DEPTH & COMPLEXITY

a FRAMEWORK for academic exploration to help raise thinking skills

The Depth and Complexity framework is a set of tools that allow teachers to differentiate for any grade level or content area in a way that is straightforward to implement and effective.

It is composed of eleven elements represented by a set of icons or pictures, along with several other components that teachers use to raise the thinking level in the classroom.

The Depth and Complexity framework is primarily a differentiation tool. It adjusts how students approach the content they are learning about.
The Depth and Complexity prompts are actually part of a longer equation:

Differentiation = Thinking Skill + Content + Resources + Product

Why it's so great:
- Differentiation made easy
- Standards alignment
- All ages & content areas
- Robust thinking toolbox

Why it's so great:
- The icons are a path to understanding the thinking lens we’re using for that experience | it’s the signal | ELL

We are looking through a lens that pivots.

Depth & Complexity:
The eleven elements are not in any particular order.
Why We Use Emoji

second part:
The Pick Four

Values What is Right?
fairness philosophies
controversy
STANDARDS
JUSTICE morals

Ethics

Should great art belong to private owners or public institutions? Is it fair for such beauty to be owned by one person? [Cite a character for each position and, using examples from the text, defend their point of view.]

99 strange collective animal names
Whether it’s a herd of apes or a zeal of zebras, lots of animals have bizarre names when they cluster into crowds.

1st, we’ll have a little fun with crazy names for groups of animals.
I'll flip the classroom & have them watch this video at home.

Next, they'll come back to class & we'll read this book, looking for connections between it and the video.

Why live in groups:
There are several major disadvantages to living in groups:
1. Greater competition for food, mates, sleeping space
2. Increased parasite and disease load.

There is an ecological reason why some animal live in groups, e.g., they don't need an entire season to raise their young, so they can reproduce more quickly.

How do individuals benefit by living in groups?
1. Cooperative food collection. Wolves hunt together, so the wolf that stays on watch can eat less and take down larger prey. Although the individual has to share meat, each still benefits from group hunting. Group hunting is less important in primates. Chimpanzees hunt some but meat is not a major part of their diet. Group hunting is important in many human societies, however.
2. Sleeping together to conserve warmth. This explains why individuals form groups at night but it does not explain why groups are maintained during the day.
3. Shared information. By forming groups, individuals can share information about the location of food sources. If other group members happen to know where the food source is located, the lone individual can get there more quickly.
4. Protection from predators. There are three reasons why protection from predators is important:

My advanced learners will read a scholarly article instead.

Next, the on level students will create a tree map classifying animals by the reasons they group.

Students will debate:
Resolved: It is fair for packs of animals to hunt in order to kill a solitary animal.
Write a newspaper editorial taking a stand on this issue: To what extent is it fair for humans to modify their environment if it impacts plants and animals?

Evaluate the fairness of charging $5.50 for a pound of butter if 25% of a pound costs $1.28.

What are the problems you run into when doing long division?

Rank those problems in order from most important/common to least.

The most important/common issue in long division is _____ because it impacts _____ in this way. _____.
**Plot is Pattern**

Outline the plot of your story.

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How does this pattern allow you to solve the problem?

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Differentiate It: Compare and contrast the heroic journey of Katniss with that of Theseus.

Where and how does Katniss break the heroic archetypical pattern? Why does Collins not follow the pattern exactly? Does this make Katniss more or less heroic?

How does/does not Katniss follow the pattern of the heroic archetype?
You are drinking dinosaur pee.

Describe the pattern that proves this.

Identify five steps in the pattern all civilizations follow as they rise and fall.

Choose two civilizations and compare them against this pattern.

Do they benefit or suffer from breaking the pattern?

Could you ask them to DESCRIBE THE PATTERN?

Could you ask them to EVALUATE THE PATTERN’S IMPORTANCE?

Could you ask them to COMPARE THE PATTERN TO ANOTHER PATTERN?
Could you ask them to identify primary and secondary patterns?

Could you ask them to recognize when/where a pattern breaks?

Could you ask them to see the pattern out of sequence and fix it?

RULES INCLUDE:
- standards
- directions
- methods
- organization
- usual behavior

Differentiate it: Compare the rules society imposes on women in *The Scarlet Letter* to contemporary mores. Argue either that a) the rules have changed or b) the punishments are more subtle.
In *The Scarlet Letter*, are the rules society imposes on women fair? How does it punish the breaking of those rules? Who else is punished besides the rulebreaker and how?

What rule of Roman numerals are these numbers breaking? Fix them.

19 = XVIV
100 = LL

How is the behavior of Stuart Little different from that of real mice?

Which one does not belong?

31
28
23
29

Which one does not belong?

NATO
Treaty of Versailles
Truman Doctrine
Marshall Plan

What are the similarities between this and pre-WWI US policy?
How does point of view affect perception of reality? What are opposing views?

Perspective is everything.
Which is more affected by gravity, the moon or Earth?

Debate: Because of gravity, planets with large masses are bossier than planets with a smaller mass.

Describe the rules of baseball from the perspective of the ball.

Analyze two conflicts in the story from the perspectives of Finny and Gene.

Create a cause and effect chain that traces the origins of those conflicts.

Using details from the story, show the patterns of the relationships between the characters.

Analyze those patterns to determine what they say about the difference between the bonds of friendship and family.
Let’s go even deeper.
What are the rules of multiplication?
What are the patterns in Shakespeare’s sonnets?
What is the big idea of the War of 1812?
What are the essential details of a forest?
List the rules of the US Constitution.

Contrast the rules of the US Constitution with those of Japan’s Constitution.

Apply the rules of Japan’s constitution to the US. What would it be like?

Judge which rules in the US Constitution are least fair.

Create the rules for a new constitution.
Pick one character from the story.

Identify four traits of that character.

For two of the traits, list two consequences of that trait. If the consequence is positive, put a + sign next to it.

Thinking of what you just identified and considered, do you think the character’s traits were a hindrance or a help to him/her and why?

____________________________________

____________________________________

____________________________________

Think of four reasons George Washington should have been a king instead of the president. Then, on the other side of the Thinking Map, think of four future consequences that would have happened if he had become a king.

Is it fair for one person to be the king or queen for life? Why would it be better or worse to take turns?

Name FOUR words mathematicians would use to solve this problem.

Solve the problem.

Does making multiplication the first step mean it’s more important than the other steps?

What is the Big Idea of this type of problem?
Think of four reasons George Washington should have been a king instead of the president. Then, on the other side of the Thinking Map, think of four future consequences that would have happened if he had become a king.

Is it possible for a truly free people to have a king or queen? If not, is England really free? Would the English agree they are less free?

What would happen if you moved the blue whale up one level in the food chain?

What animal is the closest land animal to the blue whale in size AND personality?

What do you think is a blue whale's favorite number and why?

Why is it a good idea or not for one animal to be so much bigger than the other animals in the ocean?

Wrapping It Up