Some possible seeds for “historical developmental” topics are:

- The Platonic Solids
- Solution of nth degree polynomial equation (especially quadratics)
- Difference Equations
- Changing Definition (Over Time): What is Mathematics?
- Changing Definition (Geographically): What is Mathematics?
- Fuzzy Set Theory
- Changing definition of concept of a curve
- Changing definition of concept of a function
- Changing definition of concept of continuity/limits
- Nonstandard analysis
- Lebesgue integration
- Continued fractions
- Dirichlet's problem
- Malfatti's problem
- Brachystochrohome problem
- Kakeya Problem
- Mathematical Logic
- Goldbach Conjecture
- Constructions with Only a Compass
- Constructions with Only a Marked Ruler
- Rational Approximations of Roots
- Public Key Ciphers
- Meta-Mathematics
- Mersenne Primes vs. Fermat Primes
- Elliptic/Hyperbolic functions
- Fermat's Last Theorem
- Math and war
- Linear programming
- Fractional calculus
- Transcendental numbers
- Concept of irrationals
- Surreal Numbers
- Knot Theory
- Nomography
- Logarithms
- Fourier Series
- Slide Rule Mathematics
- Approximations by Power series (Taylor, Maclaurin, etc.)
- Determinants
- Matrices
- Projective geometry
• Affine geometry
• Finite geometry
• Taxicab geometry
• Different types of coordinate systems
• Differential geometry
• Riemann surfaces
• Diophantine analysis
• Indeterminate Equations
• Fourth Dimension
• Catastrophe Theory
• Topology
• Complex Numbers/Imaginaries
• Game theory
• Linear Programming
• Axiom of Choice
• Zermelo's Postulate
• Transfinite Numbers
• The infinite vs. The Infinitesimal
• Jordan Curve Theorem
• Fixed Point Theorem
• Laplace transforms
• Method of least squares
• Latin Squares
• Magic Squares and Their Extensions
• Prosthaphaeresis
• Mathematical Induction
• Number Partitions
• Agricultural Statistics
• Problem of Points and the Start of Probability
• Frequentist vs Bayesian Approaches to Probability
• Ham Sandwich Theorem
• Two-Way Interactions: Mathematics and Technology
• Famous “Unsolved” Problems and Their Resolution
• Algebraic Number Theory
• Significant Mathematics Done by Non-Mathematicians
• Mathematician _X_ and his/her Significance
• Differential Equations
• Cramer’s Rule
• Descartes’ Rule of Signs
• Idea of a Group Pervades Mathematics
• Linear Algebra is a “Part” of Abstract Algebra?
• Dedekind Cuts
• Banach-Tarski Paradox and The Axiom of Choice
• P-adic Numbers
• Role of Mathematical Societies: British, Berlin, Russian, American
• Category Theory
• Conic Sections
• Curvature
• Four-color Theorem
• Kepler's Cannon Ball Problem
• Ethnomathematics and the Culture of Mathematics
• Rule of False Position
• Greatest Mathematical Discovery of __Xth__ Century
• Blind Mathematicians
• Bishop Berkeley's Influence on Mathematics
• Kant's Influence on Geometry
• Mathematical prodigies
• Explain Cantor's “The Essence of Mathematics Lies in its Freedom”
• Mathematical Linkages
• Which Mathematicians get too Much Credit
• Which Mathematicians do not get Enough Credit
• Mathematical Duality
• Klein's Impact on the Teaching of Geometry
• Psychology of Doing/Creating Mathematics
• Famous/Significant proofs
• Deduction vs. Induction
• Harmonic Series
• Central limit theorem/Law of large numbers
• Philosophy of Mathematics
• Mathematics Impact on Philosophy
• Most Significant: e, pi, phi?
• Are the Special Numbers (e, pi, phi) invented or discovered?
• Role of Proof and Rigor in Mathematics
• Role of Notation in Development of Mathematics
• Mathematics in Art
• Mathematics in Music
• Mathematics in Literature
• Mathematics in Poetry
• Beauty as a part of Mathematics
• Leibniz's Creation of Binary System and the “Saving” of All Chinese
• NP-Problems
• Cryptology
• Mathematics in Astronomy
• Mathematics in Physics
• Mathematics in Chemistry (esp. topology)
• Mathematics in Economics
• Mathematics in Psychology
• Mathematics in the Social Sciences
• Mathematics in Geography
• Role of Mathematics in Computer Science
• Cartography
• Mathematical Dissections
• Frieze Patterns and Wallpaper Group
• Tiling of Planes and Space
• Chinese Remainder Theorem
• Spherical trigonometry
• Role of Mathematical Induction
• Role of Proof by Contradiction
• Symmetry
• Geodesy
• Napoleon’s Involvement in Mathematics
• Horner’s Methods
• Incommensurability
• Isoperimetric Ideas
• Geometrical Algebra vs. Algebraic Geometry
• Completeness vs Consistency
• Truth in Mathematics: Does it Exist?
• Ptolemy’s Trigonometry
• History of Permutations and Combinations
• Rise and Role of Mathematical Symbolism
• Ontology Recapitulates Phylogeny: In Mathematics?
• Binomial Theorem: Proofs and Generalizations
• Examples of Mistakes by Famous Mathematicians
• Importance of Fundamental Theorems: Arithmetic, Algebra, Calculus
• Best number base...Is it e?
• Abacists vs. Algorists
• Mathematics and Religion
• Mathematical proofs of the Existence of God
• Golden Ratio
• Mobius Strip
• Famous Sequences in Mathematics
• Special Plane Curves
• Algebra in Euclid’s Elements
• Number Theory in Euclid’s Elements
• Theory of Proportions in Euclid’s Elements
• Number partitions
• Means: Arithmetic, Geometric, Harmonic
• Archimedean Solids
• Viete—The First Modern Mathematician?
• What if Decimals had never been invented?
• What if zero had never been invented?
- Projective geometry vs Perspective Geometry
- Importance and Resolution of Zeno’s Paradoxes
- Role of Algorithms in Mathematics
- Cavalieri’s Contributions to Calculus
- Number Mysticism
- Continuum hypothesis
- Buffon’s Needle Problem
- Roman Numerals and Contributions
- Proof of Non-Constructible Polygons