Integrating Core Curriculum Into Enrichment Programs

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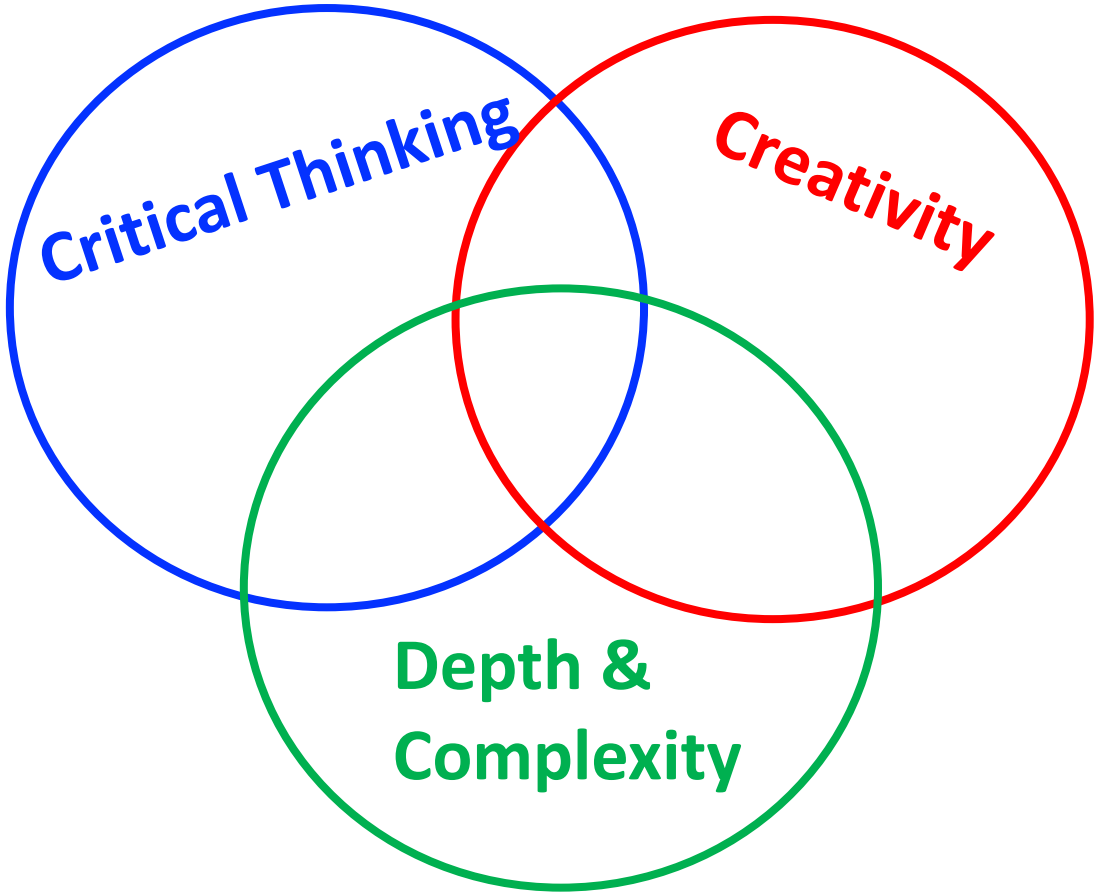
Two Lenses of GT

SOME students need adjusted curriculum in order to have a year of growth and development.

ALL students benefit from enrichment and Gifted & Talented instructional strategies!

Basic Tenets of Instructional Strategies

Academics



Also…

Choice

Social/Emotional Connections

Begin with:

Fabulous Tier One Instruction

Then create or use “Anchor Activities” for extensions when needed:

Meaningful activities that are ”anchored” in core curriculum.

Two Lenses of GT

ALL = Fabulous Tier One Instruction

SOME = Anchor Activities

Scaffolded and/or Commercial Options for Enrichment*

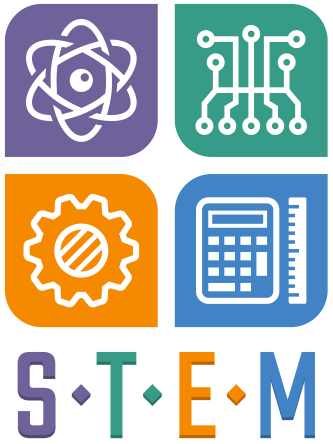
…For implementation in “Fabulous Tier One Instruction” and/or for “Anchor Activities.”

*For the record: Teachers can, and most certainly do, infuse rigorous and engaging strategies into lessons without any outside scaffolding or commercial materials. The majority of this particular session is primarily designed to showcase a few resources educators can use if they so choose. It is often helpful to have a starting point and some scaffolding as we develop new programs and new skills. Also, this is certainly not an inclusive list. There are many, many other resources available. These are just a few.

STEM

Science, Technology, Engineering, Mathematics

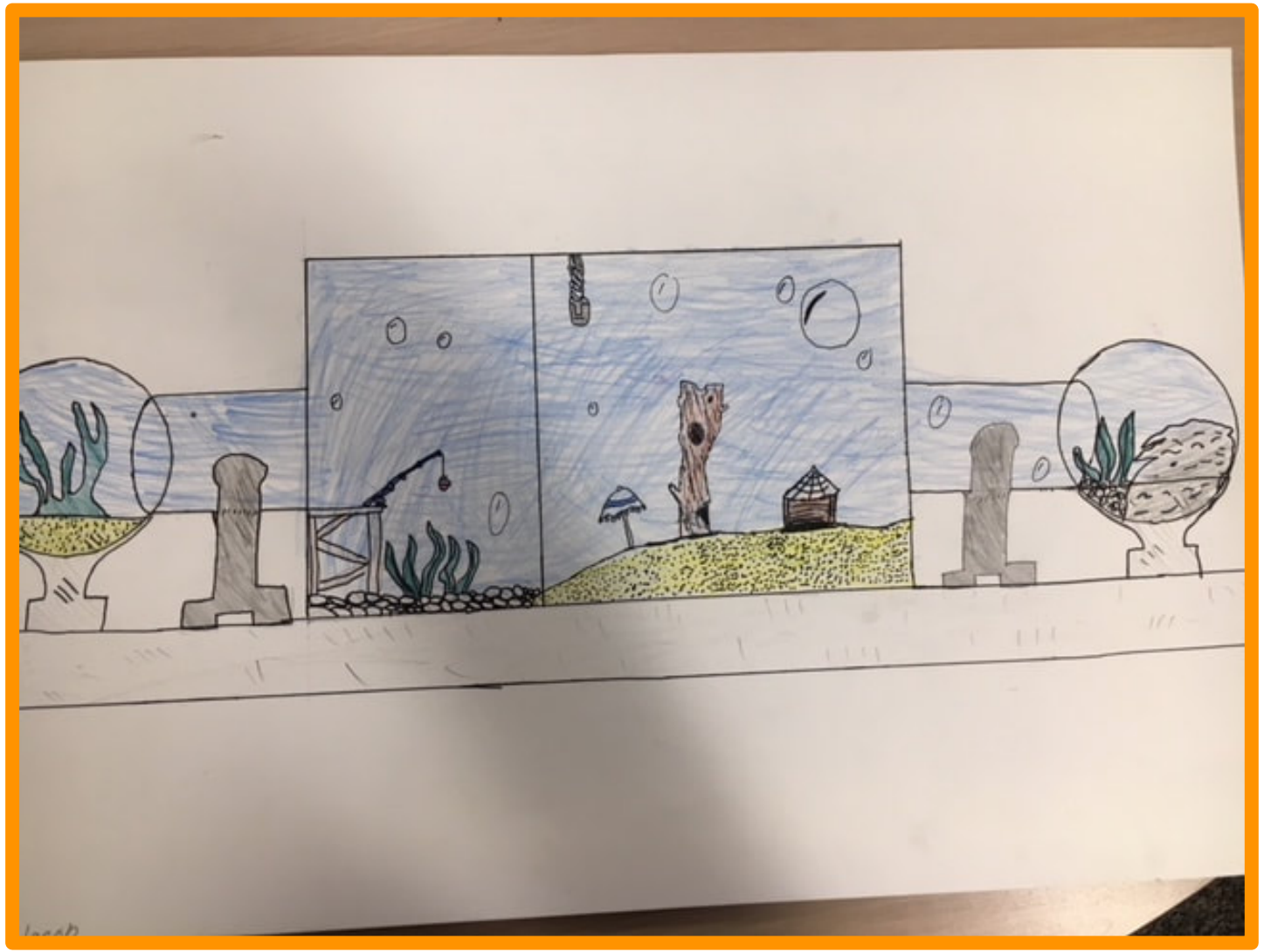
- Utah STEM Action Center (K-12)
  - https://stem.utah.gov
- Defined STEM (K-12)
  - https://www.definedstem.com
  - Backpack Design
    - https://app.definedstem.com/task/76BC1F59-4018-4C9C-A68C-7BE395B68FEF

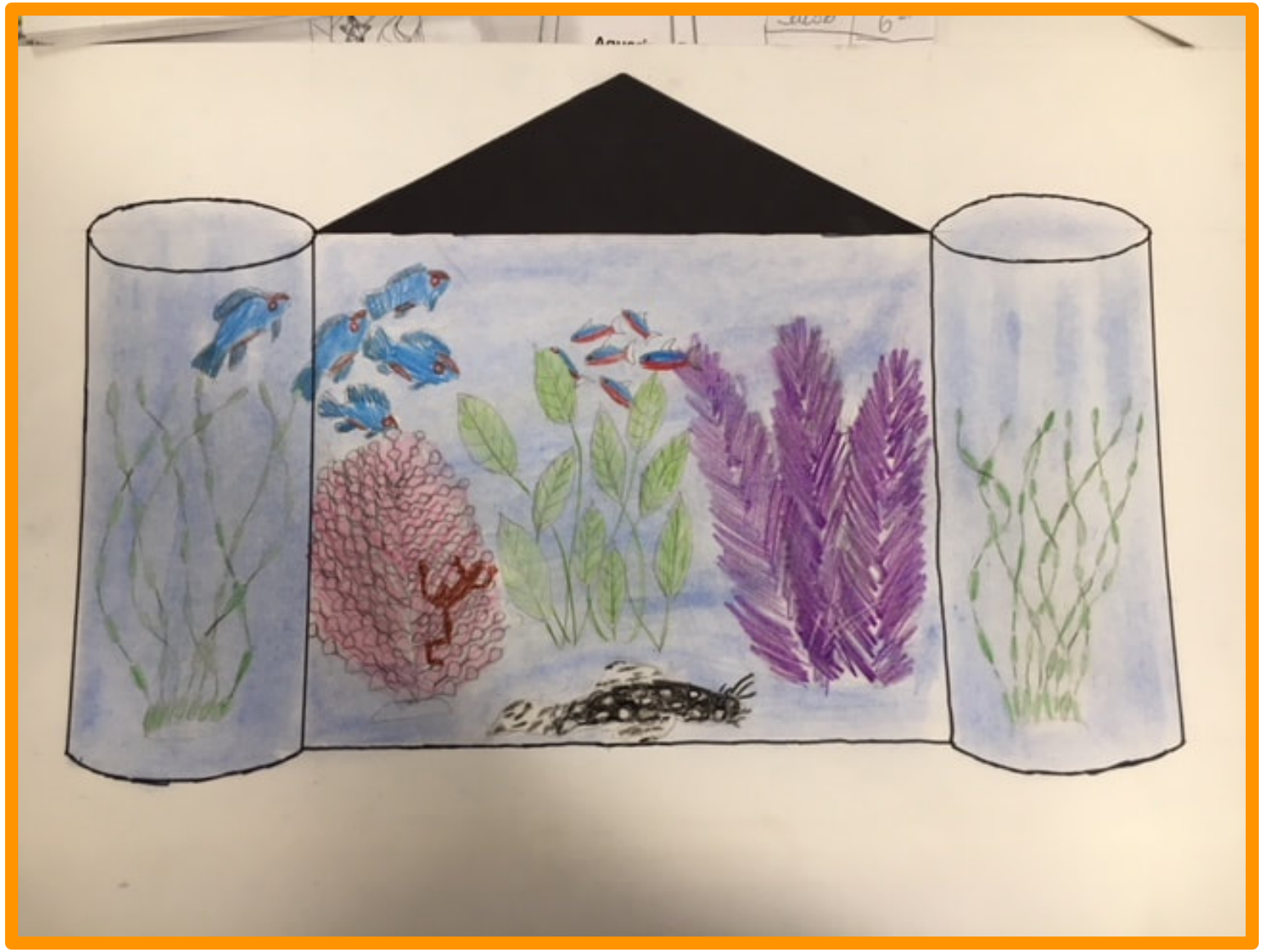


STEM in Action

- Linda Freeman, ALPS Magnet Teacher, Riverton Elementary

Other Student Examples

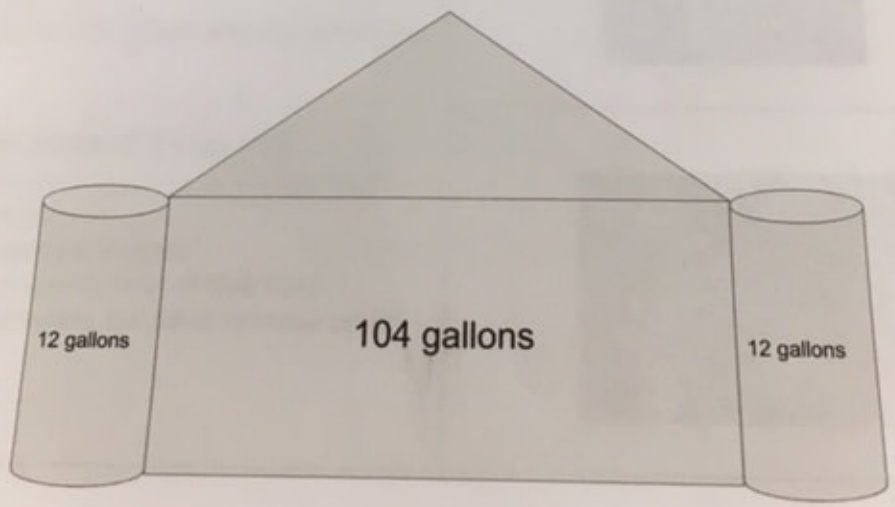




6th grade

Math:

2x **Cylinder:**	**Rectangular Prism:**
r^2 x 3.14 x h 25 x 3.14 = 78.5 78.5 x 35 = 2748 $in.^3$ 2748 x 2 = 5496 $in.^3$ volume 5496 ÷ 231 = 24 gallons (each 12 gallon) 24 x 8.34 =200 pounds	20 x 40 x 30 = 24,000 in^3 volume 24,000 ÷ 231 = 104 gallons 104 x 8.34 = 866 pounds
Answers: 104 + 24 = 128 total gallons 200 + 866 = 1066 pounds	**Formulas:** Rectangle: Volume = base x width x height Cylinder: Volume = base x height Remember: area of a circle= π^2



English / Language Arts

- Jacob's Ladder (K-8)
  - https://www.prufrock.com/Jacobs-Ladder-Reading-Comprehension-Program-Nonfiction-Grade-5-P2756.aspx
- Great Books (K-12)
  - https://www.greatbooks.org/great-books-k-12-programs/junior-great-books-k-5/
  - https://www.greatbooks.org/great-books-k-12-programs/6-12-resources-alignments/
- Word Masters Challenge (3-8)
  - https://www.wordmasterschallenge.com

Debate

- Utah Debate Coaches Association (4-12)
  - http://www.utahdebatecoaches.org/middle-elem

- 2018-2019 Resolutions

Middle School:

"Resolved: The United States federal government should substantially reduce its restrictions on legal immigration to the United States in one or more of the following areas: refugees, childhood arrivals, student visas, H-1B visas."

Lincoln-Douglas (LD):

2018 (First Semester, Aug-Dec) - "Resolved: Oppressive government is more desirable than no government."

2019 (Second Semester, Jan-May, State Tournament) - "Resolved: A government should prioritize the humanitarian needs of refugees over its national interests."

Elementary / Public Forum (PF):

"Resolved: Schools should eliminate homework."

Benefits of Debate

- Kelly Lybbert, General Education Teacher, Jordan Ridge Elementary

- Crystal Nebeker, General Education Teacher, Jordan Ridge Elementary

Social Studies

- National History Day (4-12)
  - 2019 Theme – Triumph and Tragedy in History
  - Documentary – Exhibit – Paper – Performance - Website
  - https://www.nhd.org//
- Utah Affiliate (4-12)
  - https://heritage.utah.gov/history/utah-history-day

The Arts

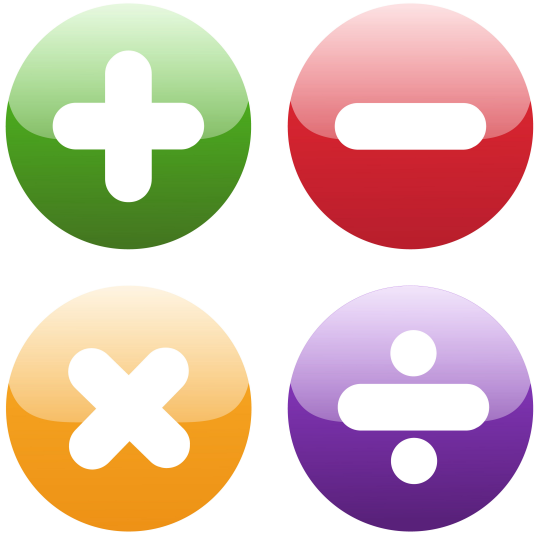
- The Arts are Enrichment!

- Storytelling (K-12)
  - https://timpfest.org/stories/storytelling-in-the-classroom/
  - http://gandt.jordandistrict.org/files/Story-Weavers-Teacher-Resource-Packet-1.pdf

- Arts Integration Endorsement
  - https://education.byu.edu/cites/endorsements/arts-integration

Mathematics

- ALEKS Math (K-12)
  - https://www.aleks.com
- Think Through Math (K-6 or 8)
  - https://www.imaginelearning.com/blog/tag/think-through-math
- Kahn Academy (K-12)
  - https://www.khanacademy.org/math
- Math Olympiads (3-8)
  - https://www.moems.org



Math Tournament:
An Extension of Math Olympiad

- Katherine Harbaugh, General Education, Daybreak Elementary

https://www.moems.org

- Math Olympiad for Elementary and Middle Schools

- 2 programs
  - The Math Olympiad – 5 contests over 5 month
    - Any school / classroom can sign up and participate
    - One team can have up to 35 students
    - Several schools in the state of Utah already participate

  - The Math Tournament
    - Covers a geographic region
    - One day invite

Daybreak Elementary Math Tournament

- Started in 2011 (2010-2011 school year)
- Had 37 teams from about a dozen schools
- Invited not just district schools but also private and charter within our geographic region
- 2018 had 65 teams from 25+ schools and 325 students
- Only tournament in the state of Utah (so far)

The Basics

- One day meeting that starts about 9:30
- After check in, have instructions and Individual Round
- Snack provided (donations from restaurants)
- Team Event
- Lunch (sack lunches)
- Awards
- Go home (around 1:15)

Individual Event

- Teams broken up so not at same table
- 30 minutes
- 10 problems
- No calculators
- Story problems

Team Event

- Teams of 5 students work together
- 20 minutes
- 10 problems, each worth 3 points
- Each team must have 5 students. No individual competitors.
- Total score is all 5 individual scores plus the team score.

Timeline

(Can be condensed.)

- November – send invite to principals and past participants
- December – early registration due ($25)
- January – regular registration is due ($30)
- February - Schools notified how many teams were accepted
- February – participants get practice problems
- March – Schools send names of students for each team
- April - Tournament

Behind the Scenes

- Certificates
- Awards
- Copies
- Scoring software
- Answering questions
- Name tags
- Pencils and scratch paper
- Tables and chairs
- Master of Ceremonies for tournament (very important)
- People to score the papers and be proctors

Schools' Preparation

- Each school does own way
- Some do Math Olympiad
- Some after school
- Some just a teacher in class
- Problem solving strategies

Tournament FAQ

- ***How do I register for a Tournament?***
  - Simply fill out a (Tournament Agreement form (available in this packet and also on line) and send it to our office for approval. Once it's approved (approval is based upon whether there is another Tournament running too close to the area you are requesting), you will be asked to submit fees and you will receive the Tournament Handbook. If you want to get an idea of the numbers of Math Olympiad teams in your proposed region, give us a call.
- ***What information is contained in the handbook?***
  - The handbook contains detailed instructions and valuable suggestions for running a successful event. Included are: schedules (for before the date and on the actual date), sample table arrangements, areas of responsibility and detailed instructions for your committee members (only 3 - 4 heads of committees make this endeavor work very well), and sample correspondence forms (including publicity letters for before and after the tournament, press releases, and team registration forms).
- ***How is the tournament different from the monthly Mathematical Olympiad Contests?***
  - Although the problems on the Tournaments are similar to those on the contests, there are some major differences. The competition is divided into three parts. Each team of 5 students will take a 10-question individual contest. That is followed up by another 10-question ***team*** event, where only one set of answers is submitted for each team. Finally, in the event of any ties (individuals or teams), there is a set of tiebreaker problems.

FAQ Continued

- ***What does the sponsoring organization have to do to get ready?***
  - The sponsoring organization decides what fee (if any) to charge to teams, chooses a site, invites schools, prints and packages the contests, and buys awards. Our handbook will guide you through every step.
- ***How will the teams get their results?***
  - Every student and team will know where they stand in the Tournament by the end of the event. Scoring is done by a few volunteers during the event. An electronic spreadsheet is provided on which you will enter individuals' scores. That spreadsheet will rank the results, so that you will be able to have an awards program on the same day!
- ***Are solutions to the problems included?***
  - There is review time for all questions built into the suggested schedule. A set of Power Point® slides is included to use on that day, so that the person reviewing the answers has little to do, but explain strategies and answer questions.
- ***Is it necessary that the students at the tournament have participated in the monthly Math Olympiad Contests?***
  - No, in fact many sponsoring organizations use this as a way to get more schools in their area involved in Math Olympiads. Your tournament may be administered anytime from April through December of the same school year.

Other Helpful Websites

- Byrd Seed
  - https://www.byrdseed.com

- Depth and Complexity
  - https://www.byrdseed.com/?s=depth+and+complexity
  - https://www.jtayloreducation.com/depth-and-complexity-prompts-icons/

- Critical Thinking - Many K-12 Lesson Plans
  - https://www.criticalthinking.org

- National Association for Gifted Children
  - http://www.nagc.org

Final Thoughts…

Adding enrichment to lessons for all students (Fabulous Tier One Instruction) and addressing the needs of your high-ability students (Anchor Activities) does take time and planning.

However, there are teacher-friendly ways to proceed, especially when working as a team to find the best options for your grade-level.

Though we showcased commercial and scaffolded products during this hour, with just a few tweaks, teachers can incorporate critical thinking, depth and complexity, and creativity into almost any lesson!

The time you invest will yield great benefits!

Remember: EVERY Child – Every Day

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