



AFK Clay Kit: Lesson Plan

Created in collaboration with artist **Amelia Butcher**

Grades: **K-7**

Activity:

Using the materials in this kit students will create 7" x 5" ceramic tiles, creating texture with a variety of tools and using additive and subtractive sculpting techniques. In creating their tiles, students will design ancient fossils, future fossils, or a combination both. Students will learn the following skills: hand building techniques, sculpting with clay, joining clay, using press molds, planning and design process, principles of design.

Inquiry Questions:

- What is a fossil?
- What can we learn from fossils?
- What might future generations learn from fossils left behind by human-made materials of today?

Big Ideas:

Artists experiment in a variety of ways to discover new possibilities and perspectives. **(Arts Education)**
Works of art influence and are influenced by the world around us. **(Arts Education)**

Materials Provided in Clay Kit:

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| • Set of wooden dowels | • Set of texture rubbing plates |
| • Set of 10" x 10" canvas squares | • Set of jars with round sponges inside |
| • Set of 7.5" x 5.5" tar paper templates | • 2 buckets |
| • Set of bamboo paddle pick skewers | • Set of watercolour paint brushes |
| • Set of rubber insects & dinosaurs | • Adjustable clay slicer |
| • Assorted shells/natural objects | • Assorted combs |
| • Assorted computer parts/machine parts | • Toothbrushes |
| • Set of rubber stamps (letters, seashell designs) | • Set of bisque molds |
| | • Plastic netting & doilies |

Materials Provided by Teacher/School:

- Clay - 20kg box of Plainsman Buffstone, \$30.46 at Green Barn:
<https://www.greenbarn.com/store/index.php?find=buffstone&pictureflow=1&iframe=0>
- Watercolour paint sets (or tempera paint pucks)
- Sponges (cheap sponges from dollar store cut into squares)
- Kiln
- Optional: oil pastels
- Optional: gloss acrylic medium

First Peoples Principles of Learning

- Learning is embedded in memory, history and story.

Curricular Competencies: What students will DO

Students will be able to use the following creative process(es):

- Create a ceramic tile using ideas inspired by imagination, inquiry, experimentation and purposeful play (**Arts Education**)
- Develop and refine technical skills required to represent texture and to create 3D objects in clay (**Arts Education**)

Concepts and Content: What students will KNOW

Students will know the following concepts and content:

- Elements and principles of art and design including texture, form, balance, repetition, emphasis, and variety (**Arts Education**)
- Processes, materials, and techniques needed to create a ceramic tile (**Arts Education**)

Core Competencies (suggested questions for reflection)

- COMMUNICATION: What shapes, textures, and imprints did you create on your tile to communicate a theme of either ancient fossils or future fossils (or both)?
- THINKING: What can we learn from fossils?
- PERSONAL AND SOCIAL: What differences and similarities did you observe between the ceramic tiles that you and your classmates created?

Suggested Descriptive Feedback

- Nora has designed a ceramic tile considering the elements of line, space, balance, repetition, unity, and variety. Nora has thoughtfully selected colours when painting her tile, creating contrast and emphasis through her colour choices.
- Nora has used a variety of additive and subtractive sculpting techniques to create a ceramic tile. She has refined technical skills required to represent texture and to create 3D objects in clay, including slipping and scoring and using press molds.
- Nora demonstrates personal responsibility when creating art, contributing to a safe learning environment. Nora actively contributes to cleaning up art materials and work space.

Suggested Summative Evaluation Rubric

Teachers are invited to adapt and edit the following evaluation rubric:

	Extending Exceeding Advancing (A)	Meeting Applying Achieving (B)	Developing Approaching Almost (C+)	Beginning Starting Try Again (C, C-)
Symbolism and Image Development: Student has intentionally created shapes and textures on their tile that represent either ancient fossils or future fossils (or both). Student has intentionally represented a specific location or environment on their tile (ex. ocean floor, ancient desert).				
Composition: Elements of Art and Image Development Strategies: Student has thoughtfully planned and considered the composition of their tile, using the elements of line, space, balance, repetition, unity, and variety. Student has thoughtfully selected colours when painting their tile, creating contrast and emphasis through their colour choices.				
Material, Technique, and Tool Exploration: Student has followed teacher directed processes in creating negative imprints and positive shapes and textures in clay and in joining clay using slipping and scoring. Student has created at least 3 different negative imprints and at least 3 different positive (3D) shapes. Student has created a wide variety of textures (at least 6). Student's artmaking techniques demonstrate care, craftsmanship, and purposeful play.				
Studio Habits "Work Habits": Student demonstrates personal and collective responsibility when creating art, contributing to a safe learning environment. Student actively contributes to cleaning up art materials and work space.				

Step-by-Step Lesson Guide

CLASS DISCUSSION:

- What is a fossil?
- What can we learn from fossils?
- What might future generations learn from fossils left behind by human-made materials of today?

VIEW AND DISCUSS EXAMPLES OF FOSSILS:

- Optionally share info and images about the Burgess Shale, a fossil-bearing deposit exposed in the Canadian Rockies of BC. It is one of the earliest fossil beds containing soft-part imprints.
- Book about the Burgess Shale fossils: *Wonderful Life* by Stephan Jay Gould (1989)

INTRO PROJECT:

- Students will create ceramic tiles and they will choose whether to represent ancient fossils or future fossils, or a combination of both

DISTRIBUTE MATERIALS:

- Each student gets a piece of canvas, a bamboo paddle pick skewer, and a brush
- Groups of 2-4 students share a jar with a sponge in it (with approximately 1cm of water added)
- Create 2 tool stations in the room (students can assist in sorting tools for each station):
 - Station 1: Ancient fossil tool station (rubber insects & dinosaurs, assorted shells/natural objects, texture rubbing plates, etc.)
 - Station 2: Future fossil tool station (assorted computer parts/machine parts, rubber stamps, plastic netting, bisque molds, texture rubbing plates, etc.)
 - Note: save combs and bisque molds for later

INTRO TO CLAY:

- Give each student a small ball of clay (see quantity in image to right)
- While students manipulate their ball of clay, ask them:
 - Think of a word to describe what the clay feels like, smells like, etc.
- Have everyone make a ball
- Have everyone make a snake
- Have everyone make a cube (first make a ball and then tap it on table to create flat sides)
- Have everyone put the ball in their palm and then squeeze it as hard as they can
 - Ask: What does this look like?
- Share with students that clay has the "superpower" to capture textures and shapes
- Share with students that if this piece of clay dries, it will get hard and lighter and it will be a new material called "ceramic"
- When fired in a kiln, clay can theoretically last forever
- The oldest clay artwork in the world is 30,000 years old
- You can carry out a "clay test" in nature when you find mud that you think might be clay. If you squeeze mud and it holds its shape, it's clay!
- Natural clay can be found in North Vancouver



- Ask the students if the clay has changed since they received it (it will have dried out and will have started cracking)
- Share with students that when creating their tile project, they can trade out their dry clay for fresh clay (collect dry clay in one location, such as in a large plastic bag)

INTRO TO SLIPPING & SCORING (or slipping and "scratching"):

- Have each student make 2 snakes with their little ball of clay
- Show students how you could stick the 2 snakes together to make a cross
- Share that while it looks like the 2 snakes are joined, the clay is actually "lying". They will come apart as they dry.



- To properly join pieces of clay together, students will need to "slip and score" or "slip and scratch"
- To join the 2 snakes together, students should first add water to one side (this is "slipping"), by dabbing their finger or brush on the wet sponge. They should then apply this water to the spot where they will be joining the 2 pieces – on BOTH snakes. These spots should be damp, but not dripping wet.



- Next, students should “score” or “scratch” each snake using the bamboo paddle skewer. To do this, students should scratch at the clay and make it very rough (see below).



- Students can then join the two snakes together, matching up the slipped/scored spots on the clay. Students should wiggle the two sides together, gently.
- Demonstrate these steps again and have the students prompt you as you carry out each step.
- Collect the students' clay.

CERAMIC TILE CREATION - DISTRIBUTING TILES & CREATING NEGATIVE IMPRINTS:

- Set the clay slicer to $\frac{1}{2}$ inch. Use the clay slicer to slice off tiles from the end of a brick of clay. Each tile should be approximately 5" x 7".
- Tip: You can drop the bag of clay on the floor to reshape it if it gets stretched or squished out of shape.



- Tip: Optionally cut each 5"x7" tile into 4 mini tiles and have students work on these first, in order to experiment with tools and techniques before working on their larger tiles.
- Distribute the tiles to the students on tar paper templates.
- Ask students to consider whether they will be representing ancient fossils or future fossils on their tiles. Students may also choose to represent both (ex. 1 half ancient, 1 half future).
- Prompt students to pick a theme for their tile (ex. ocean floor, ancient desert, etc.)



- Students should start with making negative imprints on the clay. They will add positive shapes afterwards.
- Demonstrate how to use the tools from the kit to make texture and imprints on the clay.
- Students should get up and take one object from the tool stations and then return it after use.
- Demonstrate: when students press objects into clay, they shouldn't press too hard.
- Tip: Students should choose one element of an animal and press it into the clay (ex. insect wing, dinosaur footprint, antennae, etc.)



- Demonstrate how to use texture mats by placing them on tile and then rolling on top of them with a dowel roller
- The dowel rollers can also be used to press objects, such as gears, into the clay
- Demonstrate how to use your finger as a “magic eraser” to remove details and textures that you don't like



- Encourage students to consider composition as they add negative imprints to their tiles and as they plan where to add their positive shapes.
- Students may consider the following elements and principles of design as they create their tiles: line, space, balance, repetition, unity, and variety
- Note: Optionally, you could stop here and omit the next step of adding positive (3D) shapes



CERAMIC TILE CREATION - CREATING & ATTACHING POSITIVE (3D) SHAPES:

- Demonstrate how to model positive shapes with small pieces of clay
- Ask students to create and attach at least 3 positive or 3D shapes
- Very important:
 - Emphasize that the positive or 3D shapes should be no bigger than a grape
 - If objects are bigger, poke a hole through them using a skewer
 - Encourage students to consider scale and to keep objects small and flat
 - Share with students that when fired, the tiles will crack if they are very uneven in thickness
 - Positive or 3D shapes should not stick out off the edge of the tiles
 - If students model or sculpt their own objects, ask them to add texture to these objects using the tools in the kit
- Demonstrate how to “collage” or “glue” ALL 3D shapes onto the tiles using slipping and scoring
- Demonstrate how to use the bisque molds to create positive shapes:
 - Take a small piece of clay and press it into the bisque mold
 - Remove the clay from the mold by gently pressing another piece of clay onto the clay in the mold (like a “handle”)
 - Students can use just one part of a bisque mold (ex. just the head of a bug)



- The excess clay around the molded shape can be smoothed into the tile and then textured using a tool such as a toothbrush (see below)



- Demonstrate how to create worms, grubs, and ammonites using combs of different sizes:
 - First roll out a small snake of clay
 - Roll this snake down the teeth of a comb
 - A thin snake of clay and a fine comb will create a worm-like object
 - A thick snake of clay and a hair pick will create grub-like object



- To create an ammonite, roll out a snake of clay that tapers from thick to thin
- Roll this tapered clay snake down a hair pick
- Roll this snake into a spiral and use your finger to hollow out a hole in the wide end (see below)



- Once students have attached their 3 (or more) 3D objects to their tiles, they should smooth out the corners of their tile with their finger (otherwise the corners will be very sharp when fired)
- All students should use a bamboo paddle skewer to carve their names into the front right side of their tiles (it is helpful to have all students include their full name and for each student to carve their name in the same place)
- The tiles can be left to dry on the tar paper templates and then bisque fired in a kiln



CERAMIC TILE CREATION - ADDING COLOUR TO THE TILES:

- Share examples of painted tiles with students to give them an idea of what their tiles will look like when painted (see images on following pages)
- Tip: Ask students to consider their colour scheme before painting. Optionally have students choose a limited colour scheme of 3-4 colours
- Share with students that they can create contrast and emphasis within their composition by carefully selecting warm and cool colours (cool colours will appear to recede and warm colours will appear to come forward)
- Optionally have students create a pencil sketch of their tiles and practice adding colour to it using crayons or pencil crayons
- Demonstrate how to add colour to the tiles using watercolour paints (or tempera)
- Details can be added to the tiles before or after painting using oil pastels (see finished examples on following pages)
- The goal is to paint in a way that will highlight the texture in the tiles
- The bisque fired clay will suck up the watercolour paint like watercolour paper does
- Students should first cover their whole tile with dark watercolour pigment
- They should then remove some of the paint using wet sponges (see below)



- Once students have painted their tiles, they can then use gloss acrylic medium to selectively glaze parts of their tiles that they would like to be shiny (ex. a worm, a beetle, or a section where there is water)
- Tip: If students created small test tiles, have them paint and glaze these first in order to experiment with techniques
- Set up the classroom for painting and glazing as follows:
 - Distribute watercolour sets (or tempera paint pucks), watercolour brushes, and water cups to students (groups of 3-4 students can share paints and water cups)
 - Create a washing station where students can go to use water and sponges to remove a layer of watercolour paint
 - Create a glazing station with gloss medium dispensed in small yogurt cups and old paint brushes
 - Tip: put dirty brushes used to apply acrylic medium immediately into soapy water and wash thoroughly so that brushes are not ruined (dried acrylic medium will cause bristles to harden)









Thank you to the teachers who took part in the AFK professional development workshops with Amelia Butcher on October 21, 2022 and November 4, 2022 whose artworks are featured in this lesson plan!