

ADHD CHALLENGE

Help ADHD Children to Read Non-Fiction Material

Summative Report

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for

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Analysis

Training Goals & Objectives

The main purpose of this project is to design an instructional plan targeting the ADHD students who struggle with staying focused, particularly those who have difficulty in reading non-fiction books and learning materials at school. Through this instructional plan we can select the appropriate activities and can help ADHD students to stay on task and achieve the desired learning result.

Audience Analysis

❖ Primary Users	Description
➤ Learners & audience	<ul style="list-style-type: none"> ✓ Children with ADHD in elementary school age. ✓ They will be working in small groups.
➤ Grade Level	<ul style="list-style-type: none"> ✓ Elementary school students (2-3rd grade)
➤ Learning Subjects	<ul style="list-style-type: none"> ✓ Reading & Comprehension ✓ Science ✓ Social Study
➤ Domain	<ul style="list-style-type: none"> ✓ Cognitive Domain, design, development, implementation, evaluation of the activity
➤ Standard Description	<ul style="list-style-type: none"> ✓ Students are expected to focus their attention on the reading activity and to complete the required tasks.
➤ Prior Knowledge	<ul style="list-style-type: none"> ✓ Basic Reading skills on Level-2 ✓ Understanding of the content.
➤ Writing skills	<ul style="list-style-type: none"> ✓ Students can write according to the grade level ✓ Answer level-appropriate questions.
❖ Secondary Users	Description
<ul style="list-style-type: none"> ➤ Instructors ➤ Elementary School Teachers 	<p>Elementary School Teachers who would deliver the instruction.</p> <p>For example:</p> <ul style="list-style-type: none"> ✓ Language Art Teachers ✓ Reading and Comprehension Teachers ✓ Science Teachers or Social Study Teachers <p>*In many elementary-school settings of the USA, all of the above subjects can be taught by the same teacher.</p>

Task Analysis

Learning Objectives & Assessments

Learning Objectives and assessments for Lesson 1 & 2.

Lesson 1		
Objectives	Assessment Method	Student Performance
1. Students will explain the meaning of the vocabulary related to volcanos.	Unit Test (1). *Teacher will give students a short unit test (1) on vocabulary related to volcanos.	See Unit Test (1)
2. Students will explain the origin of volcanoes.	Unit Test (1). Teacher will give students a short unit test (1) which includes the explanation of volcanic origin.	See Unit Test (1)
3. Students will explain what a volcano is and why it erupts.	Unit Test (1). Teacher will give students a short unit test (1) which includes the explanation of what volcano is and why volcano erupts.	See Unit Test (1)
4. Students will identify some countries where there are volcanic occurrences.	Unit Test (1). Teacher will give students a short unit test (1) which includes the countries where there are volcanic occurrences.	See Unit Test (1)

Lesson 2

Objectives	Assessment Method	Student Performance
5. Students will list the kind of volcanos and describe their shapes.	<p>Unit Test (2)</p> <p>Teacher will give students a short unit test (2) which includes questions related to the shape of volcanoes.</p>	See Unit Test (2)
6. Students will describe the kinds of lava rocks, explain the textures, shapes, color and other properties of lava and magma.	<p>Unit Test (2)</p> <p>Teacher will give students a short unit test (2) which includes questions related to the properties of lava rocks.</p>	See Unit Test (2)
7. Students will describe the damage that the eruption of a volcano can bring to nature.	<p>Unit Test (2)</p> <p>Teacher will give students a short unit test (2) which includes damage of volcanic eruption</p>	See Unit Test (2)
8. Students will describe some of the myths related to volcanoes.	<p>Unit Test (2)</p> <p>Teacher will give students a short unit test (2) which the myths related to volcanoes.</p>	See Unit Test (2)

Instructor's Observation and Learner Evaluations		
Objectives	Assessment Methods	Student Responses
1. Students will show interest during the presentation of the volcanic eruption made by the teacher.	<p>Observation and Survey.</p> <p>*Teacher will use an observation scale that is checked by teacher and a survey answered by students to assess student responses.</p>	<p>Observation Scale (1-5): 1: Lack of Interest 5: Strong Interest</p> <p>Student Survey Scale: 1: I don't want to learn about it. 5: I love to watch it.</p>
2. Students will listen to the opinions of others , showing good attitudes of interaction, collaboration and exchange during the presentation of the survey questions and the recall of precious knowledge	<p>Observation and Survey.</p> <p>*Teacher will use an observation scale that is checked by teacher and a survey answered by students to assess student responses.</p>	<p>Observation Scale (1-5): 1: Not listening, Poor Attitude 5: Strong Collaborative Effort</p> <p>Student Survey Scale: 1: I don't want to learn about it. 5: I love to watch it.</p>
3. Students will show tolerance towards other children of the group (during "create a post-card group activity").	<p>Observation and Survey.</p> <p>*Teacher will use an observation scale that is checked by teacher and a survey answered by students to assess student responses.</p>	<p>Observation Scale (1-5): 1: Lack of tolerance 5: Strong tolerance</p> <p>Student Survey Scale: 1: I don't like my group member 5: I love my group.</p>



Procedural Breakdown

What is the course outline, the SPECIFIC, DETAILED steps?

The instructor needs to set up the classroom environment to assure its relevance of the reading topic which is information about volcanoes. The recommended decoration could be lava rocks or lava rock photo display; the exhibition includes pictures or posters of volcanic eruption.

Ideally, each student can have a book (the reading material) in their hands. If that could not be the case, the instructor can use Elmo projector to share the book with the entire class. At the very least, each ADHD student will have one book in their hand for extra assistance. The instructor will prepare experimental materials, and getting other necessities ready such as color pencils, flash card, construction paper, scissors, study guides, etc.; ADHD students will receive watch clocks and be informed that they could walk to the tool station to obtain polka dot stickers and distribute them to each group for self-grading.

Students will be divided into groups. If there are more than one ADHD students in the class, they can be dispersed into two smaller groups each composed of only 2-3 students and the rest of the regular students can form groups of 3-4 members. Before instructional time actually started, the learners will be allowed to walk around the classroom and look at the lava rock or poster exhibition. Students will be given the “Volcanoes” book, and other study tools such as word chart and study guides that are relevant to the reading materials.

The details of instructional procedures and materials have been included in the instructional material sections.

How will you measure that the learners accomplished the objectives?

The assessment and evaluation of the students’ learning results have been listed along with the objectives on the Task Analysis Section. Their participation in questions and discussion of the topic is a way to assess if the concepts have been learned. Their contribution in the completion of the study guides, vocabulary charts and adapted booklet are another source of evaluation. By ways of their writing in their answers to study guide questions, on their unit tests or the evaluation scales, we can measure their contribution individually, and in groups in the creation of the booklet. We will be able to evaluate their progress and whether they reach the main idea of the book.



Instructional Design Plan

What model or theory did you base your instruction on?

The course designed for ADHD students is based upon Gagne's nine step events and the Reigeluth approach in terms of dissecting course materials into bits and pieces to help students challenged with ADHD. The nine step events provide a clear logical sequence to integrate how students initiate their learning process through intrinsic stimuli and external activation of their interest then demonstrate what they have learned by transferring the knowledge into their environment. Under his perspective, the instruction is an activity of planning and execution of external events to the learning, with the purpose of influencing the internal processes to reach the objectives.

Charles Reigeluth argues that learning process should be organized from simple to complex order, thus his "Elaboration Theory" values a sequential instruction which allows students to explore many possible sequences and plots with their own decision. He also assumes that the sequence in which the learner makes contact with ideas influences learning. Thus, when the learner is present with great content and the elements of this content are strongly related, it is not enough to divide it and present it in parts, but it is necessary to interconnect the ideas in each step, to maintain the idea of the general. As previously stated, the sequence in which the learner comes into contact with ideas must follow an increasing order of complexity: starting with more general and broader concepts that the learner does not yet have, and gradually moving towards the smaller, more detailed concepts.

General Development Considerations

Methods of Gagne's 9 Step Events	Description
1. Gaining Attention	✓ Volcanic Eruption Experiment
2. Informing the Learning Objectives	✓ Verbal Explanation and showing slides of Learning Objectives.
3. Stimulating/recall of previous knowledge	✓ Asking questions
4. Presenting the Stimulus material	✓ Showing the learning material (Volcanoes book and lava rocks, photos, volcanic eruption pictures exhibition or video)
5. Providing Learning Guidance	✓ Verbal explanation and Create study guides to help student read the book in sequential manner and comprehend the main idea.

6. Eliciting performance	✓ In-class assignment: making a postcard related to volcanic eruption region and making a booklet as group assignment
7. Providing Feedback	✓ Using stickers, treats, or other positive reinforcement method to reward students giving the correct answer.
8. Assessing Performance	✓ Unit tests for students, survey for teachers and students
9. Enhancing retention and transferring knowledge into their own environment	✓ Homework assignment: perform a volcanic eruption experiment, or create a poster exhibited the data of volcanoes.
Reigeluth's Elaboration Theory	Description
➤ From General Concepts to Details	✓ Students will learn about the general concepts of volcanoes and explore more details about how it erupts and creates lava rocks
➤ Allowing students to explore the possible plots and sequences	✓ When students create a postcard and booklet of their own, they can re-organize the knowledge and use different plots and sequences.
➤ Interconnecting the idea of each steps	✓ By creating their own booklet in an adaptive manner, students could interconnect those ideas and concepts about volcanoes together.

General Development Consideration

Method	Yes/No	Description
➤ eLearning Development Tools	✓ Yes/No	Not provided at this time, but the AER Designers are working on the eLearning models.
➤ PowerPoint	✓ Yes	PowerPoints provided for instructors to show students the knowledge of Volcanoes.
➤ Audio	No	
➤ Videos	✓ Yes	Instructors could use age-appropriate volcanic eruption Youtube video as a supplemental material.

➤ Quizzes	✓ Yes	Unit Test (1) and (2), online Jeopardy game is created for the students as a supplemental learning material of this course.
➤ Photography	✓ Yes	Instructors could use online shared photography of volcano as supplemental materials
➤ Graphics	✓ Yes	Included in the instructional materials section and in implemental plan section.
➤ Social Medias	No	
➤ Handouts	✓ Yes	Study Guides and Unit Tests for students
➤ Pre-work assignment	No	
➤ Translation	No	

Instructional Pre-Requisites

- ✚ Students are expected to have level-2 reading and comprehension skills.
- ✚ Instructors are encouraged to learn about ADHD student’s condition and should have received information provided by students’ physicians,
- ✚ Instructor should not discuss students’ diagnostic condition with the class.
- ✚ Instructor should prepare all experimental materials before class.

Pre-Instruction

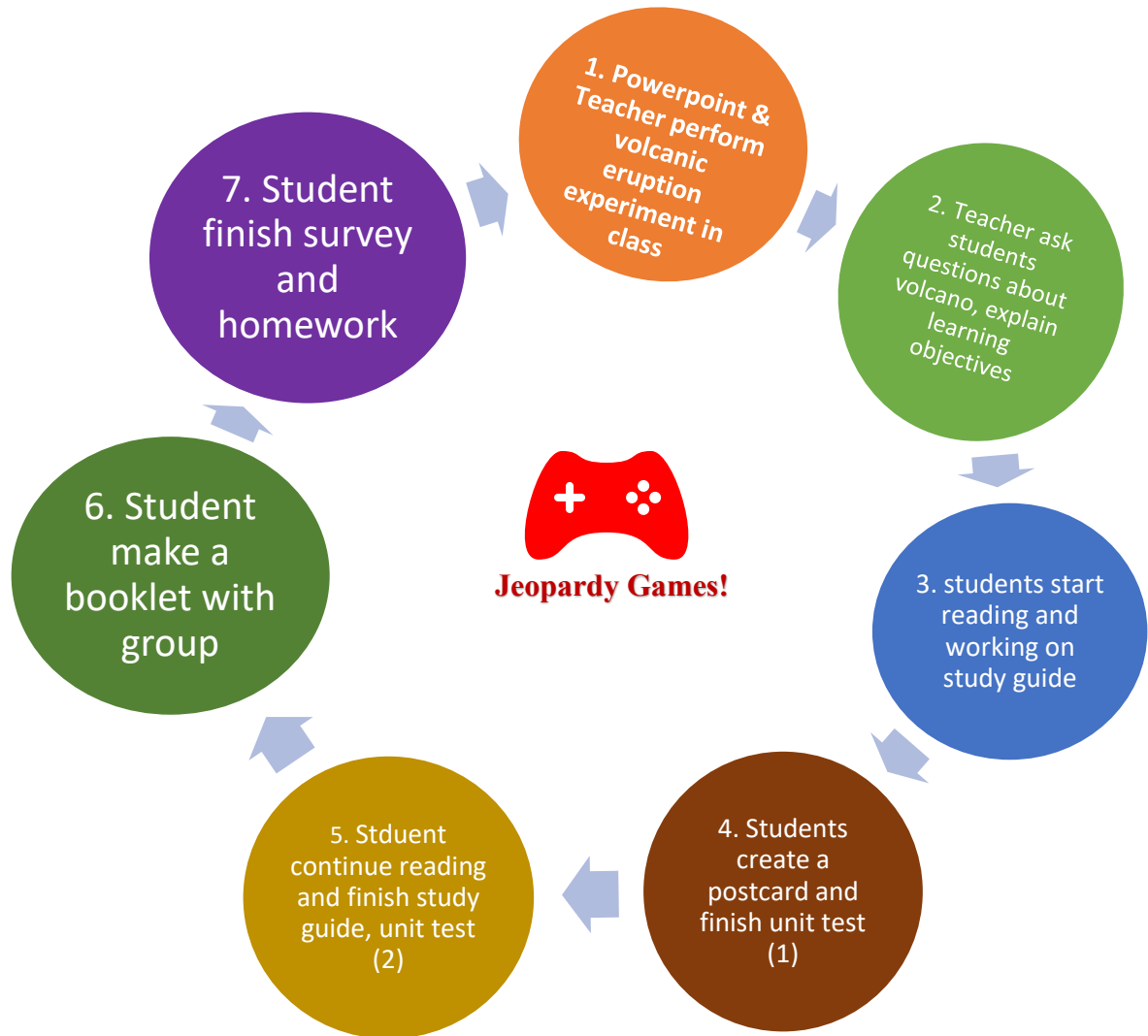
- ✚ Instructor should avoid offering excessive candies as positive reinforcement. Stickers or verbal compliments, exhibition of the students’ postcards, booklet, or posters from the homework assignment should be used as the major positive reinforcement methods.
- ✚ Instructors can arrange meetings with the Instructional Designers online or in-person (if available) to obtain extra support in lieu of questions or doubts about the instructional materials and procedures.

Post Instruction

- ✚ Analysis of survey questions that is completed by teachers can be provided to instructional designer as feedback and a point for improvement or upgrade the current version of instructional materials.



Rapid Prototype [Blueprints]



✚ The instructional materials start with the next page which can be used by the instructor for in-class instructional purpose. The instructor can also use the powerpoint slides we provided in this package as supplemental visual aid for visual learners.

✚ **Instructors could download Powerpoint Slides at the following link:**

<https://drive.google.com/file/d/0B2CbFaZBWQtAbnFUMmtxZEG5bmc/view?usp=sharing>

✚ **Jeopardy games created by AER designers could be found at:**

<http://jeopardylabs.com/play/a-journey-to-the-volcanoes>



Instructional Materials



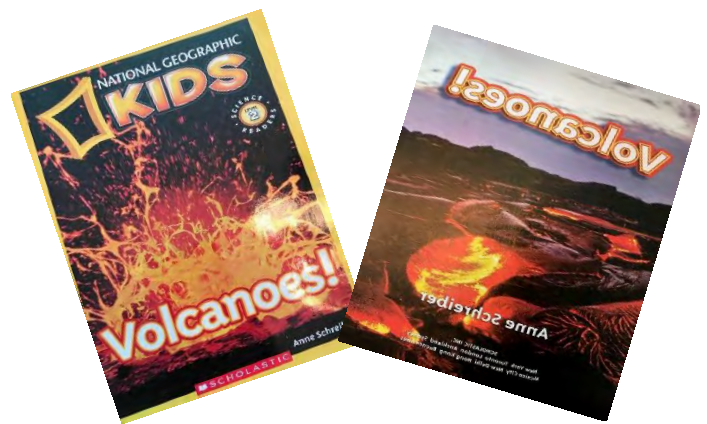
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Introduction

To help ADHD students stay focused on tasks is a challenging aspect for teachers, and it is especially difficult when the students are in their elementary school age. Having a strategically designed instructional plan targeting their weaknesses to promote concentration and accommodate their learning style is essential. The following course lessons are prepared for the ADHD students to overcome their struggles, and in particular, to help them focus on reading non-fiction books and learning materials at school. The book “Volcanoes!” used in this course as teaching material, written by Anne Schreiber (ISBN-13:978-0-545-11276-1), is a guide to connect students with hands-on activities and engage them in reading obligation in a classroom setting.



Learning objectives

- ✚ The students will show interest during the presentation of the volcano made by the teacher
- ✚ The students will listen to the opinions of others, showing good attitudes of interaction, collaboration and exchange during the presentation of the survey questions and the recall of previous knowledge
- ✚ The students will show tolerance towards other children of the group
- ✚ The students will explain the meaning of the vocabulary related with volcanos
- ✚ The student will explain the origin of the volcano
- ✚ The student will explain what a volcano is and why it erupts
- ✚ The student will identify some countries where there are volcano occurrences
- ✚ The student will list the kind of volcanos
- ✚ The student will describe the damage that the eruption of a volcano can bring to nature

Materials used in class

- ✚ Non-fiction book (“**Volcanoes!**” by Anne Schreiber)
- ✚ PowerPoint Slides
- ✚ Volcano scale model
 - baking soda
 - vinegar
 - a container to hold and organize everything
 - paper towels or a cloth
 - wax paper
- ✚ Flash cards
- ✚ Word charts
- ✚ iPad or computer Jeopardy game
- ✚ Colored pencils, crayon, construction paper
- ✚ Scissors
- ✚ Watch clock or alarm.
- ✚ Post cards
- ✚ Lava Rocks or Lava Rock photo
- ✚ Snacks and Treats
- ✚ Jeopardy Games

Lesson 1: Learning about Volcanic Origin

➤ **Classroom settings:**

First, you will need to prepare the classroom with not too many decorations that will distract students. Check if all the material provided is in order and be familiar with the content. Second, group students into sets of three or four. The organization of the groups is the next step of this activity, and it begins before the event in the classroom. The planning of this part is fundamental for the success of subsequent steps in the activity. Through productive groupings, there are more possibilities for good learning situations, and exchange among children. Their previous knowledge about the topic, and their collaboration with their partners will enrich the activity. The organization of the students in groups will benefit most the ADHD student, helping them to achieve their goals in reading and understanding nonfiction books.

➤ **Informing Goals to Students:**

Explain: “We are here to learn about volcanoes. We will be doing a lot of different activities, like reading, writing, drawing and searching on the internet. At the end, we will know new vocabulary and new facts about volcanoes!”

➤ **Retrieve previous knowledge:**

Ask questions such as:

- ✚ Have you ever heard about volcanoes?
- ✚ Have you seen volcanoes on TV?
- ✚ Have you ever visited a place with volcanoes?
- ✚ Can you describe what a lava rock looks or feels like?
- ✚ Why does lava come out of volcanoes?
- ✚ What causes a volcano to explode?
- ✚ Do you believe that volcanoes can cause damage in the nature?
- ✚ Why can volcanoes kill people?
- ✚ Are there different types of Volcanoes?

After answers and discussions, introduce the book that will be read (“Volcanoes” by Anne Schreiber). Show the cover page first and explain that our work will be supported by this book.






✚ ***A few errands for ADHD students:***

- ❖ ADHD students will estimate the time they need for reading page 1-13
- ❖ ADHD students will need a watch-clock or alarms to check and write down their actual beginning and end of reading time.
- ❖ When finish reading page 1-13, ADHD students will be allowed to walk to the tool station to obtain polka dot stickers and stick them on answers that are completed without teacher’s assistance.
- ❖ Once finished reading the entire book, ADHD will calculate how many answers they completed independently and grade themselves.

1.1 Experimental Procedure

To capture student's immediate attention, this experiment will be performed at the beginning of the class. The teacher will prepare the materials before class and show students in class the procedure of making a volcano out of baking soda and vinegar.

Procedure

1. Use a clean, empty soda can  as container for the purpose of receiving vinegar and baking soda.
2. Clay mountain as indicated in picture could be made by clay material using the soda can in the center of the clay mountain with a vent opening on top of the mountain. 
3. Mix vinegar with red food coloring and a tablespoon of liquid soap, and pour the mixture in the soda can which is at hollowed center of the  mountain.
4. Use paper towel and rubber band to make a semi closed end cone to pour baking soda into the volcano. 
5. Drop the baking soda roll into the vinegar filled volcano, it will explode when the paper towel dissolves. 

1.2 Study guide for reading activity- Part One

Reading Activities

The teacher will begin to read the first page of the book aloud. When the teacher finish reading the first page, she will assign a student to continue reading the next page, or part of the page, also aloud. If any student struggles to read all page aloud and the other students starts to lose focus on the activity, the teacher can help with the reading or just assign that student with a smaller part of reading. It is up to the teacher the choice of the next student that will be responsible for reading the following page. It is a strategy to keep them attentive during the activity, since they realize that they may be the next student to have to continue the reading activity.


Explain that after each page they finish reading, they will have a few minutes to write down unfamiliar words for the word chart, and also to answer the study guide questions related to the page that they are reading. There is a designated answer area for each question in the study guide, along with the number of the page beside each question. It is a way to avoid any kind of struggle in filling out the guide by the

student, especially for the ADHD students. The reading part is a group activity and the writing part in the study guide should be made individual. However, the teacher should allow and encourage the students to help each other in the same group if necessary.

✚ Reading materials: “Volcanoes!” by Anne Schreiber, Page 1-13

The following study guide is designed like flash cards so student will answer the questions on the empty side of the table, which will be cut into flash cards later or other shape on decorative paper and glued on construction paper to make a booklet. The purpose of this flash card design is to help student coordinate their hands by writing down information while reading the book. It also gives them a visual prospective of what their written answers will be used for.

1. What did you see in the cover page of the book? Who is the author? What is the purpose of copyright page? (Page 1-3)	
2. How did volcanoes form? What happens when magma reach the earth’s surface? (page 4-5)	
3. What’s magma? How hot is it? When magma comes out of the Earth, what is it called? (page 6)	
4. Where do crack and vent in the Earth come from? What are plates of earth? Do they crash into each other or pull away? (Page 7)	

<p>5. Where is the Mid-Atlantic Ridge? How does it form? (page 9)</p>	
<p>6. What's the name of the island that was formed when a volcano poured its lava out underwater and grew a new island in the country of Iceland? (page 10-11)</p>	
<p>7. What happen when plates bump into each other?</p>	
<p>8. Where is the Ring of Fire (Active Volcanic zone)? What happen frequently in the Ring of Fire? (page 12-13)</p>	
<p>Before break-time, ADHD students write the total time/minutes it took to get this far.</p>  <p>Stickers.</p>	<p>Begin time: _____</p> <p>End time: _____</p> <p>Total minutes: _____</p>



1.3 Learning by Doing

When finished reading page 1-13, students will make a postcard with their choice of theme and background, according to the information given in the book. The teacher can provide a few real post cards or collect some post cards images from the internet to show students as sample reference.

✚ Postcard project:

You will need: colored paper and pencil.

Give the following instructions to the students: “You will be creating postcards with these materials. I want you to choose one country or region from the Ring of Fire. If you want, you can draw a stamp on the upper right corner of the postcard.” (Check to see if they have questions about the activity. You can show some sample postcards.)

Ask ADHD students: “How long do you think it will take to make the postcard?” (Write down their answers). At the end, record the actual time spent finishing the project

✚ Postcard Samples



Unit Test (1)

Vocabulary

Explain the meaning of the following words or describe what it is with a short sentence.

Eruption: _____

Lava: _____

Magma: _____

Magma Chamber: _____

Vent: _____


Short Answers

Use your own words to explain the following events.

1. How is a volcano born?
2. What is volcano and why it erupts?
3. What are some of the countries that are located on the Ring of Fire?
4. Where do cracks and vents in the Earth come from?

Break Time!



-  ADHD students will need a break from reading activities. During break time, they can either listen to music, watch a volcanic event video, or use a computer to play a jeopardy game that is related to volcanic events. They could also have a small healthy snack or treats if they have a score above 80% of their answers correctly.

Lesson 2: Myths and Geography of Volcanic Events

Students will continue to read page 14-32 and answer questions on the empty side of the table. Again, ADHD students will estimate their reading time and given a watch clock or alarm so that they can write down the actual time it takes. They will also use polka dot stickers to count the number of correct answers they completed without teacher's help.

When students finish reading and writing down the answer, teacher will provide lava rocks or photos of lava rocks.

Reading Activities: Part 2

You will need: The book, the study guide, pencil and eraser.

Ask ADHD students: "How long do you think it will take to finish the reading?" Record the estimated time.

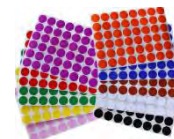
Once again, the teacher starts reading the first page and then students will take turns. The teacher will choose the students who will read the following pages. It is a strategy to keep them attentive during the activity, since they realize that they may be the next student to have to continue the reading activity. Ask students to complete study guide, questions 9 to 22.

When this activity is finished, record the actual time it took for students to finish the reading and writing. Compare the estimated time and the actual time.

Hands on Activity:

You will need: stickers.

Allow students to collect stickers for every question answered in the study guide. This time asks them to count the total number of stickers each one has. This activity has a self-grading purpose.




Stickers!

Lesson 2.1: Study guide for reading activity-Part Two:

<p>9. What is the largest volcano in the solar system? What kind of lava creates a gentle, sloppy volcano? (page 16)</p>	
<p>10. Describe the Hawaiian myth of Pele? (page 17)</p>	
<p>11. Describe what a cone volcano looks like, and how long it can last. (Page 18-19)</p>	
<p>12. What do you know about the Paricutin Volcano? (page 19)</p>	
<p>13. Describe what a stratovolcano looks like and how it forms. (page 20)</p>	
<p>14. Describe the Roman myth about Vulcan. (page 21)</p>	

<p>15. Can you write down the true story of crater lake? (page 22-23)</p>	
<p>16. Volcanic rocks. (page 24-25) write down the names of different types of volcanic rocks. If you can, draw a picture.</p>	
<p>17. What is one interesting fact you found about Indonesia in the book? (page 26)</p>	
<p>18. What place has the most volcanic activities? Can you name a few record breaking volcanic eruption? (page 27)</p>	
<p>19. Can you describe what Hot Spots are in terms of volcanic activities? What is one special thing you found about Hawaiian Island? (page 28)</p>	

<p>20. What interesting fact did you find about the Kyushu island in Japan? And In Iceland? (page 29)</p>	
<p>21. Tell us something about the volcanic activities in Yellowstone National Park.(page 30-31)</p>	
<p>22. Word Chart: write down the following new words and what they mean. Caldera, Magma, Magma chamber, Tsunami, Eruption, Vent. (Page 32)</p>	
<p>Record the actual time it takes for students to finish the reading and writing, and add the previous reading time together as a sum.</p>	
<p>Student will calculate how many correct answers completed without help from teacher and write down the actual reading time and compare with estimate time.</p>  <p>Stickers Total: _____</p>	<p>Beginning of reading: _____ End of reading: _____</p> <p>Total actual reading time: Page 1-13: _____ Page 14-32: _____</p> <p>Grand Total: _____</p>

🚦 Mini-Break Time:

You will need: iPad/tablets.

Students will be allowed to use iPads/tablets to search for volcano images or volcano activities. Give children around 10 minutes.



Lesson 2.2: Learning by Doing

+ Group Discussion

Students will touch the Lava Rock or looking at the Lava Rock picture, describing how they look and how they feel. Students will also describe the color, texture and other information they learned about Lava Rocks in the book.

Lava rock or Magma pictures (*photos credited to national geographic magazine*):



+ Group Project: Group Project In-Class



You will need: Colored paper or construction paper, print outs of volcanic pictures, colored pencils, glue.

Reorganize students in the same group again. Give the following instruction: “You will cut out the study guide and compare your answers with the other students of your group, then choose the best answer for each question and stack them together to make a book.” The teacher will provide construction papers, students can choose the size of the book according to their own preference.

When they finish selecting their answers, give instructions to the cover page: “In the cover page you need to write the book’s name Volcanoes, the author’s name (Anne Schreiber) and the student’s names”. Encourage students to draw their volcanic pictures or glue pictures that were cut out from printing materials.

- + Ask students: “How long do you think it will take to finish the construction project?”. Write down their estimate time. Allow them to use a clock watch to set the actual time.



Unit Test (2)

Vocabulary

Explain the meaning of the following words or describe what it is with a short sentence.

Caldera: _____

Tsunami: _____

Geysers: _____

Stratovolcano: _____

Cone Volcano: _____

Short Answers

Use your own words to explain the following events.

1. What is the largest volcano in the solar system? What kind of lava creates a gentle, sloppy volcano?
2. What place has the most volcanic activities? Can you name a few record breaking volcanic eruption?
3. Volcanic rocks. Write down the names of different types of volcanic rocks.
4. Tell us something about the volcanic activities in Yellowstone National Park?

Lesson 3: Course Evaluation

✚ In-class evaluation of reading comprehension:

1. Did students finish their reading and study guide project in time? What is the difference between their estimated and actual activity time?
2. Teacher will evaluate the attention and participation of each ADHD student during the process
3. Jeopardy game or Bingo game: Award can be given to winners. Prize may include cutely shaped erasers, pencils, stickers, tiny toys, etc.

✚ Grade the students' unit tests to check their learning outcome and use student survey to compare with teacher's observation scale to find common ground for improvement. (Teacher and Student Survey are attached

✚ Homework assignment as assessment

Allow students to choose one of the following activities as homework

- Make their own volcano at home
- make a video about volcano
- make a poster about volcanic eruption.



End of Class

Instructional Implementation Plan



Instructional Delivery

- ✓ Online Learning
- ✓ Classroom
Webinar (N/A)
Manual (N/A)
- ✓ Blended (classroom & online)

Communication Plan



This instruction is designed to be delivered by teachers of third grade of Elementary School. To implement this project in a school, it will need to be accepted by the principal and counsellors. The teacher will have a tool to evaluate students' abilities. We will introduce the material and instructor's guide to the teachers and give a brief explanation about the content.

The instructional designers will explain about the book "Volcanos", the presentation of the scale model volcano, and all other materials needed for the execution of the lesson plan. After that, we should allow time for the instructor read the material and check for possible doubts in the execution of the lesson plan. The study guide is clear and easy to follow and work in the class. However, questions that may arise before the implementation of the instruction. As stated previously, what may seem like an easy plan to be executed may not work as desired when applied. For this reason, it is important to be ready to exchange information or to clarify doubts in this phase of implementation for those that are being informed about the plan.

In the real world, the instructional designers should be available to clarify any part of the process. We know that it is not always possible to meet in person with the instructional designers. However, we should be able to clarify doubts at least by email or using any other technology. According to Roger's diffusion of innovation theory, individual talking is the more effective way to get adopters.

In addition, this instruction will be useful for teachers because it is not so different from other activities they already conduct in class. The benefits of this activity will be easily perceived during all the process. The instructor will have constant feedback from the students. It is no waste of resources because the materials are quite simple.

It is of prime importance that instructors have in mind that every group or class is unique and individual and changes, and additions may be necessary to adapt the guide for their student groups. taking special consideration of the ADHD children is the main reason of this project.

Change Management Plan



According to CLER model, "the implementation strategy is a means of specifying how to communicate information about an instructional product and to whom". "An implementation plan identifies the various configurational relationship and then identifies ways to manipulate and capitalize on the configurations to facilitate the process " (Morrison, 2013), and it is paramount to guarantee the best implementation of our planning class. Configuration involves the network of relationships. In our case, the organization is an Elementary School. The relationships in a school includes teachers, students, principal, all the staffs. In our instruction, positive relationships are crucial to promote an adequate environment and achieve our objectives.

The Delivery Time

Even though it is not necessary to list any specific date or month of the year for the delivery of the instruction, the total instructional time could be estimated around 35-40 minutes.



Implementation of Instructional materials

The Comprehensive Guiding Steps of Lesson (1) for Instructors

The details of instructional materials have been included in the instructional material section, the following steps is a step-by-step guide which in a quick glance to help instructors prepare and implement the instruction in a logical sequence.

1. Preparing teaching tools that will be used in class. It includes Elmo projector if books are not available for each one of the students, volcanic eruption experimental materials, study guides, word charts, color pencils and crayons, construction paper ...etc.

2. Divide students into small groups. Give ADHD students the watch clock, and time table for time estimation.
3. Present volcanic eruption experiment before reading.
4. Interaction with learners: asking learners questions that are related to volcanic eruption, and help them recall previous knowledge.
5. Distribute study guides to help students on their reading. Inform ADHD students to estimate the total reading time from page 1 to page 15 and write down their estimation. When reading starts, ADHD students will use the watch clock to record the actual reading and study guide activity's completion time.
6. Introduction of Reading Materials: "Volcanoes!" by Anne Schreiber. Encourage student to describe the cover page, copyright page and write down author's name on study guide.
7. (Teacher) Start reading the table of contents and inform student that they will stop at page 15 for the first part of the lesson. (Lesson One) Reading the Table of Contents allows students to know roughly the information they will obtain.
8. Students will read page 4-5 and write down the vocabulary words on their word charts; they will look at their study guide and answer the questions on study guide 1-2.
9. Teacher could alternate the group or individual that will read the next page 6-7; after reading, students should answer the questions and write them down on study guide No.3-4. On page 7 of the book, there are vocabularies that need to be written down on the word chart. (Magma, Magma chamber, vent, lava...)
10. Reading of Page 8-9, ask students "where do cracks and vents in the Earth come from?" Students will write down their answers on study guide 5-6.
11. Continue the reading of page 10-11, for ADHD students, give them opportunities to represent their group reading aloud. All students will write down answers for study guide No.6-7.
12. Everyone in the class read aloud together on page 12-13, write down their vocabulary word Tsunami on their word chart. And answer the questions on study guide No.8.

Break-Time!

It is now a mini-break time. ADHD students will record the actual reading and activity time that it takes him/her to finish up to page 13, and they will need to walk to the tool station to obtain polka dot stickers and stick them on the study guide answers that are completed without extra help from teacher or from their group's task manager.

*ADHD students will be allowed to use iPad or classroom computer to search volcanic eruption video or volcanic jeopardy games for 5-10 minutes. The rest of the regular students may go drink water or have a bathroom break, or simply get ready for the group project in class.

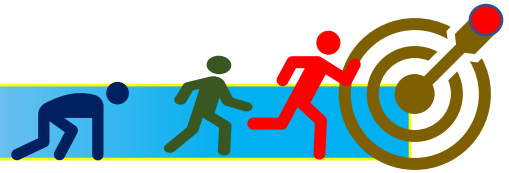




The Limited Guiding Steps of Lesson (2) for Instructors

13. Likewise, the students will finish reading the book according to the study guides 9-21; the students will write down the unfamiliar words and answer all of the study guide questions in written form.
14. Group project: each group of students will cut out their study guide answers, select the best answers in the group and glue them on construction paper to make a booklet. The teacher could provide the students pictures printout from online or the students could draw their own picture of volcano.
15. At the end of the class, the teacher will announce the three options of homework assignments and distributing survey for the students to fill out.
16. The teacher could collect the survey from students and send feedback to the Instructional Designers for improvement or suggestions.

Measuring Success



Our goal is to help ADHD students stay focused during a reading activity of non-fiction books. To evaluate the students' learning results from their performance during the entire class, their participation in questions and discussion of the topic is a way to assess if the concepts have been learned. Their contribution in the completion of the study guide, vocabulary chart, unit tests and adapted booklet is also another source of evaluation. We can measure their contribution individually by way of their writing in their answers to study guide questions, the capacity of completing homework assignments, and in groups in the creation of the booklet. We will be able to evaluate their progress and whether they reach the main idea of the book or article.

New Improvement on Teaching Materials

Considering our observation during the trail presentation implemented by other classroom instructors, we added a set of PowerPoint supplemental materials as an extra teaching tool to help the classroom teachers more effectively deliver their lessons; it also helps those visual learners who depend more on visual stimulus to easily comprehend the learning materials. Secondly, the jeopardy game that we recently created for this volcano lesson can contribute to enhancing the learning experience of both ADHD students and regular students. By evaluating the feedback from the teachers regarding to the students' performance and responses, the AER Instructional Designers can measure how effective the learning materials and the procedures work on the ADHD students, including the regular students in classroom settings.

Feedback from the Classroom Teachers

Based on the feedback we received from our fellow instructors, we measured the effectiveness of our instruction. It seems that the class was interactive and engaging. The tasks proposed were achievable and the activities varied and the children were attentive all the time. Another important aspect from our feedback instruction related to the reward system. In the trail presentation the instructor had an excessive use of candies. In fact, using stickers instead of candies would be more appropriate for elementary school students. Overall, we believe that the class gave a positive feedback on our instruction. It is fundamental that the instructor be aware that each group is unique and the dynamic in each section can change.

Assessment Surveys for Students to Complete



Students' Survey Scale

1. On a scale 1-5, 1 for "I don't like it", 3 for "I kind of like it", and 5 for "I love it!", circle one to tell us how much do you like the Volcanic Eruption Experiment?

1	2	3	4	5
I don't like it	It is OK	I kind of like it	I like it!	I love it!

Comments:

2. On a scale of 1-5, 1 for "I don't like to work with group", 3 for "I am OK to work with group", 5 for "I love working with group", circle one to tell us how do you feel about working with group.

1	2	3	4	5
I don't like it	It is OK	I kind of like it	I like it!	I love working with group

Comments:

3. On a scale of 1-5, tell us how much you enjoy other group member's idea. 1 for "I don't like others' idea", 3 for "I am ok with others' idea" 5 for "I enjoy other group member's idea"

1	2	3	4	5
I don't like it	It is OK	I kind of like others' idea	I like it!	I enjoy others' idea

Comments:

Assessment Surveys A-B-C: For Teacher to Complete

Teacher's Observation Scale A: Student Interest Assessment

On a scale of 1-5, 1 for lacking Interest and 5 for strong interest, the teacher will observe students' responses while performing the experimental procedure assemble Volcanic Eruption.

Group 1. (2-3 students, one of them is student with ADHD)

1	2	3	4	5
Lacking Interest		Moderate amount of Interest		strong Interest /excitement

Comments: _____

Group 2. (2-3 students, one of them is student with ADHD)

1	2	3	4	5
Lacking Interest		Moderate amount of Interest		strong Interest /excitement

Comments: _____

Group 3. (3-4 Students, none is ADHD)

1	2	3	4	5
Lacking Interest		Moderate amount of Interest		strong Interest /excitement

Comments: _____

Group 4. (3-4 students, none is ADHD)

1	2	3	4	5
Lacking Interest		Moderate amount of Interest		strong Interest /excitement

Comments: _____

Group 5. (3-4 students, none is ADHD)

1	2	3	4	5
Lacking Interest		Moderate amount of Interest		strong Interest /excitement

Comments: _____

Assessment Surveys A-B-C: For Teacher to Complete

Teacher's Observation Scale B: Students' Collaborative Effort

On a scale of 1-5, 1 for not listening to others, no collaborative effort, 5 for good attitude and working together, the teacher will observe students' responses while asking volcano related questions and helping students recall previous knowledge.

Group 1. (2-3 students, one of them is student with ADHD)

1	2	3	4	5
Not listening		Moderate effort to work with group		Good Attitude and Collaborative

Comments: _____

Group 2. (2-3 students, one of them is student with ADHD)

1	2	3	4	5
Not listening		Moderate effort to work with group		Good Attitude and Collaborative

Comments: _____

Group 3. (3-4 Students, none is ADHD)

1	2	3	4	5
Not listening		Moderate effort to work with group		Good Attitude and Collaborative

Comments: _____

Group 4. (3-4 students, none is ADHD)

1	2	3	4	5
Not listening		Moderate effort to work with group		Good Attitude and Collaborative

Comments: _____

Group 5. (3-4 students, none is ADHD)

1	2	3	4	5
Not listening		Moderate effort to work with group		Good Attitude and Collaborative

Comments: _____

Assessment Surveys A-B-C: For Teacher to Complete

Teacher's Observation Scale C: Students' Tolerance toward others

On a scale of 1-5, 1 for "Poor Tolerance", 3 for "Moderate behavior, talk to other but somewhat reluctance", 5 "excellent attitude, work together well", the teacher will observe students' responses while students create a post card about the Ring of Fire counties as a group activity.

Group 1. (2-3 students, one of them is student with ADHD)

1	2	3	4	5
Poor Tolerance toward others		Moderate behavior		Excellent tolerance

Comments: _____

Group 2. (2-3 students, one of them is student with ADHD)

1	2	3	4	5
Poor Tolerance toward others		Moderate behavior		Excellent tolerance

Comments: _____

Group 3. (3-4 Students, none is ADHD)

1	2	3	4	5
Poor Tolerance toward others		Moderate behavior		Excellent tolerance

Comments: _____

Group 4. (3-4 students, none is ADHD)

1	2	3	4	5
Poor Tolerance toward others		Moderate behavior		Excellent tolerance

Comments: _____

Group 5. (3-4 students, none is ADHD)

1	2	3	4	5
Poor Tolerance toward others		Moderate behavior		Excellent tolerance

Comments: _____



❖ Instructional Designers' Roles

The Project was a collaborative effort by all members of **Team AER Designers**. The breakdown of contributions by members is indicated in Table 2.

Table 2. Report Contributions by Team Members

Andrea	Erika	Rachel	Observations
<ul style="list-style-type: none"> • Justification of instructional approach/theory/model • Instructional decisions • Analysis and Formative Evaluations • Writing of instructor guide • Instructional implementation plan • Writing of Summative Report • Summarization of feedback from trail presentation. 	<ul style="list-style-type: none"> • Justification of instructional approach/theory/model • Instructional decisions • Analysis and Formative Evaluations • Writing of instructor guide • Instructional implementation plan • Writing of Summative Report • Summarization of feedback from trail presentation. 	<ul style="list-style-type: none"> • Justification of instructional approach/theory/model • Instructional decisions and developing of lesson plan and Instructional procedure • Analysis and Formative Evaluations • Developing and Writing of Instructor's Guide/Students' study guide. • Visual design • Writing Instructional Implementation plan & Summative Report • Adding Evaluation & Assessment Section. • Creation of Powerpoint slides for teachers use in class and Jeopardy Games for learners. 	<p>By having similar profiles and routine schedules we could organize our time and our online meetings very effectively. All members of AER designers' group work very hard to complete the project and assure its quality will meet the instructors' requirement. The group enjoys the collaborative effort as a means to achieve a common goal for success.</p>

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