



Think, think, think.

ENCOURAGING HIGHER ORDER THINKING SKILLS IN YOUR CHILD

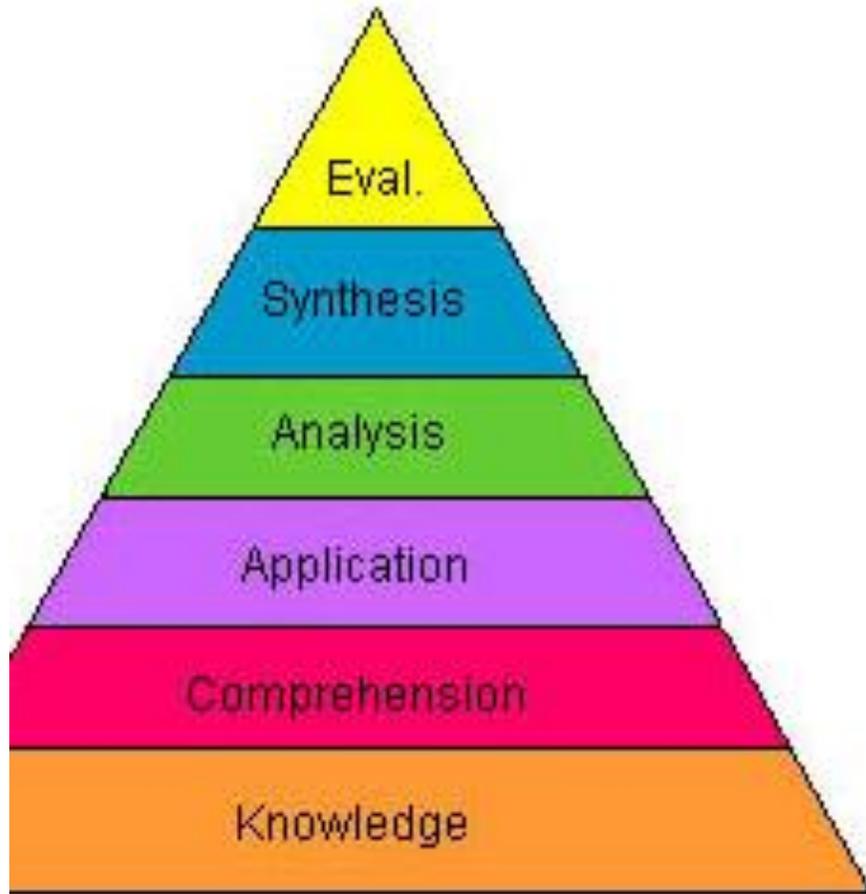
Spring Open House Presentation 2016

Adapted by Patricia Muxie with permission
from: Laura Davis and Judy Chaffins

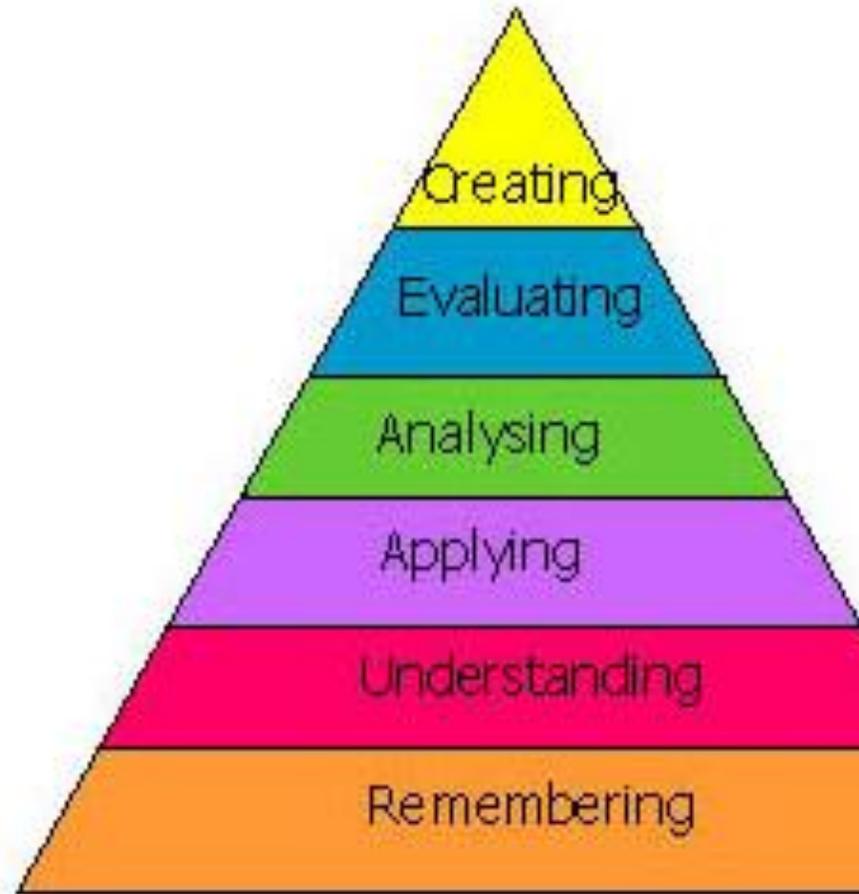
Inspiration

- ▶ “We are approaching a new age of synthesis. Knowledge cannot be merely a degree or a skill...it demands a broader vision, capabilities in critical thinking and logical deduction without which we cannot have constructive progress.”
~ Li Ka-shing
- ▶ “We are drowning in information, while starving for wisdom. The world henceforth will be run by synthesizers, people able to put together the right information at the right time, think critically about it, and make important choices wisely.”
~ E. O. Wilson

Old vs. New Bloom's



Old Version



New Version

Higher Order Thinking (HOT)

- ▶ HOT **does not** include memorization.
- ▶ HOT requires that we **do something** with the facts.
- ▶ We must **understand** them, **connect** them to each other, **categorize** them, **manipulate** them, **put them** together in new ways, and **apply** them as we seek new solutions to new problems.
- ▶ Higher Order Thinking involves metacognition.
- ▶ **Metacognition** is thinking about your thinking. When a learner uses metacognition they are contemplating and revising their thoughts continuously to make sure they truly understand the information.

Lower Order Thinking Skill: Remembering



Remembering Questions

- ▶ What is ...?
- ▶ Where is ...?
- ▶ How did ___ happen?
- ▶ Why did ...?
- ▶ When did ...?
- ▶ How would you show ...?
- ▶ Who were the main characters?
- ▶ Which one ...?
- ▶ When did ___ happen?
- ▶ How would you explain ...?
- ▶ How would you describe ..?
- ▶ Can you recall ...?
- ▶ Can you select ...?
- ▶ Can you list the three ...?
- ▶ Who was ...?

Activities to Promote Remembering

- ▶ Make a list of the main events.
 - ▶ Make a timeline of events.
 - ▶ Make a facts chart.
 - ▶ Write a list of any pieces of information you can remember.
 - ▶ List all the ...in the story.
 - ▶ Make a chart showing...
 - ▶ Make an acrostic.
 - ▶ Recite a poem.
- ▶ Websites to help scaffold with this tier:
 - ▶ www.Spellingcity.com
 - ▶ www.Thatquiz.org
 - ▶ www.Aplusclick.com
 - ▶ www.Dictionary.com
 - ▶ www.socialstudiesforkids.com/subjects/timelines.htm

Slightly Higher Order Thinking Skill:
Understanding

relate show illustrate
interpret
compare rephrase explain
classify outline demonstrate
summarize translate
contrast extend
infer

Activities to Promote Understanding

- ▶ Cut out or draw pictures to show a particular event in a story.
 - ▶ Illustrate what you think was the main idea.
 - ▶ Make a cartoon strip showing the sequence of events in a story.
 - ▶ Retell the story in your own words.
 - ▶ Paint a picture of some aspect you liked about the story.
 - ▶ Write a summary report of an event.
 - ▶ Prepare a flow chart to illustrate the sequence of events.
 - ▶ Make a coloring book of the story.
- ▶ Websites to help you scaffold with this tier:
 - ▶ www.Tagxedo.com
 - ▶ www.Wordle.net
 - ▶ www.makebeliefscomix.com
 - ▶ www.prezi.com
 - ▶ www.bitstrips.com/create/comic/
 - ▶ www.toondoo.com/
 - ▶ www.netrover.com/~kingskid/anchors/anchors_main.htm

Moving up to Applying

MAKE UTILIZE
MODEL IDENTIFY
APPLY BUILD ORGANIZE
EXPERIMENT
SOLVE OF CONSTRUCT
SELECT PLAN INTERVIEW
WITH DEVELOP
USE CHOOSE

Applying Questions

- ▶ How could you use this information in your daily life?
- ▶ What examples can you find to show that this character was sneaky (...or any other character trait)?
- ▶ How would you solve this problem using what you've learned ?
- ▶ How would you organize the data to show?
- ▶ What approach would you use to solve this problem?
- ▶ What other way could you plan to ...?
- ▶ What do you think would result if ...?
- ▶ What elements of this story would you choose to change ?
- ▶ What facts would you select to show ...?
- ▶ What questions would you ask in an interview with ...?
- ▶ How would you apply what you learned to develop ...?

Activities to Promote Applying

- ▶ Construct a model to demonstrate how it will work.
- ▶ Make a diorama to illustrate an important event.
- ▶ Make a scrapbook about the areas of study.
- ▶ Make a papier-mache map to include relevant information about an event.
- ▶ Take a collection of photographs to demonstrate a particular point.
- ▶ Make up a puzzle game showing the ideas from an area of study.
- ▶ Make a clay model of an item in the area.
- ▶ Design a market strategy for your product.
- ▶ Dress a doll in costume.
- ▶ Paint a mural.

▶ Websites to help you scaffold with this tier:

- ▶ www.animoto.com
- ▶ www.cropmom.com
- ▶ www.discoveryeducation.com/free-puzzlemaker/
- ▶ www.teachingkidsbusiness.com/just-for-clicks-business-game.htm
- ▶ <http://marvel.com/games/cyos>

Higher Order Thinking Skill: Analyzing

analyze
motive
discover
classify
conclude
simplify
inferrence
dissect
divide
relationships
list
compare
survey
function
inspect
contrast
distinguish
categorize
examine
assume
relationships
relationships
relationships

Analyzing Questions

- ▶ What are the parts or features of ...?
- ▶ How is ___ related to ...?
- ▶ Why do you think ...?
- ▶ What is the theme ...?
- ▶ What motive is there ...?
- ▶ Can you list the parts ...?
- ▶ What *inference* can you make ...?
- ▶ What conclusions can you draw ...?
- ▶ How would you classify...?
- ▶ How would you categorize...?
- ▶ Can you identify the different parts ...?
- ▶ What evidence can you find ...?
- ▶ What is the relationship between ...?
- ▶ Can you distinguish between ...?
- ▶ What is the function of ...?
- ▶ What ideas justify ...?

Activities to Promote Analyzing

- ▶ Design a questionnaire to gather information.
 - ▶ Write a commercial to sell a new product.
 - ▶ Conduct an investigation to produce information to support a point of view.
 - ▶ Construct a graph to illustrate selected information.
 - ▶ Make a jigsaw puzzle.
 - ▶ Make a family tree showing relationships.
 - ▶ Put on a play about ...(the study area).
 - ▶ Write a biography of... (the study person).
 - ▶ Prepare a report to show.....
 - ▶ Review a piece of art including your thoughts about form, colour and texture.
- ▶ Websites to help you scaffold with this tier:
 - ▶ <http://dissect.froguts.com/>
 - ▶ www.zunal.com
 - ▶ www.polleverywhere.com
 - ▶ <http://nces.ed.gov/nceskids/cr/eateagraph/>
 - ▶ <http://kids.familytreemagazine.com/kids/>
 - ▶ www.kidsturncentral.com/topics/hobbies/genforms.htm
 - ▶ www.timeforkids.com/TFK/kids/hh/writeideas/articles/0,28372,634428,00.html

HOT-Evaluating Questions

- ▶ Do you agree with the actions of this particular character ?
- ▶ What is your opinion of ...?
- ▶ How would you prove ...?
- ▶ Can you assess the value or importance of ...?
- ▶ Would it be better if ...?
- ▶ Why do you think the character chose ...?
- ▶ What would you recommend...?
- ▶ How would you rate the ...?
- ▶ What evidence would you cite to defend the actions of...?
- ▶ What choice would *you* have made ...?
- ▶ How would you prioritize ...?
- ▶ What judgment would you make about ...?
- ▶ Based on what you know, how would you explain ...?
- ▶ What information would you use to support the view that ...?
- ▶ How would you justify ...?
- ▶ What data was used to make the conclusion...?
- ▶ How would you compare the ideas ...? people ...?

Activities to Promote Evaluating

- ▶ Prepare a list of criteria to judge ashow. Remember to indicate priorities and ratings.
 - ▶ Conduct a debate about
 - ▶ Make a booklet about 5 rules you see as important to convince others that....
 - ▶ Form a panel to discuss views.
 - ▶ Write a letter to advising on changes needed at/to ...
 - ▶ Write a half yearly report (e.g., about your progress at school).
 - ▶ Present your point of view about...
- ▶ Websites to help you scaffold with this tier:
 - ▶ www.rubistar.com
 - ▶ www.funenglishgames.com/writinggames/debate.html
 - ▶ www.idebate.org/debatatabase/search.php?junior=yes
 - ▶ www.bubblesnaps.com
 - ▶ www.fodey.com

Higher Order Thinking Skill: Creating

estimate delete build
propose suppose choose
imagine compose develop
change predict improve formulate
compile adapt original construct
minimize modify happen test design
maximize solution elaborate solve
theory create plan make invent
combine
discuss

Creating Questions

- ▶ What changes would you make to solve ...?
- ▶ How would you improve ...?
- ▶ What would happen if ...?
- ▶ Can you propose a different way...?
- ▶ Can you invent ...?
- ▶ How would you adapt ____ to create a different ...?
- ▶ How could you change (modify) the plot...?
- ▶ What could be done to minimize (maximize) ...?
- ▶ What could be combined to create something else ...?
- ▶ Suppose you could ____ what would you do ...?
- ▶ How would you test (this product or that idea) out?
- ▶ Can you formulate a theory for ...?
- ▶ Can you predict the outcome if ...?
- ▶ Can you construct a model that would ...?
- ▶ What way would you design ...?

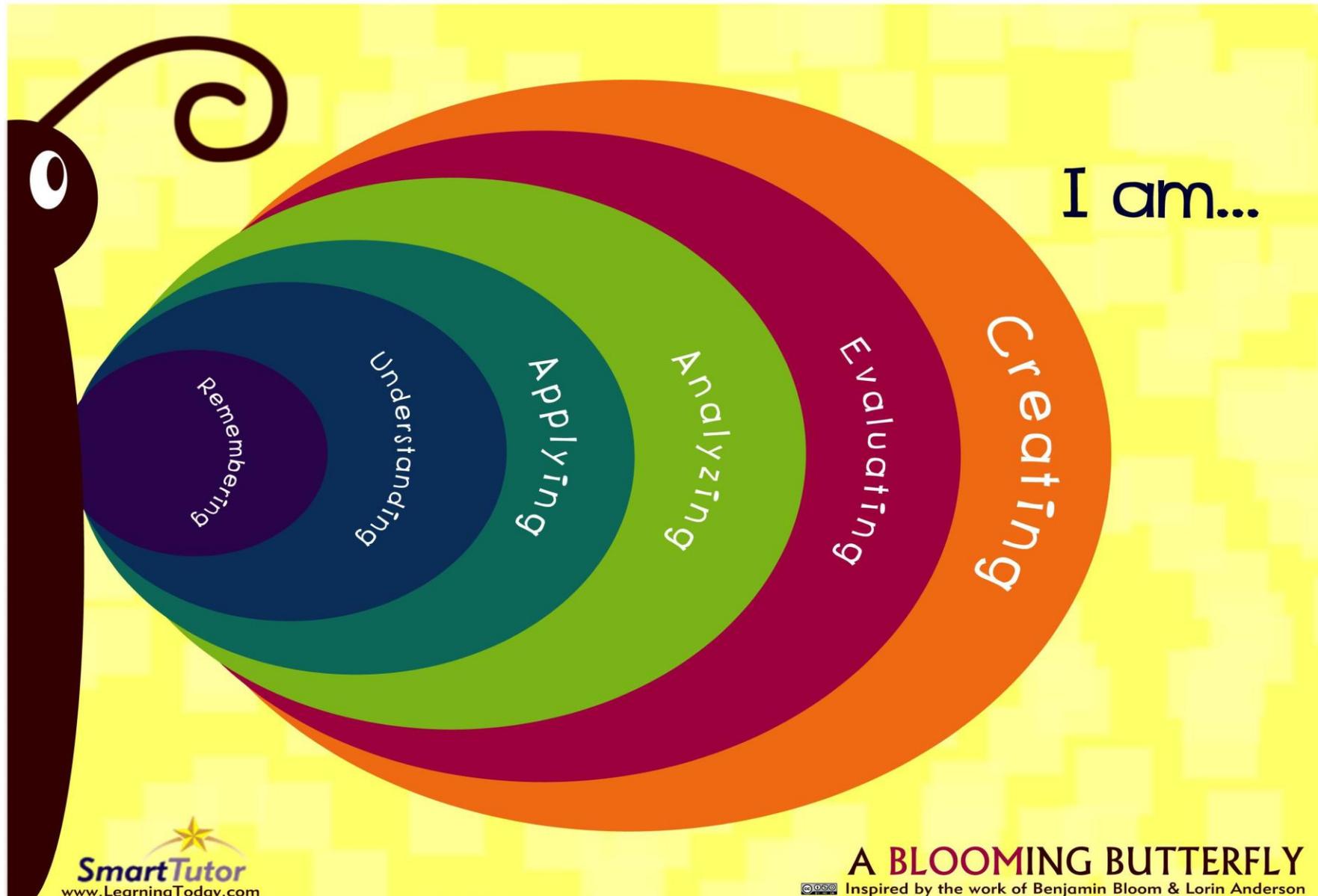
Activities to Promote Creating

- ▶ Invent a machine to....(do a specific task).
- ▶ Design a building to house your
- ▶ Create a new product. Give it a name and then devise a marketing strategy.
- ▶ Write about your feelings in relation to ...
- ▶ Design a record, book or magazine cover.
- ▶ Sell an idea about something that matters to you to someone else.
- ▶ Devise a way to ...
- ▶ Compose a rhythm or put new words to an old song.

▶ Websites to help you scaffold with this tier:

- ▶ www.fantasticcontraption.net
- ▶ www.magmypic.com/
- ▶ www.fakemagazinecover.com/
- ▶ wwwcreatespace.com/Tools/CoverCreator.jsp
- ▶ www.blogger.com
- ▶ www.wikispaces.com

Blooming Butterfly



Blooming Orange



GROUP ACTIVITY

Using the words or questions in your packet related to:

- ▶ Analyzing
- ▶ Evaluating
- ▶ Creating

Either alone or with a partner create a higher order thinking question you might ask your child OR a higher order thinking activity you might do with your child.

Be brave and share! 😊