Recursively Enumerable Degrees and Post's Problem

The goal of the presentation is to properties of the recursively enumerable degrees. The following articles are a good starting point.

- http://http://en.wikipedia.org/wiki/Turing_degree

- http://en.wikipedia.org/wiki/Recursively_enumerable

Your presentation should include

- A discussion of what a Turing Degree is and what a Recursively Enumerable Degree is.

- An explanation of why every recursively enumerable degree is computable from 0' (i.e. computable from the function $G(n, m)$ defined in class and on the homework).

- A discussion of Post's Problem and the fact that there is a recursively enumerable degree A such that $0 \lneqq_T A \lneqq_T 0'$.

- Mention of the fact that the recursively enumerable degrees are dense (i.e. if $B \lneqq_T C$ then there is an A such that $B \lneqq_T A \lneqq_T C$.

In addition your presentation should include at least one of

- A history of Posts problem.

- Mention the fact that there are minimal degrees (i.e. degrees such that $0 \lneqq_T A$ but if $0 \lneqq_T B \lneqq_T A$ then $B \equiv_T 0$ or $B \equiv_T A$.)

You should also feel free to expand on the above in any directions you would like (so long as they are related to the topic). If you have any questions regarding the presentation feel free to e-mail your TA or Dr. Ackerman