Grade 3 Learning Plan:

The Earth (and how it provides for us).

(http://visilbeearth.nasa.gov/view_rec)1

Prepared for: Miss Britton's Grade 2/3 Class at Grant Road School

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Introduction

Scope(Unit Description): This learning plan, The Earth (and how it provides for us); is a unit that focuses on the grade three core science unit, Earth, while providing an interdisciplinary approach by integrating art, social studies, health and math, all while exploring and learning about the earth-its surface features, composition and crust. Within these areas we examine the ways in which the earth provides for us. We will be looking at other disciplines within our unit Earth, and we will be pulling from both the grade two and three curriculums as I am in a multi-grade classroom. I have organized the lesson plans and learning experiences in a sequential order, but I am flexible and willing to go wherever the students want to take us.

Sequence: This science unit is set up so students learn how the earth provides us with a home, food and water, and how humans impact and affect the earth. I have started by introducing the earth as a sphere and examining the surface features of the earth, especially looking at how much water covers the earth. Following this lesson we will examine how important water is to us, and how much water makes up our bodies. From there I move on to the structure of the earth, core, mantle and crust, we will learn about the structure of the earth through interactive and experiential activities. From here, I go into the different types of soil, and how to identify soil by their components, we will be exploring soil and rocks, and using these materials to create works of art, and to learn about weight and measurement in mathematics. After exploring rocks and soil, we will talk about the importance of soil to agriculture, and look at what kinds of foods come from the earth, and we will look compare whether foods strait from the soil and healthier than foods that are processed. We will have a nutritionist come speak to us, to answer out nutrition questions. To wrap up the unit, we will be cleaning up the school yard, and community, to make the earth we occupy a better place, and brainstorm ways, to reduce the amount of water we use, and other was to lessen our impact on the environment.

Rationale: My hopes are that the students will see how vital a healthy earth is to our well-being, and thus realize how important it is for us to do what we can to reduce our impact. In knowing the features and structure of the earth, students will be able to see the ways in which the Earth provides for us, thus forming a connection with the Earth, and hopefully then seeing the need to take care of the Earth. Sustainability is a real and relevant issue in today's world, and this learning plan is a way of introducing this to students.

Essential Question: What is the earth and how does it provide for us?

1. What is on the surface of the earth?

2. What makes up the earth?

3. Why is water important to humans?

4. What makes up soil?

5. What foods come from the earth?

6. How can we take care of the earth?

Foundational and Learning Objectives:

The following foundational and learning objectives are mandated by the provincial government for the grade three science curriculums. The unit earth is a core unit.

1. Describe the structure of the earth:
   - Recognize the structure of the earth
   - Identify the core, mantle and crust as the layers of the earth

2. Describe the characteristics of the crust:
   - Observe and describe the surface of the local area
   - Observe and describe the composition of soil
   - Identify the types of soil by their composition
   - Describe the process of soil formation
   - Recognize the importance of soil
   - Consider the interdependence of agriculture and soil

Curriculum Connections

My unit on the earth is planned in an interdisciplinary way with science as its foundation. Art, math, social studies, and health are all integrated as lessons within the unit. Other areas such as physical education, and language arts. I am pre-interning in a two/three combined classroom, so curricular connections are applied to grades two and/or three.

Social: This unit can be tied into the grade three social studies module on 'Interdependence-Meeting Needs through Agriculture'. In our learning plan we will be examining the way in which the earth provides food and nourishment for us through agriculture, and we will be using grocery store flyers and making a collage of the foods that come directly from the earth, then we will discuss how grains and other agricultural products are used in other food we eat, and we will add these indirect products to our collage. We will also work on seeing the Earth as a provider of our needs, building a sense of a 'global community', and we will work with identity by using a natural medium on which to represent ourselves.

Arts Education: This unit can also be tied into the mini-unit of the natural environment in the grade three "Learning to See" strand. Students will be using soil, dirt and rocks and producing their own representations of the earth, and representing themselves on a rock. I want the students to see that the natural materials can provide mediums on which art can be produced, and I will bring a painted sea shell that I purchased in the Dominican Republic as an example, and a carved rock.

Health: This unit fits nicely with the grade two health units on healthy snacking (USC2.2), and the grade three units on healthy foods (USC3.1). We will be doing activities that explore the importance of water, where healthy foods come from, and what healthy foods are. We will be having a nutritionist come speak to us, to answer our nutrition related questions, and to show students that there are people who specialize in nutrition, so that they know where they can turn for help and advice in this area.

Math: In starting this unit, we will be distinguishing between a circle and a sphere, which is revisiting basic geometry, and mandated in the grade two math curriculum in (SS2.2), ' Describe and compare 3-D objects including cones, cylinders and spheres'. We can compare a sphere to a circle and discuss what

composes a sphere, versus a circle. When exploring soil and rocks we can tie this unit, and explore math concepts mandated in the grade two curriculum by 'demonstrating an understanding of non-standard units for measurement of mass by, estimating, comparing, analyzing and measuring' (SS2.2). We will be comparing measurements of weight of rocks and soil, using a balance, and estimating which of two options will weigh more. We will also be working with standardized units of measurement in creating our art medium such as measuring and recording mass (SS3.2).

Aboriginal Content: I will introduce the unit by reading the First Nations' creation story of Turtle Island. This story is found in the Treaty in the Classrooms workbook, and I will begin by explaining what a legend is, and tell how First Nations people record their history through oral stories, I will ask them to open their imaginations and visualize the legend as I tell it. I will also speak of how First Nations peoples used the earth to provide for them as we do, but that they felt a strong connection to nature and the earth, and that they did what they could to keep the earth healthy and respect it.

Technology Integration: Laptops will be available for students to explore interactive websites that reinforce concepts of the earth, and to further their knowledge of the earth. The computers will be made available for students who finish their work early, and will be placed at the back of the classroom, where they will not disrupt the students who are still working. My teaching partner and I are also planning on using a blog, in which our student will have nicknames they use and can share with their families, and can blog about what they are learning within our learning plans. This tool can also be used as a form of assessment to see if the students are engaged and understanding the material being taught.

Adaptive Dimension: I will ensure that my learning environment is one in which all my learners feel comfortable and empowered, I want them to feel free to ask any question, and I do not want them to be scared to make a mistake, as I feel mistakes often lead to the best learning opportunities. After having spent time in the classroom throughout the year, I am aware of which students need wiggle room, and which need to be seated closer to me when we form a circle to read stories, and have group discussions. I have also noticed that when the students are in their desks, it is most effective for me to walk around, and disperse myself throughout the classroom, rather than sit at the desk, or stand in one area. I will also ensure that I do not employ the same teaching strategies throughout my lesson plan, as I know that not all the students learn in the same way, I will ensure I have some independent learning, some group exploration, and visual, auditory and kinaesthetic activities.

I also plan on starting each lesson with asking my students how they are doing, so that they have a chance to express their feelings, thoughts and concerns, and so they have a feeling that I am there listening to them, and to give them a sense of having their voices heard, even to matters that are not academically related. I think that by giving students to express their thoughts and feelings to start with, then they may be able to be more engaged and involved in the lessons.

Assessment/Evaluation: Throughout my three-week block, I will use the student' blogging, their science journals, self-assessments, checklist style observations and anecdotal records (for a few students and this will be difficult to do over three weeks with 27 students). I also plan on talking often and getting to better know the students' and these conversations will give me insight into how they are handling and comprehending the material. Two worksheets are being employed along with a rubric (that is going to be completed in the field so I am aware of what fair expectations and fair criteria are for my students).

COMPREHENSIVE SCHOOL HEALTH APPROACH:

Teaching and Learning- The learning plan 'Earth', uses cross-curricular learning opportunities to teach issues dealing with health. In doing this students are able to learn that health is multifaceted, an area that affects many aspects of our lives. The students will be using the knowledge they receive about nutrition to problem solve and choose the healthier of two food choices. I will use my assessment of students to guide whether we rebuild, or dive further into areas of learning. A guest speaker will join us to answer some of the students' 'burning' questions, and to show students that health professionals include people other than doctors.

Health and other Support Services- Due to the lack of time spent in the classroom, with the students, I do not feel I will be able to make referrals, screenings etc...

Social Supports- I want to create a space before each of my lessons where we do a 'check in' to make sure the students are okay, or to let one another know if we are sad, stressed etc, and we can support each other and show that we care, by hearing and listening to one another.

Healthy Physical Environment- My coop teacher has set up a very positive and healthy physical environment, the students are allowed to have water bottles in class, and she sends them by table groups for frequent bathroom breaks or drinks from the water fountain. Bullying issues are addressed right away, and respect is modelled and encouraged. "Energy Blast" videos are used to get the students up and moving for small amounts of time, and physical education time is well used, and not used as a reward not taken away as punishment. I can take away some great ideas from my coop teacher, and would love to provide the same kind of atmosphere for my future students.

Learning Plan Outline & Ideas

Lesson 1: Introduction to the Earth, and its Surface Features.

-Round Like a Ball by Lisa Campbell Ernst- Could kick off our unit plan, gets children guessing what our topic is while describing aspects of the earth, beginning with 'its round like a ball', 'it has many beautiful colors', 'we have to take care of it' etc...

-Turtle Island Creation Story from Treaties in the Classroom handbook.

OR The Woman Who Fell From The Sky, retold by John Bierhorst

-Difference between a sphere and a circle. Have students list things that are circle and list things that are spherical....have examples.

-What is the earth? Where did it come from? There is not one set story or explanation so groups of people have come up with myths or legends as to how the earth came to be.

Lesson Two: The Earth, Water and Us.

-Look at NASA satellite pictures of the earth; look at a globe, what is on the earth?

-What covers most of the earth? Land or water?

-To answer this we will toss around an earth beach ball, one child will act as recorder and record where the students' thumb of their right hand lands, on water or on land. After fifty throws we will total up our landings on water and land (if all works out right, over half should land on water).

-Where is water from? Is water important to us? Water Bodies Activity from Project Wet.

-Have Arctic Tale book out and available for students to explore.

Lesson Three: Structure of the Earth

-To introduce this lesson I will have simple depictions of the core, mantle and crust of the earth. I will point out the core and explain that the earth's core is solid, and very, very hot. The next layer is the mantle, is molten, a type of liquid, not solid, this is because the core is so hot, it warms the rock of the mantle making it a liquid. The earth's crust is made up of rock, and is the part that we, humans, live on.

-Boiled egg as comparison.

-Earth balls activity, marble, play-doh and sprinkles.

Lesson Four: Soil Formation and Exploring Different Types of Soil.

-Rocks and Soil book, Neil Morris, offers soil formation explanation in child friendly language, I will read this section to the children.

-"Soil is made up of weathered rocks and organic matter. Weathering agents break rocks into smaller pieces. These pieces are mixed with decaying plant and animal matter. Soils vary greatly depending on the type of rock particles and the amount of organic matter they contain. The quality of soil for growing plants is based on two factors: The soil's ability to hold the appropriate amount of water, and the soil's nutrient content. When mixed with water and settled out, soil can be divided into its component parts. Larger particles will settle our first, smaller ones will settle out last. Earthworms improve soil by mixing it

up and digging tunnels that allow water and gases to circulate freely around the plant roots." (Evan, Moore, 58). I will use this in its whole-as background information for myself.

-Examination of sand, clay and shale samples.

-Have children collect samples from their yards, gardens, put on plates and explore the parts.

-Exploring with earthworms-creating a worm farm.

-Art: soil, glue and paint concoction, represent the earth in your own way. (Dirt and glue keep shape).

-Ask children to look for rocks, stones near their homes and on the playground.

-Math rocks-we will work with mass, comparing, estimating which rocks and stones weigh more and which weigh less.

-We will be using the rocks, to represent ourselves, by painting or carving on them; show other art forms that are on a natural medium rather than a produced material.

Lesson Five: Soil and Agriculture and Us.

-When we explored with the worms, what did we learn they did for soil? This would make the soil better for growing things in, when we grow grains and fruits and vegetables in the ground it is called agriculture.

-What kinds of foods come from the ground?

-Foods from the Ground Collages-need grocery store flyers for this.

-What kinds of foods are grown in Saskatchewan?

-Compare foods to see which is healthier, have the children say which comes from the ground.

-Nutritionist visit.

Lesson Six: Taking care of the Earth.

-Brainstorm ways to clean up and care for the earth-do on chart paper.

-Looking After My Environment by Neil Morris- Good way to follow up our brainstorm, sees how we compared to the kids in the book!

-Go for walk around school grounds, clean up litter, etc...

-The Last Polar Bear- A book that shows the staggering effects of global warming/pollution on animals.

-Arctic Tale- Lets students look at real life effects of global warming.

-Movie Ferngully-This may be a nice way to end our unit, it shows how our earth is changing, and I can bring in some healthy choices for snacks while we watch this

-Video-Planet Earth- Caring for Our Environment.

Learning Plan Resources:

Books:

Amazing Planet Earth by John Farndon. (2004).

This is a great resource book, it's an encyclopaedia that covers everything earth related. I will make use of this depending on where the emergent curriculum may go, and as a reference book for my own information.

Arctic Tale by Linda Woolverton. (2007). ISBN #978-1-4262-0065-6

This is a beautiful National Geographic book featuring actual pictures of a herd of walruses and polar bears, narrating the cubs' first year of life. The book shows insight into the effects of global warming on wildlife as the bear can not find ice flows to rest, and the walrus has a difficult time finding food to survive. Though we will not cover the book in class I will put it out for independent reading time for the students to explore on their own. The pictures are fantastic and give an appreciation for the wilderness, and nature.

Diary of a Worm. (2003). ISBN # 10:0060001518

This is a fun story book that tells about the secret lives of worms! It is perfect for introducing our exploration with worms!

Earth Science for Every Kid by Janice VanCleave. (1991). ISBN #0-471-53010-7

This book offers ideas that illustrate scientific concepts, I have not included any in my unit plan, but would be good for higher grade levels, as the concepts are not geared to early elementary

If the World Were a Village by David. J Smith. (2002). ISBN #1-55074-779-7

Powerful book that really looks at differences on many levels, from Nationalities to money and possessions; builds the sense of a global community. I love this book.

Looking After My Environment by Neil Morris. (2008). ISBN #978 1 59566 543 0

A wonderful book about how we can make a difference in caring for the environment has fun facts, fun activities and simple ways that children can help care for the earth. Includes things such as a 'walking school bus' and the benefits of trees for us, and much more.

Planet Earth by Evan, Moor. (2002).

A good teacher resource with background information on the earth, its structure, weather, and much more, with experiments, activities, and many ideas to reinforce ideas and further exploration.

Rocks and Minerals by John Farndon. (2005). ISBN #0-7566-1140-7

This book covers everything one needs to know about the earth's structure, rocks and minerals, from how they are collected, stored and used as decoration and for practical purposed. Tells of different types of minerals, how they differ from one another etc... A good teacher resource.

Rocks and Soil by Neil Morris. (2002). ISBN #1-930643-79-9

This book offers child friendly language in explaining rocks and soil. It has an excellent section on soil formation, and a great illustration of the layers of the earth's crust.

Round Like a Ball by Lisa Campbell Ernst. (2008). ISBN #978-1-934706-01-5

Could kick off our unit plan, gets children guessing what our topic is while describing aspects of the earth, beginning with 'its round like a ball', 'it has many beautiful colors', 'we have to take care of it' etc...

The Earth and Space by Peter Riley. (2004).

This book covers the earth and space which is a broader topic than what our learning plan covers, but it is written in very child friendly language, and one I would like to have out and available for the students to read. It covers basics of the earth such as the concept of the spherical earth, and change of seasons, and the surface features of the earth. Good one to have on the classroom bookshelf for students' inquiry.

The Last Polar Bear by Jean Craighead George. (2009). ISBN #978-0-06-124067-6

A story about a young boy named Tigluk who sets out into the Arctic Ocean with his grandmother, where they find a young polar bear whose mother has died because of the changed brought about by the warming climate, and they bring the cub back to their town so they can teach it to survive in the changing world.

The Woman Who Fell from the Sky retold by John Bierhorst. (1993). ISBN #0-688-10681

A retelling the Iroquois creation story, that is very captivating and illustrated with beautiful pictures.

Treaty in the Classroom handbook- Office of the Treaty Commissioner

This handbook has the Turtle Island First Nations legend in it, and I will use it to introduce the idea of where the earth may have come from. It is short and captivating and I am sure all my learners will love it.

Websites:

http://www.brainpop.com/science/earthsystem/earthsstructure/

This website offers a whole area dedicated to the earths' structure, it has a game, and an animated video, and is child friendly and easy to navigate. It can be used for students to learn and explore on their own.

http://scign.jpl.nasa.gov/learn/plate1.htm

This website is a good resource for teachers, it provides information about the structure of the earth, and gives enough background information so that we can be prepared to answer any questions that students may have.

http://www.nasa.gov/audience/forkids/kidsclub/flash/currentevent/Image_Gallery.html

This is a website that students can use to explore and further their knowledge about space and earth. There are wonderful pictures of the earth taken from satellites in space, they depict the earth's features, and give the students an understanding of the earth as a sphere in space.

http://www.youtube.com/watch?v=VgSzrzxYlSs

This video is not overly captivating, but gives visual and audio information about the structure of the earth, may be useful to reinforce the ideas we are learning about.

http://www.deq.louisiana.gov/portal/default.aspx?tabid=2101

Step by step on how to make a worm farm.

Videos:

Planet Earth: Caring For Our Environment, National Film Board of Canada. (1994).

A little boy tries to protect his village from environmental disaster. Is only 13 minutes long, so engaged learners, while teaching them about activism, and caring for the earth.

Materials:

Lesson 1: First Nations Creation Story (book version), Cut our circles, Fruit (to rep. a sphere), balls, globe, circlular lid, science journals to distribute to the students.

Lesson 2: Globe, NASA satellite picture of the earth, Earth Beach Ball, Chalk.

Lesson 3: Need dried and fresh examples of same items ,Apples, Grapes/Raisins, Plums/Prunes, Potato / Potato chips, Bags/ or boxes of dry food (crackers, cereals, etc, Four 8-oz. cups of water,1 cup of salt water,

Lesson 4: Pictures of layers of the earth, boiled egg cut in two, paper plates, marbles, playdough, sprinkles, plastic knives, snack bag to put completed earth balls into.

Lesson 5: Rocks and Soil book (Neil Morris), Clay, Shale and Sand samples, potting soil with sand shale and/ or shale samples added for learning experience, hand lenses, Forks, paper plates, question sheet.

Lesson 6: Weebley website, Brainpop video.

Lesson 7: Potting Soil, White liquid Glue, Paint, Paintbrushes, newspapers, task cards, measuring cups, and measuring spoons.

Lesson 8: Paint, Paintbrushes, newspapers.

Lesson 8: : 5 plastic containers, 10-15 Earthworms, Shredded newspaper, Potting Soil, Sand, Large Spoons, Jug or bottle of water.

Lesson 10: Rocks and stones, calculator, Tissue Paper, balances (2), Fruitloops cereal, marbles, Cheerios, Marshmallows.

Lesson 11: Rocks, paints, paintbrushes, newspapers.

Lesson 12: Grocery Store Flyers, Glue, Paper, Fruit Snacks or something like that, Fresh Fruit,

Lesson 13: Taking care of our Environment Book, Chart paper, Gloves for students (10 pair), Garbage Bags, Whistle, and Box for Recyclables.

Lesson 14: If the World Were a Village book. No lesson plans, I want to see what kinds of discussions and ideas the students get after reading this wonderful story.

Lesson Plan 1

Title: What is the Earth and where did it come from? **Date:** 1

Subject: Science **Grade:** 2/3

Content: First Nations Legends **Teaching Strategy: -** Direct Instruction-Book **-**Interactive Instruction-Discussion -Independent Learning-Journaling	
Learning Objectives: SWBAT 1. Recognize that First Nations people used legends to explain the world, and passed them on through oral stories. 2. Compare and contrast circles and spheres. 3. Recognize the earth as a sphere.	**Assessment:** The students will answer questions in their journals, which will be like an exit slip. The students will be asked about what they learned about the earth, or what they understand a legend to be. I want the children to have some choice in what they write about in their journals.
Adaptive Dimensions: Allow students whom struggle with writing use a visual journal entry, or label their pictures, rather than writing a few sentences.	
Cross Curricular Competencies(CCCs): *Developing thinking-* *Developing literacy's-* *Developing Identity and Interdependence-* *Developing Social Responsibility*	
Prerequisite Learning: If the students have studied First Nations legends before it will be helpful, if not I will explain to the whole class what a legend is, and how First Nations people relied on oral stories to tell their histories and legends.	
Lesson Preparation: **Equipment/materials:** - Cut-out circles, - Fruit to represent a sphere - Balls - Globe - Tupperware lid- circular	**Advanced preparation and Resources:** - Have the Turtle Island story printed off (memorized) so I call tell it to the children. Resources: Treaty In The Classroom Handbook-Turtle Island story.
Presentation: **Set (5 min):** Have blanks on the board representing THE EARTH, have students guess letters and solve what we will be learning about. **Development (20min)** Have students transition to the floor, form circle. Tell the children that there are a lot of ideas, and explanations about how the earth came to be. We are going to hear one First Nation's legend about how the earth came to be. A legend is story passed	**Classroom Management strategies:** -I will be walking around the class while I speak to make sure everyone can hear me and so I can see that everyone is paying attention. -When we circle up, for the legend and discussion, I will be sure to disperse my questions around the classroom. -Use "hands on head" to regroup children.

down from generation to generation to explain something. Read Turtle Island. Ask if they heard any other creation stories....?? Have Students move back to their desks. Looking at the Earth, what do we notice about the shape? Is it a circle? NO, YES? Why or why not? What is a circle? What is a sphere? Tell them the definition of a circle, definition of a sphere. Circle-Circles are simple closed curves which divide the plane into two regions, an interior and an exterior. Sphere-A sphere (from Greek, "globe, ball") is a perfectly round geometrical object in three-dimensional space, such as the shape of a round ball Can you tell me examples? Hold items up, have class hold up hands if they vote circle or spheres. Read round like a ball....if time. **Closure (5 min):** -I will ask the children to write in their science journal, this time focusing on what they understand a legend to be, or to tell me the difference between a circle and a sphere. -This is in lieu of an exit slip.	-I will have students hand in their journal to me when they are done their entry, and I will give them an earth themed crossword puzzle, or a Turtle Island picture to color from the Treaty In the Classroom handbook.

Professional Development Plan
Topic __Communication____ **Date** _March, 2010_____
Teacher Natalie **Observer** _____

1. Professional Target
Communication Skills – Specifically I want to look at enunciation, language usage and mannerisms.

2. Steps to Achieve Target
I will make sure I enunciate my words, and speak clearly so that all students understand what I am saying. I want to ensure my mannerisms do not distract the students from what is being said, and I want to use professional language and proper grammar.

3. Instructions for Observer: - Please record any words I do not enunciate clearly. Please record any errors in pronunciation or grammar. Please record any distracting mannerisms.

4. Data Collection:

5. Other Comments -

Lesson Plan #2

Title: Surface Features of the Earth **Date:** 2

Subject: Science **Grade:** 2/3

Content: Surface Features of the Earth	**Teaching Strategy:** Interactive instruction-Brainstorming Independent Learning-Journaling
Learning Objectives: SWBAT **-**Identify the surface issues of the earth. -Become aware that the surface features of the earth can be seen from space.	**Assessment:** -Students science journals will give me insight into whether or not children know the surface features of the earth.
Adaptive Dimensions: Have list of surface features on the board for those who need help during journaling time.	
Cross Curricular Competencies (CCCs)- *-Developing Literacy's* *-Developing Thinking* *-Developing Identity and Interdependence* *-Developing Social Responsibility*	
Prerequisite Learning: To work together to accomplish a goal.	
Lesson Preparation: **Equipment/materials:** Powerpoint of earth pictures Earth beach ball Globe Chalk/Chalkboard	**Advanced preparation:** - Powerpoint of earth pictures
Presentation: **Set (10 min)** Have children sit in their desks, and ask them what shape the earth is to revisit the concept of a sphere in space, then move onto 'now that we now the shape what kinds of things do we see on the earth's surface?' Have a powerpoint ready on projector and show different pictures of the earth, some showing the earth from space, and others showing different surface features such as deserts , mountains, lakes, rivers, oceans, etc... **Development (15 min)** Have one student be the recorder, one student be the counter, start with one student throw the earth ball to another, "is your left thumb on land or water?" Have recorder tally where thumbs are, and counter ensure we have 50 throws. Add up tallies and should end up with about ¾ of catches were on water. Talk about the importance of water to the earth. Where is water found?? What do we use it for? Discussion/brainstorm. How do we as individuals enjoy water?? (This is a good chance to learn a little about my students!) **Closure (5 Min)** Science journals draw and label the earth and label	- Set up rules for the ball toss activity, specify to throw nicely, and to ensure to throw to people who have not yet had a turn. - Anyone who throws too hard will be asked to sit down. - Make sure to ask a variety of students for answers during discussion.

its surface features.	

Professional Development Plan

Topic __Classroom Management **Date** _March, 2010_____
Teacher Natalie_____ **Observer** _____

1. Professional Target
Classroom Management- I want to be able to keep the class noise to an acceptable, while using management strategies that are effective and work well with my learners.

2. Steps to Achieve Target
I will make sure students are aware of what is going on at all times, and will try not to give too many instructions at one time. I will regroup the students if I feel they are off task, or the noise level is too high. I will walk around the room as proximity is a good classroom management tool, do "hands on head" technique to refocus or transition, and I will raise my voice when necessary (this is a weak point for me- have to try this more).

3. Instructions for Observer: - Please record any times I 'loose' the class, or that the class is too noisy. Please record if the "hands on head" technique is working effectively.

4. Data Collection:

5. Other Comments -

Lesson Plan #3

Title: Aqua Bodies **Date:** 3

Subject: Science **Grade:** 2/3

Content: Where is water found and how does it help us?	**Teaching Strategy:** Direct Instruction-telling students facts Experiential Learning-feeling different items, examining foods and water Indirect Instruction-Discussion , Independent Learning-Journaling
Learning Objectives:SWBAT 1. Give examples of foods that contain water. 2. Explain why water is essential for the survival of plants, animals and humans. 3. Explain why drinking water is an important part of human health. .	**Assessment:** I will be looking for participation and willingness to learn in the students, as this activity is very much hands on. I will also be able to see if they understand as to whether or not they start drinking more water-through observation. Again the science journals will indicate to me what the students pulled from the lesson.
Adaptive Dimensions: Ensure that when I explain these concepts, to make sure I have created a safe learning environment so that my learners feel free to ask a question if they are needing clarification.	
Cross Curricular Competencies (CCCs): *Developing literacy's* *Developing Identity and Interdependence* *Developing thinking*	
Prerequisite Learning: Would be helpful to know some of the benefits water provides for us.	
Lesson Preparation: **Equipment/materials:** ● Need dried and fresh examples of same items: ● Apples ● Grapes/Raisins ● Plums/Prunes ● Potato / Potato chips • • Bags/ or boxes of dry food (crackers, cereals, etc.) • Four 8-oz. cups of water • 1 cup of salt water for one student to taste. - •	**Advanced preparation and Resources:** Cut up dried/fresh fruit and vegetables for student to sample **Resources:** Project Wet handbook
Presentation: **Set (10 min)** Ask Students what the requirements for all living things are. "Air to breathe, food to eat, shelter and water to drink." "Every living thing contains water. In fact all living things, whether they be plants Or animals are over one-half water. Which weights more 20 grapes or 20 raisins?" [Hand a bag of grapes and a bag of raisins (same number in each) to a student for their evaluation.] "The grapes,	-We will do this with the students at their desks as it will be the best possibility for all my learners to see. I will set up a table at the front to have all my materials on. -When I am speaking I will walk around the classroom, and disperse my questions amongst my learners. -I will ensure that things to be handed out like the grapes circulate around the class and that I

of course. What is the difference between a raisin and a grape? WATER!!! What is the difference between the fresh potato and the chip? WATER! Water is in most everything. **Development (20 min)** Let's say that two people are stranded in the desert. One has a basket full of tasty food including cereal, crackers, etc. (displayed on one table) and the other has enough water to last a month (7 gallons). Which would you choose to best help you to survive? Which of these will help you to survive longer? The fact is we can live without food for up to one month, but we can only live for about three days without water." "Do you think water is important to people? How much of a person is made up of water: less than half, more than half? People are over half water! In fact each person is almost three-quarters water (show a pie divided into fourths to illustrate 3/4s). That's like having a pizza cut into four equal slices, and three of them are made up of water!" "Here is a figure of a first-grader that weighs about 45 pounds. But since he/she is ¾ water (remember the water pizza) she/he is made up of 32 pounds of water, or 4 gallons of water! **Where Is all the water in our bodies?** Where is the water located within you and me? If I get a cut I may bleed, but water doesn't come spilling out of me. [No, I am not going to cut myself to prove it] So, where is all this water? (Take a few answers from students.) This potato contains a whole bunch of water, but when I cut the potato water doesn't come spilling out? Where is all the water? It is attached to the fibres of the potato. Water does not exist as a puddle inside the potato, nor does water exist as a puddle inside you and me. Most of the water inside us is tied up in our muscles, bones, skin, stomach, and heart. The water is mostly in our guts! Water helps our body to function, to grow, to move nutrients through our bodies so they can get to the places they are needed. Water helps to remove the waste material that our bodies generate. We need water for all kinds of life functions. Water helps to keep our skin soft. Without water our skin would be a dry at this potato chip (Crush a chip in you fingers for effect) ! **How can we get enough water to keep our bodies healthy?** Take answers from students. You can get some of the water you need from the foods you eat, and liquids that you drink, such as juice, milk, and water.	do not talk a whole lot while this is happening as I want the students to be listening to me.

[Pop is not a healthy source of water, because the chemicals and sugars in pop make your body lose water, eat holes in your teeth, and are empty calories with no nutritional value for your body. How much water do you think you need to drink each day to stay healthy? Children need to drink **at least** 4 glasses of water each day to stay healthy." Show the kids four glasses of water. As you grow you will need to drink more water. Adults should drink 8 glasses of water each day. We need fresh, clean water to survive. Try to drink four glasses of water each day. **Closure (5 Min)** In your science journals, I want you to draw yourself, and show me approximately how much of your body is made up of water, OR to tell me how many glasses of water children should drink each day.	

Professional Development Plan
Topic __Questioning **Date** _March, 2010_____
Teacher Natalie_____ **Observer** _____

1. Professional Target
Level of questioning.

2. Steps to Achieve Target
I will ensure that I ask questions of different types and stay away from always asking closed ended questions that end in 'yes' or 'no'. I will make a point to ask questions that involve explanations, analysis and application. I have tried to include some different levels of questioning within my lesson plan.
3. Instructions for Observer: - Please record the different questions I ask the students.

4. Data Collection:

5. Other Comments -

Lesson Plan #4

Title: Layers of the Earth **Subject:** Science
Grade: 2/3 **Date:** 4

Content: Investigating the layers of the Earth	**Instructional Strategies:** Direct Instruction-Information on the layers Interactive Instruction-Discussion/ Experiential Learning-making Earth Balls
Learning Objectives: SWBAT 1) Identify the core, mantle and crust of the earth.	**Assessment:** Through observing the children and asking questions I will be able to see if the students are understanding the layers of the earth, as I walk around the room and ask questions about their earth balls.

Adaptive Dimensions: Have students who are quicker with the steps help those who may be falling behind. Be sure I am floating around the room to help, or to ask questions.

Cross Curricular Competencies (CCCs):
Developing thinking
Developing literacy's
Developing identity and interdependence

Prerequisite Learning: Students have to be familiar with a boiled egg to understand the comparison.

Lesson Preparation: **Equipment/materials:** - Pictures of the layers of the earth - Boiled egg cut in two. - Paper plates, - Marbles-one per student - Playdoh-two pouches per table - Sprinkles - Plastic knives-one per student **-snack bags to put completed earth balls into!**	**Advanced preparation:** - Have playdoh, marble, sprinkles, knife and plate set out before the lesson begins. - Have a hard boiled egg, which has been cut in half. - Pictures
Presentation: **Set (10 min)** We are going to be looking at the layers of the Earth today. The layers of the Earth are similar to the make up of this boiled egg. Let's take a look at each half, can anyone try and tell me the layers of the egg?? (Take answers from students) Prompt students to look at the outside of the egg, is it hard?? Then the middle layer of the egg? And the middle? The Earth is made up similar to this. There are three distinct layers, the crust, the mantle, and the core. The outer most layer the crust is what we walk on, composed of rocks and soil, it is the thinnest layer of the earth. The middle layer is called the mantle, and is very similar to the crust, but in a liquid state because the extreme heat, causes the items to melt. The inner most layer is the earth's core, it too is very hot, but the pressure of the earth causes the core to be a solid. (Have pictures on the board and point out these parts). So if we look at the egg,	**Classroom Management strategies:** - Walk through activity with students, do 'hands on head' as a sign that from students that they are done one step and ready to move on. - - Walk around observing the students to keep them on task if needed

the yellow yolk would be the core, the egg white would be the mantle, and the hard egg shell would be the crust, just like the egg shell the crust of the earth is very thin. . **Development (15-20 min)** We are now going to make our own earth balls, complete with the layers of the earth. All the stuff you will need, are at your table groups. We are going to start with the marble. The marble is solid; can anyone guess what the marble will be in our earth ball?? The marble is the core...so next we need the mantle to surround the core. Do you think we are going to use the soft, squishy playdoh or the hard, thin sprinkles? Right the playdoh will be the liquid mantle, so take enough to have a layer of playdoh form a ball around the core of your earth. Now we just have the sprinkles left, they will be the outer layer of your earth. What is this layer called? We have the inner core, the mantle and so what comes next? Yes the crust! The is the part we live on... so take your earth and cover it in the crust, you can do this by gently rolling it in the sprinkles, or by patting them onto your earth. Now we have your earth, its a sphere, and covered by the crust, but we want to be able to see all of the layers of your earth, so take your plastic knife, and being very careful, cut your earth ball in half. Do this carefully, try not to squish your earth. Now that you can see all three layers of the earth, lets go through them again, The inside solid piece of the earth is the ____, the next layer is liquidy and called the _____, and the thin outside is called the ___. Have students put their earth balls in the snack bags, and clean up their table groups... . **Closure (5 Min)** .In your journal I want you to draw and label the earth and its layers.	

Professional Development Plan
Topic __Questioning **Date** _March, 2010_____
Teacher Natalie_____ **Observer** _____

1. Professional Target
Distribution of questions.

2. Steps to Achieve Target- I will try to spread my questions around the room. I will ask some pupils even if they do not have their hand up

3. Instructions for Observer: - Please put a check next to the name of each pupil when I ask him or her question.

4. Data Collection:

Lesson Plan #5

Title: Soil **Date:** 5

Subject: Science **Grade:** 2/3

Content: Soil Composition and Soil Formation **Teaching Strategy**:
Direct Instruction-book
Experiential Learning- Examining soil ,
Indirect Instruction-Asking and responding to questions

Learning Objectives: SWBAT:	**Assessment:**
1) Identify components of soil 2) Describe soil formation.	I will use the students' journals to see if they understand the components of soil, and the question sheet.

Adaptive Dimensions: I will have the students work in their school pairs.

Cross Curricular Competencies: (CCCs):
Developing literacy's
Developing thinking
Developing identity and interdependence
Developing social responsibility.

Prerequisite Learning: Students will have to know that soil is a part of the earths crust; it is a part that we walk on.

Lesson Preparation: **Equipment/materials:**	**Advanced preparation:**
-Rocks and Soil book, Neil Morris -Clay, Shale, sand samples. 1 0f each. -Potting soil samples-1/pair **-**Paper plates -Hand lenses -Forks	- Create the question sheet before class and have enough of all the students -
Presentation: **Set (10 min)** -We are going to be looking closer at the earths' crust for a while. Can anyone remember parts of the crust? Get children to get to soil... -Does anyone know where soil comes from? *-Soil is made up of weathered rocks and organic matter. Weathering agents break rocks into smaller pieces. These pieces are mixed with decaying plant and animal matter. Soils vary greatly depending on the type of rock particles and the amount of organic matter they contain. The quality of soil for growing plants is based on two factors: The soil's ability to hold the appropriate amount of water, and the soil's nutrient content. When mixed with water and settled out, soil can be divided into its component parts. Larger particles will settle our first, smaller ones will settle out last. Earthworms improve soil by mixing it up and*	**Classroom Management strategies:** - Have students sit with their school pairs, to examine the potting soil, have samples out at the front for students to go back to. - Walk around to make sure students are on task - Ask students questions if the student is getting off task

digging tunnels that allow water and gases to circulate freely around the plant roots." (Evan, Moore, 58). **Development (20 min)** -Read Morris section of book on soil formation. **-**Show students the samples of sand, clay and shale, tell them these are layers beneath the top soil, that often make their way up into soil along with rock particles. -Explain that they are going to go sit with their school pairs and examine their soil samples to see if they can find sand, shale or clay in their soil samples... -Tell them we have to try hard to keep our classroom clean, so to be careful -Tell them to feel free to go look at the sand, clay and shale samples if they need to. -Explore and fill out their question sheet with their partners. -When finished we can clean up our areas, and put the soil samples back into the bag/bucket. **Closure (5 Min)** Ask the class who thought their soil samples would be good for planting things?? If we were digging in a garden what else would we find?? Could there be any living things found in soil?	

NOTE: After meeting with my lab instructor, we have decided that to make this learning experience most effective I will use potting soil, and insert samples of sand, shale and clay. In some of the samples one of the components may be missing, I will record the sample numbers and what was present in them. I will record what sample number students then worked with and I will be able to evaluate if the students accurately knew the components in their soil samples. There will be separated samples of each in the classroom so that the students are able to compare their soil components to the samples.

Name: _____

EXPLORING SOIL

1- Was there any sand in your soil sample? If so, how did you know?_____
_____
_____
_____

2- Was there any shale in your soil sample? If so you did you know?_____
_____
_____
_____

3- Was there any clay in your soil sample? If so how did you know?_____
_____
_____
_____

4- Do you think that your soil sample would be good for plants to grow in? Why or why not?

_____
_____
_____

RUBRIC FOR WORKSHEET

-Each question will be worth three marks.

-Full marks will be given for right answer, with a capitol letter at the beginning of the sentence, and a period at the end of the sentence.

-Two marks will be given for the right answer with incorrect punctuation, and two marks will also be given for the incorrect answer, with correct punctuation.

-One mark will be given if there was an effort to answer the question.

Professional Development Plan
Topic __Time Management **Date** _March, 2010_____
Teacher Natalie_____ **Observer** _____

1. Professional Target
Time Management-To make efficient use of the time I have available and to make the set, development and closure flow smoothly and conform to appropriate time lines.

2. Steps to Achieve Target-I will have materials prepared ahead of time, I will keep pupils on task and on topic, I will give the students verbal instructions throughout the lesson so that there is no confusion about what is to be happening**.**

3. Instructions for Observer*:* **-** Please list any points throughout my lesson where:

a) time is not used effectively

b) the lesson seemed rushed

c) I did not adhere to the time planned

4. Data Collection:

Lesson Plan #6

(Had to make up this lesson after exploring soil didn't reach my learners)

Title: Soil **Date:** 6

Subject: Science **Grade:** 2/3

Content: Soil Composition and Soil Formation	**Teaching Strategy**: Direct Instruction-Info from website, Independent Learning- Journaling , Indirect Instruction-Discussion
Learning Objectives: SWBAT: 1) Describe the components of soil 2) Identify the soil types preferable for planting with.	**Assessment:** I will use the students' journals to revisit whether or not their soil sample was good for planting.
Adaptive Dimensions: I will have the students work in their school pairs.	
Cross Curricular Competencies: (CCCs): *Developing literacy's* *Developing thinking* *Developing identity and interdependence* *Developing social responsibility*.	
Prerequisite Learning: Students will have to know that soil is a part of the earths crust; it is a part that we walk on.	
Lesson Preparation: **Equipment/materials:** -Weebley website was created to show children sand clay and shale and to tell of their attributes -Brainpop Video that tells of soil formation and properties.	**Advanced preparation:** - Weebley website - (Exploringsoil.weebley.com)
Presentation: **Set (5 min)** -Okay today we are going to take a closer look at what we were exploring yesterday. Who can tell me what was found in their soil samples? Revisit ask for attribute that the students thought the components held. **Development (20 min)** -Bring up Weebley site on the data projector. Ask one student to read the title, and the first paragraph. Ask questions about how soil is formed and how they saw this with their samples yesterday. Another student reads about clay...ask questions. Shale..ask questions... pick up different components and pass around so it is auditory, visual and kinaesthetic, Sand...another student reads, ask questions, pass around BrainPop Video brings this together nicely, is	**Classroom Management strategies:** - Choose children to read segments from the website so that they are engaged and involved. - Ensure my student readers speak loud so everyone can hear.

animated, and really engages the students **Closure (5 Min)** Ask the class who thought their soil samples would be good for planting things now that they know more about what was in their soil samples and their attributes	

Lesson Plan #7/8

Title: Art With Soil
Subject: Science
Grade: 2/3
Date: 7 and 8

NOTE: This lesson will be done over two lessons, in the first part we will mix our dirt and glue focusing on measurement and group work, then shaping our creations, and the second lesson we will paint our earth.

Content: Representing the Earth **Teaching Strategy:** Indirect Instruction, Experiential Learning

Learning Objectives: SWBAT: **1)** Visually represent the Earth **2)** Create an artwork using a natural material. **3)** Use standardized units of measure to create the dirt and glue mixture.	**Assessment:** I will use observation to see if children are engaged and exploring the materials, and I will also use their journal entry to assess their explanation of the earth.
Adaptive Dimensions: Not Applicable.	
Cross Curricular Competencies (CCCs): *Developing thinking* *Developing literacy's* *Developing identity and interdependence* *Developing social responsibility*	
Prerequisite Learning: Know what a poster is and how to make one. Knowing about ways to protect animals can also help students during this lesson. The students need to know how to follow instructions and work on their own.	
Lesson Preparation: **Equipment/materials:** - Potting Soil - White liquid glue - Paint and Paintbrushes	**Advanced preparation:** - Have materials broke into 5 groups, have a task card, telling them jobs to be done - Have desks/pods covered with newspaper for both parts. - For painting have paint materials out for students to work with, upon starting the lesson.
Presentation: **Set (5 min)** Tell the students that to do this project they will have to work cooperatively with their table groups. There is a task card and supplies on the tables, and they are to follow the instructions, and create the medium we will be working with. **Development (25 min)** Task cards will hold instructions, and ensure the steps are broken down enough so that each pupil	**Classroom Management strategies:** - Task cards - Walk around the class to ensure that all students are participating and to manage class.

plays a role in the group dynamic. I will help to transition the students from making the mixture to creating their visual representation of the earth, by prompting students to represent the earth anyway that they choose, I will prompt them to think of the shape of the earth, the layers of the earth, the structures on the earth, and the students can use their prior knowledge to represent the earth in anyway they should choose. **Closure:(5min)** We will put the earth structures up to dry, and all help to clean up the mess from this project.	
LESSON 7-PAINTING **Set: (5 min)** Explain to the students that we have to be careful with our earth models, and that we can paint our earth representations in any way we choose to. We have to keep the noise down, and let everyone focus on the process of representing the earth**.** **Development: (25 min)** I will have the paint and paint brushed out for the students, as well as have the desks covered in newspapers. I will emphasize focusing on being in the moment, ask for a quiet classroom, We will use 20-25 minutes to paint. As children are painting I will ask them about their creations, and have them explain to me why they represented the earth in that way. Have soft music playing, as this cuts down on the amount of talking, and the children seem more focused. **Closure: (5 min):** Cleaning up workspace and putting creations away to dry.	**-**Tell the students to be careful with the paints, as if we make a mess we will be responsible for cleaning it up**.** **-**Play soft music during the painting time so that students are in the moment, not chatting with their neighbours. -I will walk around the class as a management technique and ask students about their creations.

Lesson Plan #9

Title: Exploring Worms

Subject: Science **Grade:** 2/3

Content: How worms affect Soil (Worm Farms) **Teaching Strategy:** Direct Instruction-book/ Interactive Instruction-powerpoint task cards Experiential Learning-making the worm farms	
Learning Objectives: SWBAT 1) Explain that worms live in soil.	**Assessment:** I will use observation to evaluate children's

2) Identify that worms help to mix soil, and create tunnels for water. 3) Work as a group to create a worm farm.	attitudes towards living creature and I will use the science journals to see if children understand the roles that worms play with soil.

Adaptive Dimensions: If some of the students are apprehensive about working with worms they can be involved in preparing the worm farms rather than directly handling the worms.

Common Essential Learning (CELS):
Developing Social Responsibility
Developing Literacy's
Developing Thinking
Developing Identity and Interdependence

Prerequisite Learning: N/A

Lesson Preparation: **Equipment/materials:** - 5 wood or plastic jars - 10-15worms - Shredded newspaper - Potting soil - Sand - Large spoons - Jug or bottle of water	**Advanced preparation:** - Have everything ready for students, something to cover desks, jars out, sand and soil measured out, shredded newspaper out.

Presentation: **Set (10min)** Ask students what we had been talking about in previous lessons? What kinds of creatures can live in soil? Read "Diary of A Worm" Ask they learned about worms, ask what they do for soil? How? What does this mean? We are going to find out. **Development (30 min)** Students work in their table group to create a worm farm. Powepoint task cards up on projector, each beginning with "One person from the group will put soil in the bottom.." "Another person will now put in a layer of sand"... Ensure there are enough steps so each student has a turn and plays a part. Have one student from the class read out each step, use 'hands on head' to indicate to me the groups are done the step, then we will move on as a class. Ask questions about layers, prompt them to think about what will happen when the worms are put in. **Closure (10 Min)** Have students help clean up then, Have students write in their science journal about how the worm farm looks right now, prompt them to write about how it is layered and separated as potting soil and sand NOTE: Next science lesson we will begin by journaling and note how the worm farm looks now.	-Circle up for book so everyone can see and hear the story. -Send back to tables, do big worm reveal! -Ask students to wash hands before handling worms, as they absorb food and water through their skins and we don't want to make the worms sick. -Walk through each step as a class; ensure each student at the table is playing a role.

Lesson Plan #10

Title: Math Rocks **Date:** 10

Subject: Science **Grade:** 2/3

Content: Using rocks to do measurements of length and weight

Teaching Strategy: Interactive Instruction-Group work
Experiential Learning- Hands on Activities

Learning Objectives: SWBAT

1-Measure their rock/stones length in non-standard units of measure
2-Compare weights of rocks and stones using a balanc
3-Weigh rocks in non-standard units of weight.
4-Record non-standard measurements.

Assessment:
I will be using observation and a worksheet to assess students comprehension and skill in the activity

Adaptive Dimensions: I will help our ESL students with the worksheet, and ensure they understand what is being asked, as they are able to respond but they sometimes are unclear in what is asked of them.

Common Essential Learning (CELS):
Developing Social Responsibility
Developing Literacy's
Developing Identity and Interdependence
Developing Thinking

Prerequisite Learning: Some familiarity with the idea of measurement is helpful, but if not I can explain this in my introduction to the lesson.

Lesson Preparation:
Equipment/materials:

- Rocks and stones in case students do not get any
- Calculator
- Tissue Paper
- Balances
- Fruitloops
- Marbles
- Cube a Links/Centimetre Cubes
- Marshmallows

Advanced preparation:

- Have everything ready for students, something to cover desks, jars out, sand and soil measured out, shredded newspaper out.

Presentation: **Set (5-10min)** Explain the centers to the students, demonstrate how they work, and tell them that when one center is done that they will progress to the next number of the center, such as center one students will move to two, two will move to three... Read the worksheet to the class so that they know what questions are being asked of them. **Development (20 min) 5min per station** Center 1- Students will use a balance to see how many marshmallows equal the weight of their rock. Does tissue paper weigh more or less? Does ten marbles weigh more or less? Center 2-Rock tic tac toe. Center 3-Fill in the Blanks centre, this will use what we have been learning. Center 4- How many Fruit Loops equal the length of their gummy worm? How many centimetre cubes? Make a subtraction sentence. Center 5- Students will slide a stone across the table and measure the distance in CubeALinks. Whose went furthest? Whose went the least distance? **Closure (3 Min)** We will discuss some of our findings, and see if students understand their rocks were used as ways to measure, and as objects being weighed and measured.	-I will put a task card at each center, entailing what is to be done at each center. -I will indicate which question from the worksheet should be answered. -I will use “hands on head” to regroup the students when necessary. -I will float around the classroom to ensure everyone is on task. -I will help Masa and Shayla to ensure they understand the questions on the worksheet. \

Name: _____

Our Earth:

We live on a planet called _____. Our planet is round like a _____. The ground beneath our feet is the surface of the planet's outer layer. This layer is called the Earth's _____. The Earth's crust is hard. This is because it made up of mostly_____.

Over time rocks break down into tiny pieces, we call this _____, and it is found in farmers' fields and used to grow _____. Soil provides food and _____ for plants, but is also home for many living things. Most underground animals are much smaller creatures such as ants, beetles and _____. They improve the soil by breaking it up and _____ it as they move and eat.

WORD BANK:

ball earth rock crust water soil

mixing earthworms plants

FILL IN THE BLANK CENTRE:

At this center use what we have been learning about to finish the paragraphs about our Earth. Fill in the blanks with the word you think belongs there. If you are having trouble there is a word bank at the bottom of each worksheet to help you out. Fill in your answers on your worksheet.

If you are done at your centre before time is up, work on the word search that is with your worksheets.

BALANCE CENTRE:

1- How many marshmallows are needed to equal the weight of your rock?_____.

2- Does your rock weigh the same, more, or less than 7 marbles?_____.

How do you know?_____.

3- Does your rock weigh the same, more, or less than a piece of tissue paper?_____.

Why do you think so?_____.

4- Choose someone from your table group. Whose rock weighs more?_____.

How do you know?_____.

BALANCE CENTRE:

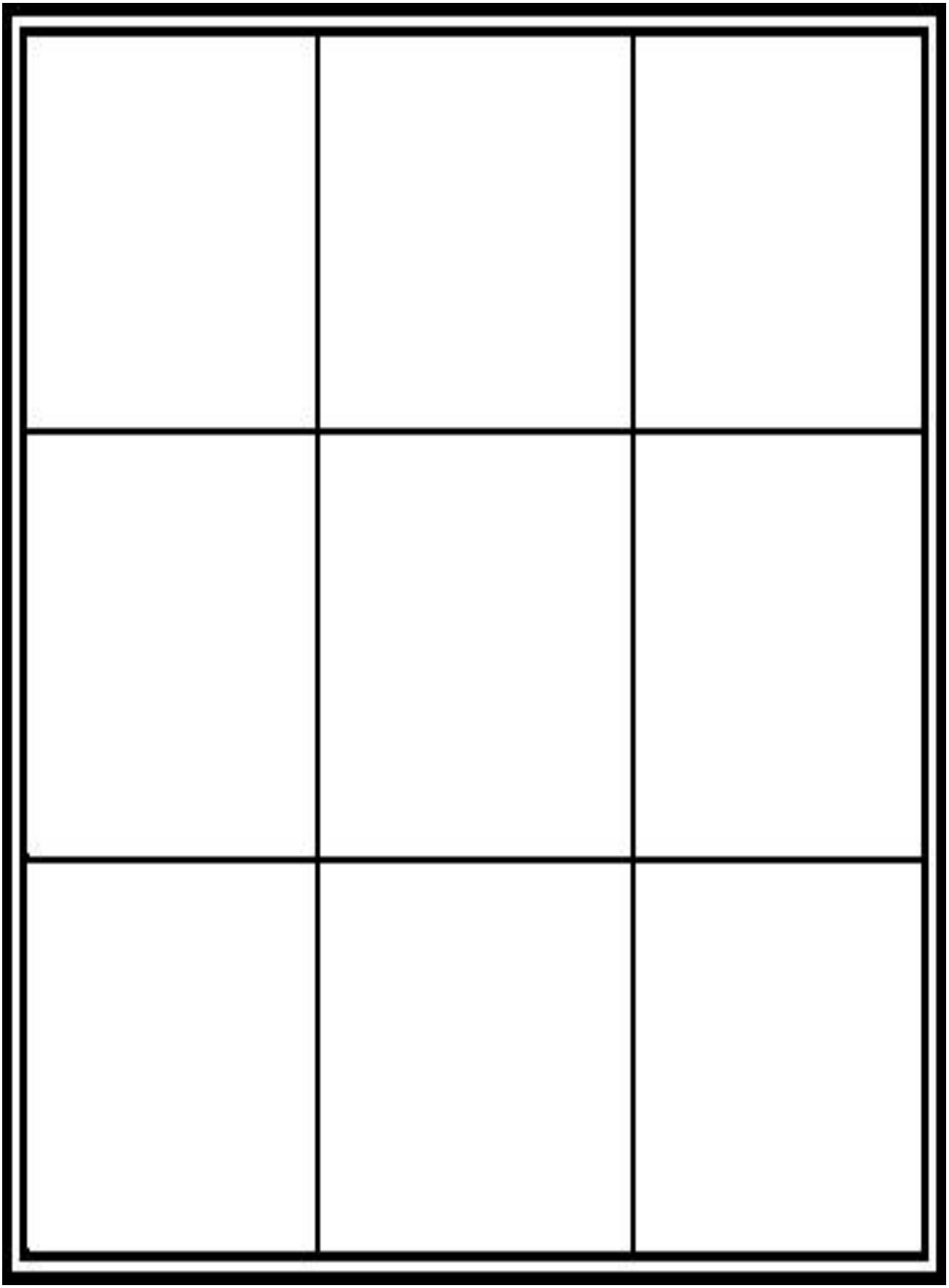
Choose a rock to work with. Use the balance to find how many marshmallows equal the weight of your rock. Find out if your rock weighs more, less or the same as 7 marbles, a piece of tissue paper or your classmates rock. Fill in your answers on your worksheet.

If you are done at your centre before time is up, work on the word search that is with your worksheets.

TIC-TAC-TOE CENTRE:

Use the marked rocks and a mat to play tic-tac-toe with someone in your group. If there is someone who does not have a partner, form a group of three, and take turns playing.

If you are done at your centre before time is up, work on the word search that is with your worksheets.



MEASURING WORMS CENTRE:

1- Using Fruit Loops to measure:

Estimate-_____ Actual-_____

2-Using centimetre cubes to measure:

Estimate-_____ Actual-_____

3- Is your measurement with the Fruit Loops the same as with the centimetre cubes?_____.

Why or why not?_____.

4- Make a subtraction sentence using your measurements:

_____ - _____ =_____

MEASURING WORMS CENTRE:

At this centre you will use Fruit Loops and Centimetre Cubes to measure a gummy worm. Estimate before you measure. Make a subtraction sentence using your measurements. Record your answers on your worksheet.

If you are done at your centre before time is up, work on the word search that is with your worksheets.

SLIDING ROCKS CENTRE:

1- Using Cube-A-Links to measure, find out how far your rock went?_____.

2- At your table group whose rock went furthest?_____.

3- How far did their rock go?_____.

4- Whose rock went the shortest distance?_____.

5- Make a subtraction sentence and tell me the distance between the two rocks.

_____-_____=_____.

_____.

SLIDING ROCKS CENTRE:

At this centre, slide your rock gently across the table. Record how far your rock went using Cube-A-Links. Once everyone from your table group has measured their distance find out whose went the longest distance and whose went the shortest distance. Make a subtraction sentence telling me the distance between the two.

If you are done at your centre before time is up, work on the word search that is with your worksheets.

Name _____ Date _____

The EARTH

L L S P T A N A N C C O E E U R T R E S O R E C E
A R E A C O Y A E R T R I C S E S L C E R P L M A
S M N S S E P E S S Y N E L E N O S L E A A I L R
L R O O O S A N S S S C M L W R T T P L R R N R Y
M P O T K E C M R W S T S T R S M O T H K A L M R
S T N C R C L P Y R L C N L C E R R W T E L S N R
A E O O M R S R S C T A I A T I A E E N A R I P R
U R E E E H E P L E P R M T L E L E W R L E E C R
M R R R T O T L R R S E R S E P R I L L T A S E C
K S T R O N L I R R C L P S T S A T R R E R T S T
R O A L R M E U K T T T R N A S E L R O A A R L O
R E S R L T Y A C N L E E T O S S C W R W R N R S
R A A M A O T R A L T L R S O R A N C A L L S A N
S T S R T P R E R I U E Y C O N A R S E T A R W R
E E S O O W L C I M R M O C C S S E T L A S A R T
P R E U L S O T T E L R E N N L U E R C E W C R A
S M E A R A E E S S E E I C S T A E U T E U E E H
A R A R R C R T R O C E T E O M E Y L T H T E R R
R O K N P H E S K S A S T I S T R M E I T T K H E
R S T M T R Y N O Y U A O R U I E O T R O S E E E
H A E L E L N A E O A H T A T C P E W R S S T E E
E K A H E R E A N S R C N R T L T E S A R E R N O
T O O L P R E R R E S S E E A W R S E L N S A S L
R S T L H W E O M L P N M E R E L E O R N M S T H
T A R R S E N S U C R R M H S E C T R E H I E T I

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earth
worms
core
mantle
crust

layers
rocks
soil
water
sphere

plants

Lesson Plan 11

Title: Taking care of the Earth **Date:** 11

Subject: Science **Grade:** 2/3

Content: How we can care for the environment	**Teaching Strategy:** **-** Direct Instruction-Book **-**Interactive Instruction-Brainstorming -Independent Learning-Journaling -Experiential Learning-Cleaning up the school yard
Learning Objectives: SWBAT 1-List ways we can care for the earth. 2-Participate in cleaning up the school yard. 3-Listen attentively to a story about how we can care for the environment.	**Assessment:** I will be assessing students' participation in the brainstorm and their attitude in cleaning up the school yard (or other project we may come up with in the brainstorm). Science journals.
Adaptive Dimensions: N/A.	
Cross Curricular Competencies(CCCs): *Developing thinking-* *Developing literacy's-* *Developing Identity and Interdependence-* *Developing Social Responsibility-*	
Prerequisite Learning:	
Lesson Preparation: **Equipment/materials:** - Chart Paper - Gloves for cleaning playground - Garbage bags - Box for recyleables -	**Advanced preparation and Resources:** -N/A
Presentation: **Set (5 min):** Talk about the ways that the earth provides for us, ask the students how it gives us leisure activities (water), fruit, vegetables, grains, water to drink... Disperse these questions around my students. Read the How To Care For the Environment book. **Development (15min)** Break into table groups of 5 or 6. Have two students be gloved and pick up garbage, two more hold garbage bag open, other to carry the recyclable box. Those without gloves, act as spotters and point out the garbage. **Closure (15 min):**	**Classroom Management strategies:** - Have students sit in circle, so all can hear and see the book. -Have chart paper handy to list ways we can make a difference. _GO OVER SAFETY RULES: 1-Nobody leaves the school ground 2-Must be supervised by a teacher, myself, Miss. Griffiths or Miss. Britton. 3-Do not pick up any sharp or dangerous items if you should find any, call a teacher over if you think you have found something unsafe. 4-When you hear the whistle come back to us. 5-Work together with your group, cooperate, share

Thank them for cleaning up their school yard, tell them that when we clean up our communities, it makes us feel a stronger connection with it, and that when its clean we are more likely to want to spend time there. Brainstorm ways to make a difference for our Earth, if they are struggling remind them of the book we had just read. Ask them why they would do the things they come up with, to prompt further thinking. In journals write one way they will make a difference for the Earth, and why it is a good idea to do this.	tasks...we work better when we work together! -Bring a whistle outside as my voice won't carry too far, and I want to ensure everyone can hear me when it is time to regroup or come in. -Remind the students about 'noise pollution' that the book talks about, as other classes are still working on things inside the school so although we are outside we have to be respectful of the other students working inside. -

ASSESSMENT TOOLS

Student Self Assessment for Worm Farm
Student Name:_____

Project:

CATEGORY	RESPONSIBILITIES
Cooperation	☐ I behaved well. ☐ I helped my group members. ☐ I did not get bossy. ☐ I didn't waste time.
Following Directions	☐ I did what my teacher asked. ☐ I did things in the right order. ☐ I cleaned up my mess when I was done.
Observations	☐ I looked closely. ☐ I saw something I had never seen before. ☐ I talked about what I saw.
Safety	☐ I did not throw things. ☐ I did not horse around or roughhouse. ☐ I cleaned up any mess I made.

GROUP WORK CHECKLIST-OBSERVATION (checkmark if student displays behaviour)

STUDENT NAME	PARTICIPATES	POSITIVE ATTITUDE	WORKS WELL IN GROUPS

:

:

RATING SCALE For Exploring Worms lesson.

DISCUSSION:
1-Raises hand to offer insights and ideas.
2-Offers insights and ideas when chosen by teacher.
3-Is not willing to offer insights or ideas.

INTERACTION WITH WORM-
1-Treats worm respectfully and shows interest.
2-Is uninvolved with worm
3-Is rough or disrespectful with worm

ROLE IN GROUP:
1-Takes an active role and ensures peers are involved.
2-Takes too much of an active role, peers are unable to do much.
3-Is not involved in group.

ATTITUDE:
1-Positive, happy attitude towards the lesson.
2-Compliant but not very happy with the lesson.
3-Negative, unhappy with the lesson.

STUDENT NAME	DISCUSSION	INTERACTION	ROLE	ATTITUDE

STUDENT NAME	POSITIVE ATTITUDE	ENGAGED	VISION

This is an art assessment tool. I will be looking for positive attitude, engagement (that they are involved in the process, not chatting with peers or goofing around) and that they have a vision (idea of what they are working towards and not just throwing it together to appease me). An X indicated the behaviour was observed.