

The Exploration – Proposal

Your Task:

1. Pick a final possible topic for your exploration.
2. Draft a **1-2 page** proposal including the following? **DO NOT** use a question and answer format! Your proposal should be double spaced, Arial font, size 12, with 1-inch margins.
 - a. Why did you choose this topic? (Criterion C – Personal Engagement)
 - b. What result are you trying to achieve? (Criterion D – Reflection)
 - c. What math will you do that is related to this topic? (Criterion E – Use of Mathematics)
 - d. What resources are you going to consult?
3. **Due May 30/31, 2016.**
4. I will read over your proposal, if it seems like you have chosen a topic and direction that can be explored well, then you are done and start working on your IA at any time. If I read your proposal and do not think it will be appropriate and you will have difficulty with it, I will ask you to draft another proposal until you have something that will work well.

Still struggling with a topic? Here are some more possibilities to get you thinking...

Paper folding	Art of M.C. Escher
Designing bridges	Harmonic mean
Methods of approximating	Sundials
Mathematical card tricks	Navigational systems
Curry's paradox – 'missing' square	The abacus
Barcodes	Construction of calendars
Applications of parabolas	Slide rules
Music – notes, pitches, scales, etc	Different number systems
Voting systems	Mathematics of juggling
Flatland by Edwin Abbott	Global positioning system (GPS)
Terminal velocity	Optical illusions
Towers of Hanoi puzzle	Origami
Photography	... and MORE!!!

Also check out these websites!

plus.maths.org

nrich.maths.org

nytimes.com and do a search for Strogatz (limited viewing - 10 free articles)