Water Cycle Assessment Handout

Student Name: _____	**Class:** _____
Student ID: _____	**Date:** _____

Assessment Details

Duration: 60 minutes	**Total Marks:** 100
Topics Covered:	• Water Cycle • Visual Thinking Routines • Environmental Parameters

Instructions to Students:

1. Read all questions carefully before attempting.
2. Show all working out - marks are awarded for method.
3. Use visual aids and critical thinking skills where applicable.
4. Write your answers in the spaces provided.
5. If you need more space, use the additional pages at the end.
6. Time management is crucial - allocate approximately 1 minute per mark.

Section 1: Short Answer Questions [30 points]

Question 1 **[5 points]**

Define the water cycle and explain its importance in the Earth's system.

Question 2 **[5 points]**

Describe a visual thinking routine that can be used to understand the water cycle and provide an example of how it can be applied.

Question 3 **[10 points]**

Explain how the water cycle is connected to other environmental parameters, such as climate and weather patterns.

Question 4 **[10 points]**

Describe a problem related to the water cycle and explain how visual thinking routines can be used to solve it.

Section 2: Essay Question [40 points]

Question 5 **[40 points]**

Analyze the relationships between the water cycle and environmental parameters, such as climate, weather patterns, and human activities. Provide examples of how visual thinking routines can be used to understand these relationships and propose solutions to problems that arise from these interactions.

Section 3: Project-Based Task [30 points]

Question 6 **[30 points]**

Design a visual thinking routine that can be used to teach the water cycle to students. The routine should include a clear explanation of the water cycle, visual aids, and opportunities for students to apply critical thinking skills. Provide a written explanation of the routine and a visual representation of the design.

Marking Guide and Implementation Guidelines

The following criteria will be used to assess your work:

- Short answer questions: definition, explanation, example, and analysis
- Essay question: analysis, examples, and proposal
- Project-based task: design, explanation, and visual representation

Time allocation: 60 minutes

Administration tips:

- Provide clear instructions and examples for each task.
- Encourage students to use visual aids and critical thinking skills.
- Allow students to ask questions and seek clarification when needed.

Differentiation Options and Success Criteria

Differentiation options:

- For students with visual impairments: provide audio descriptions of visual aids, offer alternative formats for written tasks, such as braille or large print.
- For students with learning difficulties: provide additional support and guidance, offer extra time to complete tasks.
- For English language learners: provide bilingual resources and support, offer additional time to complete tasks.

Success criteria:

- Students will be able to define and explain the water cycle.
- Students will be able to apply visual thinking routines to solve problems related to the water cycle.
- Students will be able to analyze relationships between the water cycle and environmental parameters.
- Students will be able to evaluate the effectiveness of visual thinking routines in education for the water cycle.

Conclusion

This assessment handout is designed to evaluate your understanding of the water cycle and your ability to apply visual thinking routines to solve problems related to this topic. Remember to read each question carefully and answer to the best of your ability. Good luck!