Primary Education Thinking Skills

Introduces the six characters, each with a special thinking strategy, through a variety of problem-solving activities.

Primary Education Thinking Skills 2
Develops the thinking strategies further. The characters blend their thinking skills to work together to solve problems.

Primary Education Thinking Skills 3
Provides more complex challenges for expanding these problem-solving strategies in the young learner.

Kindergarten Primary Education Thinking Skills
Introduces the thinking skills through activities and questioning strategies aligned to a wide array of kindergarten-level trade books.
The Crystal Pond Woods Thinking Specialists

Dudley the Detective
... Uses clues
... To find one and only one right answer

Jordan the Judge
... Uses considerations
... To find the best answer

Isabel the Inventor
... Brainstorms
... To find lots and lots of answers

Max the Magician
... Looks for patterns
... To find a solution that works

Yolanda the Yarnspinner
... Uses her imagination
... To weave wonderful stories

Sybil the Scientist
... Studies the parts of things
... To sort and classify them

From Primary Education Thinking Skills
Pieces of Learning — www.piecesoflearning.com
**List names** of students as each behavior appears.

**Add checkmarks** after name if behavior is repeated.

**Use a different color** of ink or pencil for each whole group lesson.

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**Behavioral Checklist**

**Inventor Thinking**

(inventive/divergent thinking)

| Teacher _________________ |
| Grade _____ |

**Dates of**

1. _____ whole group

2. _____ instruction:

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<table>
<thead>
<tr>
<th>OFFERS MANY IDEAS (fluency)</th>
<th>CHANGES COURSE OF IDEAS; SEES DIFFERENT PERSPECTIVES (flexibility)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFFERS OFF-BEAT AND/OR UNIQUE IDEAS; WORKS OUTSIDE CONVENTIONAL PARAMETERS (originality)</td>
<td>ADDS LOTS OF DETAILS OR EXPANDS ON AN IDEA (elaboration)</td>
</tr>
<tr>
<td>DISPLAYS UNUSUAL OR MATURE SENSE OF HUMOR</td>
<td>USES ADVANCED VOCABULARY IN A MATURE, ARTICULATE MANNER</td>
</tr>
<tr>
<td>RETAINS INFORMATION FROM PREVIOUS LESSONS</td>
<td>PETS™ CLASSWORK INDICATES AN OUTSTANDING ABILITY TO USE THIS THINKING SKILL</td>
</tr>
</tbody>
</table>

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I see these behaviors in these students regularly during class time as well:

These students did not stand out during the PETS™ lessons, but I see these behaviors during regular class time:

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Notes:

© Pieces of Learning
### Diagnostic Notes • Inventor Thinking

<table>
<thead>
<tr>
<th>Offers Many Ideas (fluency)</th>
<th>Changes Course of Ideas; Sees Different Perspectives (flexibility)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>generates many ideas</em></td>
<td><em>offers different types of responses</em></td>
</tr>
<tr>
<td><em>all responses are acceptable</em></td>
<td><em>changes categories</em></td>
</tr>
<tr>
<td><em>responses do not have to be creative</em></td>
<td><em>sees things from different points of view</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offers Off-Beat and/or Unique Ideas; Works Outside Conventional Parameters (originality)</th>
<th>Adds Lots of Details orExpands on an Idea (elaboration)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>shares ideas that are very different</em></td>
<td><em>spends a long time adding details that may not occur to others</em></td>
</tr>
<tr>
<td><em>responds in ways that “stop you in your tracks”</em></td>
<td><em>piggybacks on the ideas of others</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Displays Unusual or Mature Sense of Humor</th>
<th>Uses Advanced Vocabulary in a Mature, Articulate Manner</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>understands your jokes</em></td>
<td><em>correctly uses words others do not know</em></td>
</tr>
<tr>
<td><em>makes jokes you appreciate</em></td>
<td><em>expresses ideas in a more mature, articulate manner</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Retains Information from Previous Lessons</th>
<th>PETS™ Classwork Indicates an Outstanding Ability to Use This Thinking Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>shares knowledge accurately during review</em></td>
<td><em>seatwork and/or challenge papers are exceptionally well done</em></td>
</tr>
<tr>
<td><em>applies knowledge during activities</em></td>
<td></td>
</tr>
</tbody>
</table>

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I see these behaviors in these students regularly during class time as well:

- normally great inventive thinkers

These students did not stand out during the PETS™ lessons, but I see these behaviors during regular class time:

- normally great inventive thinkers who “hid out” during the PETS™ lesson

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Notes:

- absentees
- new students

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- be generous — more inclusive than exclusive
- names can go in more than one box per answer
- be sure to add ✓s after names for multiple answers
- be sure to use different colors for each whole group lesson
Thoughts on Creative Thinking
(or Why We Need to Care About Creativity in Our Lives!)

Creativity as a process is important, not because the product of each moment is such a gem, but because the process is the essence of life itself.

— Harold H. Anderson

When I examined myself, and my methods of thought, I came to the conclusion that the gift of fantasy has meant more to me than my talent for absorbing positive knowledge.

— Albert Einstein

Silence should be used for the breeding of creativity but creativity kept in silence perishes.

— Pam (14)

Learning to think creatively helps people develop confidence in the ability to think.

— Karen Meador

Creative thinking helps develop courage.

— Karen Meador

I still believe in Unicorns ... because imagination stimulates thinking
... into the what if's
the why not's
and
the what can be's.

And through this:
... ideas and choices can multiply
... understandings and potentials are extended
... and dreams can become.

Bob Stanish

Thinking creatively enhances self-esteem.

— Karen Meador

Learning to think creatively helps people develop confidence in the ability to think.

— Karen Meador

Creative people ...
challenge assumptions
recognize patterns
see in new ways
make connections
... take risks
use chance
construct networks
... to open the doors to their creative powers that give them new choices in their lives.

An exhibit — Creativity: The Human Resource

The truly creative individual stands ready to abandon old classifications and to acknowledge that life, particularly his own unique life, is rich with new possibilities.

— Frank Barron

Creativity and intelligence go hand in hand. They nurture each other, just as we nurture the children who we teach.

— Linda Karges-Bone

Practicing the skills of creativity will prime students’ brains for divergent thinking and thus solving problems in all curriculum areas. Producing creative works will help students to identify (and appreciate) creative elements in art, literature, and nature ... people can learn to be more creative at any age ...

— Laura Magner

Learning to think creatively helps people develop confidence in the ability to think.

— Karen Meador

An exhibit — Creativity: The Human Resource
**Blocks to Creative Thinking**

**Perceptual**
Difficulty in seeing the familiar in new and different ways

- Authoritarian attitudes and environments
- Pressure to conform
- An intolerance of the "play" attitude in connection with school work
- Hostility toward divergent personality

**Cultural**
Traditions, fear of being different, social expectations, and conformity pressures

- An excessive quest for certainty
- Pressure to conform
- Traditions, fear of being different, social expectations, and conformity pressures
- Hostility toward divergent personality

**Emotional**
The interference of insecurities and anxieties

- Traits that make for rigidity of personality
- An excessive quest for certainty
- Fear of rejection

**An over-emphasis on success**

- "It won't work."
- "It's not in the budget."
- "We've never done it before."
- "We're not ready for it yet."
- "What will parents think?"
- "We're too small for that."
- "We have too much already going on."
- "Somebody would have suggested it before if it were any good."
- "It's not in the curriculum."
- "It'll mean more work."
- "I'll bet somebody else already did that."

Adapted from R. J. Hallman (1967) & L. Karges
ELEMENTS OF PRODUCTIVE (FAT) THINKING

**Producing ideas in quantity**

Lots of ideas flowing!

Key word: MANY

**Key word:** Fluency

**Producing ideas from different categories & different perspectives**

Key word: DIFFERENT

**Key word:** Flexibility

**Generating unique, novel, or unusual ideas**

Key word: UNIQUE

**Embellishing or expanding on ideas**

Enriching with detail

Key word: DETAILS

**Key word:** Originality

**Key word:** Elaboration

Dodie Merritt • finelines@gmail.com • Pieces of Learning • www.piecesoflearning.com
Bubble Bonanza

Using your Brainfocals,™ look at Isabel’s bubbles in new and different ways. Draw what you “see.”
What Might This Be?
Role Cards

The **Brainstormer** tells the Timer when to turn the timer and starts the brainstorming.

The **Counter** takes out a bean for each new idea. Be more inclusive than exclusive of ideas.

The **Timer** is in charge of the timer. Only when signaled by the Brainstormer can the Timer start timing.

The **Manager** makes sure that all is in order for a round to begin.

The **Checker** makes sure that the Counter doesn’t forget to take out a bean for each idea.

If another job is needed, the **Cheerleader** is responsible for encouraging the group to come up with more ideas!
A PETS™ Q’UBE Divergent/Creative Thinking

Tier 1

What might happen if ________?

If you were ________ in the story, what would you do differently?

How would you end this story differently?

How does ________ feel about what’s happening?

In how many different ways could you describe ________?

What else could ________ have done?

Stuff this cube with old plastic bags or styrofoam peanuts.

Then wrap with packing tape for durability.

OR

Enlarge cells to desired size.

Cut out and clue to the sides of a larger cardboard box.

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The Way to Divergent Thinking

1. The more ideas, the better!

2. Changing categories is great!

3. Wild and zany ideas are welcome!

4. Respect the ideas of others.

5. Combining ideas is cool. “Piggyback” on the ideas of others. Add lots of details, too!