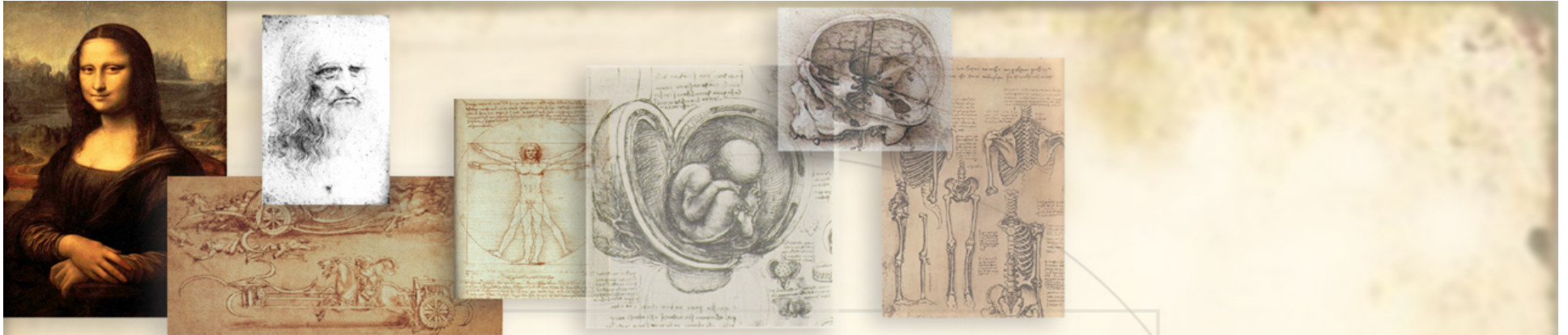




# *Learning from Leonardo (Da Vinci, Not DiCaprio)*

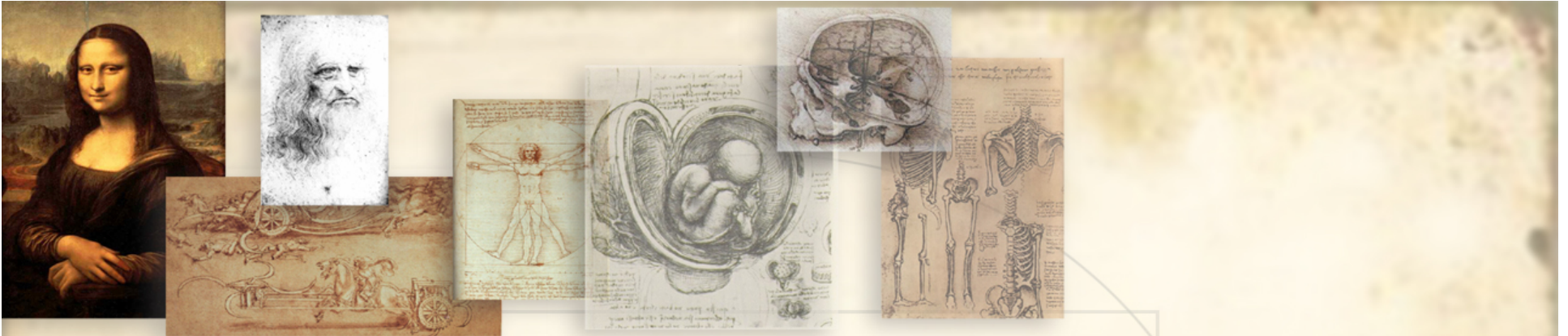
*Virginia Forum for Excellence  
September 11, 2012*

*Michael J. Novak  
Maryland Performance Excellence Awards Program*



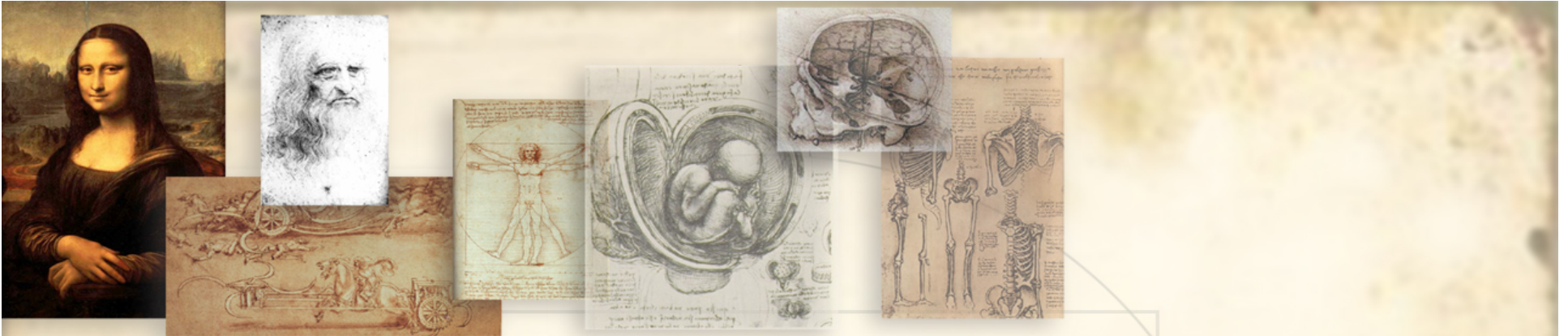
## *Disclaimer*

**The views expressed in this presentation are those of the presenter alone, and should not be construed as reflecting the positions, policies, or practices of the Maryland Performance Excellence Foundation.**



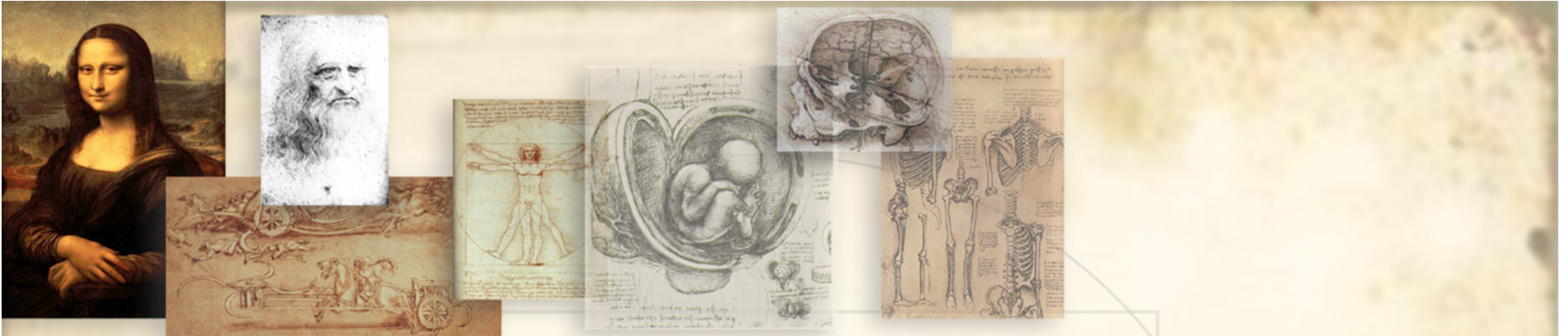
## *About MPEA and MPEF*

- **Maryland Performance Excellence Foundation (MPEF) – A 501(c)3 not-for-profit organization that sponsors and supports the Maryland Performance Excellence Awards (MPEA) Program**
- **MPEA – A Baldrige-based, state-level program to recognize role model Maryland organizations from all sectors**
- **MPEA – A counterpart of the U.S. Senate Productivity and Quality Award for Virginia (SPQA) Program**



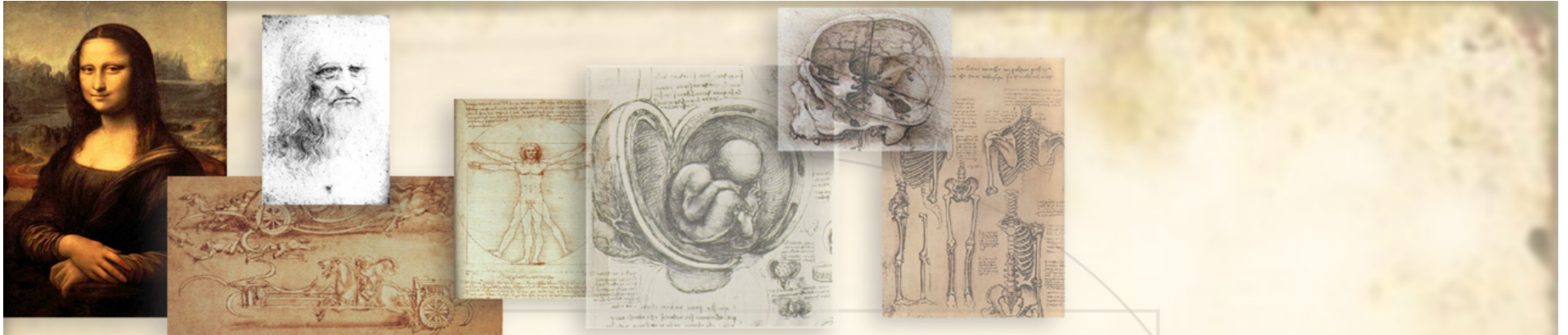
## *Overview*

- **Leonardo Da Vinci – Some Innovative Accomplishments**
- **Leonardo's Seven Techniques**
- **Exercises – Practicing Leonardo's Techniques**
- **Homework – Taking Leonardo's Techniques to the Real World**



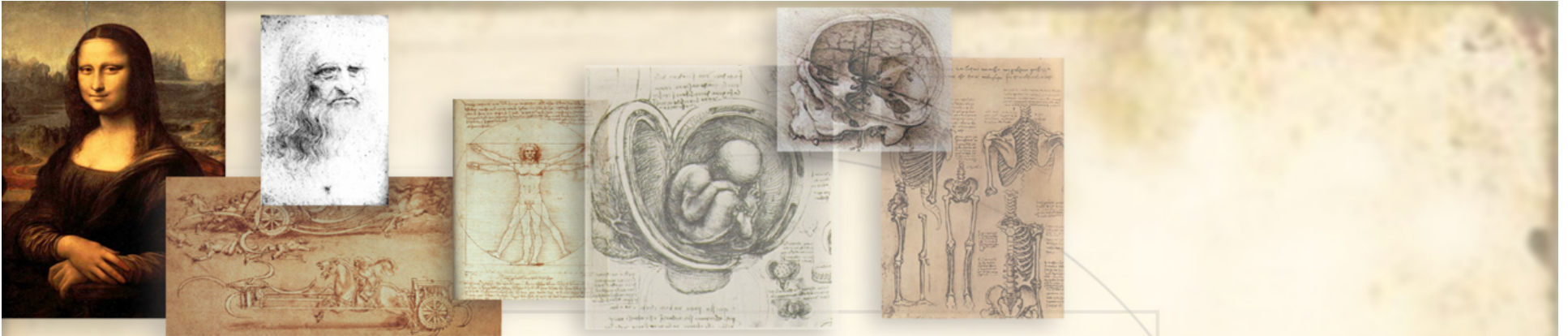
## *Leonardo Da Vinci*

- **Born 1452**
- **Died 1519**
- **Artist – Mona Lisa, The Last Supper**
- **Scientist – Designed a flying machine, helicopter, parachute, extendable ladder, bicycle, snorkel, folding furniture**
- **Engineer – Plans for armored tank, machine gun, mortar, submarine**



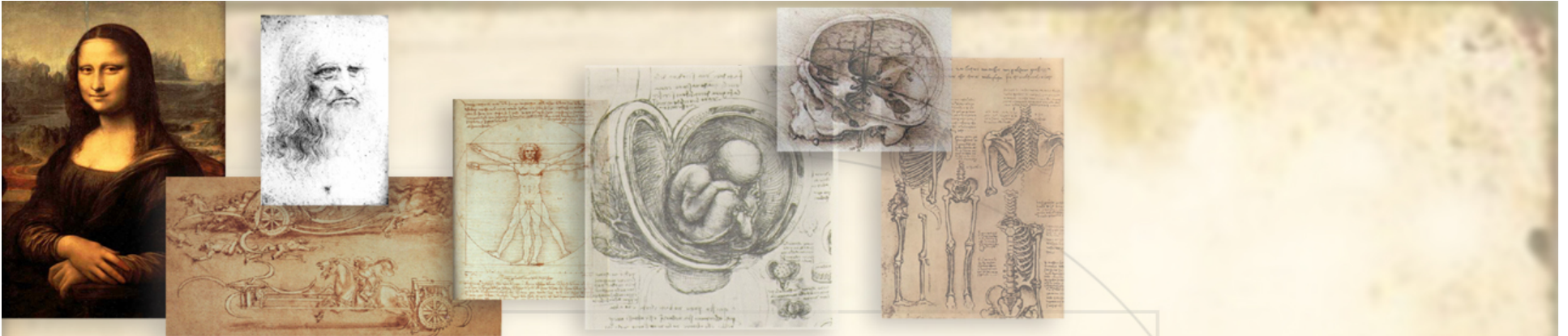
## *The Seven Da Vincian Principles*

- **Curiosita**
- **Dimostrazione**
- **Sensazione**
- **Sfumato**
- **Arte/Scienza**
- **Corporalita**
- **Connessione**



# *Curiosita*

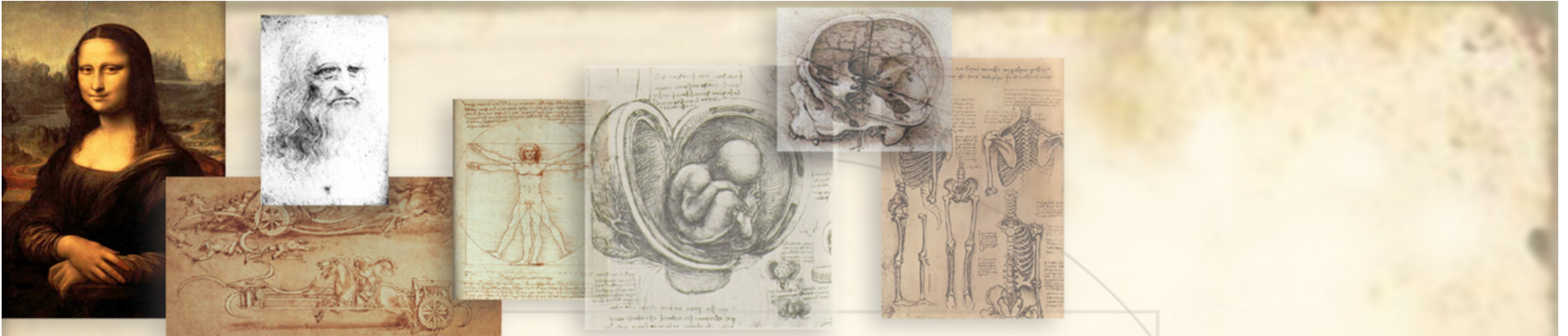
- **An insatiably curious approach to life and an unrelenting quest for continuous learning**
- **Builds upon the natural impulse to be curious**
- **Leonardo as a child – curious about the world around him: nature, mathematics**
- **Leonardo as an adult – curious about practically everything**



## *Curiosita - Exercise*

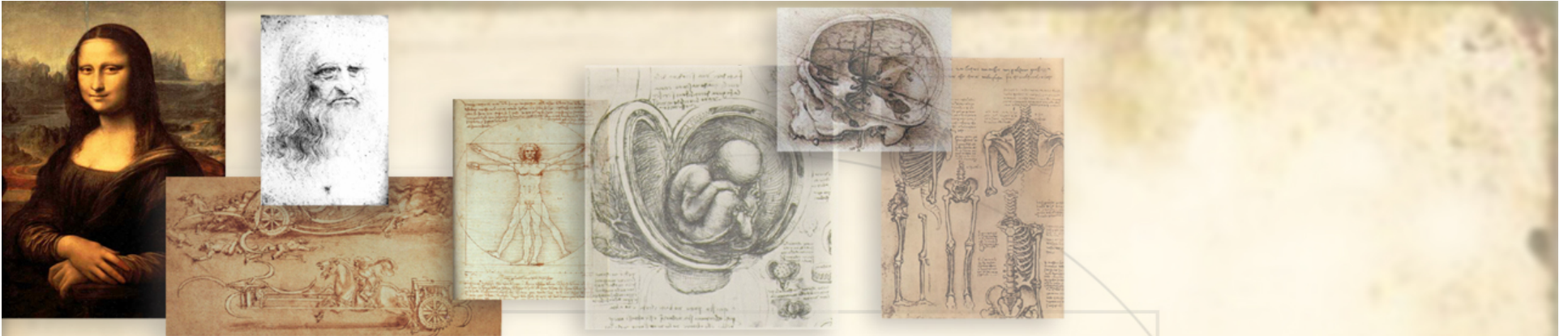
- **What were you curious about as a child?**
- **What are you curious about now?**





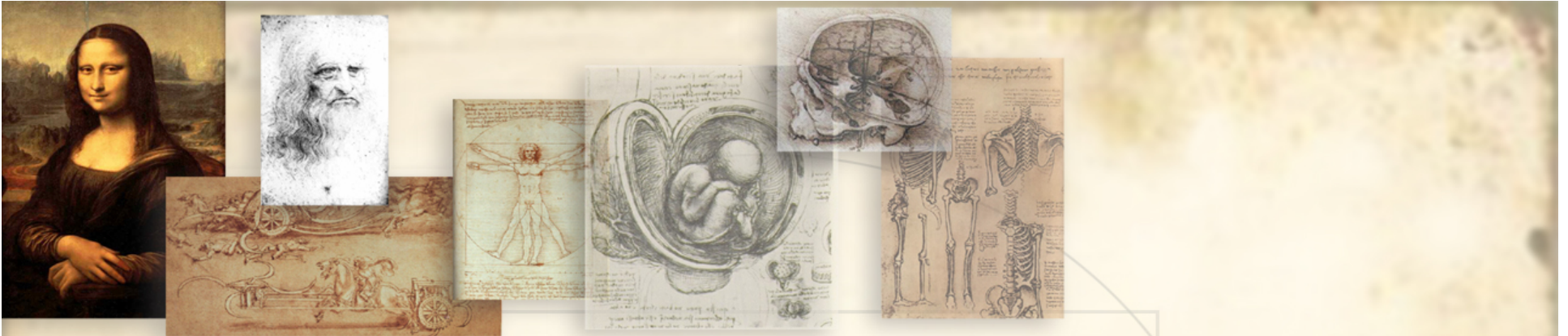
## *Kuriosita - A Quote from an Old Star Trek Book*

- **Kirk:** What are you interested in?
- **Spock:** Everything. Anything less would be an insult to the intellect.



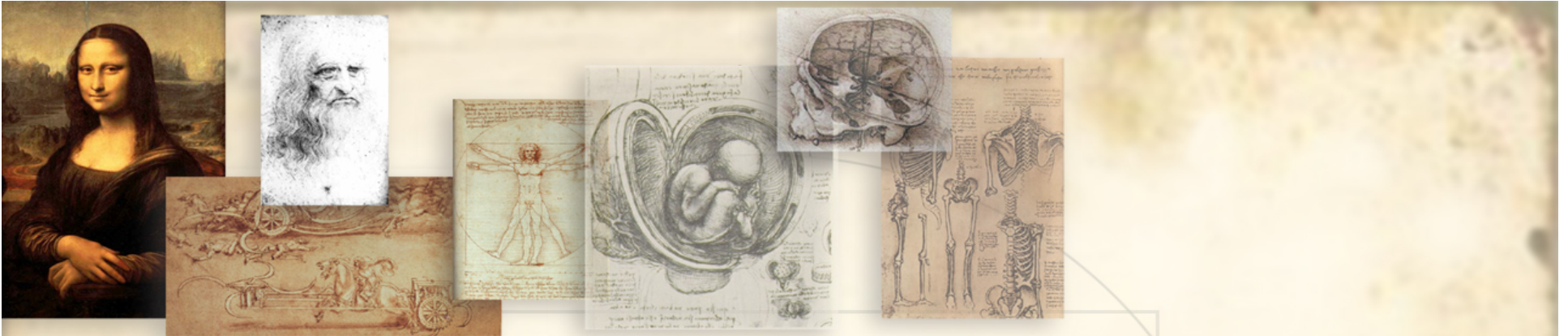
## *Applying Curiosita*

- **Keep a journal – Leonardo did**
  - 100 questions that are important to you
  - Top ten list of questions
- **Develop key themes – one per day/week/etc.**
  - Overarching categories from your 100 questions
- **Contemplation**
  - Refer to your questions and/or themes



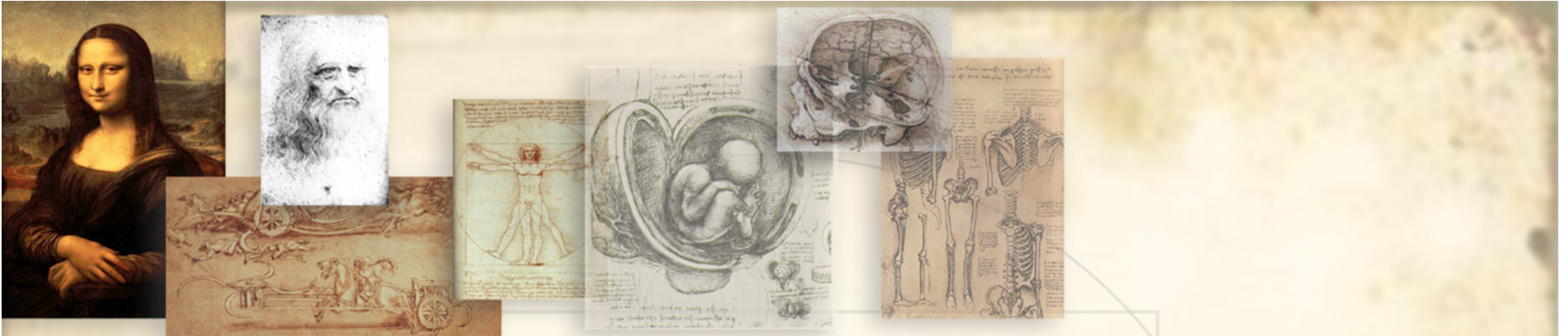
## *Applying Curiosita*

- **Stream of Consciousness (a.k.a. mindmapping)**
- **Curiosita and innovative problem solving**
  - **What, who, when, where**
  - **How, why**
  - **The answer is in the question**



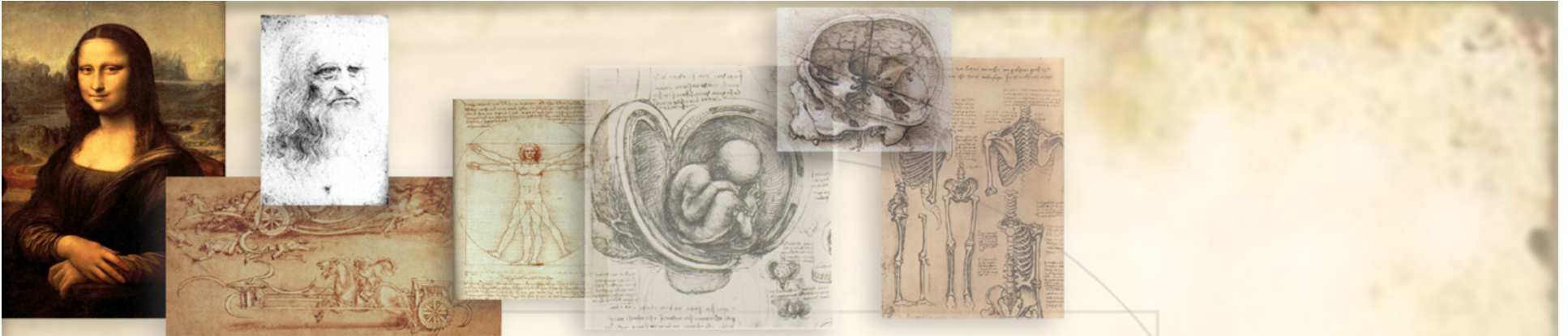
## *Applying Curiosita*

- **Curiosita and continuous learning**
  - What if ...?
  - Realize your ideal hobby – how will it benefit me?
  - Learn a new language
  - Nurture your Emotional Intelligence – “Know thyself”



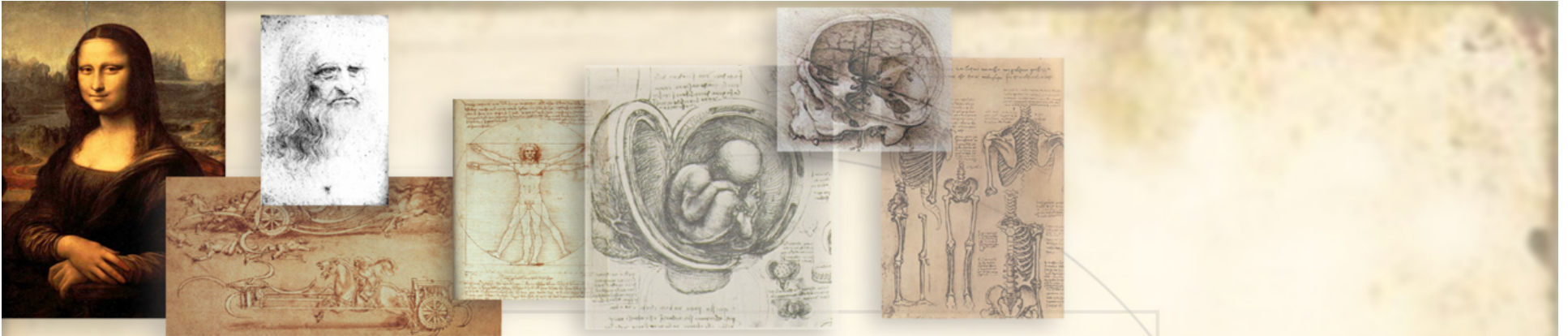
## *Curiosita Exercise and Homework*

- **Exercise:** What are you not curious about? Tell us.
- **Homework:** What are you not curious about? Find out about it.



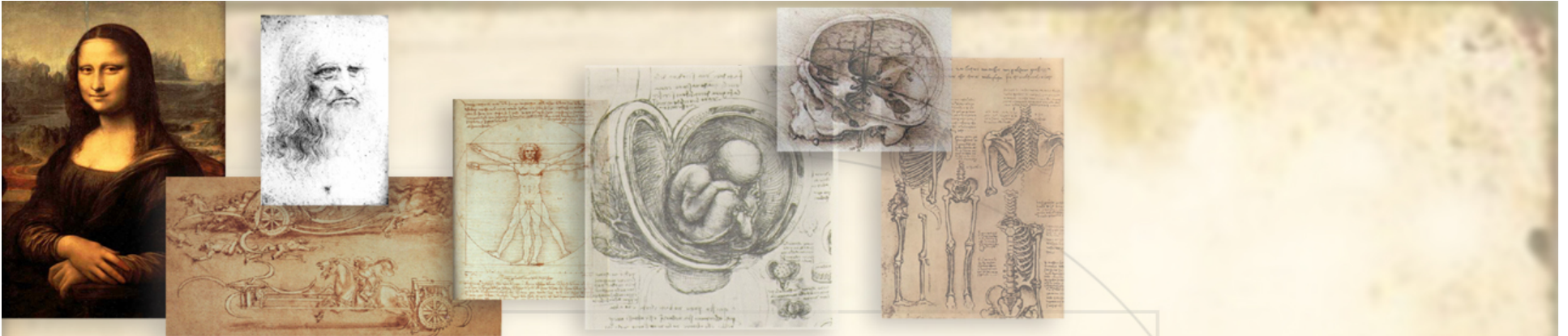
## *Dimostrazione*

- **A commitment to test knowledge through experience, persistence, and a willingness to learn from mistakes**
- **Deming: “How do you know that?”**
  - **PDCA**
- **Baldrige Scoring Factor, “Learning” – continuous cycles of evaluation and improvement**
- **Self-assessment – How well do you acknowledge your mistakes and learn from them?**



## *Applying Dimostrazione*

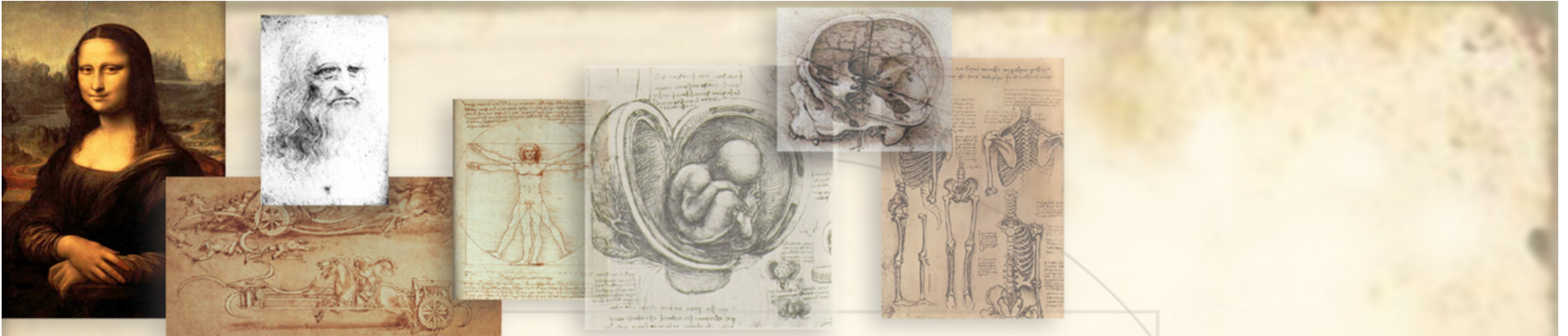
- **What would you consider the most influential experience(s) of your life?**
- **What are your fundamental beliefs?**
  - What are the reasons you hold those beliefs?
  - Have they changed based on your life experiences?
- **Dimostrazione and Advertising**
  - How vulnerable are you to advertising?
  - Do you ever “fact check” an advertisement’s claims?



## *Applying Dimostrazione*

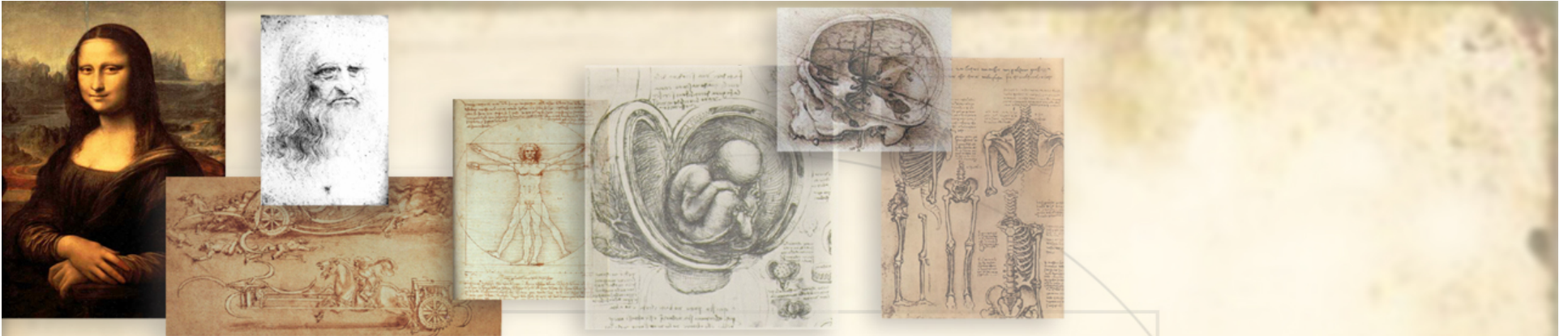
- **Learn from mistakes and adversity**
- **Create self-affirmations – “I am ... [some good quality]”**
- **Learn from “Anti-Role Models”**





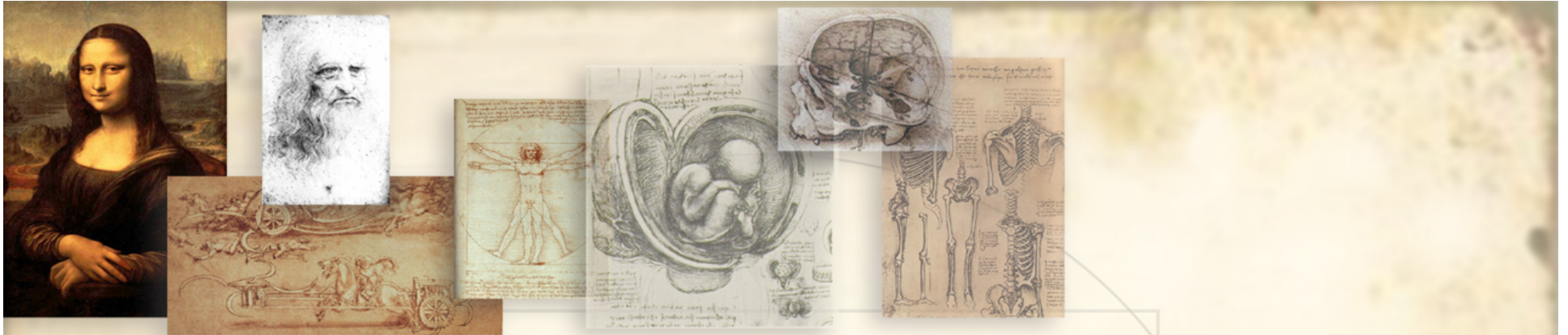
## *Dimostrazione Homework*

- **Think about one of your fundamental beliefs**
  - **Conduct research to find two views that do not match yours**
  - **How do these other views change your original belief?**
    - **Why or why not?**
- **Make a list of people who you know who have made mistakes that you would like to avoid**



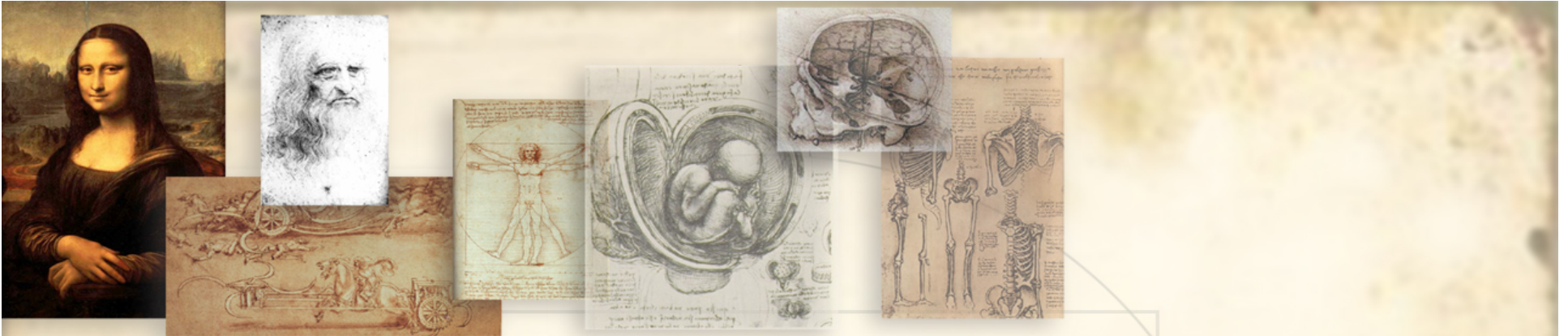
## *Sensazione*

- **The continual refinement of the senses, especially sight, as the means to enliven experience**
- **The better your senses, the more you can sense**
  - **The more you can sense, the more information you can bring to bear on innovation**



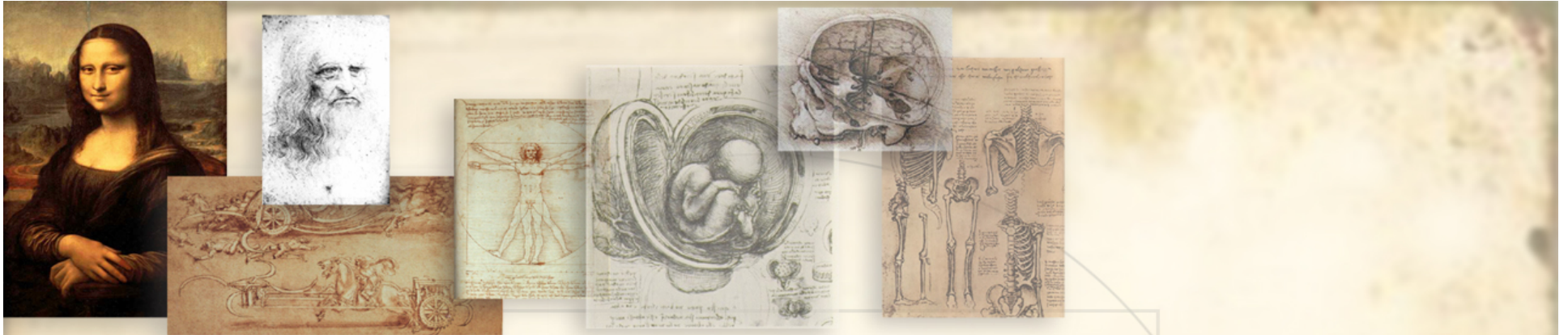
## *Sensazione*

- **Yogi Berra: “You can see a lot just by observing.”**
- **Leonardo: The senses are the keys to opening the doors of experience**
  - Sensazione is the catalyst for Dimostrazione
- **We know about Active Listening**
  - There is also active seeing, smelling, tasting, feeling



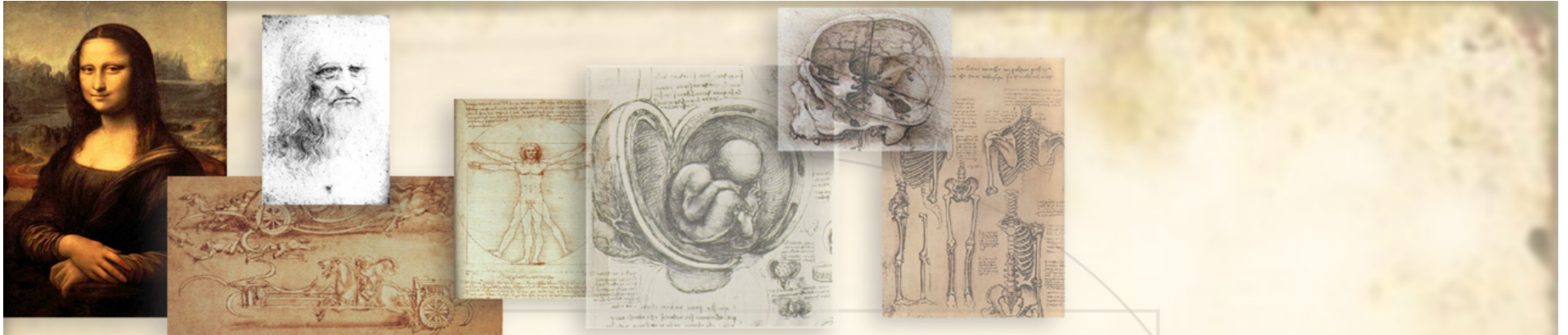
## *Sensazione*

- **Be wary of distracting background sensory stimuli – loud noise, strong smells, bad-tasting foods**
- **Sensazione is a right-brain activity**
  - **Left-brain-dominant people need to consciously work on developing it**



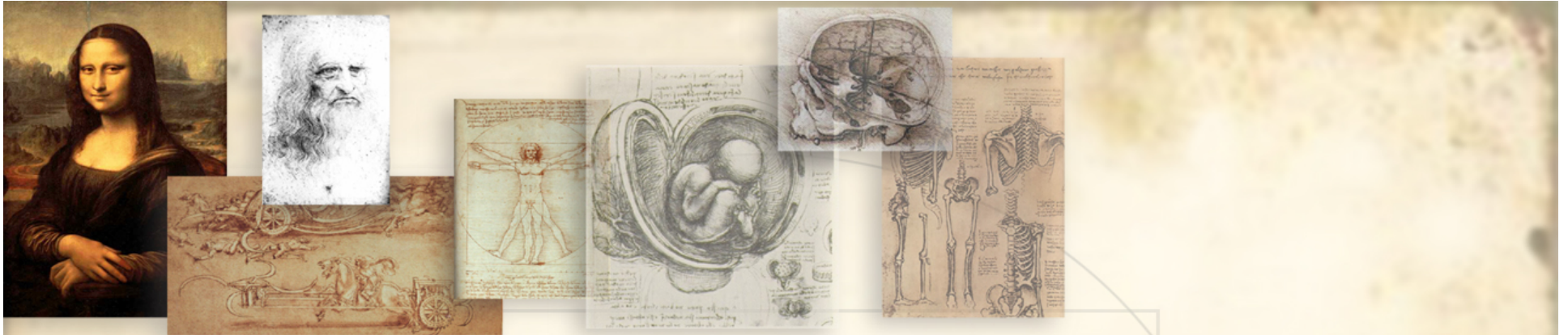
## *Sensazione Exercise and Homework*

- **Exercise:** What do you see right now? Hear? Smell? Taste? Feel?
- **Homework:** think about the following and how they affected you:
  - The most beautiful thing you have ever seen
  - The sweetest sound you have ever heard
  - The most wonderful aroma you have ever smelled
  - The most delicious thing you have ever tasted
  - The most enjoyable tactile feeling you have ever experienced



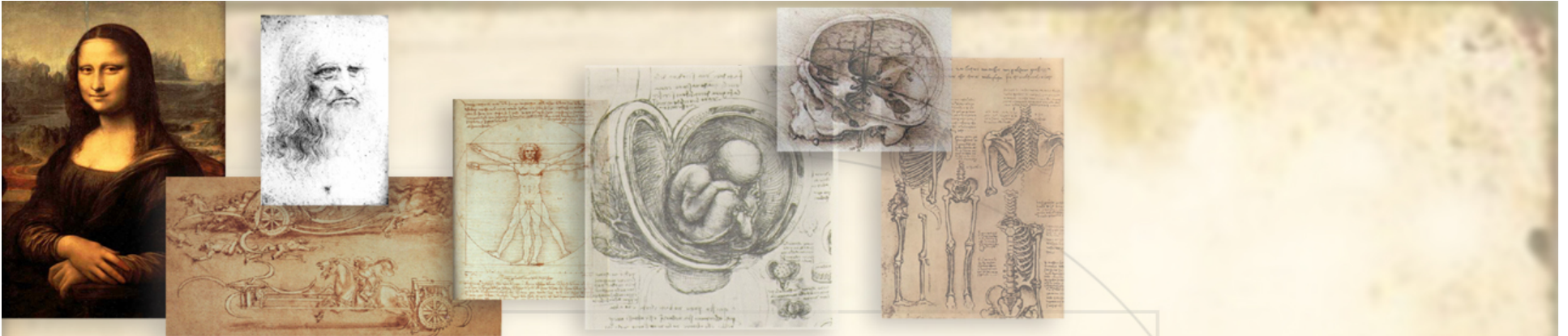
## *Sfumato – literally, “Going up in smoke”*

- **A willingness to embrace ambiguity, paradox, and uncertainty**
- **Ability to face the unknown**
- **Keeping your mind open in the face of uncertainty is the single most powerful secret of unleashing your innovative potential**
  - **Sfumato is the key to that openness**



## *Applying and Cultivating Sfumato*

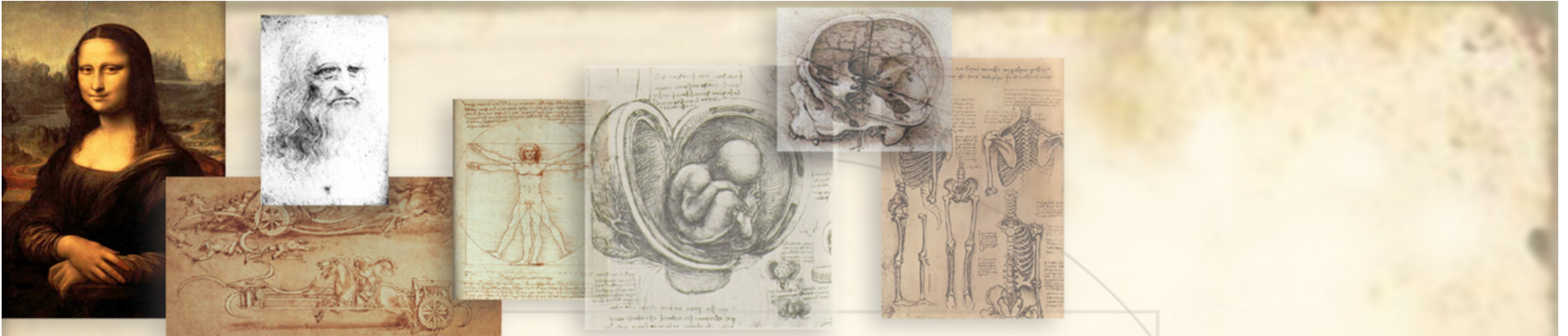
- **In your journal, describe three situations where ambiguity was present. Describe your reaction**
- **Take time out for solitude and relaxation ... and thoughtful reflection**
- **When your gut tells you something, listen**
- **Learn a new language; visit a country where they speak a different language and have different customs**



## *Sfumato Exercise and Homework*

- **Exercise:** On a scale of 1 to 10, rate your own tolerance for ambiguity
- **Homework:** Work a crossword puzzle, sudoku, or other word/number game





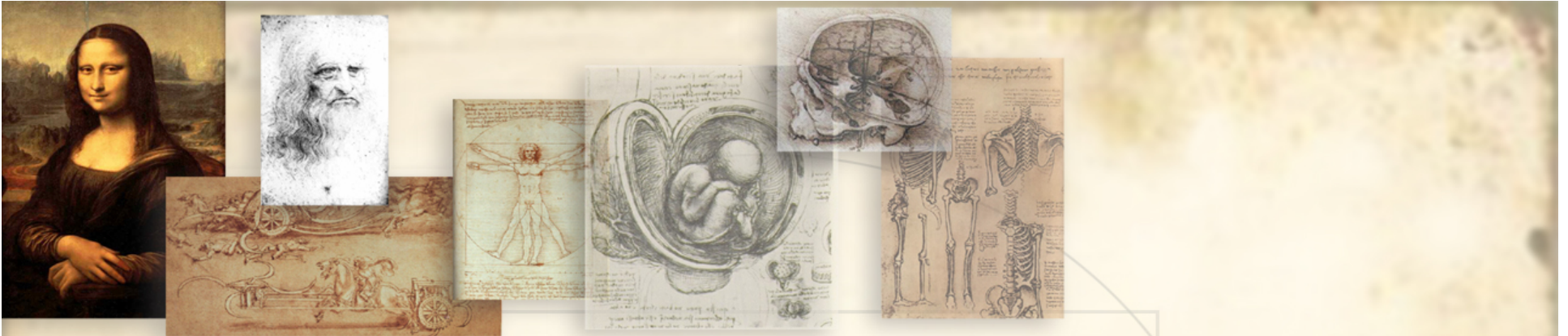
## *Arte/Scienza*

- **The development of the balance between science and art, logic and imagination – “whole-brain thinking”**
- **Leonardo: Art and science are inseparable; “Study the science of art and the art of science.”**
- **Achieving a balance between art and science through mindmapping – as opposed to outlining and linear note-taking**



## *Applying Arte/Scienza*

- **Learn mindmapping**
- **Practice mindmapping skills**



## *Arte/Scienza Exercise and Homework*

- **Exercise: mindmap this Forum**
- **Homework: mindmap the concept of innovation – start with a question, problem, or issue that needs fresh thought; proceed from there**



## *Corporalita*

- **The cultivation of grace, ambidexterity, fitness, and poise**
- **Healthy body => health body**



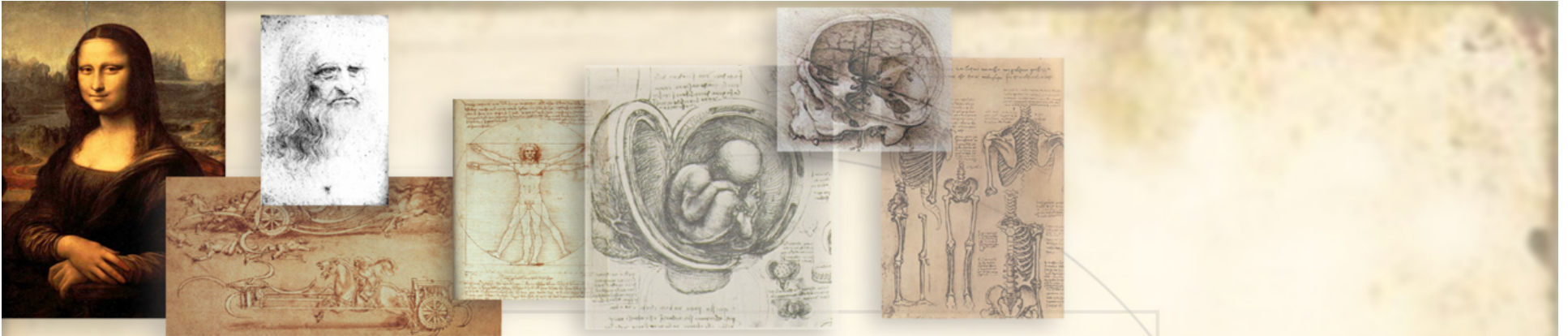
## *Applying Corporalita*

- **Develop a physical fitness program**
- **Watch your diet**
- **Get enough rest**
- **Avoid stress**
- **Have regular medical checkups**
- **Cultivate ambidexterity**
- **Learn to juggle – or something else that requires coordination (e.g., walking and chewing gum)**



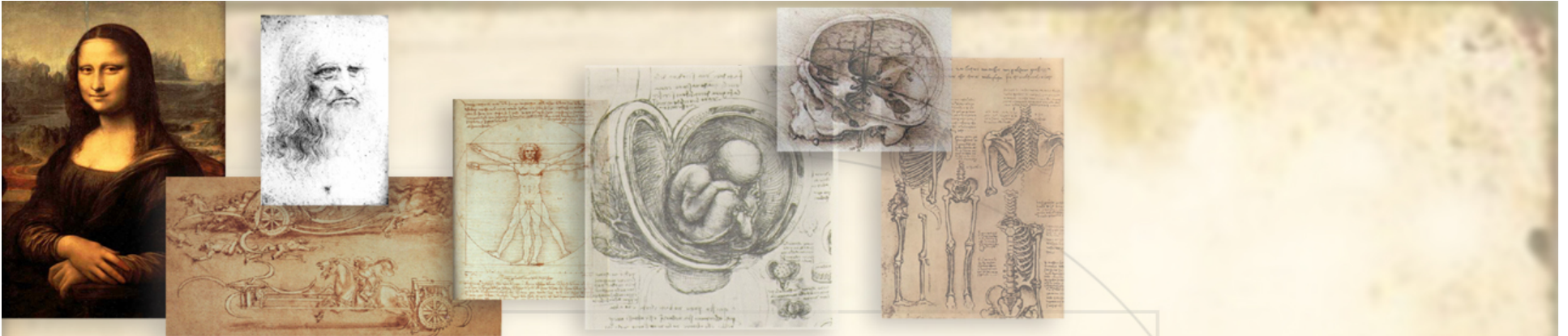
## *Applying Corporalita*

- **In your journal, record (daily):**
  - **Your exercise**
  - **What and how much you eat**
  - **How much you sleep**
  - **How much you smoke**
  - **How much you drink (alcohol)**
  - **How much you weigh**



## *Corporalita Exercise and Homework*

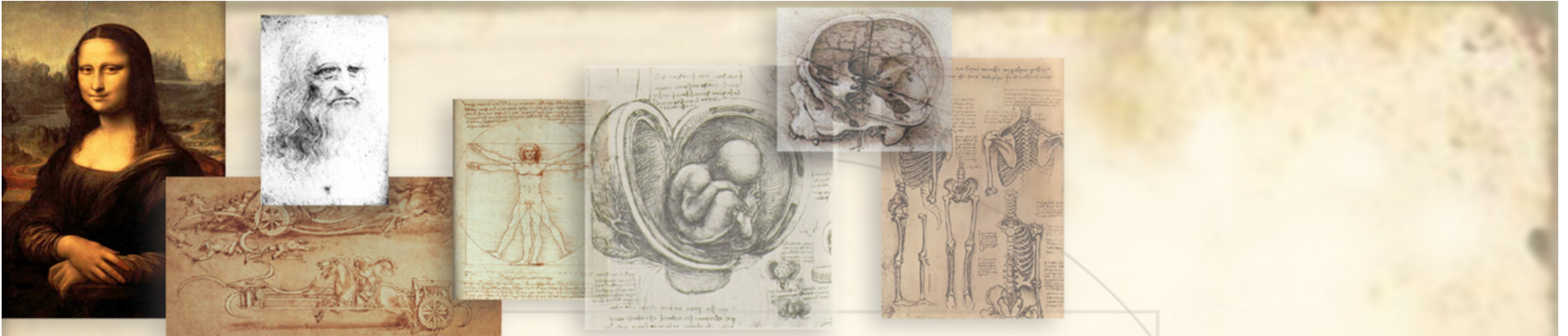
- **Exercise: Reverse cross your fingers, arms, legs**
- **Homework: Mindmap your personal application of Corporalita**



# *Connessione*

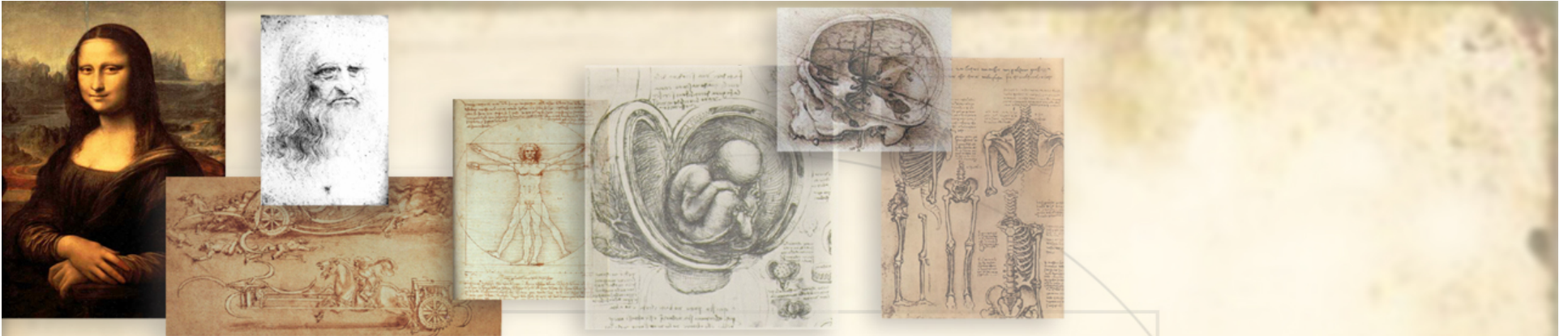
- **A recognition of and appreciation for the interconnections of all things and phenomena**
- **This is what Baldrige is all about – seeing the interconnections of policies, programs, processes, and results**
- **Discern ripple effects, unintended/unforeseen consequences, the “butterfly effect”**





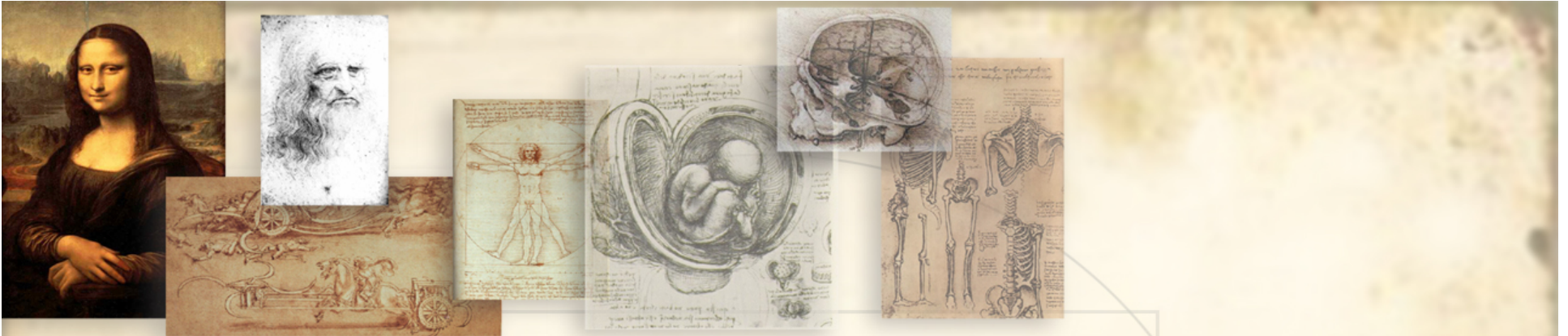
## *Applying Connessione*

- **Identify relationships between seemingly disparate things**
- **Have imaginary dialogues**
- **About interconnections between things**
- **Think about the creation/origin of things, ideas, processes**
- **Think about how large-scale things are reflected in microcosm – and vice versa**



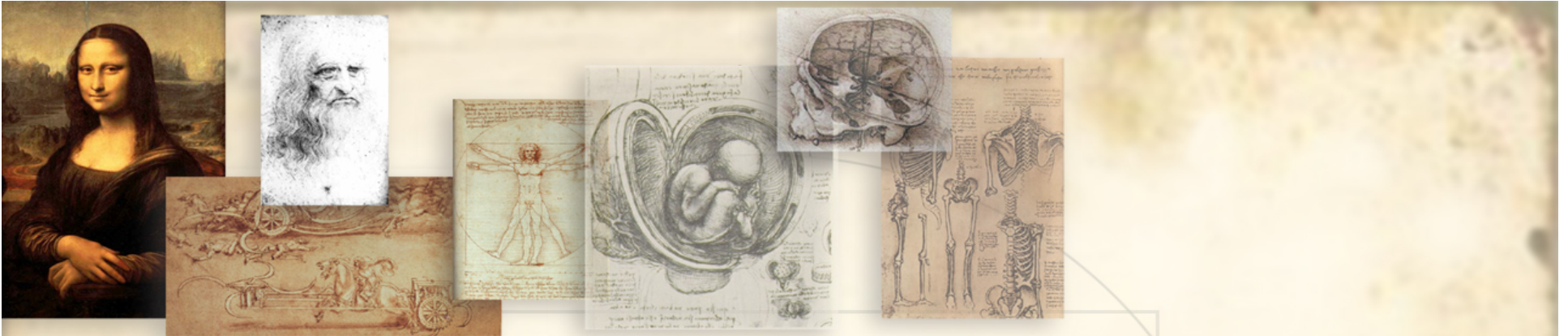
## *Connessione Exercise and Homework*

- **Exercise: Make connections between a dog and Category 3 (Customer Focus)**
- **Homework: Make connections among the six Process Categories of the Baldrige Criteria for Performance Excellence (Leadership; Strategic Planning; Customer Focus; Measurement, Analysis, and Knowledge Management; Workforce Focus; Operations Focus)**



## *Final Exercise*

- **Using one or more of Leonardo's seven principals, list 100 uses for a common paper clip**

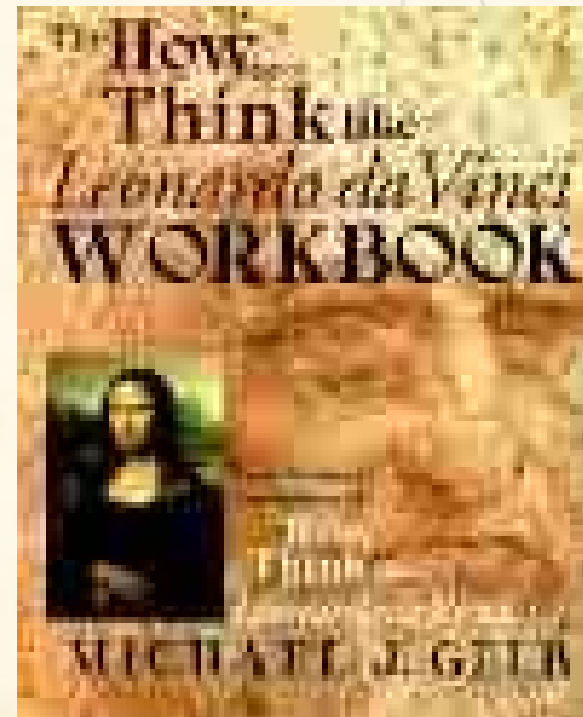
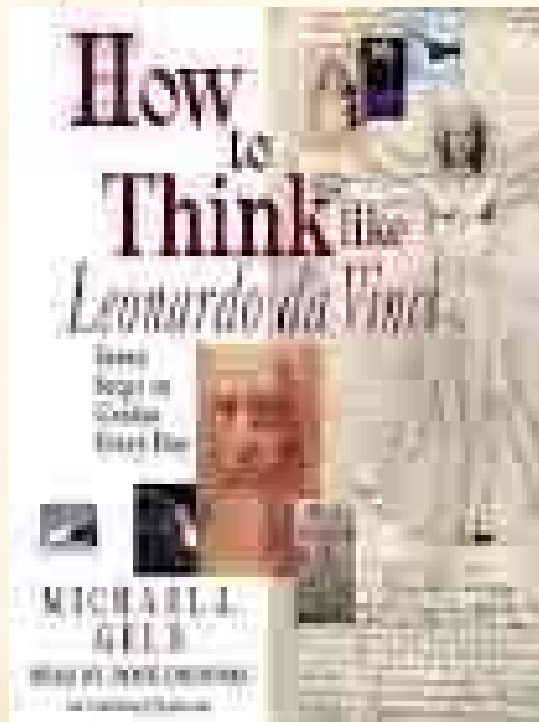


## *Summary*

- **Leonardo DaVinci – Some Innovative Accomplishments**
- **Leonardo's Seven Techniques**
- **Exercises – Practicing Leonardo's Techniques**
- **Homework – Taking Leonardo's Techniques to the Real World**



## *Some Primary Resources*





*Questions?*





**GO  
NAVY!**

**BEAT  
ARMY!**



*Thank You!*

**Michael J. Novak  
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