Other Activities for Cognition Unit

**Hobbits and Orcs**

There are three hobbits and three orcs on one side of a river. You need to get all of the orcs and hobbits across the river using a boat.

1. The boat must have at least one creature
2. The boat cannot have more than two creatures
3. Orcs are vicious and thus cannot outnumber hobbits on either side of the river (even while landing on shore in the boat).

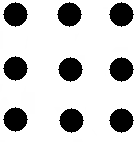
This is a great puzzle seen in many psychology books to teach means-ends analysis, unnecessary constraints, heuristics, and even trial and error. Find answer on internet.

**Work Backwards**

A man has a bag of apples and stops and gives another man half his apples plus two more. He finds another man and gives him half the remaining apples plus two more. He continues to do this to two other people until the man only has one apple left for himself. How many did he start with?

**Unnecessary constraints**

Draw a line going through all nine dots without tracing over a line or lifting your pencil and using only four lines. Easy to find the answer on the internet.



**Mental Set**

Example:   
House Lantern Winter   Answer is GREEN (greenhouse, Green Lantern, wintergreen)   
  
1) Jet Bird Mail (BLACK)   
2) Lie Egg Christmas (WHITE)   
3) True Hawaii Chip (BLUE)   
4) Shift Up Dip (\_\_\_\_\_\_\_\_\_) The answer is stick, but students get stuck with a mental set of colors.

Finish the pattern, it is one you all know: O T T F F S S E N

The top answer is stick, but many will get stuck looking for a color. The next answer is T, for the number 10. The pattern is the first letter of the numbers. Students do not typically think of numbers when given letters.

**Game Day**

I have bought older games like Tribond, Mindtrap, Mad Gab, Taboo, Abalone, Sets (a card game), Scategories, as well as many puzzles that can be played during a game day. Many students will have games at home to bring. You can have each student try to tie into cognition concepts while playing. The game Mindtrap has many cards you can spread out to different groups, and sometimes I will buy a “Puzzle of the Day” Calendar that can be used to spread around the room.

**Excellent websites to find more puzzles**

Richard Wiseman is the author of Quirkology, and an excellent source for puzzles and sensation and perception examples.

Puzzle, brain busters, riddles, and illusions in these sites:

<http://richardwiseman.wordpress.com/101-friday-puzzles/>

<http://www.brainbashers.com/>

<http://www.braingle.com>

<http://www.puzzlesite.nl/teasers/index_us.html>

<http://www.internet4classrooms.com/brain_teasers.htm>

The link below has a link to a Japenese River crossing puzzle. I dare you to try this. It is written in Japanese, so my students had to deduce all the many rules (many of which are strange). This website has the rules in English, and a link to the flash game. Students really enjoying trying this.

<http://www.robmathiowetz.com/>

The two main puzzle companies I know of are Thinkfun and Blue-Orange games.

Here are three puzzles from an article from Time Magazine titled “Answer Men” from March 11, 2013. The article is about the joy and competition of puzzle solving, and these are two of the puzzles used in the World Puzzle Championships. The article repeatedly mentions how puzzle solvers are making their own heuristics as they solve the puzzles. They are advanced, but I have a few students who thrive in this unit and want to try them.

<http://wpc.puzzles.com/press/images/TimeWPCPuzzles.pdf>