**Science- Les structures (projet de recherche)**  
  
Votre tâche consiste à créer une question de recherche pour une structure/édifice de ton choix en employant les stratégies que nous avons pratiqué avec Mme Unger à la bibliothèque. (mmejproulx.weebly.com → STUDENT RESOURCES pour les vidéos de Mme Unger)  
  
Par exemple, si je choisissais le tour Eiffel je peux identifier plusieurs questions de recherche:  
*→ Pourquoi c’était créer?  
→ Quels considérations ont été utilisés quand c'était construit?  
→ Pourquoi est-ce que c’est devenu une symbole d’amour?*

**Lorsque tu as trouvé ta question de recherche, tu dois assurer que tu seras capable de répondre les questions suivantes:**

* Quelle est la fonction de ma structure?
* Quelle est la forme de ma structure? (Classification: pleine, ossature, coque, combinée, treillis, arche, dôme)
* Quelles forces et charges agissent sur ma structure régulièrement? (Internes et externes)
  + Comment est-ce que les ingénieurs(euses) ont évité les défaillances structurelles?
* Où est la centre de gravité? Est-ce que c’est une structure stable? Expliquez pourquoi.
* Quels matériaux ont été utilisés?
* Est-ce que les poutres ou des cantilevers ont été utilisés?
* Est-ce que c’est symétrique? Est-ce que des autres facteurs ont été considéré en production de la structure?

**Quand vous avez trouver votre inspiration pour la recherche, tu vas écrire une dissertation de 3-5 paragraphes OU faire une affiche (votre affiche devrait avoir des paragraphes complets). Les deux nécessite une bibliographie (MLA).  
  
ET tu va construire un modèle de ton structure (en classe, en partenaire, la semaine après Pâques). Assurez bien de représenter les détails et la forme. Soyez pretes a répondre POURQUOI tu as choisi de construire dans cette manière et avec ces matériaux.**

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|  | **Level 1** | **Level 2** | **Level 3** | **Level 4** |
| **Conventions** -Paragraphs: indent, topic sentence, concluding sentence -spacing: between words & sentences -Capitals: sentence starters and proper nouns -punctuation: periods, comma (salutations), exclamation, interrogation | -Occasionally puts a capital letter at the beginning of a sentence or punctuation at the end -Does not employ proper paragraph formation (run on sentences, disorganized) | -uses basic punctuation and capitals (sentence starters and end) with several minor errors  -Beginning to use proper paragraph formation (topic sentence, concluding sentence, indent) | -uses punctuation and capitals with few minor errors  -Usually uses proper paragraph formation (topic sentence, concluding sentence, indent) | -uses all punctuation and capitals accurately -Consistently uses proper paragraph formation (topic sentence, concluding sentence, indent) |
| **Assignment components** -research question + plan -all sub-questions answered  **ESSAY** -3-5 distinct paragraphs -Interesting “Hook” to introduce the essay -Clear, concise thesis -3 distinct “points” in support of thesis -Diverse, credible resources used to support claims (Bibliography) -Clear conclusion -Size 12 Times New Roman -Double Spaced, typed  **POSTER**  -3-5 distinct points -Interesting focus of research -Clear, concise thesis/argument related to research is evident -Diverse, credible resources used to support claims (Bibliography) -Clear conclusion -Size 12 Times New Roman -typed | Many components are missing  -Organization and generation of ideas not evident in writing process | Some components are complete (¾ journals submitted)  -Writing is somewhat organized, and is beginning to show generation of ideas | -All assignment components are complete  -Writing is well organized, shows generation of ideas and makes connections | -All assignment components are complete -Student has gone above and beyond expectations -Writing is well organized, shows a thorough generation of ideas and makes connections |
| **Conveying Meaning**  -Neatness -Spelling -Verb conjugation | -Writing is difficult to understand and contains many spelling errors and difficulty with verb conjugation -illegible  -Requires assistance and reminders | -Writing is somewhat easy to understand and uses spelling and verb conjugation with several minor errors  -Requires limited assistance and reminders | -Writing is easy to understand and uses proper spelling and verb conjugation most of the time  -works independently | -Writing is easy to understand and uses proper spelling and verb conjugation. -works independently or seeks help to extend submission |
| **Science** Knowledge and application | Student displays a basic understanding of the form and function of structures. Student is unable to apply this knowledge to form a targeted research question which reviews information discussed in class. | Student displays limited understanding of the form and function of structures. Student experiences some difficulty applying this knowledge to form a targeted research question which reviews information discussed in class. | Student displays a good understanding of the form and function of structures. Student is able to apply this knowledge to form a developed, targeted research question which reviews information discussed in class. | Student displays a thorough knowledge of the form and function of structures. Student is able to apply this knowledge to form a thoroughly informed, targeted research question which reviews information discussed in class. |

**Comments:**

**What to work on:**

* Spelling
* Verb conjugation
* Punctuation/capitalization
* Paragraph formation (topic sentence, concluding sentence, organization, indent)

