

**LESSONS FROM
ALEXANDER
HAMILTON**

**DESIGNING AN
ECONOMIC
SYSTEM**

**CREATING A
GEOGRAPHICAL
VISION FOR
AMERICA**

WORK + LIFE

**LESSONS FROM
TOKUGAWA, JAPAN**

**HISTORICAL
PERSPECTIVES**

**LESSONS FROM
THOMAS
JEFFERSON**

**THE ABSENCE OF
PROBLEM SOLVING**

**WHAT IS A
CREATIVE AGE
LIKE?**

**THE PRESENCE OF
PROBLEM SOLVING**

TEN TERMS

LIFE ISSUES

INTRO



1-PROBLEM:

**ANY QUESTION INVOLVING DOUBT,
UNCERTAINTY OR DIFFICULTY**

PROBLEM SOLVING DESIGN INVENTION CREATIVITY VISION INDETERMINACY INDEPENDENT THINKING CONFIDENCE REBELLION VALUES

BILL STUMPF ROBERT MOSES JONAS SALK & ALBERT SABIN THOMAS JEFFERSON ALBERT EINSTEIN TIM BURTON JOEL SALATIN GUGLIELMIO MARCONI ALEXANDER HAMILTON JAMES TURRELL

MANY SOLUTIONS APPROACH VAGUE DOUBT QUANTIFIABLE MEASURES NOT ESTABLISHED NOT FIXED UNCERTAINTY OPEN ENDED INDEFINITE DIFFICULTY NOT SETTLED UNCERTAIN ANSWER SELF-DEFINED OR GIVEN

EXPLAIN PROBLEMS MAY BE HUGE OR TINY DEFIANCE CONTROL SELF RELIANCE IMPRACTICAL IDEALISTIC IMAGINATIVE JUDGEMENT AUDACIOUS ANTICIPATING **CREATIVE PROBLEM SOLVING**



SOLVE:

TO FIND AN ANSWER; TO EXPLAIN

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LEONARDO DA VINCI MICHAEL FARADAY ROBERT HOOKE GALILEO GALILEI ISAC NEWTON JAMES CLERK MAXWELL ALBERT EINSTEIN JACQUES CHARLES COULOMB ANDRE MARIE AMPERE ANDRE MARIE AMPERE ANDRE MARIE AMPERE

CREATIVE PROBLEM SOLVING



HERE ARE FIVE CHARACTERISTICS OF THESE
PROBLEMS + SOLUTIONS

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CREATIVE PROBLEM SOLVING



1- PROBLEMS MAY BE
SELF-DEFINED



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SELF-DEFINED OR GIVEN

CREATIVE PROBLEM SOLVING



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LEONARDO DA VINCI ALBERT EINSTEIN JAMES WATSON & FRANCIS CRICK JOHN EDGAR HOOVER MARTIN LUTHER KING JR. JIMMY CARROLL JAMES WATSON & FRANCIS CRICK

SELF-DEFINED OR GIVEN

CREATIVE PROBLEM SOLVING



OR PROBLEMS MAY
BE GIVEN.



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SELF-DEFINED OR GIVEN

CREATIVE PROBLEM SOLVING



2- PROBLEMS MAY HAVE
MANY SOLUTIONS



PROBLEM SOLVING DESIGN INVENTION CREATIVITY VISION INDETERMINACY INDEPENDENT THINKING CONFIDENCE REBELLION VALUES

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MANY SOLUTIONS

CREATIVE PROBLEM SOLVING



3- PROBLEMS MAY BE
HUGE OR TINY.



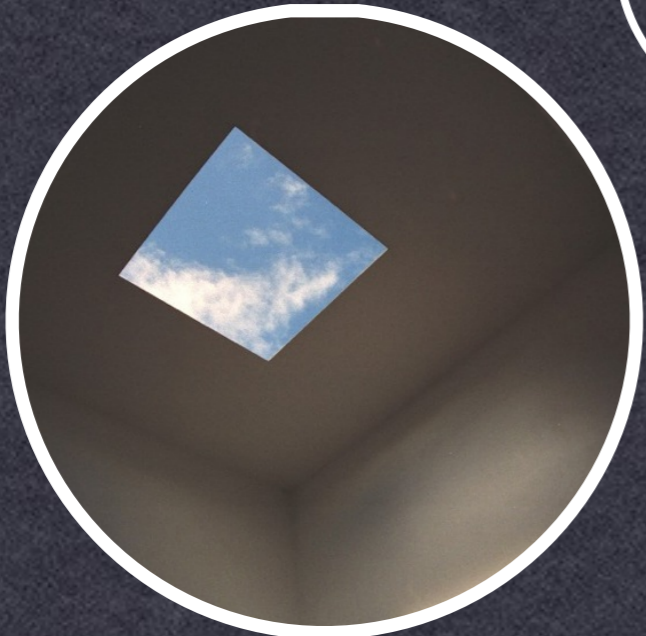
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4- SOLUTIONS MAY BE MEASUREABLE IN TERMS OF THEIR SUCCESS OR THEY MAY NOT LEND THEMSELVES TO QUANTIFIABLE MEASURES.



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QUANTIFIABLE MEASURES

CREATIVE PROBLEM SOLVING



5-QUESTIONS ARE LIKELY TO BE OPEN-ENDED.



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OPEN ENDED

CREATIVE PROBLEM SOLVING



HOW DO YOU DISCOVER PROBLEMS OR HOW DO THEY FIND YOU?

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CREATIVE PROBLEM SOLVING



HOW DO YOU KNOW WHEN YOU HAVE ENOUGH OF A SOLUTION TO BECOME PRODUCTIVE?

PROBLEM SOLVING DESIGN INVENTION CREATIVITY VISION INDETERMINACY INDEPENDENT THINKING CONFIDENCE REBELLION VALUES

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CREATIVE PROBLEM SOLVING

2- INDETERMINACY IS:

1- WHEN SOMETHING IS NOT FIXED IN EXTENT, IT'S INDEFINITE OR UNCERTAIN

2- NOT CLEAR; VAGUE

3- NOT ESTABLISHED

4- NOT SETTLED OR DECIDED

5B- (MATHEMATICS) ABLE TO BE SATISFIED BY MORE THAN ONE VALUE FOR EACH UNKNOWN

7A- (ENGINEERING) UNABLE TO ANALYZE COMPLETELY



PROBLEM SOLVING DESIGN INVENTION CREATIVITY VISION **INDETERMINACY** INDEPENDENT THINKING CONFIDENCE REBELLION VALUES

BILL STUMPF ROBERT MOSES JONAS SALK ALBERT SABIN THOMAS JEFFERSON ALBERT EINSTEIN TIM BURTON JOEL SALATIN GUGLIELMO MARCONI ALEXANDER HAMILTON JAMES TURRELL

VAGUE NOT ESTABLISHED NOT FIXED UNCERTAINTY INDEFINITE NOT SETTLED

CREATIVE PROBLEM SOLVING

DESIGN IS:

1- TO PLAN THE FORM OR STRUCTURE OF SOMETHING

2- TO FORM OR CONCEIVE IN THE MIND; CONTRIVE, PLAN

9- AN OUTLINE SKETCH OR PLAN TO BE EXECUTED OR CONSTRUCTED

16- INTENTION; PURPOSE; END



PROBLEM SOLVING DESIGN INVENTION CREATIVITY VISION INDETERMINACY INDEPENDENT THINKING CONFIDENCE REBELLION VALUES

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ALVIN KARPIS EDWARD GEBELER ROBERT BUCHHEITZ WALTER BREMER HENRI DUNANT JAMES EARL RAYSON JOHN EDGAR HOOVER JACQUES CARROT JAMES EARL RAYSON JOHN EDGAR HOOVER

INVENT IS:

1- TO ORIGINATE AS A PRODUCT OF ONE'S CONTRIVANCE

2- TO PRODUCE OR CREATE WITH IMAGINATION

INVENTION IS:

1- THE CONCEPTION OF AN IDEA AND THE MEANS OR APPARATUS TO BRING IT TO A RESULT



PROBLEM SOLVING DESIGN **INVENTION** CREATIVITY VISION INDETERMINACY INDEPENDENT THINKING CONFIDENCE REBELLION VALUES

BILL STUMPF ROBERT MOSES JONAS SALK ALBERT SABIN THOMAS JEFFERSON ALBERT EINSTEIN TIM BURTON JOEL SALATIN GUGLIELMO MARCONI ALEXANDER HAMILTON JAMES TURRELL

ALVIN KARPIS EDWARD BREMER JACQUES CHATELAIN JOHN EDGAR HOOVER JOHN F. KENNEDY JOHN LENNON JOHN WILSON JIMMY CARROLL JIMMY SMITH JIMMY WALKER JIMMYE L. RAY

CREATE IS:

- 1- TO CAUSE SOMETHING UNIQUE TO COME INTO BEING THAT WOULD NOT NATURALLY EVOLVE OR IS NOT MADE BY ORDINARY PROCESSES
- 2- TO EVOLVE FROM ONE'S OWN THOUGHTS OR IMAGINATION
- 6- TO CAUSE TO HAPPEN, BRING ABOUT OR ARRANGE BY INTENTION OR DESIGN

CREATIVITY IS:

- 2- RESULTING FROM ORIGINALITY OF THOUGHT OR EXPRESSION
- 3-ORIGINATIVE, PRODUCTIVE



PROBLEM SOLVING DESIGN INVENTION **CREATIVITY** VISION INDETERMINACY INDEPENDENT THINKING CONFIDENCE REBELLION VALUES

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CREATIVITY IS DIFFERENT FROM INTELLIGENCE

-IT IS GENERATIVE- IT MUST PRODUCE SOMETHING

-IT INVOLVES TAKING RISKS



PROBLEM SOLVING DESIGN INVENTION **CREATIVITY** VISION INDETERMINACY INDEPENDENT THINKING CONFIDENCE REBELLION VALUES

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ALVIN KARPIS EDWARD GEEB CAROL BACHMANN CAROL WELLS BRYAN BURKE JOHN BRADLEY RUDY PERKINS GARY COOPER JAMES EARL RAYSON JAMES EARL RAYSON JAMES EARL RAYSON

CREATIVE PROBLEM SOLVING



HARD
HEADEDNESS

TENACITY

STRENGTH

INDEPENDENT IS:
1- NOT INFLUENCED OR CONTROLLED BY THE THOUGHTS OR ACTIONS OF OTHERS
2- AUTONOMOUS, FREE
3- SELF-CONFIDENT, UNRESTRAINED



PROBLEM SOLVING DESIGN INVENTION CREATIVITY VISION INDETERMINACY **INDEPENDENT THINKING** CONFIDENCE REBELLION VALUES

BILL STUMPF ROBERT MOSES JONAS SALK ALBERT SABIN THOMAS JEFFERSON ALBERT EINSTEIN TIM BURTON JOEL SALATIN GUGLIELMO MARCONI ALEXANDER HAMILTON JAMES TURRELL

HOW DO YOU RESIST PRACTICALITY
AND THE TRIED AND TRUE TO
BECOME A REAL DREAMER?

VISION APPLIES NOT JUST AT THE LEVEL OF EARTH SHATTERING DISCOVERIES, BUT ALSO AT A MORE MUNDANE LEVEL.

WHERE DO HARE-BRAINED IDEAS COME FROM?



PROBLEM SOLVING DESIGN INVENTION CREATIVITY **VISION** INDETERMINACY INDEPENDENT THINKING CONFIDENCE REBELLION VALUES

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LEONARDO DA VINCI MICHAEL FARADAY BERTHOLD RINGSCHMIDT ALBERT EINSTEIN EDWARD TELLER JACQUES CHARLES COULOMB JAMES CLERK MAXWELL

CREATIVE PROBLEM SOLVING



VALUES:

- 1- ETHICAL STANDARDS THAT ARE USED AS A BASIS FOR JUDGEMENT**
- 2-TRUST IN THE TRUTH OR EXISTENCE OF IDEALS: NOT IMMEDIATELY SUSCEPTIBLE TO RIGOROUS PROOF**
- 3-INDETERMINATE DESIGN PROBLEMS ARE OFTEN BEST SOLVED BY INSERTING VALUES FOR SOME OF THE VARIABLES**



PROBLEM SOLVING DESIGN INVENTION CREATIVITY VISION INDETERMINACY INDEPENDENT THINKING CONFIDENCE REBELLION **VALUES**

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CONFIDENCE:

3- SELF-RELIANCE, ASSURANCE, BOLDNESS

4- PRESUMPTION, IMPUDENCE

5- CERTITUDE



PROBLEM SOLVING DESIGN INVENTION CREATIVITY VISION INDETERMINACY INDEPENDENT THINKING **CONFIDENCE** REBELLION VALUES

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REBELLION:

2- RESISTANCE TO OR DEFIANCE OF ANY AUTHORITY, CONTROL OR TRADITION

AMERICANS MAY BE SO SUCCESSFUL IN DESIGN/CREATIVE PROBLEM SOLVING BECAUSE WE ARE A CULTURE OF REBELS.



PROBLEM SOLVING DESIGN INVENTION CREATIVITY VISION INDETERMINACY INDEPENDENT THINKING CONFIDENCE **REBELLION** VALUES

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