



# ENHANCING YOUR CREATIVE SPIRIT

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Australian Institute for Commercialisation  
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## Overview

- **Definition of Creativity**
- **Characteristics of Creative People**
- **10 Ways to Stimulate Your Creative Spirit**
- **Idea Banking and Management**
- **Creative Thinking Tools**
- **Creativity Club**
- **Examples of Successful Ideas**
- **Fun Activities**



## What is Creativity?

**Creativity** is the process by which individuals or groups generate or conceive new ideas, or adapt existing concepts into new principles

**Creativity** is also an attitude & an ability

**Creativity** can be learnt



## Therefore ...

**Everyone can be creative; some people just display and apply it more than others**

### **Ability to Generate Original Ideas**

- Age 5 and younger                    90% originality
- Age 7                                    20% originality
- Adults                                    2% originality



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# The Creative Process

## Preparation

Collecting background information & Focusing on the problem or opportunity



## Incubation

After reviewing and processing information you sleep on it!



## Illumination

Often when least expected an idea will flash into your mind. Eureka!

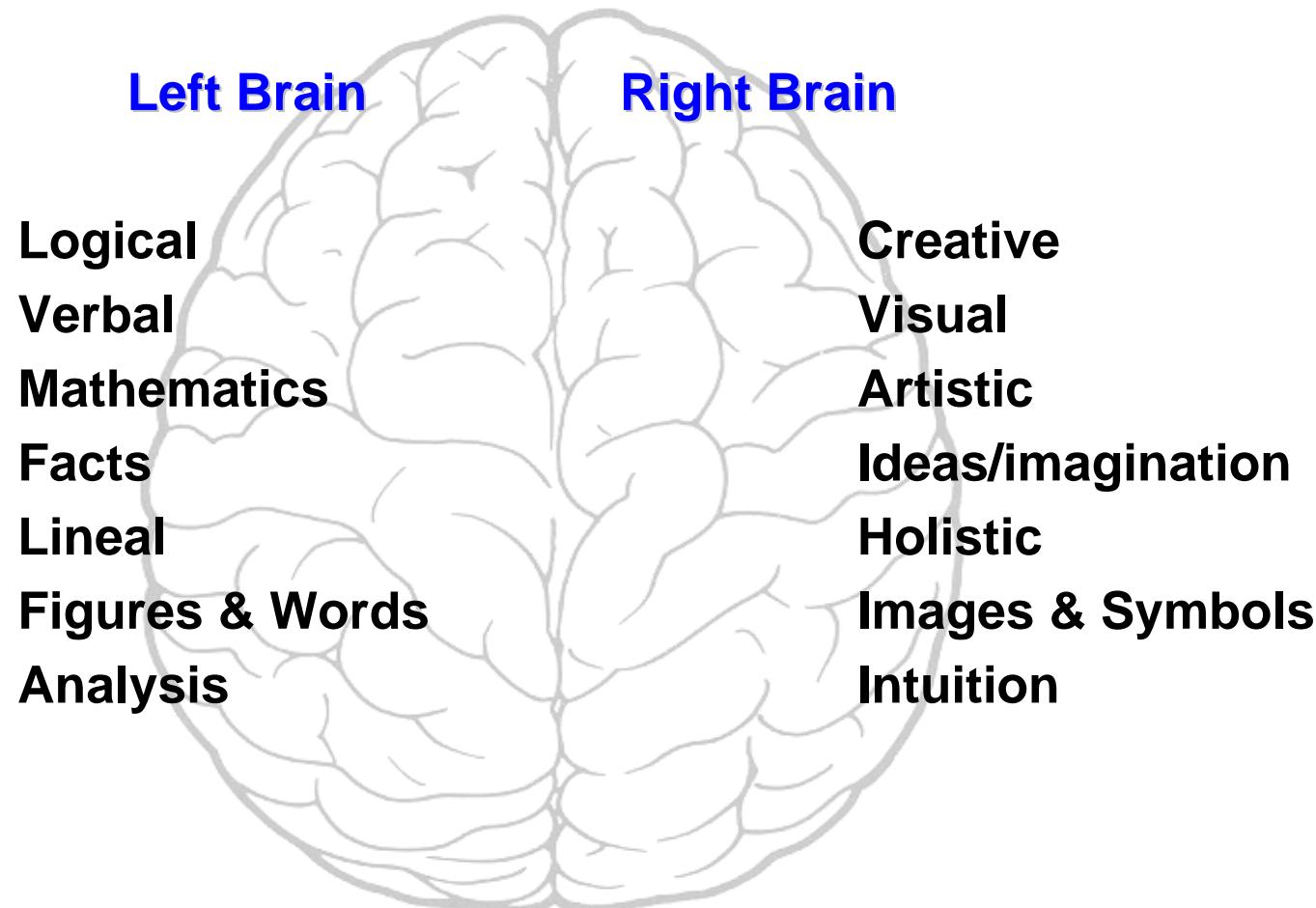


## Implementation/Verification

Develop a plan to implement the idea and test.



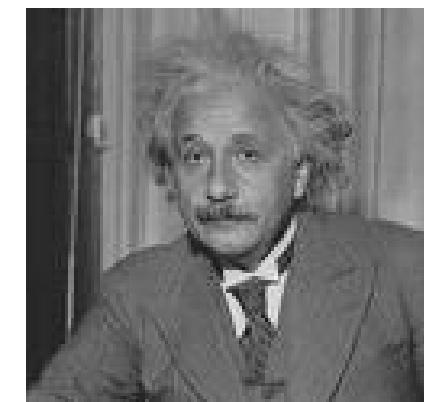
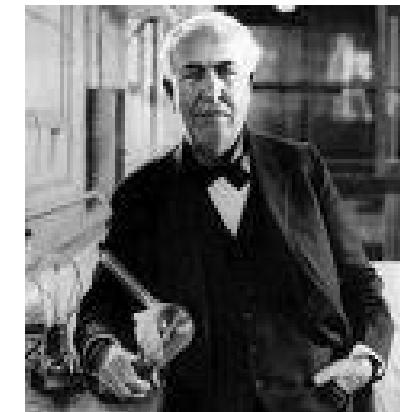
## Source of Creativity





## Characteristics of Creative People

- Curious & open-minded
- Seek problems
- Enjoy challenges
- Optimistic
- Able to suspend judgment
- Comfortable with imagination & intuition
- See problems as opportunities
- Challenge assumptions
- Don't give up easily: persevere,
- Work hard - commitment





# 10 Ways to Stimulate Your Creative Spirit

## 1. *Connect with People*

- Creative communities and Mentors
- Build your networks e.g LinkedIn, facebook, twitter

## 2. *Creating the Right Environment*

- Take control of your workspace

## 3. *Learn new Creativity Tools*

- Choose a selection that you are comfortable with

## 4. *Expand Your Mind through Reading*

- Articles and books on creativity, read outside your domain of interest

## 5. *Fun and Humour*

- Games, video games, puzzles, toys, comedy shows
- Sport, go to the park, watch DVDs



## 10 Ways to Stimulate Your Creative Spirit

### 6. *Take up the Arts*

- Drawing and painting, music, drama

### 7. *Travel and Discovery*

- Visit inspiring places e.g. Louve, pyramids, ancient Greece, Tuscany, other awe-inspiring locations
- Museums and art galleries

### 8. *Understanding the Power of your Subconscious*

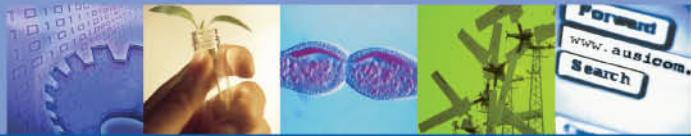
- Alpha state, Visualisation

### 9. *Think on Paper*

- Keep a journal, ideas notebook, write problems on paper

### 10. *Ideas into Action*

- Capture, Evaluate, Plan, Implement, Measure



# Idea Management Process

Generating Ideas

Capturing Ideas

Constructing & Harvesting

Evaluating

Protecting

Planning

Implementing

Measuring



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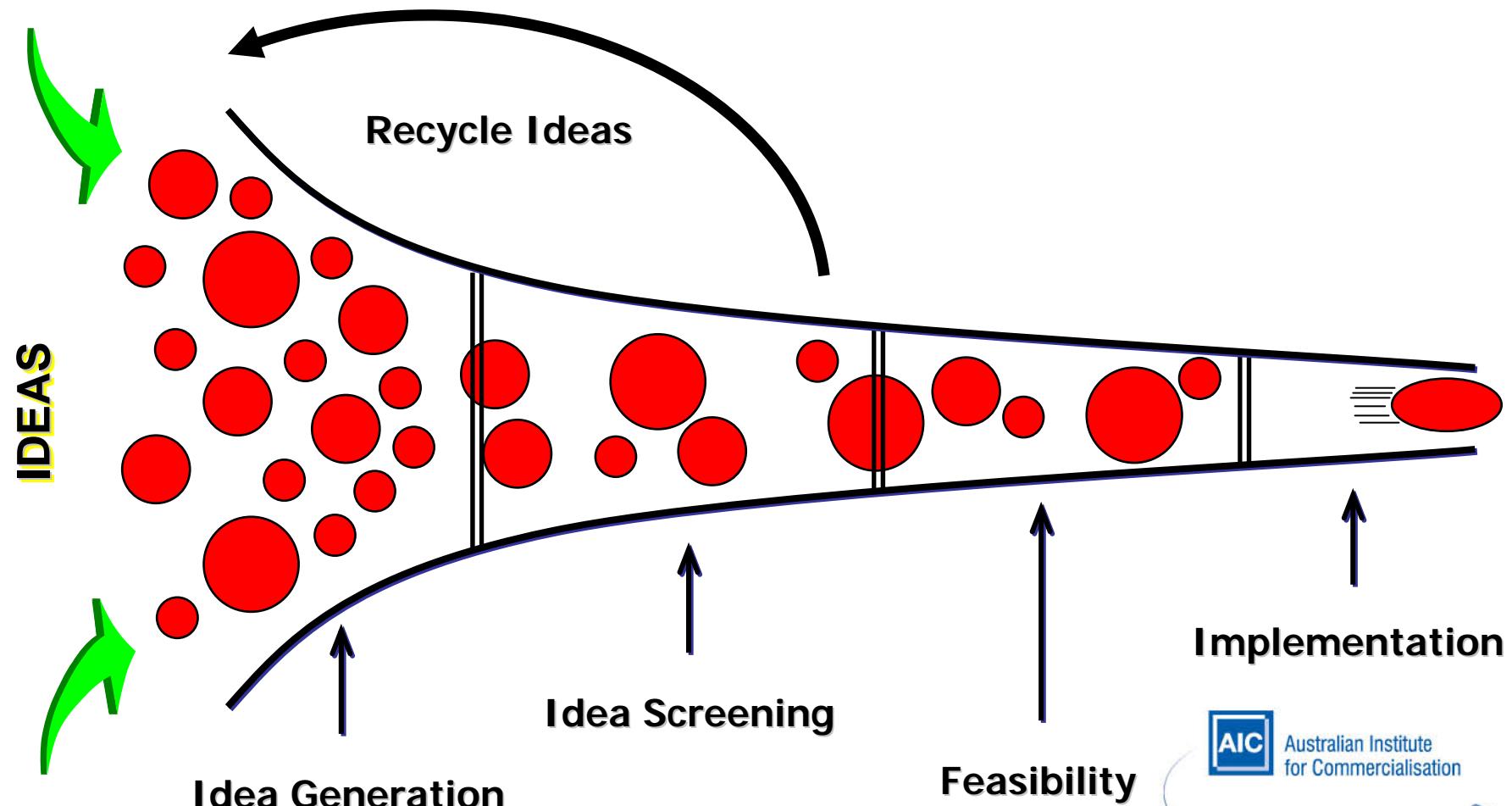


# Idea Banking

- 1. Look for ideas around you** eg. the environment, newspapers, people, television, customers
- 2. Build idea sources** eg. Ask questions, reference books, mentors, Internet
- 3. Capture your ideas:**
  - a) Carry a notebook with you at all times
  - b) Keep a pad and pen handy in every room you use
  - c) Use electronic database
- 4. Arrange your ideas:**
  - a) List your ideas in any order in a permanent book/journal
  - b) List ideas that require further thought on a separate page or journal and expand e.g. mind-mapping, reconstruct, redevelop
  - a) Evaluate and rate your ideas
- 5. Implement your ideas:**
  - Develop Action Plan and timeline
  - Some will be useful immediately while others may be useful in the future



## Idea Funneling

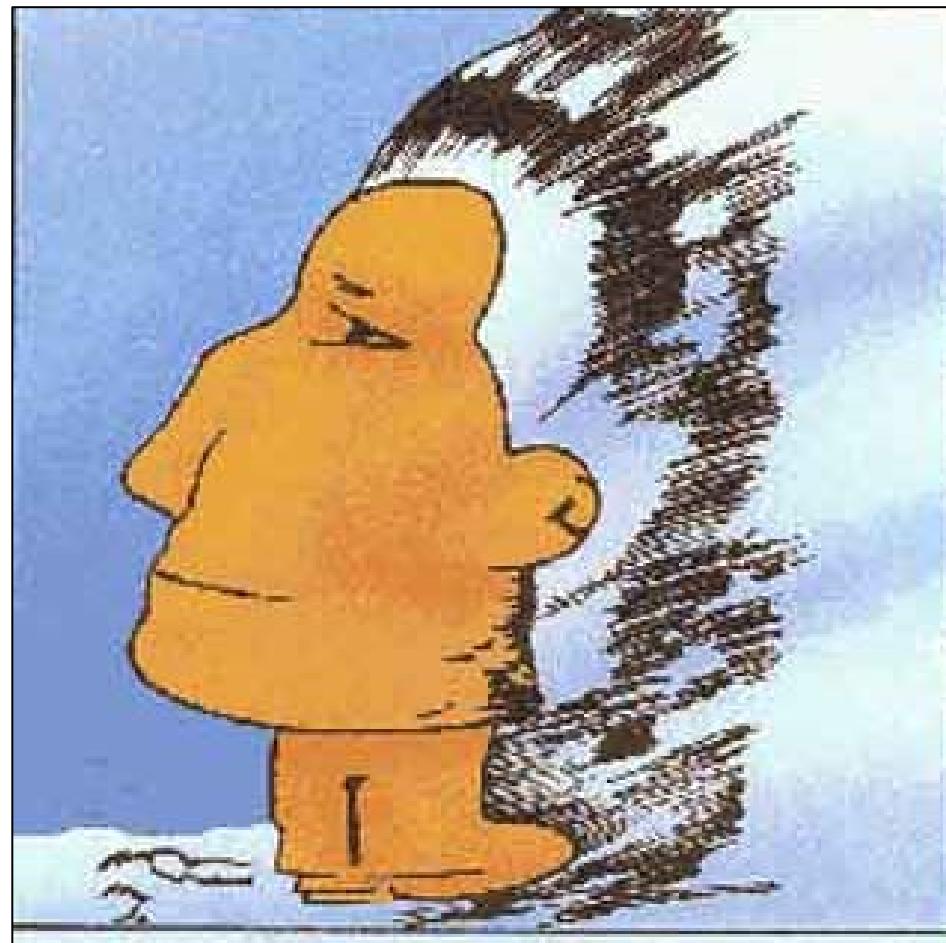


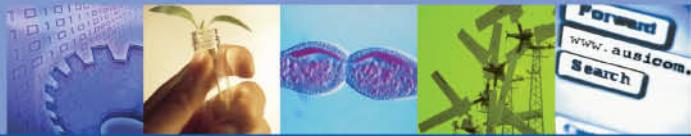
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# Creative Thinking





## Creative Thinking

Look at the chart and say the **COLOUR** not the word

<b>YELLOW</b>	<b>BLUE</b>	<b>ORANGE</b>
<b>BLACK</b>	<b>RED</b>	<b>GREEN</b>
<b>PURPLE</b>	<b>YELLOW</b>	<b>RED</b>
<b>ORANGE</b>	<b>GREEN</b>	<b>BLACK</b>
<b>BLUE</b>	<b>RED</b>	<b>PURPLE</b>
<b>GREEN</b>	<b>BLUE</b>	<b>ORANGE</b>

### **Left – Right Conflict**

**Your right brain tries to say the colour but  
your left brain insists on reading the word.**



# Creative Thinking Tools

- Brainstorming
- 6 Thinking Hats
- Mindmapping
- Force Field Analysis
- Why, Why, Why
- Random Word
- Creative Problem Solving
- Visualization
- Synectics



# Six Thinking Hats

Source: Edward De Bono

COLOURED HAT	THINK OF	DETAILED DESCRIPTION
	<b>White paper</b>	The white hat is about data and information. It is used to record information that is currently available and to identify further information that may be needed.
	<b>Fire and warmth</b>	The red hat is associated with feelings, intuition, and emotion. The red hat allows people to put forward feelings without justification or prejudice.
	<b>Sunshine</b>	The yellow hat is for a positive view of things. It looks for benefits in a situation. This hat encourages a positive view even in people who are always critical.
	<b>A stern judge</b>	The black hat relates to caution. It is used for critical judgement. Sometimes it is easy to overuse the black hat.
	<b>Vegetation and rich growth</b>	The green hat is for creative thinking and generating new ideas. This is your creative thinking cap.
	<b>The sky and overview</b>	The blue hat is about process control. It is used for thinking about thinking. The blue hat asks for summaries, conclusions and decisions.



## Six Thinking Hats- Activity

- Using the 6 Thinking Hats we will explore the topic of “The Water Shortage in Australia”
- Responses are recorded on the whiteboard as follows.
- No criticism or discussion are allowed.

RED	YELLOW	BLACK	GREEN	RED	BLUE



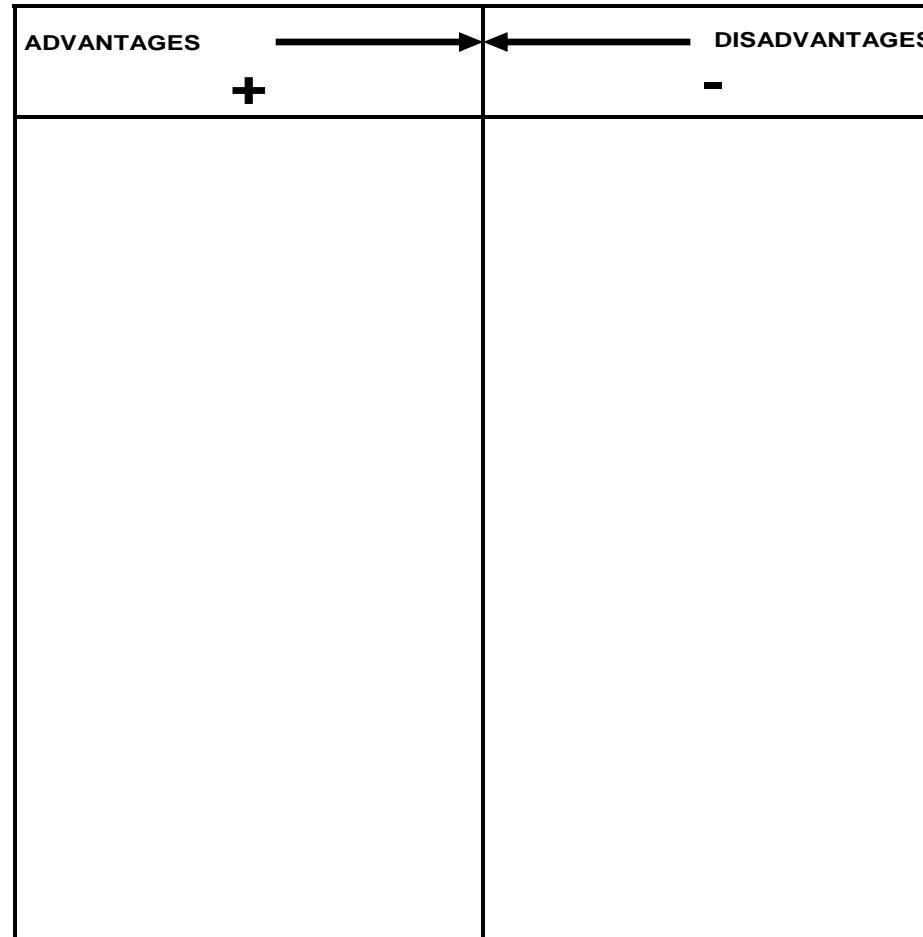
# Mindmapping



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# Force Field Analysis



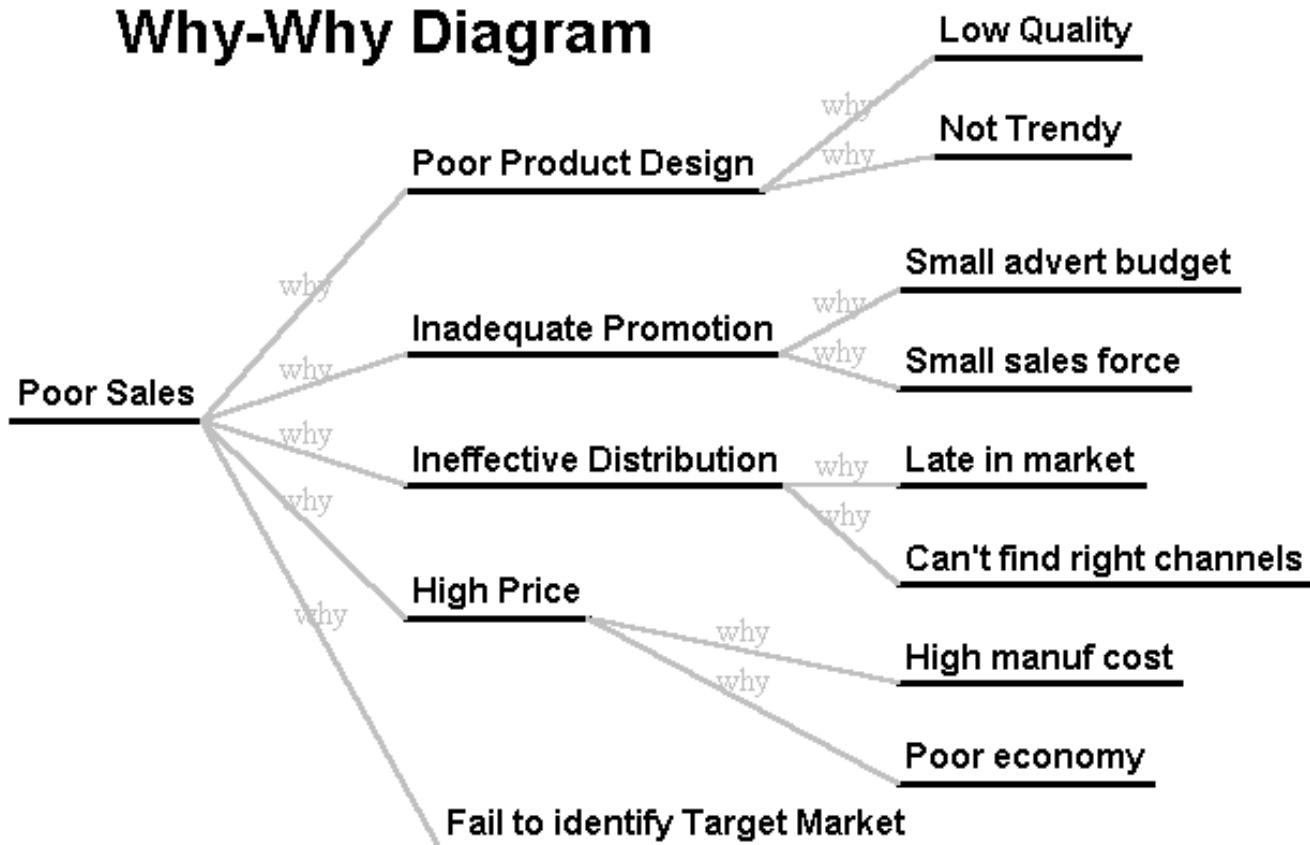
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# Why, Why, Why?

**Why-Why Diagram**





## Random Word

**Dictionary or list of Power Words**

**Process**

- Open the dictionary or use word list to randomly select word
- Brainstorm ideas related to the word
- Identify links or relationships to your problem
- Solution magically appears
- Good approach when writing articles



# The Power of Visualisation

## Moving into the Alpha State

### *Process*

- **Close your eyes**
- **Breathe in deeply; hold; and breathe out slowly**
- **Relax each part of your body with slow deep breathing – clear your mind**
- **Mentally focus on a single item or problem**
- **Visualise**
- **Record your experiences and thoughts**



## Synectics – looking at things differently

Clean your workspace

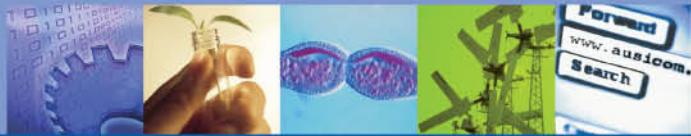
What mistakes did you make last time?

Go outside. Look at the problem again.

What would your closest friend or someone famous do?

Try an old idea.

Think of the first thing, and do the opposite.



# 6-Step Creative Problem-Solving Process

## Step 1

### Identify, Define and Diagnose Problem or Need

Focus on the real problem and not the symptoms (identifying the root cause of the problem).

- Use Fish-bone or Why-Why Diagram
- State the problem or the need explicitly
- Define the problem or the need
- Collect and analyze relevant information to understand the problem or need
- List key objectives and information

## Step 2

### Generate Alternative Solutions

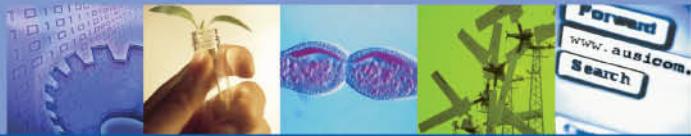
Generate several alternatives using available tools

- Brainstorm potential solutions
- Mindmapping
- Associations or random word
- Visualisation techniques
- Nominal Group Technique



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# 6-Step Creative Problem-Solving Process

## Evaluate Alternatives

### Step 3

How realistic are the alternatives?

- Group alternatives using mindmapping.

What is the outcome of each alternative generated?

- Use the “What if” technique

Evaluate each alternative using a set of criteria

- Screening matrix or Force-field analysis

What risk is associated with each course of action?

### Step 4

## Select the Best Alternative(s)

Some problems or needs may require multiple solutions

State the alternative(s) chosen



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# 6-Step Creative Problem-Solving Process

## Step 5

### Implement the Solution or Technology

Once a course of action is chosen it must be implemented.

- Use How-How Approach

Timing may be important

Allocate responsibilities and resources for carrying out the action

- Develop action plan

## Step 6

### Evaluate - Feedback and Corrective Action

Obtain feedback as soon as possible

Assess effectiveness of the course of action chosen

- Use benchmarks or checklist

Are the objectives being achieved?

Take any necessary corrective action



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## Stimulating Creativity

- **Training on Deliberate Creative Thinking e.g. 6 Thinking Hats, Mindmapping, Random Words, Concept Mapping etc**
- **Champions selected → Drive and support the learning**
- **Attend seminars on creativity e.g. Edward de Bono, Lateral Thinking, Energex Futures Forum – IEA, Circle of Innovators**
- **Monthly Creativity Club - Tools and Thinking Concepts**
- **Learn and apply Creativity Tools & Techniques**
- **Surround yourself with Creative People and Mentors**
- **Cultural change**



## Creativity Club or Mastermind Group

- Monthly meetings held at lunchtime or before work
  - Lunch & breakfast provided
- Process
  - Ice-Breaker (Creative experience since last meeting)
  - Formal Presentation (Creative thinking, tools and techniques)
  - Informal Discussions and Input
- Models
  - Dupont OZ Creative Thinking Network
  - Parisian Salons – Creative Communities



# Creativity Club

## OBJECTIVES OF CREATIVITY CLUB

- Share Experiences**
- Different Ways of Thinking**
- Different Paradigms**
- Understand Differences in People**
- Have Fun**
- Come up with New Ideas**
- Source of Ideas for “Killer Technology”**
- Learn New Skills**
- Achieve Something New**
- Learn How to Think Creatively**
- Learn from Children**
- Confidence in Thinking**
- Bring in Creative People as Guests**



## Examples of Successful Ideas

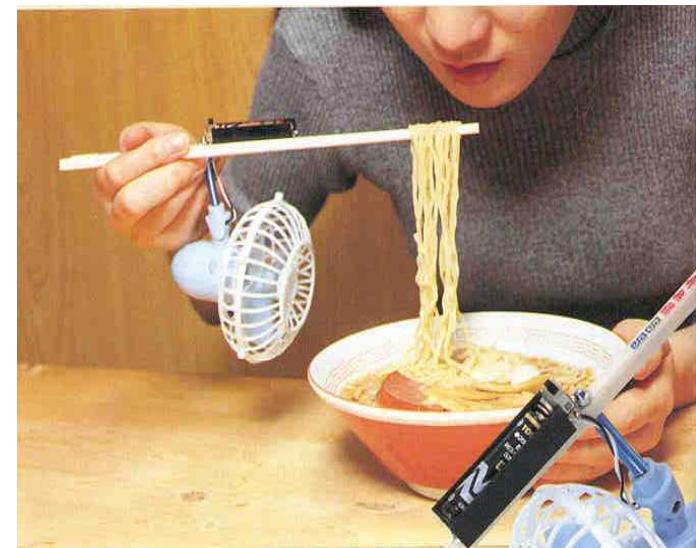


Innovation	Source
Pneumatic tyre	John Dunlop – Veterinarian
Ballpoint pen	Lazlo Biro – Sculptor
Photocopying	Chestor Carlson - Lawyer
Post –It Notes	Art Fry - Failed glue at 3M
Velcro	George de Mestral - Observation in nature
Scotchguard	Patsy Sherman – Spill in the laboratory
Penicillin	Accident in the lab





## ...and not so successful ideas!



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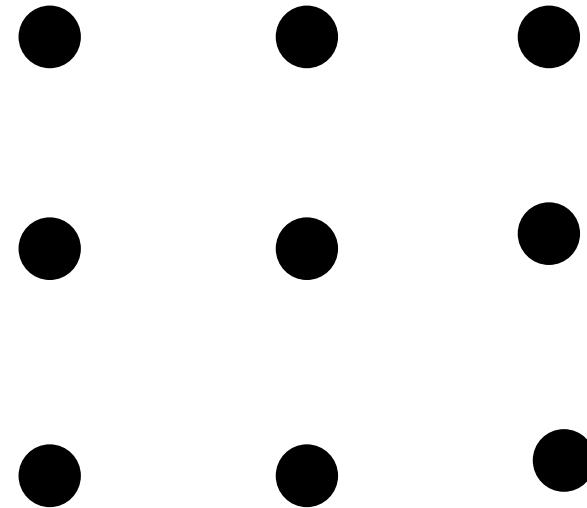


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→ ideas → opportunities → outcomes →



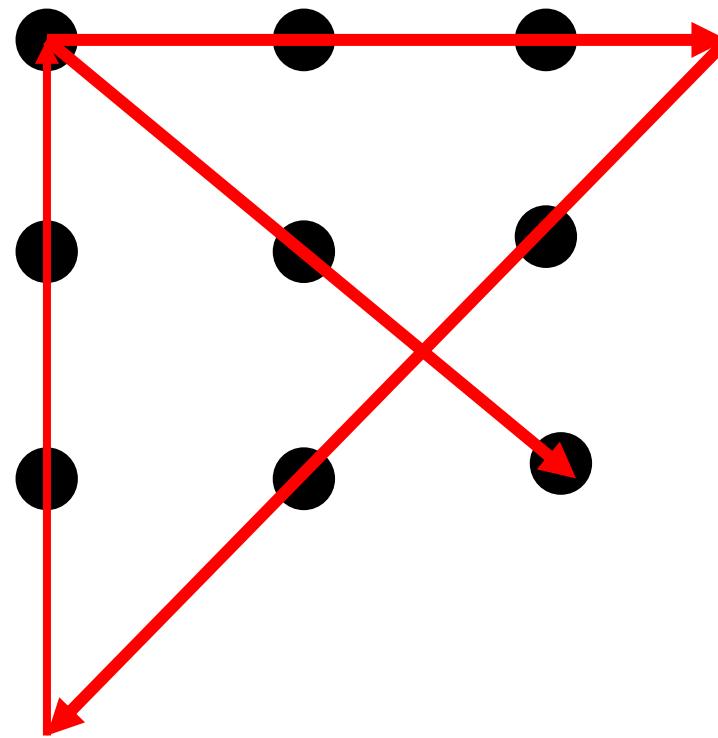
## Activity



Using 4 lines and without lifting your pen  
cover all the dots



## Solution



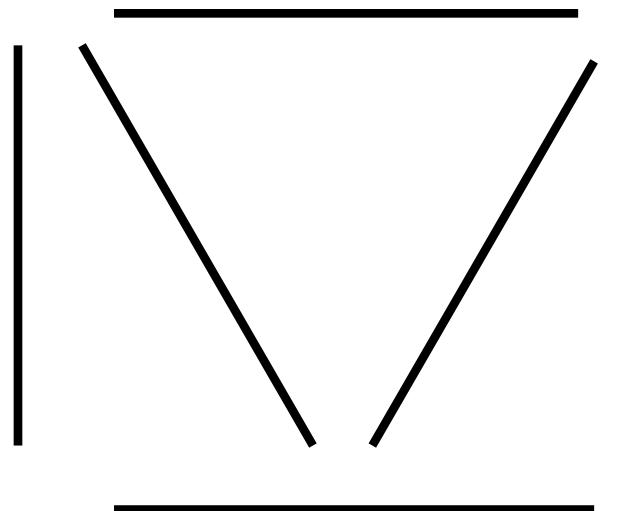
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## Activity

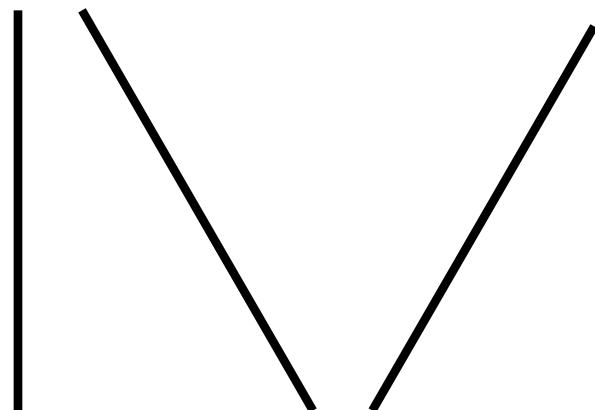
**Remove 3 sticks to leave 4**





## Solution

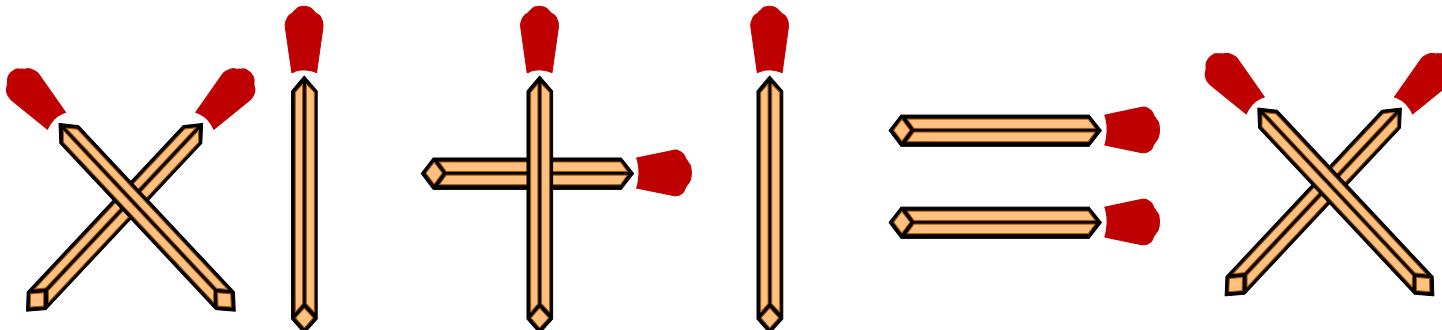
**Remove 3 sticks to leave 4**





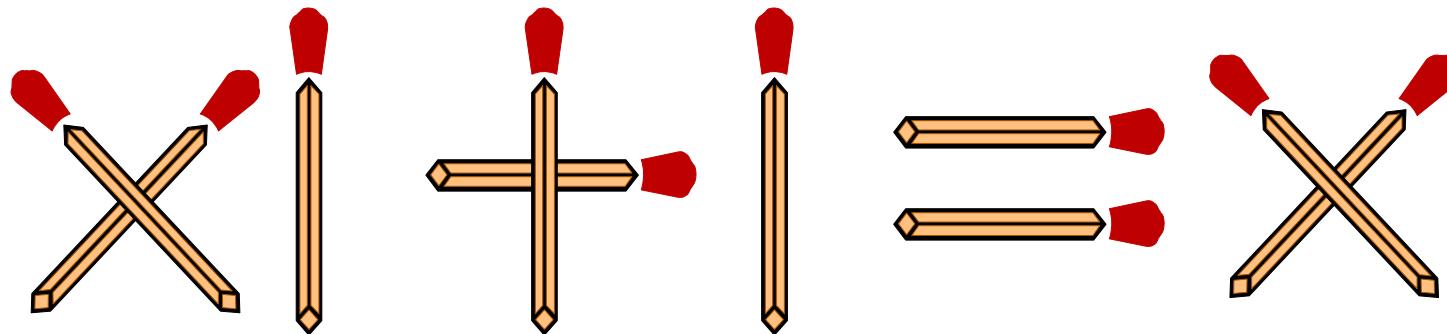
## Activity

How can you solve this equation?





# Solution



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## Activity

In the following line of letters, cross out six letters so that the remaining letters without altering their sequence, spell a familiar word.

B S A I N X L E A T N T E A R S

Source: von Oech, Roger. (1983). *A Whack on the Side of the Head: How to Unlock our Mind for Innovation*. New York: Warner Books. & (1986) *A Kick in the Seat of the Pants: Using your Explorer, Artist, Judge, & Warrior to be more Creative*. New York: Harper & Row, Publishers, Inc.

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## Solution

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## Activity

- A man and woman are walking together. At this very moment their right feet are striking the ground. For every 3 steps taken by the woman the man takes 2 steps.
- How many steps must each take before their left feet strike the ground together?



## Activity

- A horse trader brings a string of horses to a horse fair. As admission charge, he gives up one of his horses. At the fair he sells one half of those remaining and on the way out he is charged one horse as a trading fee.
- He proceeds to a second fair where similar conditions prevail. There he pays one horse to get in , sells half his horses he still has on hand and pays a single horse as a trading fee.
- Not content he proceeds to a third fair. Here again he pays one horse to get in , sells half of his horses remaining and is charged a single horse as a trading fee. He then has one horse left which he rides home with the proceeds.
- **How many horses did he start with?**



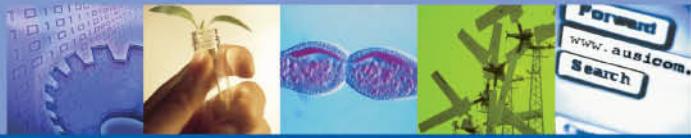
## Solution

- You need to consider working backwards
- The answer is 29 horses
- 1 horse to ride home + 1 horse for trading fee = 2 horses These 2 horses are half the horses available for sale, that is 4 horses. To this must be added the 1 horse needed to get into the third fair; therefore he had 5 horses prior to entering the third fair.
- Continue to work backwards:

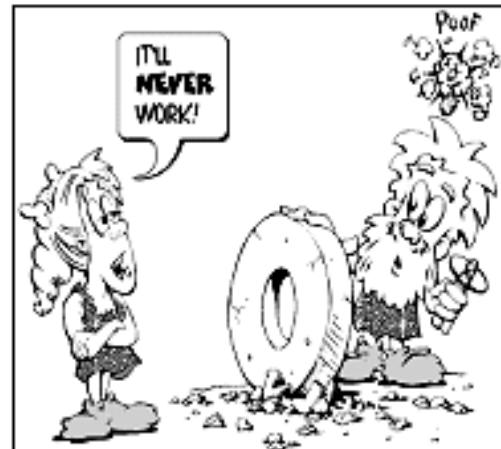
1 1 2 1  
4

1 6 1  
5 12

1 14 1  
13 28 29



## Barriers to Creativity





## Further Reading

1. Majoro, S. (1988) *The Creative Gap: Managing Ideas for Profit*, Longman, London.
2. De Bono, E. (1992) *Serious Creativity*, HarperCollins, London
3. Ayan, J. (1997) *Aha! : 10 Ways to Free Your Creative Spirit and Find your Great Ideas*, Three Rivers Press, New York.
4. Tanner, D. (1997) *Total Creativity: in Business and Industry*, Advanced Practical Thinking Training Inc, Des Moines.
5. Journal of Creative Behaviour, Buffalo State University.