

TESI05 Lesson Plans
Designed for 8th grade Earth Science
Nadine Plante

cross curricular activities

English class – read: Alto Peltonen, history of a Keweenaw Miner
Social Studies - local history unit

Science

Day 1:

TESI05 slide show

Day 2:

Cookie mining

Directions attached

Day 3:

Kennecott research

Who is for the mine? Against? Why?

Read articles from gazette

Computer lab research

Write 1 page paper

Day 4:

Kennecott debate

For vs. against

Turn in 1 page research paper

Day 5:

Keweenaw geology

Show maps

Compare Isle Royale to Keweenaw

Make a diagram poster board like Ted's

Day 6:

Make salt dough model

Need (per group):

1 ½ cups salt

4 cups flour

1 ½ cups water

1 teaspoon alum

Food coloring

Sugar

Takes 2 days to dry

Day 7:

Caledonia mine tour

Discuss mining techniques

Collect profitable looking basalt specimen

Day 8:

Salt dough mining

Extract food colored sugar crystals (ore body)

Discuss 1% recovery

Waste issues

Day 9:

Processing

Crush, sift and separate the salt dough project

Pound basalt specimen (from the mine) for copper

Discuss refining techniques

Day 10:

Environmental protection

Discuss scrubbers and laws

Do fly ash floatation

Day 11:

Seaman mineral museum scavenger hunt

Look at rock crusher (MTU)

Day 12:

Local history field trip

Calumet historical society

Kearsarge poor rock pile

Hubble stamp crusher

