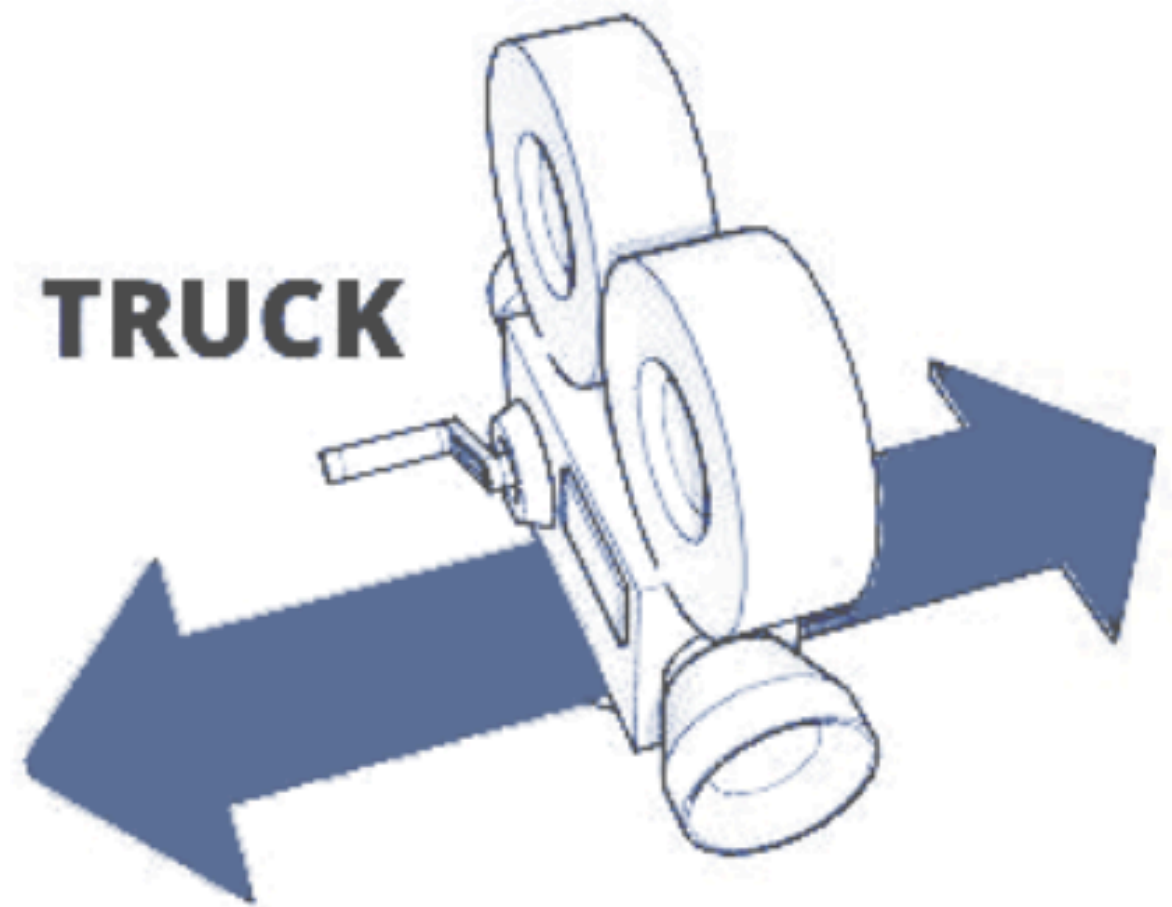
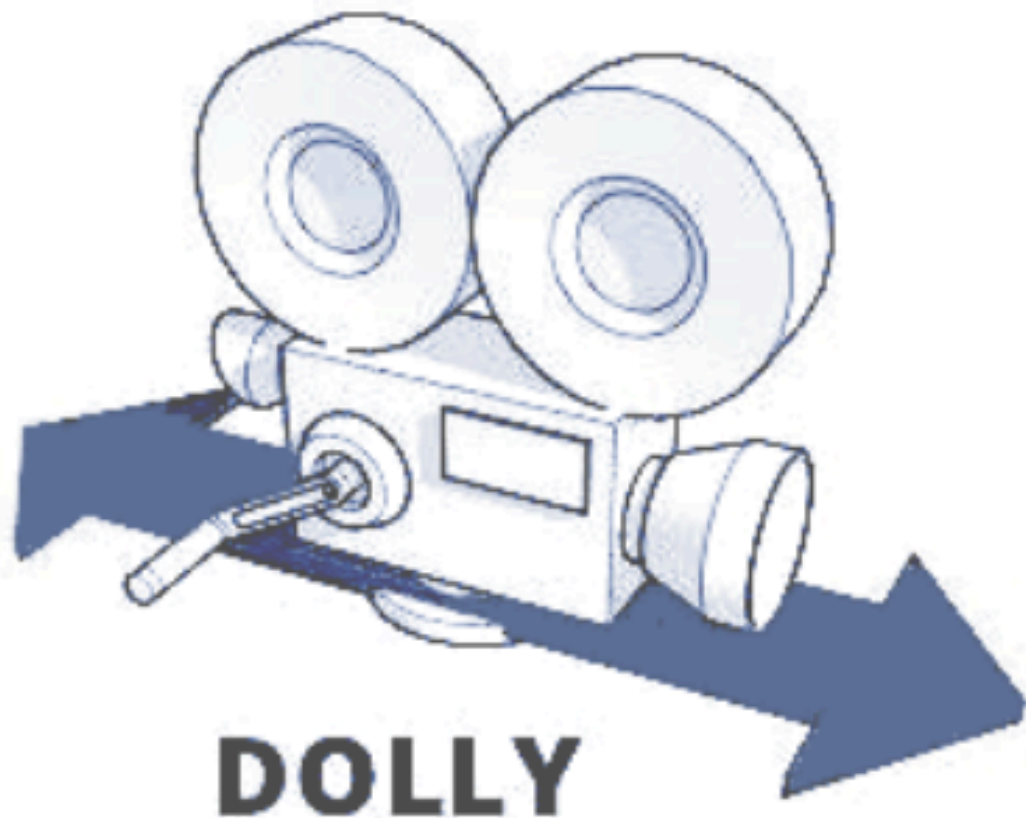
# THE RULE OF THIRDS





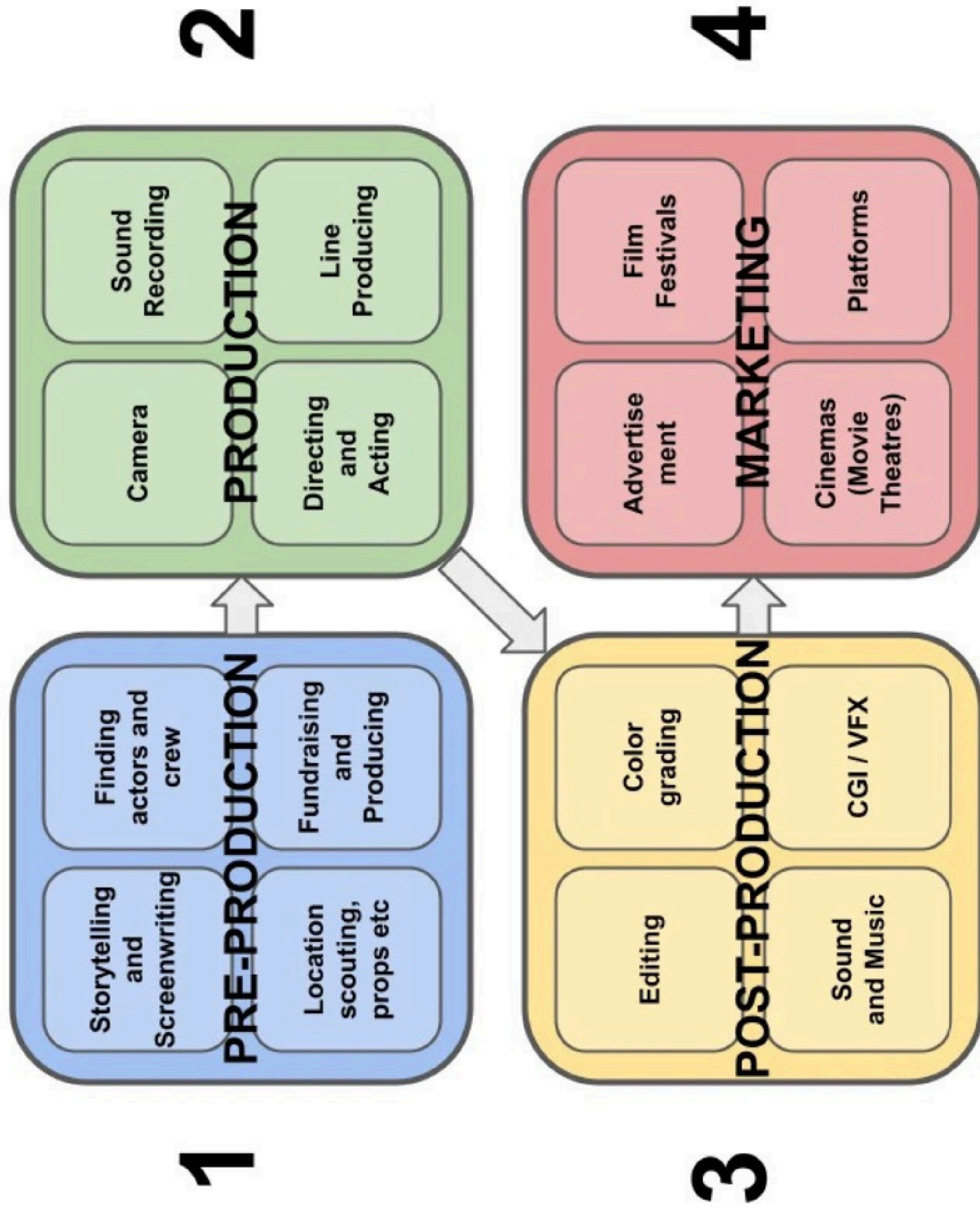
# CINESTUDY

## CAMERA MOVEMENTS



# STAGES OF FILMMAKING

(Scheme by Sergey Sushinskiy)







## video production slang translated

One of the greatest things about video production is the slang, much of which dates back to early Hollywood. You'll hear dozens of mysterious terms on set, and here are some of the oddest.

### HOT SET

If you hear this term, it means **DO NOT MOVE ANYTHING**. More filming has to be done, and you'll ruin everything if you do.



OFF

### KILL THE BABY

Don't worry - **no one is committing a crime here**. This is just a direction for turning off the 1-kilowatt lamp.

### C-47

Sounds important, right? Something electrical, maybe? Nope. It's a clothes pin. Like...the dollar store kind. Surprisingly, it's a **handy little tool**.



### PIGEON PLATE ON A PANCAKE

It **sounds like it should be on a menu**, not in a grip kit, but that's not the case here. A pigeon plate is a low stand used for a light on the floor or apple box, and pancake is a thin piece of wood the plate is attached to.

### JUICER

No fruit or veggies involved with this term. This is the guy in charge of hitting the switch and giving the set electricity. **"We need juice!"**

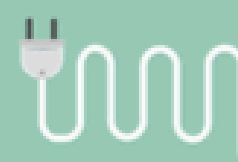


### MICKEY ROONEY

A nickname for a slight creep of the dolly. A small, slow movement. Apparently Mickey Rooney was a **'little creep'**...

### STINGERS

We're talking about electrical cords here. **BZZZZT**.



### BEST BOY

This person is a **downright champion** at keeping track of the grip equipment and expendables. Without them, the whole shoot would be in shambles.

### ABBY SINGER

The shot **BEFORE** the last shot of the workday. It was named after the famous production manager who frequently called this shot.



### SPIKE THAT SPOT

As usual, **x marks the spot**. When this is called, the grip will get gaffer tape to make an 'X' so the talent knows exactly where to stand.

# 11

## Things You'll Hear BEFORE SHOOTING A SCENE



### 1 "Last Looks"

The AD calls this so hair, make-up, wardrobe, and set dressing can give everything one final touch up before the shoot.

### 2

#### "Picture is up/Camera ready?"

The AD checks with the camera operator(s) to confirm they are ready and framed properly for the shot.



### 3

#### "Quiet On Set"

The AD makes sure everyone knows the shoot is about to happen.

### 4

#### "Roll Sound"

The AD lets the sound recordist know to start recording sound.



### 5

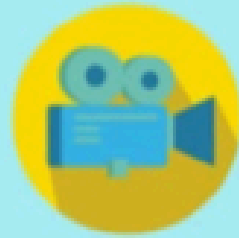
#### "Sound is Speeding"

The sound department replies to the AD, letting them know they're ready to go.

### 6

#### "Roll Camera"

The AD calls this to let the camera department know they should start filming.



### 7

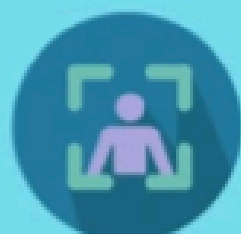
#### "Scene X, Take Y"

The 2nd AC drops the slate into the frame and makes this call. They may also say "Scene one-alpha," if it's 1A, for example.

### 8

#### "Marker"

The 2nd AC yells this and then CLAPS the slate to mark the start of the scene.



### 9

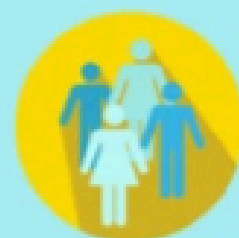
#### "Set"

The Camera operator calls this when they are ready for the actual scene and character movement to begin.

### 10

#### "Background"

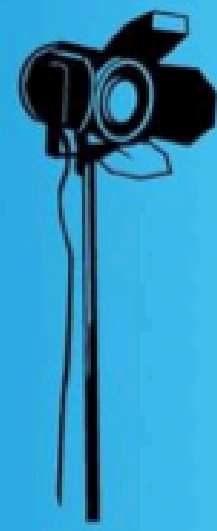
The AD will say this if extras or vehicles need to begin moving before the scene.



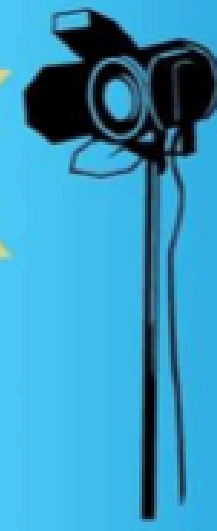
### 11

#### "Action"

Often the director will call it. Sometimes an AD will continue to call this.



# The Essential FILM SET LINGO DICTIONARY

**APPLE BOX**

Plywood boxes that are sturdy, varying in size, and in every good grip and lighting kit. You'll hear them called a half apple, or a quarter apple, and lastly the flattest, a pancake.

**BABY LEGS:**

A short tripod.

**BLACK WRAP:**

Black foil used to control light output.

**C- STAND:**

A grip stand with an adjustable arm.

**CRAFTY:**

Craft services, i.e food.

**DAY PLAYER:**

A crew member only hired for one day of the shoot, or maybe a few days.

**DOORWAY DOLLY:**

A dolly with four soft tires that can fit through a doorway.

**FEATHER:**

Moving a "flag" closer to or farther away from a light source.

**JAPANESE LANTERN:**

Paper covered wire framed light globe. Creates soft light.

**MAGIC HOUR:**

Right before sunrise or after sunset.

**PICK-UP:**

A small reshoot.

**PRACTICAL:**

A light source that will appear on camera.

**SIDES:**

Script pages for the day's scenes.

**SOFTIE:**

First AC or focus puller.

**SECOND UNIT:**

The team that does photography on the project that doesn't include the lead cast, for example.

**STRIKING:**

What you say if someone is moving a light, breaking down equipment etc.

**ATMOSPHERE:**

Extras.

**BARNDOORS:**

Folding doors that slide onto the front of the light to help control and direct the light output.

**BOOM:**

The long telescoping arm used for the microphone, and sometimes also used to describe a camera move.

**CAMERA WEDGES:**

Small wooden wedges 1/2 inch thick at thickest end.

**CRIBBING:**

Short pieces of wood used for grip purposes.

**DIRT:**

Sand bag, also called sand.

**DUVETYN:**

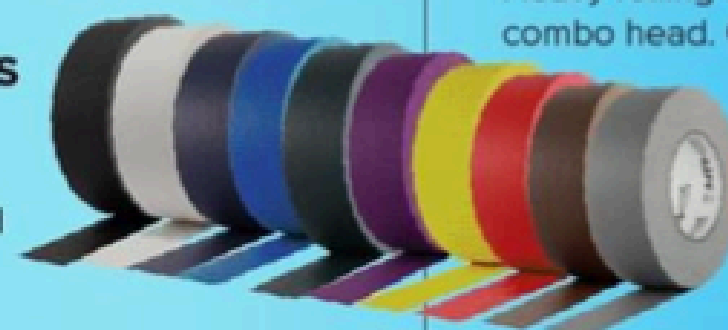
Heavy black fireproof cloth used for blacking out windows, for example.

**FURNIE PAD:**

Furniture blanket or sound blanket.

**GAFFER'S TAPE:**

Duct tape, also called Gaff.

**KEY GRIP:**

The head of the grip department. Supports camera, and on set safety.

**MARTINI:**

Last shot of the day.

**POINTS:**

Said when someone is carrying something heavy with potentially sharp objects. Be careful.

**ROOM TONE:**

The sound of the room/set when nobody is speaking or making noise. Hold for room tone!

**SECOND TEAM:**

Stand-ins for lead talent.

**VIDEO VILLAGE:**

The area where a monitor is set up for the director and/or producers etc.

**BACK IN:**

When it's time to start work after a break.

**BEST BOY:**

Second in command to the key grip in the grip crew, or the gaffer in the electrician crew.

**C-47:**

Clothespins.

**COMBO STAND:**

A heavy metal stand that can be used for both reflectors and lights.

**CROSSING:**

Say this if you step in front of camera at any point during set up

**DITTY BAG:**

A camera crew bag used by the AC with various camera essentials.

**FIRST TEAM:**

The lead actors.

**GAFFER:**

Head of the lighting/electric department, works with the D.P.

**HIGHBOY:**

Heavy rolling stand with a combo head. Can also be called an overhead stand.

**LAST MAN:**

The final person through to get lunch - technically lunch does not begin until the Last man has gotten it.

**MOS:**

Shot without any sound recorded.

**PLATE:**

A static background for a VFX shot.

**SCRIM:**

Placed in front of a light to further diffuse it.

**STINGER:**

An extension cord.



# Film Production Process Flow Chart

charlieuniformtango

## Development

Concept Development

Find Investors

Secure Financing

Apply for Tax Incentives

Purchase Insurance

Create Budget

## Pre-Production

Payroll

Production Planning

Scriptwriting

Casting

Location Scouting

Storyboards

Costume Design

Art Direction

Set Design

Hiring Film Crew

Equipment Rentals

Shooting Schedule

Shot List

Call Sheet

## Production

Set Construction

Equipment Setup

Film Shooting

B-roll Capture

Video Backup Workflow

## Post-Production

Raw Footage Assembly

Edit Decision List

Editing

Reshoots

Sound Design

Visual Effects

Color Grading

Graphics

Narration and Voice-overs

## Distribution

Final Cut

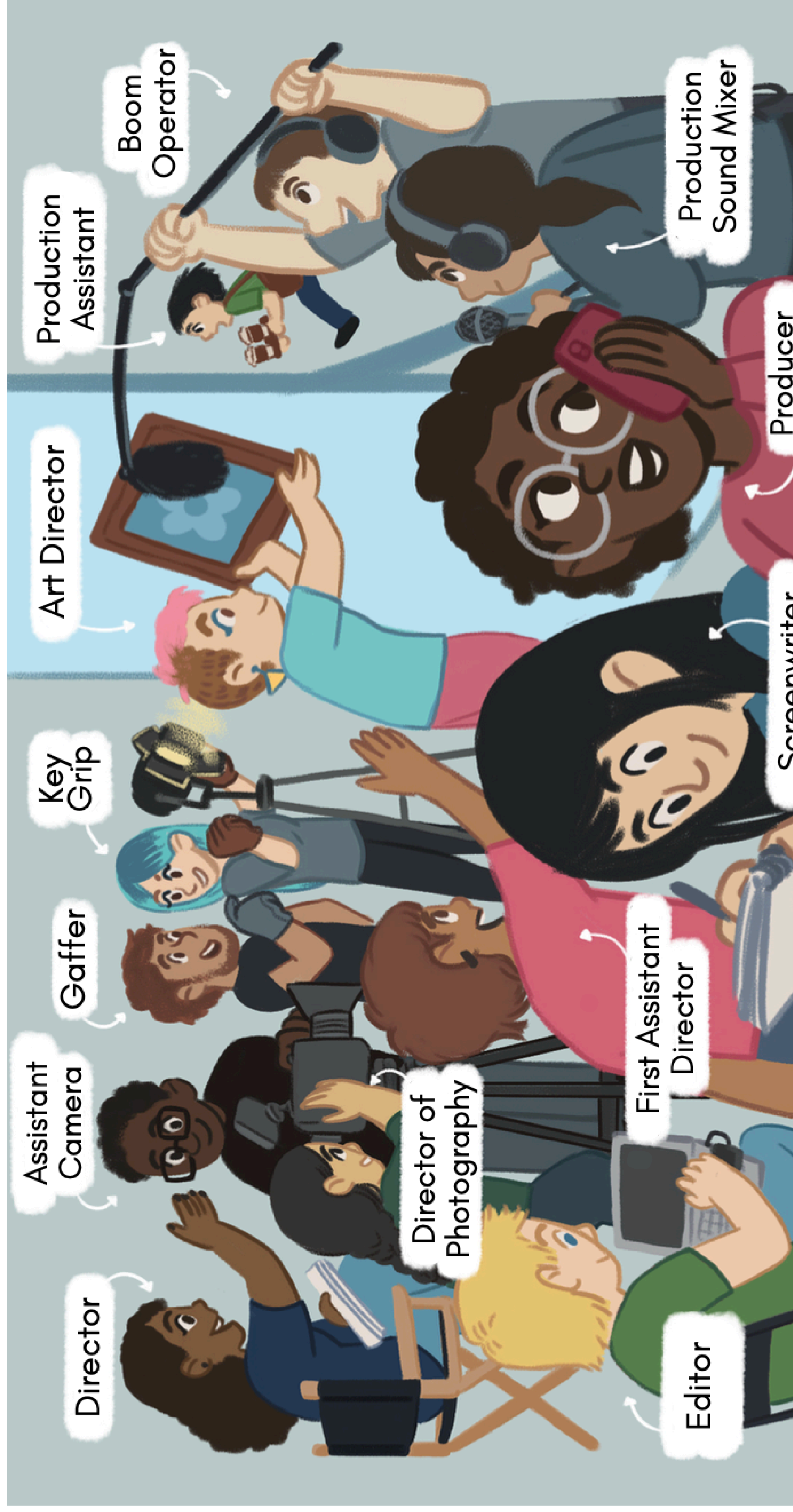
Digital Cinema Package

Social Marketing

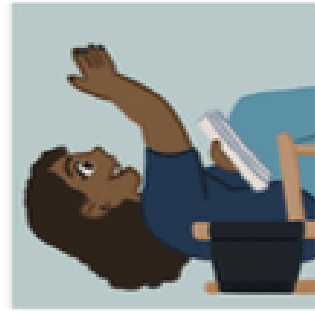
Press and Promotion



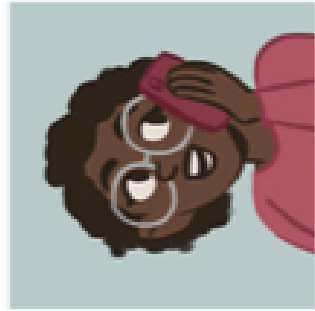
# Crew Positions



# Crew Positions



**Director:** The Director is responsible for overseeing the creative aspects of a film.



**Producer:** The Producer creates the conditions for making a film and the practical elements needed to support the Director's creative vision.



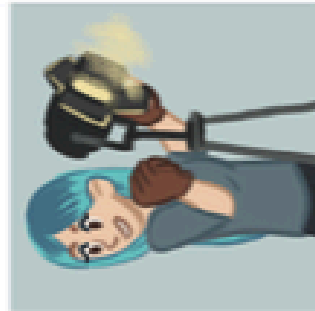
**Screenwriter:** The screenwriter creates the story that gets made. They create the characters, locations, and the entire world for that story.



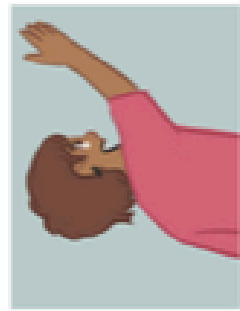
**Director of Photography (DP):** The Director of Photography is the chief of the camera and lighting crew of the film. The DP makes decisions on lighting and framing in conjunction with the film's Director.



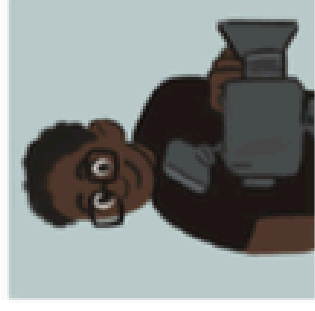
**Gaffer:** The Gaffer is the head of the electrical department and is responsible for the design and execution of the lighting plan for a production.



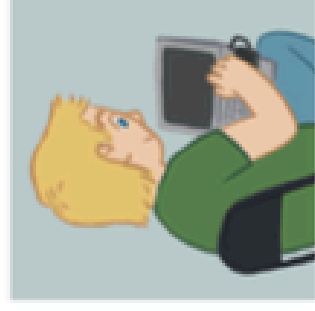
**Key Grip:** The Key Grip is the head of the set operations department working with the gaffer and DP to help with the rigging and set-up of the lighting plan.



**First Assistant Director:** The First Assistant Director (1st AD) is in charge of the set and safety; ensuring that the film comes in on schedule while maintaining a working environment in which the director, actors, and crew can be focused on their work.



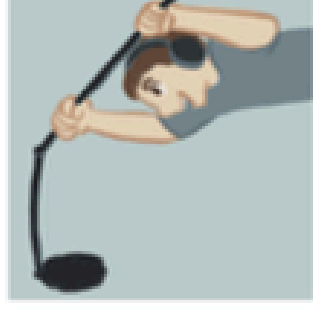
**Assistant Camera:** The First Assistant Camera operator (1st AC) is responsible for keeping the camera in focus as it is shooting.



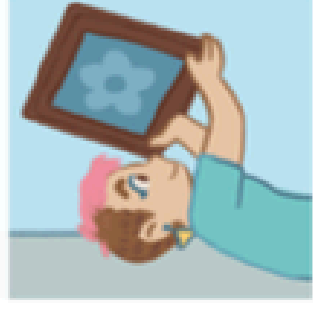
**Editor:** The Editor pieces together all of the recorded footage to create the story. They decide which scenes to keep, cut, or rearrange, making sure the film flows well.



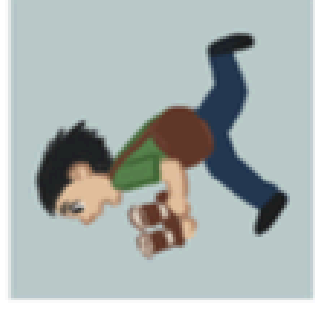
**Production Sound Mixer:** The Production Sound Mixer is head of the sound department on set, responsible for recording all sound during filming.



**Boom Operator:** The Boom Operator is an assistant to the production sound mixer, responsible for microphone placement and movement during filming.



**Art Director:** The Art Director is responsible for creating the physical, visual appearance of the film working closely with the director and DP to achieve the 'look' of the film.



**Production Assistant:** The Production Assistant (PA) assists various departments on set and the production office with general tasks.



---

# GLOSSARY

---

## *Literary Elements*

LITERARY ELEMENTS	The parts that are essential to a well told story
ANTAGONIST	The character who creates conflict for the protagonist
CHARACTERIZATION	What kinds of people are the characters? How do they conduct themselves? What do they say and do? What do others say about them? What are your opinions or feelings about them?
MOOD	Created by the author's word choice; intended to make the reader feel a certain way
PERSPECTIVE	How does the narrator feel about the subject matter?
PLOT	What happens in the story? Made up of 5 parts: <i>Exposition- the author introduces the characters and setting</i> <i>Rising Action- The reader begins to see a conflict and characters develop</i> <i>Climax- The conflict reaches its most intense part</i> <i>Denouement- The action begins to fade, consequences are being shown</i> <i>Resolution- The conflict is solved</i>
POINT OF VIEW	(Narration) Who is telling the story? There are different types: <i>First person- told using words like I, we, us, our</i> <i>Second person- told using words like you. Think instruction manuals, recipes</i> <i>Third person- told using words like he, she, they.</i> <i>Omniscient- The narrator knows all, has access into every part of the story and each character</i> <i>Limited- The narrator only knows what the characters themselves reveal</i>
PROTAGONIST	The main character in the story (Not necessarily the "good" guy!)
SETTING	Where and when the story takes place
THEME	What lesson is the author trying to teach in the story?
TONE	The author's or narrator's word choice that helps convey the perspective



# GLOSSARY

## *Literary Techniques*

### LITERARY TECHNIQUES

#### Alliteration

The details which enhance the story to make it more interesting

When words begin with the same sound

*Ex: Sally sells sea shells*

#### Allusion

Reference to an outside work

*Ex: It's raining outside and someone says "I can't go outside, I'll melt!"*

*This is an allusion to The Wicked Witch of the West.*

#### Anthropomorphism

A short and amusing or interesting story about a real incident or person.

#### Audience

Who is the author or narrator writing to?

#### Cliffhanger

When the end of a chapter or story leaves you wanting more details. Think about how your favorite TV show leaves you without answers so you have to wait until after the commercials or tune in next week to solve the mystery.

#### Flashback

In a story, when reading about an event from the past

#### Flashforward

In a story, when reading about an event to happen in the future

#### Hyperbole

An extreme exaggeration

*Ex: I told you a million times to do the dishes!*

#### Idiom

A nonliteral expression

*Ex: It's raining cats and dogs.*

#### Dialogue

Two or more people having a conversation

*Ex: 'John, did you see the game last night?' "No, my big sister was hugging the TV"*

#### Imagery

Creating a very vivid picture of the scene in the reader's head

#### Foreshadowing

A clue in the text about what's to come later in the story





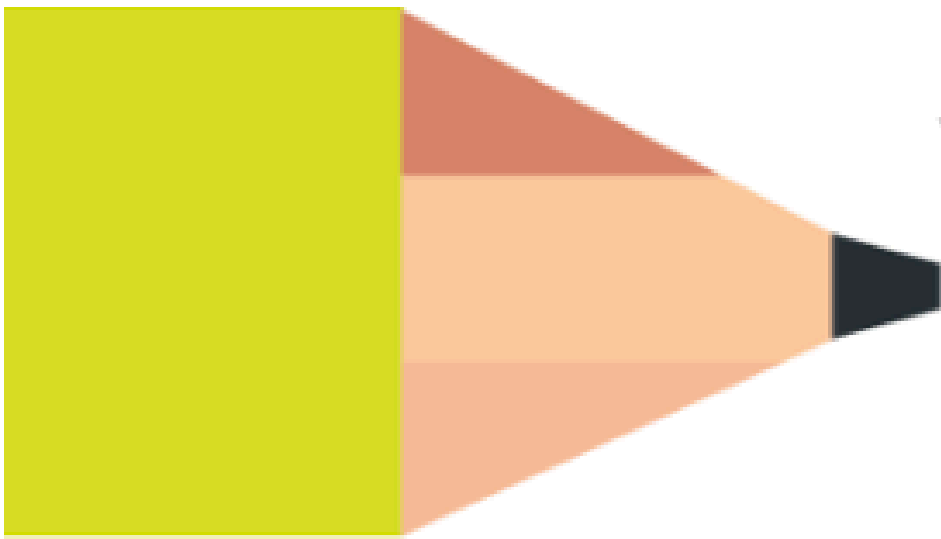
---

## GLOSSARY

---

### *Literary Techniques (cont'd)*

Irony	A difference between appearance and reality. There are three types: Dramatic, verbal, and situational.
Dramatic irony	When the reader knows something a character doesn't. Think of horror movies, the viewer knows a murderer is around the corner, but the character doesn't
Verbal irony	Saying one thing, but meaning another. <i>Ex: "I'm so excited to go on this 16 hr car ride with my family" when really you are dreading it. NOTE: this is not! the same thing as sarcasm. Sarcasm is used for the purpose of hurting someone, verbal irony is not</i>
Situational irony	When you expect one thing to happen, but the opposite happens instead. Think about a time you were so excited for something, and you ended up hating it.
Metaphor	A comparison without using like or as <i>Ex: The athlete is a beast on the field.</i>
Onomatopoeia	A sound word that is spelled just like it sounds <i>Ex: Boom! Buzz. Pow!</i>
Oxymoron	Two words with opposite definitions that separately make no sense, but together have a new meaning <i>Ex: jumbo shrimp, awfully good</i>
Personification	Giving human qualities to an inanimate object <i>Ex: Opportunity is knocking.</i>
Repetition	Saying the same thing over and over again to create an effect. It could be used to show significance or show monotony
Simile	A comparison using like or as <i>Ex: She is as pretty as a picture.</i>
Symbol	An object which represents an idea <i>Ex: The Statue of Liberty represents a fresh start for many Americans</i>



# GREEK + LATIN ROOTS

## USEFUL TOOLS

*Why are they useful?*

Even if you don't know a word's meaning, you can use its parts to determine the meaning.

***Ships Navigate by  
Using all their  
Features***

**Readers  
Navigate Word  
Meaning by  
Using all Word  
Parts**



**Prefix + Root + Suffix = Word Meaning**

### Common Prefixes

*Like the bow at the front of a ship,  
prefixes guide the meaning of a root.*

Prefix	Meaning
Anti-	Against
Con-, Com-	With, together
De-	Opposite
Dis-	Not, Opposite of
Ex-, Exo-	Out of, From
In-, Im-	In
In-, Im-, Il-, Ir-	Not
Inter-	Between, Among
Mis-	Wrongly
Neo-	New, Recent, Revived
Pre-	Before
Pro-	Forward
Re-	Again
Se-	Apart
Semi	Half, Partly, Not Fully
Sub-	Under
Super-	Above, Beyond
Trans-	Across, Beyond, Through
Un-	Not, Opposite of

### Common Roots

*Roots are like the anchor of a ship  
holding it in place.*

Root	Meaning
Aud	To hear
Auto	Self
Bene	Good
Circum	Around
Chron	Time
Contra, Counter	Against
Dict	To say
Dyna	Power
Fac	To do, To make
Fract	To break
Hetero	Different
Homo	Same
Ject	Throw
Logy	Study of
Mis; Miso	To hate
Mit	To send
Multi	Many
Phil	Love
Phon	Sound
Rupt	To break
Spect	To look
Tele	Far off
Vid/Vis	To see

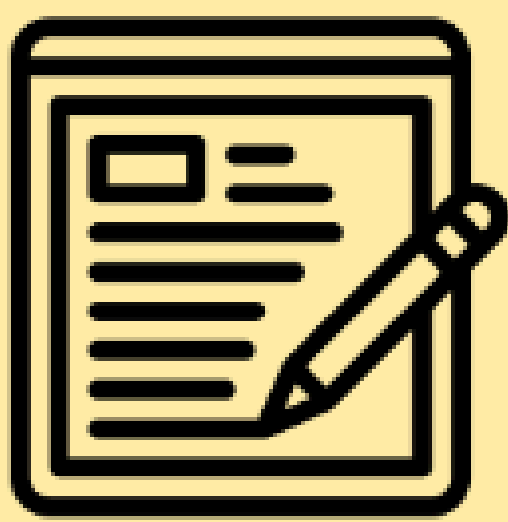
### Common Suffixes

*Like the stern at the back of a ship that  
determines direction travelled, suffixes  
determine a word's part of speech.*

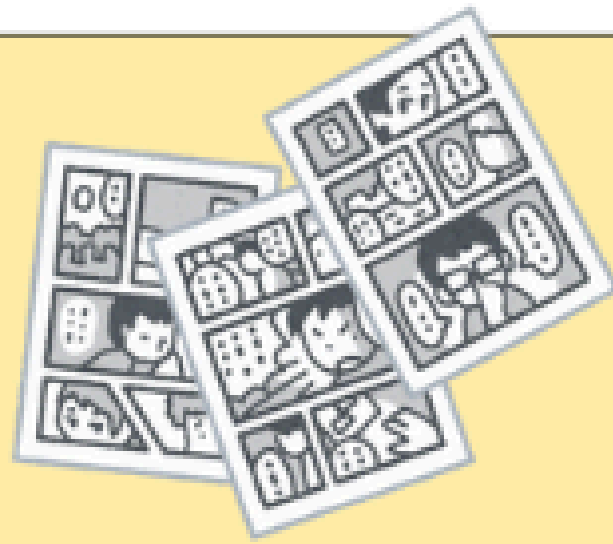
Suffix	Meaning
-Able, -Ible	Is, Can be
-Ed	Past tense verbs, Adjectives
-En	Made of
-Er, -Or	One who; Person connected with
-Er	More; comparative form
-Est	The most, Superlative form
-Ful	Full of
-Hood	State, Quality, Condition, Adj. form
-Ic	Having characteristics of
-Ing	Verb form
-ion; -Tion, -Action	Act, Process
-Less	Without
-Ly	How something is, adverb form
-Ment	State of being; Act of
-Ness	State, Condition
-Ologist	A person who studies; Noun form
-Ious, -Ous, -Eous	Possessing or full of
-y	Characterized by

# PBL CHOICE BOARDS

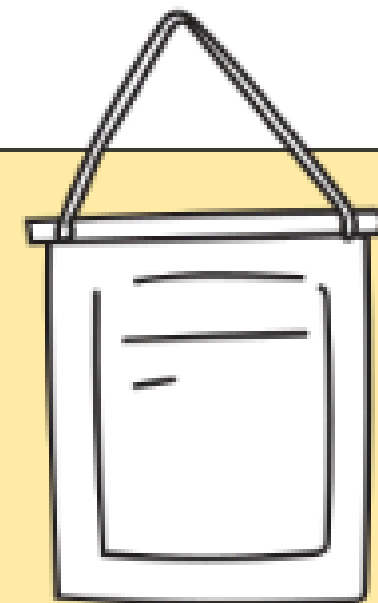
Choose a Project to Complete as the Final Product!



WRITE A POEM ABOUT  
THE TOPIC



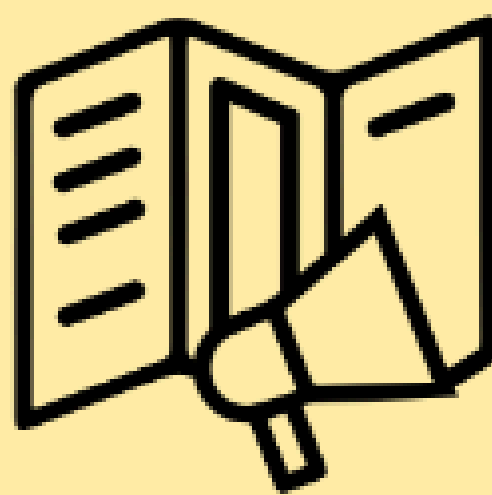
CREATE A POLITICAL  
CARTOON ABOUT THE  
TOPIC



CREATE A CLASSROOM  
ANCHOR CHART ABOUT  
THE TOPIC



CREATE A CHILDREN'S  
BOOK DESIGNED TO  
TEACH ELEMENTARY  
STUDENTS ABOUT THE  
TOPIC



CREATE A BROCHURE  
ABOUT THE TOPIC



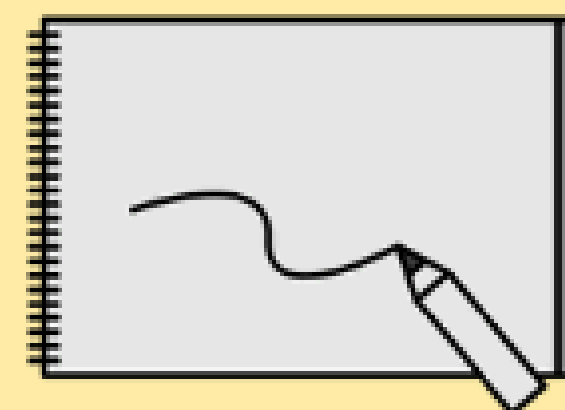
CREATE A SCRIPT FOR A  
SCENE ABOUT THE TOPIC



WRITE A NEWSPAPER  
ARTICLE ABOUT THE  
TOPIC



WRITE A RAP OR A  
SONG ABOUT THE TOPIC



CREATE A GIANT SKETCH  
ART ABOUT THE TOPIC