

Critical Thinking



Summarize main points from each video.

Title / topic _____

Title / topic _____

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14.1 Topic Introduction

Summarize your understanding of each paragraph.

Critical thinking is the objective analysis of facts to form a judgment. There are several definitions of “critical thinking.” Most definitions include the rational, skeptical, and unbiased analysis of factual evidence.

What does *rational* mean?

The word “rational” means that an idea is based on, or in accordance with reason or logic. The opposite (irrational) is *without* reason. Rational analysis is an ability to form judgments by a process of logic.

What does *skeptical* mean?

To be skeptical is to have doubts or reservations. When you are not easily convinced of something, that is often being skeptical. A scientific skeptic might question belief on the basis of scientific understanding.

What does *unbiased* mean?

Being “unbiased” is showing no prejudice for or against something. Unbiased is another way of saying impartial, unprejudiced, neutral, nonpartisan, objective, open-minded, and fair.

Read / Think / Answer



1. Read the passage. 2. Review the definitions.
3. Based on your prior knowledge and the text presented, respond to the three questions.

Flat Earth.

1

The idea of a spherical Earth appeared in Greek philosophy with Pythagoras (6th century BC), although most pre-Socratics (6th–5th century BC) retained the flat Earth model.

Aristotle provided evidence for the spherical shape of the Earth on empirical grounds by around 330 BC. Knowledge of the spherical Earth gradually began to spread beyond the Hellenistic world from then on.

https://en.wikipedia.org/wiki/Flat_Earth

Definitions:

2

- Pythagoras was scholar in ancient Greece.
- Pre-Socratics were a group of Greek philosophers born before Socrates.
- Aristotle is considered the "Father of Western Philosophy."
- Spherical means having the form of a sphere; globular.

Pythagoras suggested the world was spherical when many smart people in his day assumed the world to be flat. Assume you lived then as a smart and rational person.

3

What would you have said to him to defend the world is flat?

Why would you have been skeptical of his idea?

In what way did "flat-Earth" scholars exhibit bias?

Practice

Read the instructions and questions. Silently think through each item. Write your responses in the boxes provided. Prepare to discuss your responses.

What do the following have in common? What is different?

	Same	Different
Car and truck?	<input type="text"/>	<input type="text"/>
Hamburger and pizza?	<input type="text"/>	<input type="text"/>
Rap and country music?	<input type="text"/>	<input type="text"/>

What do people mean when they say...?

Actions speak louder than words. ...

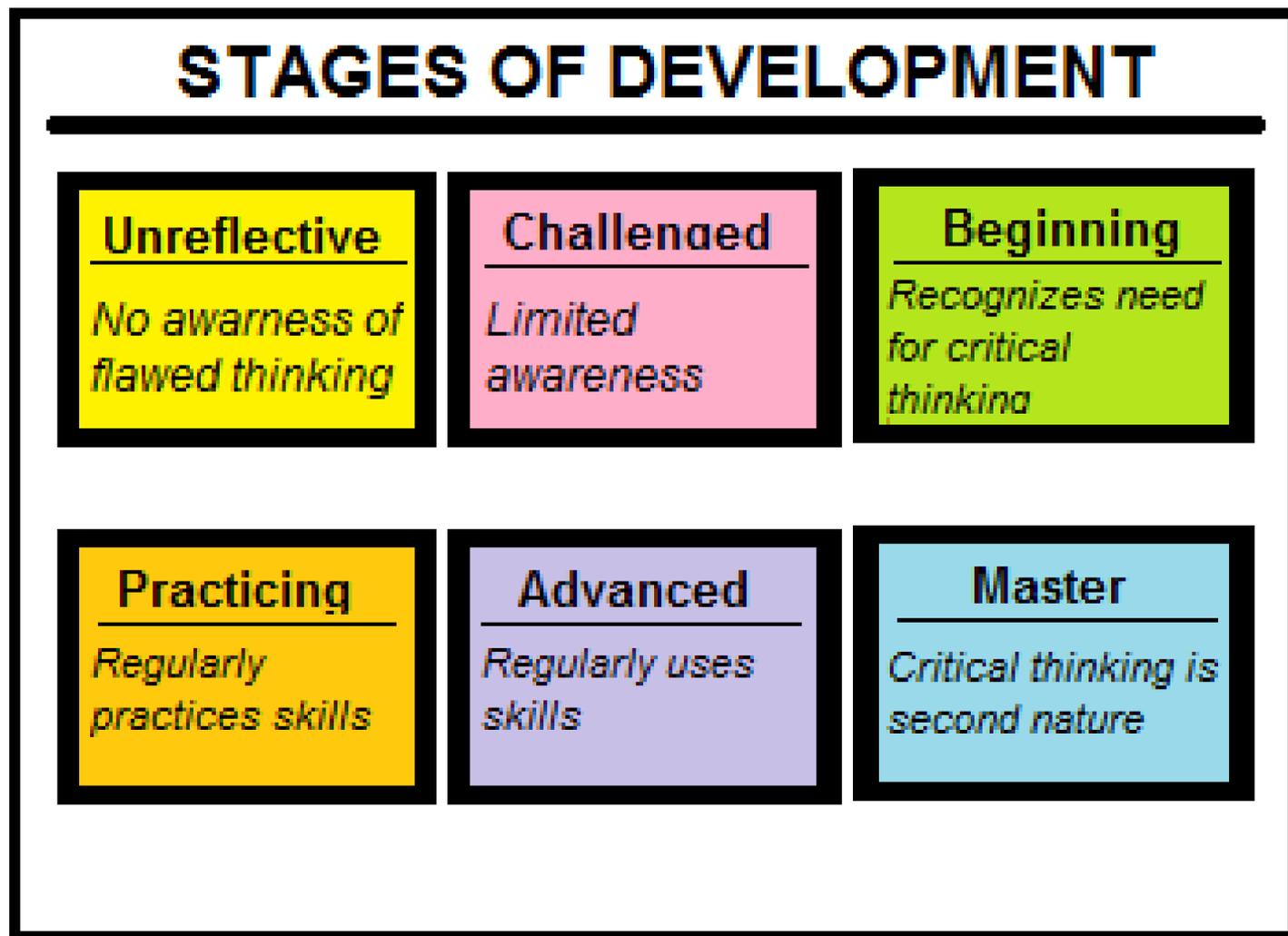
The grass is always greener on the other side. ...

You can't judge a book by its cover. ...

Draw Illustration



Copy the illustration – then place a check mark in the box that best describes your “stage of development.”



Draw (Copy) the Illustration Here

More Practice

Complete each box with your response.

Knowing something is when ...

Assuming something is when ...

What is **similar** between knowing something and assuming something?

What is **different** between knowing something and assuming something?

Give yourself a score. Circle 1, 2, 3, or 4 ...

	1. Not Really	2. Sometimes	3. Often	4. Most the time
I am rational.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am skeptical.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am unbiased.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Show-Off Your Smarts!



Instructions

- Complete as an individual
- Prepare to discuss in small groups, then as a class.

Q1. How can this information about Critical Thinking be applied to a young-person's life?

Q2. How might this information regarding Critical Thinking apply to your school? Your home town? Your state?

School? –

Town? –

State? –

Q3. When might scientists need to apply Critical Thinking skills?

Being Rational? –

Being Skeptical? –

Being Unbiased? –

Q4. How does Critical Thinking differ from memorizing facts?

Q5. How does Critical Thinking apply to other subjects – other than science?

Make a Poster

In the space provided here, illustrate concepts from this topic.

- Being rational

- Being skeptical

- Being unbiased

- Using critical thinking