

THE GIFTED
TEACHER DEPOT



TOOLS FOR THE
GIFTED TEACHER

YOU CAN DO IT...

WE CAN HELP

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CREATIVE THINKING

BLUEPRINT: The most basic definition for creative thinking is the ability to create. We teach students the common framework for the Creative Thinking processes as described by Torrance (1979). The four main principals are Fluency, Flexibility, Originality, and Elaboration.

KIDS AT WORK: (How does this work and look in our classroom?)

- ✿ Discuss the "10 Rules for Creativity".
- ✿ We have a display in our classroom with the four parts of creativity with a description of each. We also post exemplary student work underneath of each category.
- ✿ Our creativity activities for each grade level build each year from kindergarten to 5th Grade.
- ✿ *Creativity Calendar: Weekly Activities to Encourage Creativity* by Laura Magner. This book provides weekly/monthly activities in all four areas of creativity.
- ✿ **Creativity Quilt:** Students create a "quilt block" that represents them using an 8 ½ X 8 ½ piece of cardstock paper and construction paper. Students can be very creative with paper, glue & scissors.

RESOURCES/TOOLS:

- ✿ *The Dot Book, Ish* – by: Peter Reynolds – great for originality
- ✿ *Spoon/Chopsticks* by Amy Krouse Rosenthal/Scott Magoon – great for flexibility
- ✿ *Not a Box/Not a Stick* by Antoinette Portis – great for originality/flexibility
- ✿ *The Day the Crayons Quit* by: Drew Daywalt
- ✿ *Kids Are Authors* books by Scholastic – student created books published by Scholastic.
- ✿ *Frooodle* by: Antoinette Portis – great for originality
- ✿ *A Penguin Story* by Antoinette Portis – great for flexibility
- ✿ *I Can Be Anything* by: Jerry Spinelli – great for fluency
- ✿ *Inside My Imagination* by: Marta Arteaga & Luzanna Celej
- ✿ *Chamelia* by: Ethan Long – great for all four areas of creativity
- ✿ *Little Hoot/Little Oink/Little Pea* by: Amy Krouse Rosenthal & Jen Corace – flexibility

YOU "NAILED IT!" (Student products/performance)

- ✿ We spend a lot of time at the beginning of the year on fluency, flexibility, originality, and elaboration for each grade level. As they say...practice makes perfect! ☺
- ✿ Ask the following questions: Did you...
 1. Develop ideas in original and/or surprising ways?
 2. Build upon an idea?
 3. Brainstorm multiple ideas?
 4. Communicate/put on paper new and innovative ways/ideas?
- ✿ **Squiggle/transformation** – We utilize this idea with all of our grade levels. Students transform a specific shape into a new creation. For example, in our Stepping into SEARCH unit, the students had to transform an outline of a shoe into a new creation. For our space unit, To Infinity and Beyond, students had to transform an outline of a rocket. Be sure to have students brainstorm their individual ideas before creating their picture. Also, students may include a title and/or story to go along with their creation.
- ✿ We include creativity in all we do. The idea for this video came from our first graders and was performed by our fourth graders. <https://www.youtube.com/watch?v=dsqgjaoHq74&feature=youtu.be>

CAUTION!!! Possible Roadblocks (things to watch for)

- ✿ Is it "UNIQUE & USEFUL"?
- ✿ Always include brainstorming rules:
 1. All ideas are accepted.
 2. Wild ideas are good.
 3. No judgments.
 4. Piggybacking is ok.
 5. The more...the better.

CREATIVE PROBLEM SOLVING

BLUEPRINT: Creative Problem Solving encourages students to work together to find unique solutions to real-world problems. Students can work individually or in groups as they work through the “mess”. Students will be challenged to think critically and creatively.

KIDS AT WORK: (How does this work and look in our classroom?)

- ✿ We created a bulletin board at the beginning of the year with all of the steps for CPS.
- ✿ We presented an overview and discussed whole group what creative problem solving is and how CPS is used in the real-world.
- ✿ We taught each level individually with a variety of activities for specific grade levels.
- ✿ The levels of CPS are:
 1. Sensing Problems & Challenges – finding a “mess”.
 2. Fact Finding – gather information, asking question.
 3. Problem Finding – Use facts to identify a bigger problem, look at the whole picture.
 4. Idea Finding – Brainstorm many ways to solve the problem – be creative.
 5. Solution Finding – create measures to rank your ideas, pick the best idea.
 6. Acceptance Finding – prepare a plan to put your ideas to work.

RESOURCES/TOOLS:

- ✿ *CPS for Kids: A Resource Book for Teaching Creative Problem-Solving to Children* by: Bob Eberle & Bob Stanish
- ✿ *Practice Problems for Creative Problem Solving Third Edition* by: Donald J. Treffinger
- ✿ *Primarily Logic Grades 2-4* by: Judy Leimback
- ✿ *Anything is Possible* by: Giulia Belloni/Marco Trevisan: Only those who dream learn to fly. (picture bk)

YOU “NAILED IT!” (Student products/performance)

- ✿ We use our “ORBIT” (Outstanding Rigorous Book of Independent Thinking) to record notes, include sample activities and reminders for each level of CPS.
- ✿ We allow students to complete a CPS task individually as well as in groups. We utilize rubrics for CPS as well as a group expectation rubric so that the students know the expectations of working in a group. A fun way to group students randomly is by using the app, “Stick Pick”.

CAUTION!!! Possible Roadblocks (things to watch for)

- ✿ It takes time to really teach each step. Take the time!!! It will pay off in the end.
- ✿ Be sure to do some CPS tasks individually to be sure each student understands the entire process before you have student work in groups.
- ✿ Grouping students – students must be able to collaborate and trust each other. This takes time.

STEM/LEGO ROBOTICS

BLUEPRINT: Science, Technology, Engineering and Math are integrated throughout our lessons and curriculum. All grades participate in STEM tasks. These are tasks that involve collaboration, communication, various science concepts, use of technology, application of math skills, creativity, etc. In addition, we also utilize Lego We-Do Kits. These kits allow opportunities for students to create various structures that are programmed through the computer. Students learn a variety of engineering concepts, document data, and apply basic computer programming skills (coding).

KIDS AT WORK: (How does this work and look in our classroom?)

- 🔧 **STEM:** We incorporate STEM tasks throughout all grade levels including kindergarten after they qualify. We have divided our STEM tasks into individual grade levels to prevent any repeats of tasks. This is also important because some STEM tasks require certain skills before you can compete other STEM tasks.
- 🔧 We send a STEM wish list home at the beginning of the year to our parents. We explained what is STEM and the importance of including these activities in our gifted program. The parents are more than willing to send in supplies.
- 🔧 **Lego We-Do Learning Process (phases):** Connect, Construct, Contemplate, Continue
- 🔧 **Lego We-Do Kits Organization:** We have our Lego kits numbered and partners assigned to each kit. This help with accountability for the million parts and pieces. ☺ At the very beginning of the year we go over rules/regulations for using the Lego We-Do kits and proper care for kits. These kits are very expensive but well worth the money! We store the Lego mini-figures separate from the kits because those are very popular items. We also have a box named: Lego LOST & FOUND.
- 🔧 **Lego We-Do Kits Teacher Resources:** The teacher resources/guides are excellent. It takes us some time to read through the details of building the kit, the curriculum guide, and other teacher resource information. It is well worth your time. It also helps the teacher realize that it is a lot harder than it looks! ☺ There are extension activities for each project that the students build. We have the student's record data and key engineering concepts in their "ORBIT" books. This way the information is handy at any time they need the information.
- 🔧 **Lego and STEM:** The engineering tasks require students to work collaboratively, build structures, problem solve, create graphs/data, etc.

RESOURCES/TOOLS:

- 🔧 TpT – Smart Chick – STEM Tasks
- 🔧 Design Squad Nation – <http://pbskids.org/designsquad/>
- 🔧 Science Buddies – <http://www.sciencebuddies.org>
- 🔧 Great Picture Books:
 - *Galimoto* by: Karen Lynn Williams
 - *Awesome Dawson* by: Chris Gall – a new hero saves the day armed with only a wrench, screwdriver and a pile of junk.
 - *Violet the Pilot* by: Steve Breen
- 🔧 Advanced projects to do with Lego We-Do kits with pictures and directions.
<http://www.wedobots.com/2013/10/wedo.html>

CAUTION!!! Possible Roadblocks (things to watch for)

- 🔧 Lego We-Do kits are expensive.
- 🔧 Need to have replacement parts handy for lost parts.
- 🔧 STEM tasks could get expensive if you don't have parental support for supplies.

MATH/PROBLEM SOLVING/LOGIC

BLUEPRINT: Math Logic, Critical Thinking, and Problem Solving are important components to our instruction. Math Logic includes logic puzzles where students are asked to use critical thinking skills. Students demonstrate critical thinking when they use analysis and evaluation to determine a judgment. Problem Solving involves multi-steps to answer higher order thinking questions or problems. Students are asked to defend and explain their thinking.

KIDS AT WORK: (How does this work and look in our classroom?)

- 🌻 Albert's Insomnia - <http://albertsinsomnia.com/> This is a math game that our students love in all grade levels from second – fifth grade. This game is differentiated automatically by the grade level math skills that you can utilize to make your number sentences.
- 🌻 Interactive math number line: Install a clothes line from one side of the room to the other. Use paper clips and index cards for students to manipulate on the number line. You can tier instruction based on the age group of your students. Include whole numbers, fractions, decimals and percent on this number line!
- 🌻 Logic Puzzles/Red Herrings/Think a Minutes/Who's Clues – great games to make students think! These are great when you just have a few minutes at a time. You can create a Power Point with a variety of these puzzles and share with your students as needed. You could also have a file of them for students who finish early if that ever happens in your classroom! ☺
- 🌻 Les Pensuers Unit Books – Early Bird and Bookworms, Pastabilities, Catch My Drift, Attribatics, At the Root of the Matter, Tick-Tick-Tick, Go with the Flow just to name a few. These integrated units incorporate a variety of subject areas with logic, problem solving, critical thinking and creativity activities.
- 🌻 100's board activities – great for teaching number sense to lower grade gifted students.

RESOURCES/TOOLS:

- 🌻 *Just Think! Activities to Develop Critical Thinking* – these books are available in specific grade levels.
- 🌻 *Primarily Logic for Primary Grades*
- 🌻 *Creative & Critical Thinking Activities* – for grade levels 1-5 – we don't use these as worksheet books but rather pull ideas out of the book to use in teaching creativity.
- 🌻 *Math-a-Logic* by Dianne Drazie
- 🌻 *Red Herrings Science Mysteries(Solving Problems through Critical Questioning* by: M.A. Rockett
- 🌻 *Dr. Funster's Think a Minutes*
- 🌻 *Mathematical ART-O-Facts Activities to Introduce, Reinforce or Assess Geometry & Measurement Skills* by: Catherine Jones Kuhns – this book also integrates creative thinking.
- 🌻 *Whose Clue's* (various topics) by: Nathan Levy

CAUTION!!! Possible Roadblocks (things to watch for)

- 🌻 Time – it is important to make time for this so that students can practice and apply math concepts they have learned in the classroom.

TECHNOLOGY

BLUEPRINT: Technology is embedded in our standards and we realize it is part of the future of education. We embed technology daily. We don't just allow the students to be consumers of technology we expect them to be producers of technology as well. We teach students that technology can be used for a variety of reasons: research, communication, creating, assessing, presenting, teaching, learning and for fun.

KIDS AT WORK: (How does this work and look in our classroom?)

- 🌸 Kahoot!: - <https://getkahoot.com/> - This is a game-based classroom response system which motivates student participation and rewards in a social setting. Create your Kahoot at this site.
- 🌸 Kahoot!: - <https://kahoot.it/#/> - student site to enter game pin and name.
- 🌸 Socrative - <http://www.socrative.com/> - This site allows teacher to engage and assess their students with educational activities on tablets, phones, or laptops. Provides excellent assessment results for students and teachers. Teacher login and Student login at this site.
- 🌸 Storybird: www.storybird.com Creating stories with illustration to share with others.
- 🌸 Wonderopolis: www.wonderopolis.org Students explore the "wonder of the day"
- 🌸 Zimmertwins: www.zimmertwinsatschool.com Students create original cartoons and text, plot, characters, etc. to share with others
- 🌸 KidBlog: www.kidblog.com Students utilize writing skills to communicate, share ideas, and respond to teacher questions.
- 🌸 Renzulli: www.renzullilearning.com Teachers can create assignments related to content taught in the classroom for students to further explore. Students may also e-mail with the teacher related to their learning.
- 🌸 Create a Graph: <http://nces.ed.gov/nceskids/createagraph/default.aspx> Students can choose various ways to create a graph after they have gathered data.
- 🌸 Virtual Manipulatives: <http://nlvm.usu.edu/> Great site for students to explore and apply math concepts using manipulatives.
- 🌸 Tagxedo & Wordle: www.tagxedo.com and www.wordle.com Great tool for ELA related learning.
- 🌸 Draw a Stick Man: www.drawastickman.com Students utilize creativity and reading. Use gallery to help foster more interest.
- 🌸 Powtoon: <http://www.powtoon.com/> - Create your own animation.
- 🌸 QR Codes: <https://www.the-qr-code-generator.com/>

How to create a QR code for students to gain easy access to a site:

1. Type in the web address in the box.
2. Click Save.
3. Open the box at the bottom of the page, click "save as".
4. Save on your computer under my pictures.
5. Open My pictures and you can print your QR code or copy/paste it onto a flyer/document in the classroom.

How to create an icon for your computer for easy access to sites for students:

1. Go to the website that you want students to visit.
2. Restore down the page (click on the small box in the upper right hand corner of the page (next to the red X).
3. On the toolbar across the top of the page you will see the web address. In front of the web address (to the left of it) you will see a small picture.
4. Click on the picture and drag it to the desktop.

RESOURCES/TOOLS: (This is just a few of our favorites!)

- 🌸 Laptops and devices. We encourage students to bring their devices to school on their SEARCH day.

CAUTION!!! Possible Roadblocks (things to watch for)

- 🌸 Not enough devices. Wifi issues. But...this is an issue EVERYWHERE so we consider it a patience builder!

SPECIALTY TOOLS IN OUR TOOLBOX

BLUEPRINT: As much as we preach/teach creative thinking, critical thinking, use of technology, collaboration, communication, application of skills and authentic work, we have created some "personalized tools", specialty tools, that we use in our school with our gifted students. Some of these tools are school-wide programs where students share their knowledge with all students in the building. Other specialty tools are projects that students take ownership of and benefit in our gifted classroom.

KIDS AT WORK: (How does this work and look in our classroom?)

- ❁ **Wax Museum:** Students participate in a wax museum where they dress up and portray a historical figure from the Georgia Performance Standards. Students will also create and/or find props to go with their display and tri-fold board, and create a push button to go with their wax museum display. Students need to know the information about their historic figure very well so that when people push their button they can begin talking as if they are the historical figure.
- ❁ **Diary of a Science Kid:** For the presentation science standards come to life. Students research a specific science standard and demonstrate that understanding by developing a presentation/experiment to share with a school wide audience. Students are responsible for creating a tri-fold board, presentation and experiment/demonstration.
- ❁ **Science Mania –** Students choose a science concept and experiment to share with the entire school. Students are responsible to share the "why" and "how" of the experiment school-wide. This is typically done outside due to there is always a Mentos & Diet Coke explosion.
- ❁ **Marble Madness: This is How We Roll (Roller Coasters):** Students learn basic physics concepts used by engineers in designing today's roller coasters. Potential and kinetic energy, friction, gravity, building support, and Newton's Second Law of Motion. Students loved creating an original design of a gravity driven roller coaster made only with cardstock paper and Scotch tape. <http://paperrollercoasters.com/>
- ❁ **SEARCH Design Co. Card Project –** Our Card Project is student led and incorporates project based learning. It is a multi-disciplinary project that includes writing, language arts, math, problem solving, creativity, economics and much more.
- ❁ **Our Classroom –** we model creativity in our classroom in about everything we do so that we are role models of creativity and thinking outside the box. Thankfully, we have administration that is very supportive of the SEARCH (gifted) program. http://teacherpages.hallco.org/webpages/allenfawcett/classroom_pics.cfm
- ❁ **Kids Are Authors (Scholastic)-**This is an annual competition to encourage students to use their reading, writing and artistic skills to publish a book. Students work in teams or as a class to write and illustrate their own book. The contest is open to students in grades K-8.
- ❁ **National Geographic Bee –** Similar to a spelling bee but with geography! Students in grades 4-8 are eligible to participate in this nationwide geography bee prepared by the National Geographic Society. <http://www.nationalgeographic.com/geobee/>
- ❁ **iiM Research (Independent Investigative Method)-** <http://www.iiMresearch.com/>
Research is a critical component of any gifted classroom. This method of research is valuable in teaching students the research process.

RESOURCES/TOOLS:

There are TONS of resources/tools that we utilize in all of the above.

CAUTION!!! Possible Roadblocks (things to watch for)

- ❁ Organization is critical when working with students/trifold boards, props etc.
- ❁ It takes a lot of time to put together a school-wide program. Plan way in advance and have fun!