RESEARCH PAPER PROPOSAL

Research question (one sentence) >>

The research question is central to the research, writing and project process. It is driven by student interest. It is sufficiently narrow and can be answered with academic research. The question may have a single correct answer, but more likely will have a number of possible answers. It may be based on larger, important questions that societies present, and is not limited to a student's own experience. It may be derived from a problem that the student wants to explore as related to the Critical Thinking discipline.

Rationale (extended paragraph) >>

The rationale explains the context of this question. The purpose of the rationale is to firmly establish a personal connection to the proposed research, and to help readers, mentors and teachers understand this personal context.

Research Plan (working bibliography, 10+ sources) >>

The research plan prepares students for the Research and Writing course in the fall. In that course, students will engage with multiple sources to develop a literature review of the proposed area of inquiry. This bibliography should not emphasize primary sources; instead, it should provide a strong foundation on which later, more specific research might build. For example, a research question about modernist architecture would require sources that address major themes and significant figures, but students should reserve original research about a specific building or architect for the project phase.

Proposed Project (extended paragraph) >>

The project should respond to the problem or question posed in the research paper. For example, a research question about free speech in US public schools may inspire many different projects: a written case study about a particular school; a documentary aimed at informing young people about their First Amendment rights; or an internship with a law firm working on cases related to free speech, accompanied by a written reflection. The project proposal is considered tentative until the second quarter of the Senior year, but this initial proposal asks students to articulate their thinking at this stage. Most critically, the project proposal should respond to the problem or question posed in the research paper.

CLARIFYING NOTES FOR TEACHERS (or students!)

Unlike a college-level thesis paper, these questions may not necessarily prepare our students to engage in original research in the project phase.
For example, Kareem was interested in the design features that make cars more or less aerodynamic. In my view, that's an appropriate research question even though I think there are very clear answers. His project was/is a 3D model of a car.

But, they might.
For example, Jayna was interested in learning more about when young women begin to develop a negative self body image. She discovered through her literature review that it actually begins very early (preschool age), and she could have dedicated her project to working with that age group on a project to respond to that problem.

The research question can change up until the point that they begin the research paper in Fall 2013.
However, they must complete the research paper proposal (above) to earn credit for Critical Thinking this spring, and they must redo that proposal over the summer if they want to change their question in September.

The research question should not be grounded in personal experience alone.
For example, "What does it take to become a veterinarian?" is too narrow (and easily researched) to be a useful basis for inquiry.

The research question and project should be grounded in the critical thinking discipline in some way.
Some students may find it difficult to narrow their diverse interests down to a single, discipline-specific question. The senior project acknowledges that students have many interests and talents, and they have selected one of these to pursue with more depth. Science students may also be interested in film, for example, which means that the medium for the project may be film – but the content of the film should be grounded in science.

The project can change because in most cases, the project is not fully embedded in the research question.
For example, the research question should not be, "How do I make a film about WWII?" Instead, the question should investigate WWII and the medium of the project might be a film, an oral history or a video game about WWII.

Identifying a research question + writing a rationale

1. Create a mind map of personal interests related to (and not related to) the critical thinking discipline. I'm attaching a PowerPoint of the first activity I did with my research and writing students (who did not come to my class with a research question). It's a very useful way of helping students to discover that a personal interest in sneaker collecting may actually connect to a research question about economics or the anthropology of young people. There is a personal example in my PowerPoint. You can also find student examples from last year here: http://thisisflow.wordpress.com/category/flow-all-posts/maps/

2. Visit http://www.ted.com/talks/tags and watch several talks that are related to your area of interest. TED talks often present important questions that may evolve into something inspiring + research-worthy.

3. Visit MIT OpenCourseWare **//** http://ocw.mit.edu/high-school/for-students/ MIT posts syllabi, assignments, activities, notes, readings, videos + other materials on this website for the public to learn from. The link above directs to a space for high school students to find resources relevant to their own work. Explore the links at left for research leads in architecture, science, math, writing, psychology and more.

4. After doing at least two of the above, I asked students to participate in a speed dating exercise in partners. Partner A shares his/her tentative areas of interest, problem/question ideas, and project ideas (2 minutes). Partner B asks clarifying questions (1 minute). Together, they discuss possible directions for Partner A. Then, switch roles. Finally, switch partners. I did this repeatedly throughout the course and discovered that it was useful for them to articulate their own ideas out loud and they received a number of ideas from their colleagues.

Research

This was the weakest part of my own course (which is terrible!), and I'm confident that each of you has a stronger background in this than I do. Some of my strategies included:

1. I advised students to find similar research papers written by undergrad/graduate students and mine their bibliographies for useful references.
2. I advised students to use Google Scholar to find commonly cited sources related to their broad topics, and to scour those bibliographies as well.

3. I advised students to visit libraries and email professors asking for advice about who/what to read in their respective fields

Proposing a project

1. Discuss your project/research idea with someone who knows you or your research interests well. Document this conversation. This might be with a family member, a teacher, a mentor, an employer, or an important author whose contact info you found online.

2. Find an example of what you want to do. In writing, that might be called a "mentor text." It might be a book, a film, an article, a job, etc. What would you enjoy *making* or *doing*? Another way of finding these ideas is to answer these two questions: *What are you good at? What do you want to be better at?*

3. It might be useful as a class to brainstorm possible mediums. These might, but might not be, discipline-specific. Examples include: scientific studies or experiments in a lab; original research papers (using primary sources); films (narrative or documentary); games (physical or digital); handmade books; original writing (fiction, poetry, etc); original music, art or animation; toys; oral history or storytelling project; a mobile app; a campaign; a fashion line; and many more. Students may also choose to enter a competition, like Intel or National History Day.

4. For inspiration for creative projects, visit Kickstarter online at http://www.kickstarter.com/discover Kickstarter invites people in need of funding to post creative project ideas on its website. Check it out for inspiration – and potentially for funding.

5. For film or story ideas, visit Media That Matters online at http://www.mediathatmattersfest.org/issue/youth/ If you're interested in film, Media That Matters sponsors a film festival that celebrates short films that address social issues and advocate for change. The link above is for films related to young people, but if you click on it and scroll down, you'll see "Browse Films by Issue" (including gay/lesbian, family & society, and criminal justice, among others.)