

Building & Firing a Sawdust Kiln

A VISUAL ARTS EXTENSION PROJECT

STRANDS & ACHIEVEMENT OBJECTIVES

Developing Practical Knowledge in the Visual Arts

- *developing practical knowledge of visual art processes through practical experiences*

ESSENTIAL SKILLS

- *designing and making*
- *evaluating processes and solutions*
- *testing ideas and solutions*
- *adapting to new ideas, technologies and situations*

Teacher Notes

One of the most satisfying and exciting activities your class can have with clay is to build and fire your own sawdust kiln. In this activity we take you through the step by step process of constructing, loading and firing a simple kiln. It is important for all students to participate and own the process.

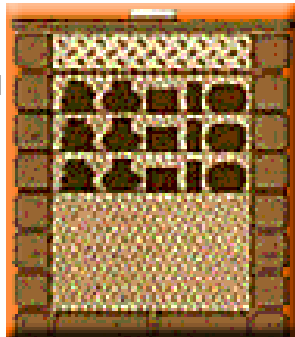
NB: Not all articles will survive the firing because of faults in the clay or in the construction process. Tell students that this also happens to professional potters when they fire their work in specially built kilns and it is something that they all have to accept as part of the firing process. The better they prepare (wedge) their clay, the better the chance it will emerge unscathed after the firing.

Collecting Your Materials

- Collect a sack of sawdust. Untreated is best but treated will work perfectly well.
- Collect at least twenty ordinary red/orange bricks (or more if you want a bigger kiln).
- Use sheets of chicken wire to use as shelves for your kiln.

Building Your Kiln

- Choose a spot clear of anything that might catch fire and sheltered from the wind.
- For small four brick high kilns you can place your bricks in a circle. Kilns above this height are best built as squares or rectangles.
- Build your kiln up to a level of three bricks. If possible have a slab of concrete for the base or use more bricks. The ground is perfectly OK however.



Preparing for the Firing

- Fill your kiln up to the top of the three bricks with sawdust.
- Place the chicken mesh over the top of the sawdust resting on the third level of bricks.
- Place the pottery to be fired carefully on the mesh about 2cm apart and not too close to the edge.
- Add another layer or two of bricks.
- Cover the pots with sawdust.
- Chicken mesh can then again be added for the next group of pots, bricks added and filled with sawdust.
- Keep building your kiln to the desired height

Notes

- You need at least one layer of bricks between each shelf and at least two layers of bricks above the last shelf to give you plenty of space above the last layer of pots
- Fill with sawdust between each layer of pots and on top of the last layer of pots

Firing Your Kiln

- With newspaper and kindling, light your fire on top of the top layer of sawdust above the top layer of pots.
- Once the sawdust is smoking, cover the top with a metal lid.
- When the kiln has totally stopped smoking, allow it to **thoroughly cool down**, remove the lid and unload by dismantling the kiln.

Further Directions

- Visit a local potter to watch firing and glazing. Have the potter introduce the idea of glazing to the students - types and effects
- Investigate the making, uses and styles of pottery throughout history in different countries.
- As a science study, find out how heat changes clay.
- Invite a potter to your school to display his/her work and give the pupils handy hints for new pottery projects.
- Have a potter demonstrate throwing pots on a wheel. Have the students try it.

ASSESSMENT

- *were students able to contribute useful, imaginative and practical ideas during the construction process?*
- *were students able to test ideas and modify these if necessary during the construction of the kiln and after the firing?*
- *did the students show enthusiasm and pleasure from taking part and completing the project?*