

M5 Technology Assignment: Quarter 3, February 2009

Guiding question: How do we get from here to there?

Technology guiding question: How can we use technology to explain how things get from here to there?

Challenge:

The scientific concept of life cycles, including the metamorphoses of various species, is a difficult one to communicate to students. Technology gives us tools with which we can properly explain and demonstrate such processes.

Your task:

You will be assigned one of the organisms studied in Biology class. You will need to research the life cycle of the organism, fully understanding the transitions between different stages. You will use technology tools to create a presentation clearly demonstrating and fully explaining the life cycle of the organism. You may use any resources available at the school (including cameras, still cameras, video cameras, art equipment and materials, etc.) to represent and present the cycle. You must use the attached checklist to ensure you meet all objectives of the project, through each stage in the design cycle.

Assessment:

Your work will be assessed using all the Technology assessment criteria:

- | | | |
|----------------|-------------|----------------------------|
| A. Investigate | D. Create | F. Attitudes in Technology |
| B. Design | E. Evaluate | |
| C. Plan | | |

In order to achieve the highest mark, your work must be organized in a design folder with a section for each of the first five criteria (A-E), and should include enough information about your work at the different stages to demonstrate your attitudes in technology (criterion F).

Investigate

The problem

Explain the problem in your own words.

Available equipment (available but you do not have to use)

- Camcorder
- Camera
- Software (stop motion pro, flash animation, MS Movie Maker, Anasazi, Kahootz)
- Materials for staging

Design brief

Using the information gathered, explain the type of life cycle and animation you intend to make and why? Produce a design specification.

Using a broad range of sources (remember to acknowledge your sources)

- Life cycles:
 - What is important when trying to communicate life cycles?
 - Who is the animation for?
 - What types of life cycle do you know about?
- Communication:

- What are different methods of communication?
- What is animation?
- Explore examples of animation using different software.
- Why is animation useful?
- Analyse (positive and negative aspects of) different types of communication.

Design specification

Here are some common requirements. All designs must qualify for these. Please add more of your own.

- The product must communicate a life cycle
- The product must be original
- Other limits of your own

The test

Describe how you intend to test the final product to ensure that it meets all the requirements and is successful? Will you hand out any questionnaires for peers to respond on?

Design

- Design 1: diagram, description, advantages and disadvantages, design specification checklist
- Design 2: diagram, description, advantages and disadvantages, design specification checklist
- Design 3: diagram, description, advantages and disadvantages, design specification checklist
- Chosen design with justification
- Modifications

In this section you should have the life cycle decided upon. You are exploring different ways of communicating the stages of the life cycle using technology available.

Analyse each product against the brief and the design specification.

Plan

Draw up a table with the following headings as shown (or create a Gantt chart):

Date/Day/ Lessons/Week	Time Allocated	Activity	Who	Safety	Resources

Using this table produce a production plan outlining your estimated use of time and resources when creating your dessert.

Step-by-step plan

This must include: numbered steps, storyboard, and explanation on how to construct e.g. how to film the animation.

Modifications

List any modifications made since the design stage.

Explain why the modifications were made.

Create

Follow your production plan to prepare the product.

Modifications

Identify modifications made since the plan.

Explain the reasons for the modifications.

Process Journal

Keep a process journal for the create stage.

Be sure to include: screenshots or photos that show the product in stages of production, your notes, regular dated-entries.

Evaluate

Evaluate the success of your product based on the **results of testing** and the **views of others**. Reflect on your own performance **at each stage of the design cycle** and suggests improvements. Consider the task as a whole and the impact it could have on life, society and/or the environment.

The evaluation proforma is saved on the server.

Attitudes

Attitudes when working in technology focuses on the overall assessment of two aspects:

- Personal engagement (motivation, independence, general positive attitude)
- Attitudes towards safety, cooperation and respect for others

DUE DATES

Investigate: 16-20 Feb

Design: 23-27 Feb

Plan: 2-6 March

Create / test: 9-20 March

Present: 24 March

Evaluate: 26 March