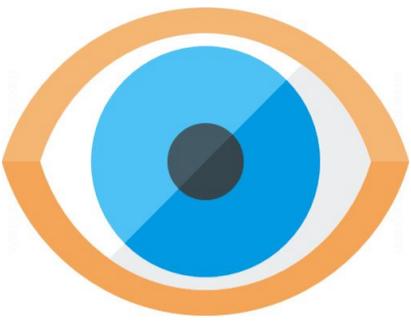


# APS Gifted Services: Enrichment for All

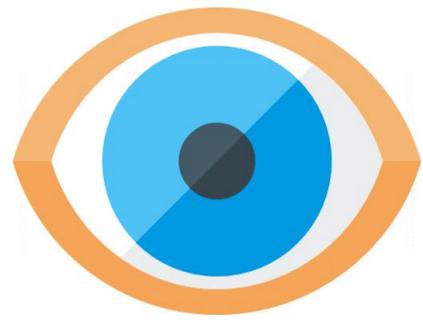
## Critical and Creative Thinking 3-5

→ Directions: Select at least one activity to complete each week.  
These tasks can be written, drawn, or discussed.

<b>Questioning</b>	<b>Point of View</b>						
<p>Mount Rushmore National Memorial in South Dakota features a massive sculpture of four very important U.S. presidents.</p>  <p><b>Who in each group deserve to be immortalized on a monument? Think of the top four:</b></p> <ul style="list-style-type: none"> <li>• Book Characters</li> <li>• Famous Virginians</li> <li>• Leaders of Ancient Civilizations</li> <li>• Scientists</li> <li>• Personal Heroes</li> </ul> 	<p><b>Choice 1</b> What would your neighborhood look like from the perspective of a bird?</p> <p><b>Choice 2</b> Many movies (<i>Toy Story</i>, <i>A Bug's Life</i>) are told from the perspective of something other than a person. Create your own idea for a movie that is told from the perspective of a favorite stuffed animal, toy, or pet.</p> 						
<b>Plus, Minus, Interesting</b>	<b>Fluency, Flexibility, Originality, Elaboration</b>						
<div style="text-align: center; margin-bottom: 10px;">    </div> <p>Create a PMI chart about eBooks.</p> <ul style="list-style-type: none"> <li>• What are some good things about them?</li> <li>• What are some bad things about them?</li> <li>• What makes them interesting?</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <tr> <td style="width: 33%; text-align: center; padding: 5px;">P</td> <td style="width: 33%; text-align: center; padding: 5px;">M</td> <td style="width: 33%; text-align: center; padding: 5px;">I</td> </tr> <tr> <td style="height: 40px;"></td> <td></td> <td></td> </tr> </table> <p>Can you come up with 3 ideas for each category?</p> <p><b>Here are some other options for PMI charts to create.</b></p> <ul style="list-style-type: none"> <li>• Airplanes</li> <li>• The beach</li> <li>• Doing chores</li> <li>• Exercising</li> <li>• Losing power (no electricity)</li> <li>• Birthday parties</li> </ul>	P	M	I				<p>Imagine that you found a box of magic chalk-- in which everything you draw comes to life.</p> <ol style="list-style-type: none"> <li>1. Fluency: Generate a list of items that you would draw.</li> <li>2. Flexibility: Categorize the items on the list.</li> <li>3. Originality: Which item from your list do you think is most original?</li> <li>4. Elaboration: Create a list of rules for using the magic chalk.</li> </ol> 
P	M	I					



## APS Gifted Services: Enrichment for All Critical and Creative Thinking 3-5

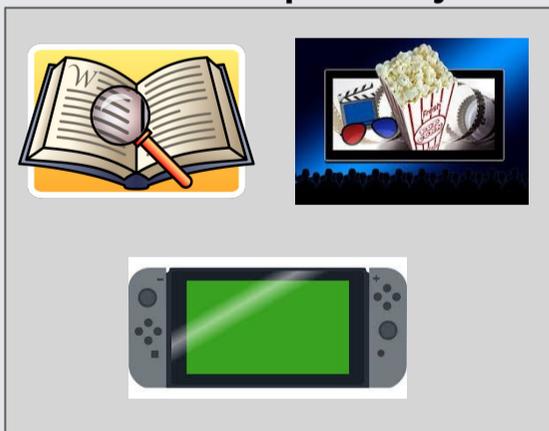


→ Directions: Select at least one activity to complete each week.  
These tasks can be written, drawn, discussed, or even built.

<b>S.C.A.M.P.E.R.</b>	<b>Visualization</b>						
<p>Choose one planet from our solar system to research.</p>  <p>Create a new type of planet that could incorporate new changes like one of the following. Consider changing the -</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <tr> <td style="padding: 5px; text-align: center;"><b>size/shape/ color</b></td> <td style="padding: 5px; text-align: center;"><b>landforms</b></td> <td style="padding: 5px; text-align: center;"><b>bodies of water</b></td> </tr> <tr> <td style="padding: 5px; text-align: center;"><b>purpose</b></td> <td style="padding: 5px; text-align: center;"><b>species</b></td> <td style="padding: 5px; text-align: center;"><b>weather</b></td> </tr> </table> <p><b>Don't want to SCAMPER a planet?</b></p> <ul style="list-style-type: none"> <li>Design a robot that explores the new planet.</li> <li>Create a rocketship using an empty egg carton.</li> <li>Create a tool for astronauts to explore the moon</li> <li>Make a recipe for a new type of space food.</li> </ul>	<b>size/shape/ color</b>	<b>landforms</b>	<b>bodies of water</b>	<b>purpose</b>	<b>species</b>	<b>weather</b>	<p>When we visualize things, we picture things in our mind.</p> <p style="text-align: center;"><i>When you close your eyes and think of the word <b>scarcity</b>, what do you see?</i></p> <div style="text-align: center; margin: 10px 0;">  </div> <p><b>Other things to visualize could be:</b> When you close your eyes and think of...</p> <ul style="list-style-type: none"> <li>being an explorer on a continent you hope to visit someday.</li> <li>waking up in a world without fractions or decimals.</li> <li>a store where you could trade for everything you wanted instead of using money.</li> <li>taking a trip to another planet.</li> </ul> <p style="text-align: center;">Try to be creative and original.</p>
<b>size/shape/ color</b>	<b>landforms</b>	<b>bodies of water</b>					
<b>purpose</b>	<b>species</b>	<b>weather</b>					

### Making Connections

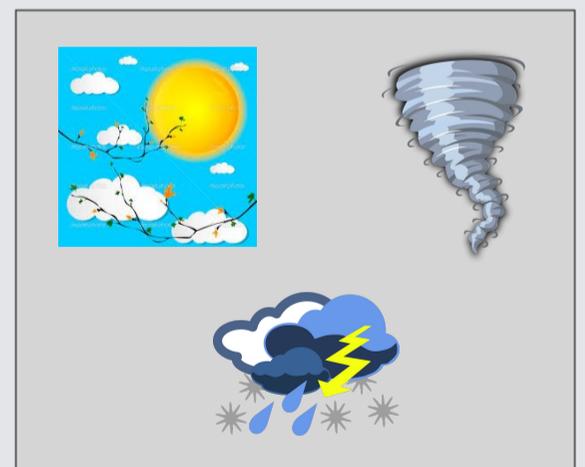
**Look at the images in the boxes below. What connections might you make between the three items in each box? Explain why.**



book    video game    movie



baseball    soccer    golf



sunny    stormy    tornadic

Guiding questions:

- How are they the same or different?
- Which is most important and why?
- Which is most like you?
- Which object connects to a favorite character in a book you're reading?
- Which object connects to the plot and events of a book that you enjoyed reading?



## Questioning

Effective questions can support learners' efforts to explain, interpret, evaluate and apply what they know. Open-ended questions can increase interest and support the development of a range of critical and creative thinking skills.



## Point of View

When learners consider other points of view or perspectives, they begin to develop their abilities to listen with understanding and empathy (one of Costa's 16 Habits of Mind). Tasks that focus on point of view offer learners the opportunity to think flexibly, debate ideas respectfully, and consider "big picture" ideas.



## Plus-Minus-Interesting

Learners use the PMI structure to keep an open-minded attitude and consider an issue from multiple perspectives. Younger learners may consider what would make a certain idea interesting (i.e. What if books were round?), older learners may use the "I" to consider implications.

## Fluency, Flexibility, Originality, Elaboration (FFOE)

These thinking strategies and processes help students brainstorm, make connections, and develop creative ideas.

**Fluency** – The ability to generate numerous ideas or alternatives to solve a problem that requires a novel solution.

**Flexibility** – The ability to consider a number of different perspectives in an effort to generate a wide variety of ideas or alternatives.

**Originality** – The ability to generate novel, unique, and rare ideas or alternatives to solve a problem that requires an innovative solution.

**Elaboration** – The ability to generate a large number of details or descriptions that explain a specific and novel solution to a problem.



## S.C.A.M.P.E.R.

SCAMPER is a model that helps us create unique thoughts, explore relationships, and search for new or different combinations. SCAMPER involves a variety techniques (**S**ubstitute – **C**ombine – **A**ddjust or **A**dapt – **M**odify – **P**ut to Other Uses – **E**liminate or **E**laborate – **R**everse or **R**earrange) that help to change and improve something by changing one or more parts of the original idea.



## Visualization

Stated simply, visualization is technique that involves forming images in our mind. Visualizing helps us imagine situations, events, or ideas even when what we are thinking about is not actually present.



## Making Connections

When learners make connections, they explore relationships between new ideas, their daily lives, and the world around them. Making connections supports learners in their ability to create unique and original ideas.