

Mini-Project Proposal for Computer Based Instructional Program Life Cycle of a Butterfly

Module Title: Life Cycle of a Butterfly

Background

This module is designed for primary level learners while meeting the science objectives for the North Carolina Standard Course of Study, more specifically second grade. It is used to introduce learners to the four stages of life for a butterfly while making connections to the general life cycle. A classroom setting where learners can maneuver individually through the module and be supplemented with additional guidance from the instructor is ideal; however, the module may be completed online from anywhere. The program will be created using Flash Professional 8 and consist of little or no animation with an assessment at the end. Users will require the latest version of Flash Player to complete the module.

Instructional Problem

Typically, students are introduced to the butterfly life cycle by diagrams and text within a book. They are usually asked to memorize the four cycles and the basic processes within each step. This module presents the students the four cycles of a butterfly's life will providing them with information about the processes of each stage. A computer based module will allow them to move at their own pace and provide feedback and reinforcement to the information presented to them.

Why Computer Based Instruction?

CBI is appropriate for this specific lesson because it presents the learner with factual information at their own pace so that they can conceptualize and make connections between the characteristics of a basic life cycle and that of an insects.

Chunking: When the learner is presented new inform in sections that are relevant to each other so that information processing is a success.

Perception and Attention: The visual presented will be easy for the learner to receive. Pictures and text will be place within close proximity to one another to establish a connection.

Active Learning: The learners will posses a personal interest in the module because he/she will be in control of the learning pace. When a learner is asked to participate then they are assuming responsibility for their own learning.

Target Audience and Instructional Setting

Audience: The audience is intended for second grade students in the state of North Carolina. The concepts are primary and will suit any elementary level student. According to the North Carolina Standard Course of Study, second grade students are responsible for “observing the different stages of an insect life cycle.” This module will meet that specific objective.

Instructional Setting: The primary setting for instruction is a second grade classroom environment where the users may work through the module individually and at their own pace. However, the module will also be available online for personal use. The module will require a flash player to run.

Learning Objective and Assessment Item

Objective: The learner will demonstrate an understanding of the life cycle of a butterfly by; identifying the four stages pictorially, sequencing and timeline of the stages, list a major characteristic for each stage.

Assessment Item: Sequencing

Arrange the pictures so that they follow the butterfly life stages from beginning to end.

Description of Treatment

The instruction is designed to be a factual and conceptual module where the students will travel along the life cycle of a butterfly. It will be presented in timeline order. As the learner progresses through the module they will build the basic concept of a life cycle while being presented with information specific to that of a butterfly. The practice activities will be able to manipulate the different stages and arrange them in correct order.

Content Outline: Butterfly Life Cycle

Introduction: Life Cycles and about the lesson

Butterfly Life Cycles:

- I. Stage 1
 - A. Adult butterfly lays eggs
 - B. Eggs on leaves
 - C. Leaves good for caterpillars to eat
 - D. Time:
- II. Stage 2
 - A. Caterpillar hatches out of the egg

- B. When it hatches it chews a tiny hole in the egg
- C. It eats leaves all day long so it can get bigger
- D. Time:
- III. Stage 3
 - A. Caterpillar forms chrysalis or pupa
 - B. It sheds its skin
 - C. Attaches to a twig or leaf
 - D. Wings, legs, and the butterfly are made inside the chrysalis
- IV. Stage 4
 - A. Butterfly comes out of the chrysalis
 - B. Wings are wet and it is tired
 - C. When ready the butterfly flies away

Conclusion: Life cycle begins all over again

Instructional Flow

Introduction: This instructional module will focus on the four stages of an insect's life cycle more specifically a butterfly. The module is designed for a primary level learner and will be easy and basic to navigate. The first few slides will present the learner with the title of the module, the objective, and how to progress through the lesson. More specific instructions on how to manipulate the screen will also be provided.

Content: After the user has been provided with the module objectives, instruction, and introduction they will begin to proceed with the lesson. First they will be presented with a life cycle and its characteristics. After these slides, the learner will be given an assessment item and then prompted to proceed to the stages of a butterfly life cycle or go back and review the life cycle. Each of the four stages of the butterfly's cycle will take a couple of slides to maneuver through. An assessment item will be presented before moving on to the next stage.

Review and Final Assessment: When the learner has completed the instructional portion of the module a review section will be provided for them briefly outline the content previously presented. At the end of the review, they will be asked whether they wish to move on to the final assessment or go back to any section of the module.

The final assessment will consist of the learner actively engaged in arranging the different stages in order pictorially. Additional items such as multiple choices will be presented for the factual information.

When the learner has completed the entire module they will be presented with a congratulatory slide and asked to exit the program.