***Subject*** English

***Topic*** Flowers for Algernon

***Year Level*** Year 10

***Title*** Man or machine???

***Teacher*** Mrs. Clarke

***Purpose***

To explore technology and how it has been used to enhance human abilities.

***Context***

People are often interested in how technology supports or enhances a human being’s life. You will begin by examining ways in which people use technology to improve speed, mobility, strength, hearing, seeing etc.

***Task – Extending Human Ability Design Product***

You will design and create a technology based product designed to extend one human capability.

***Begin*** first by identifying a human limitation. Your product should be designed to help individuals overcome this limitation.

***You must draw*** a model of this product and labels its components (with possible materials to construct your design).

You will then ***participate in an exhibition***, displaying your product with your ***write up*** (explained below). People from around the school will come and view your product. You will talk to people about your design, using your write up as a script. Your write up will detail your design and you will have a ***3D printed model of your design*** for people to view, touch and use.

***NOTE:*** Your design ***MUST*** be ***REALISTIC*** and before you will be completing your design or the write up, you ***MUST*** talk to a teacher or SSO about your design. ***NO*** running at the speed of light, x-ray vision or telepathy etc!

***Possible Choices***

* Heart that beats faster to improve an athlete’s performance.
* Lungs that require a smaller concentration of oxygen for deep sea divers (so they can spend longer under water without needing to breathe).
* Eyes that have 20/20 vision for people who are blind or wear glasses.
* Ears or hearing aids for people who are partially or completely deaf.

***Write Up***

You write up will be displayed on a PowerPoint Presentation that will automatically scroll through, on a Macbook, while you stand by your design. You will have a ***paper copy*** of your presentation as a ***script*** to refer to, so that you can ***answer questions from people viewing your exhibition*** and it will also be the spoken component of your exhibition.

***At 3-4 minute intervals***, groups of people will come around to your station, ***listen to your script and view your presentation***. Audience members will then have an opportunity to physically touch and look more closely at your design and ask any questions of you about your design or its process of production etc.

***Script for Write up & Presentation***

Your presentation will contain the following questions for discussion (***DO NOT*** put the question into your presentation, turn it into a topic sentence).

1. What limitations does this technology overcome?
2. How will this technology enhance AND extend human ability?
3. Why is this technology necessary?
4. Who is the technology designed for?
5. What materials would you use? (examples only)
6. What are the ethical considerations for your product?
7. Long term/short term impacts on the person ***AND*** society as whole.
8. You must have a hand drawn or computer generated diagram of your design (not taken from the internet, you can use paint or other software).

***Marking Rubric***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Understanding | Research and Answer Questions | Reasoning | Product Design |
| A | **Comprehensive** knowledge and application of facts and interpretation of information. | **Comprehensive** use of sources and wider reading to research and answer questions. | **Insightful** explanations using information collected to justify the design. | **Comprehensive** design with detailed labels of components and materials. |
| B | **Good** knowledge and application of facts and interpretation of information. | **Good** use of sources and wider reading to research and answer questions. | **Proficient** explanations using information collected to justify the design. | **Good** design with labels of components and materials. |
|  C | **Satisfactory** knowledge and application of facts some interpretation of information. | **Satisfactory** use of sources to research and answer questions. | **Competent** explanations using information collected to justify the design. | **Minimum** parts of design drawn with labels and materials for production. |
| D | **Variable** knowledge and application of facts and little interpretation of information. | **Some** use of sources to research and answer questions. | **Limited** explanations of using information collected to justify the design. | **Limited** design with some labels and possible materials for production.  |
| E | **No evidence** of knowledge and application of facts and interpretation of information. | **No attempt** use of sources to research and answer questions. | **No** explanations using information collected to justify the design. | **No** design, no labels and no materials listed.  |