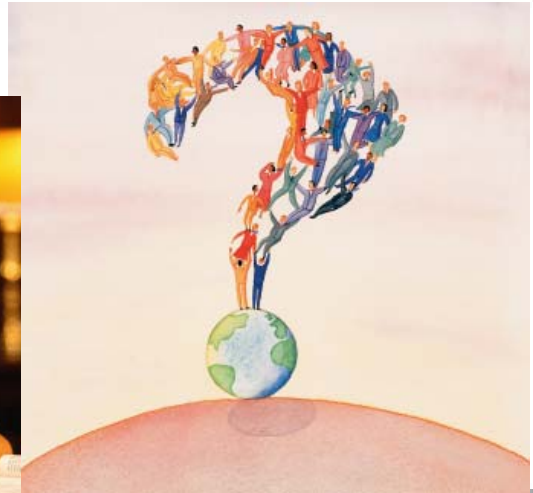


SKILLS FOR LIFE

problem SOLVING



How do you think?



Check off the characteristics that describe you.

Then total the number of checks for each category below. Are you a scientific thinker, or more creative? Both types of thinking are needed for successful problem solving. What skills can you work on to be both a scientific and creative thinker?

Scientific

- Good at math
- Focuses on separate parts
- Follows rules
- Relies on things learned
- Facts oriented
- Thinks in words
- Organized
- Very good at following through on tasks
- Logical Thinker
- Good at solving problems with one answer (ex. math problems, formulas, etc.)
- Good at science]
- Good at budgeting finances
- Usually has one strong viewpoint about a situation

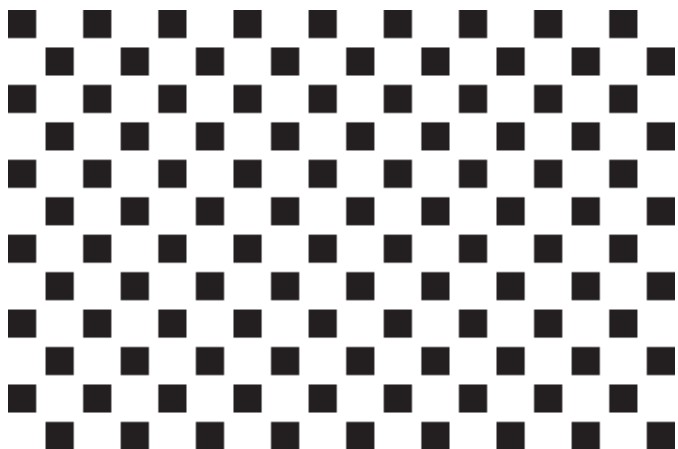
Creative

- Looks at a situation from many viewpoints
- Thinks in objects or facts
- Looks at the whole picture
- A Dreamer
- Thinks in complex images
- Follows few rules
- Processes clusters of information
- Sees resemblances in situations
- Good at starting a task
- Good at brainstorming ideas
- Able to visualize solutions
- Good imagination
- Explores many possibilities for a solution rather than focusing on one alternative

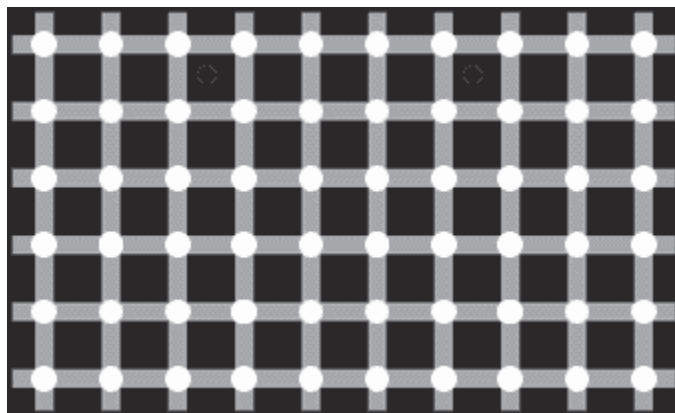


problem SOLVING

Check out these mind teasers below. Looking at a problem from a different view is major part of successful problem solving. Share these mind teasers with friends or family members. Do they see the puzzles the same way as you? How is seeing something differently helpful in problem solving?



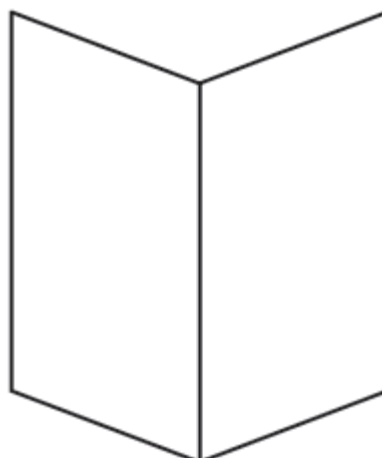
Can you see diagonal grey lines?



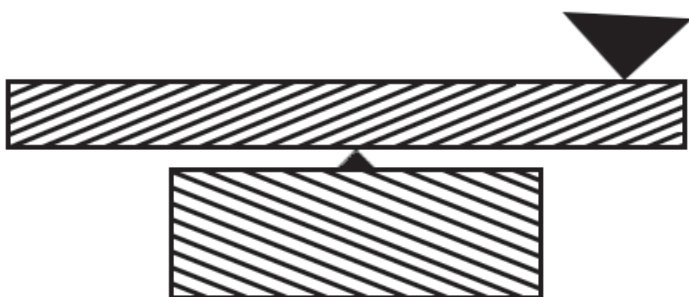
How many black circles do you see?



Is the circle an even grey?



Is the book pointing towards you or away?



Is this a level balance?



Are the middle circles both the same size?



problem SOLVING

Use your best problem solving skills to solve the mind teasers below.

1. You have a barrel, filled to the top with water, which weighs 150 pounds. What can you add to the barrel in order to make it lighter?

2. A customer at a 7-11 store selected four items to buy, and was told that the cost was \$7.1. He was curious that the cost was the same as the store name, so he enquired as to how the figure was derived. The clerk said that he had simply multiplied the prices of the four individual items. The customer protested that the four prices should have been ADDED, not MULTIPLIED. The clerk said that was OK with him, but, the result was still the same: exactly \$7.1. What were the four prices?

3. Would you rather a crocodile attack you or an alligator?

4. Three people check into a hotel. They pay \$30 to the manager and go to their room. The manager suddenly remembers that the room rate is \$25 and gives \$5 to the bellboy to return to the people. On the way to the room the bellboy reasons that \$5 would be difficult to share among three people so he pockets \$2 and gives \$1 to each person. Now each person paid \$10 and got back \$1. So they paid \$9 each, totalling \$27. The bellboy has \$2, totalling \$29. Where is the missing \$1?

5. What is represented by this BrainBat?

mce
mce
mce

6. If you are in a dark room with a candle, a wood stove and a gas lamp. You only have one match, so what do you light first?

7. There are 5 houses in 5 different colors. In each house lives a person of a different nationality. The 5 owners drink a certain type of beverage, eat a certain type of bread, and keep a certain pet. Using the clues below can you determine who owns the fish?

- The Brit lives in a red house.
- The Swede keeps dogs as pets.
- The Dane drinks tea.
- The green house is on the immediate left of the white house.
- The green house owner drinks coffee.
- The person who eats French bread rears birds.
- The owner of the yellow house eats wheat bread.
- The man living in the house right in the middle drinks milk.
- The Norwegian lives in the first house.
- The man who eats sour dough bread lives next door to the one who keeps cats.
- The man who keeps horses lives next door to the man who eats wheat bread.
- The owner who eats rye bread drinks lemonade.
- The German eats white bread.
- The Norwegian lives next to the blue house.
- The man who eats sour dough bread has a neighbor who drinks water.

SKILLS FOR

problem solving

LIFE

**5 Steps to
Problem solving:**

Think of a problem facing you now. Then fill in the blanks below to work on a solution.

1. Name the problem: _____
What is it about? _____

2. List the goals and objectives to solve the problem: _____

3. Brainstorm solutions: _____

4. Make a plan of action: What steps need to be taken to reach the solution?

5. Set up a time to get started on the solution and a projected end time for the problem to be solved. _____

problem SOLVING

SKILLS FOR LIFE



Brainstorm ideas for the following problems below.

Write your solutions in the blanks. List as many as you can in a short time period.

1. You have an early appointment with your teacher to discuss your grades. You miss the bus, and you can not drive. How do you make it to school on time? _____

2. You accidentally scheduled to meet two different friends at two different places at the same time. How can you meet with both of them without changing the time or date? _____

3. You are using your check book to purchase new clothes. When you open your check book, your last check has already been used. How do you pay for the clothes? What other alternatives do you have? _____

4. You notice that you have 2 projects due on the same day. What can you do to get them done before the last minute? _____

5. You volunteered to watch your little cousin, suddenly you get invited to your favorite band's concert in just one hour with a free ticket and back stage pass. This is the group's last tour. What will you do? _____

SKILLS FOR LIFE: problem solving

Virginia Standards of Learning met by completing this activity series:
Career Development Grades: 9-12

**English
Grade 10**

10.1, 10.2, 10.4, 10.8, 10.1010.11

**English
Grade 11**

11.111.4, 11.7, 11.8, 11.9, 11.10

**English
Grade 12**

12.1, 12.2, 12.4, 12.7,

**Academic Development: Grades 9-12:
Students will:**



HA3. Demonstrate the knowledge and skills necessary to ensure a successful transition from high school to post-secondary options, and
HA4. Demonstrate the skills needed for independent learning.

**Career Development Grades 9-12:
Students will:**

HC1. Understand the value of ethical standards and behaviors in education and the workplace,

HC3. Understand how work and leisure interests can help to achieve personal success and satisfaction,
HC4. Understand how the changing workplace requires lifelong learning, flexibility and the acquisition of new employment skills,

HC5. Understand that behaviors such as punctuality, courtesy, proper dress and language, and hard work are essential to success in the job market,

HC6. Understand that self-employment is a career option and demonstrate knowledge of the variety of professional, technical and vocational skills necessary for self-employment,

HC7. Demonstrate employability skills such as individual initiative, teamwork, problem solving, organization, and communication,

HC9. Develop and utilize time and task management skills,

**Personal/ Social Development Grades 9-12:
Students will:**

HP2. Understand when and how to utilize family, peer, school, and/or community resources,

HP4. Apply problem solving and decision making skills to make safe and healthy choices.

Answers to mind teasers Find more brain teasers at www.brainbashers.com

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|---|---|--------------|--------|--------|----------|--------|-------|---------|--------|------|-----|-------|-------|------------|-------|-----|------|--------|----------|--------|-------|------------|--------|-------|-----|-------|------|--------|-------|------|------|
| 1. Holes | 5. Three Blind Mice: They have no I's | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. \$1.20, \$1.25, \$1.50, and \$3.16. | 6. The match | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. I would rather the crocodile attack the alligator. Read the sentence again to see the double meaning. | 7. This puzzle is usually attributed to Einstein, who may or may not have written it. The German owns the fish and the table below details the full answer: (this puzzle has been modified for school use) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. We have to be careful what we are adding together. Originally, they paid \$30, they each received back \$1, thus they now have only paid \$27. Of this \$27, \$25 went to the manager for the room and \$2 went to the bellboy | <table border="0"> <tbody> <tr> <td>Nationality:</td> <td>Norweg</td> <td>Dane</td> <td>Brit</td> <td>German</td> <td>Swede</td> </tr> <tr> <td>Color :</td> <td>Yellow</td> <td>Blue</td> <td>Red</td> <td>Green</td> <td>White</td> </tr> <tr> <td>Beverage :</td> <td>water</td> <td>tea</td> <td>milk</td> <td>coffee</td> <td>lemonade</td> </tr> <tr> <td>Eats :</td> <td>wheat</td> <td>sour dough</td> <td>French</td> <td>White</td> <td>Rye</td> </tr> <tr> <td>Pet :</td> <td>cats</td> <td>horses</td> <td>birds</td> <td>fish</td> <td>dogs</td> </tr> </tbody> </table> | Nationality: | Norweg | Dane | Brit | German | Swede | Color : | Yellow | Blue | Red | Green | White | Beverage : | water | tea | milk | coffee | lemonade | Eats : | wheat | sour dough | French | White | Rye | Pet : | cats | horses | birds | fish | dogs |
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| Pet : | cats | horses | birds | fish | dogs | | | | | | | | | | | | | | | | | | | | | | | | | | |