

Grade 4 Science

Lesson: 2-1

Unit: Rocks and Minerals

Topic: KWL

Lesson

- students work in small groups to write down all they know about rocks and minerals on scrap paper
- Prep KWL on chart paper
- Have volunteers read ideas
 - if Fact (positive) write under "k" (know)
 - if not sure write under "w" (wonder)
- Discuss all ideas
- Need to bring in an egg carton for ^{lesson} 2-3
- Explain rock walk for lesson 2-3
 - dress appropriately
 - read ~~pg~~ info to explain (taken from pg 4-6)
- Ask students to also start bringing in rocks they have at home

Reminders

Supplies Needed

- Chart paper
- scrap paper
- markers

Homework

- Bring in egg carton

Notes

* Make digital example of KWL chart next time

Grade 4 Science

Lesson: 2-2

Unit: Rocks and Minerals

Topic: Different Rocks

Lesson

- Read top of ~~page 2~~ ^{worksheet} in Science + Tech
- Have students look at pictures and describe them with a partner
- Have partners follow instructions for questions ~~on page 2~~

→ ~~For #3 have students make a table and include images on page 3~~

Rock	Location	Why Special?	Other Info

← worksheet

- Share answers to questions
- Explain homework
 - Find a picture of cool rock formation (internet, magazine, etc)
 - print / cut out
 - bring to class
- ~~Bring an egg carton~~ Remind students to bring in their own rocks and an egg carton

Reminders

- Need to dress appropriately for weather next class

Supplies Needed

- Text "Science + Technology 4: Rocks and Minerals"
- Paper

} worksheet

Homework

- Bring picture of rock formation
- Bring in egg carton

Notes

Grade 4 Science

Lesson: 2-³

Unit: Rocks and Minerals

Topic: Rock vs Mineral

Lesson

- Show class chocolate bars and break ~~them~~ in half
 - discuss similarities and differences
- Relate different chocolate bars to rocks and minerals
 - pure chocolate = mineral
 - Chocolate bar with caramel or wafers = rock
- ~~Students~~ Students read ~~page 1 of text~~ Note
- Hand out note to be put in ~~Folder~~ drawer
- ~~Research~~ Have students bring out homework (picture of cool rock)
 - make collage of pictures on bulletin board

Reminders

Supplies Needed

- 2 chocolate bars (1 pure, 1 w things inside)
- ~~text~~ Note

Homework

Notes

* Could add Aero bar to show porous vs not

Grade 4 Science

Lesson: 2-4

Unit: Rocks and Minerals

Topic: Describing Rocks

Lesson

- Brainstorm a list of words that can be used to describe rocks.
- Show students pictures of rocks.
- Think of new words we could use to describe
- Classify words into words describing ① colour, ② texture ③ shape ④ size → introduce word "lustre"
- ~~begin writing words to describe~~ classifying their own rock
→ number each (put number in egg carton)
→ write description words on small pieces of paper and put papers into egg carton.
- * If ~~have not done rock~~ use box set to practise as well

Reminders

Supplies Needed

- Chart paper
- Rocks
- Pictures
- Markers
- text

Homework

Notes

- In small groups students take out their rocks and use words to describe them
- Add new words to list
- Show + Tell "Cool" rocks, describing them in our words

Grade 4 Science

Lesson: 2-5

Unit: Rocks and Minerals

Topic: Types of Rocks

Lesson

- Play game to teach "igneous", "sedimentary" and "metamorphic"
 - words and definitions scrambled in envelopes,
 - small groups work to unscramble and match
 - Take up
- Hand out and explain worksheets
- Students work on worksheets
- Take up answers at end of class
- Hand out permission forms for rock walk
 - explain activity
 - discuss appropriate wear

Reminders

Supplies Needed

- Worksheets
- Def^{ns} in envelopes
- Permission Forms

Homework

Notes

Grade 4 Science

Lesson: 2-6

Unit: Rocks and Minerals

Topic: Rock Books

Lesson

- Review → Compare Rocks and Minerals to chocolate bars
 - pure = mineral
 - mixtures = rock
- igneous - rock formed from molten lava
- sedimentary - rock formed from settling at bottom of water
- metamorphic - rock that has changed over time (pressure, heat, time)

- Hand out sheets for rock books
 - Explain how to put together
- Students read book to a partner, then switch and partner reads to them
- When finished students quiz each other about facts from booklet

Hand out question sheet, needs to be done as HW if not done in class

Reminders

Supplies Needed

- Book pages
- Scissors
- Stapler
- Question sheet

Homework

Notes

Lesson: _____

Unit: _____

Topic: _____

Minerals

Lesson

Add lesson
Main worksheet
Answers

Reminders

Supplies Needed

Homework

Notes

Grade 4 Science

Lesson: 2-7

Unit: Rocks and Minerals

Topic: Categorizing Rocks
Minerals

Lesson

- Review list of description words (class 2-4)
- Have students pull out the rocks they have brought to class
 - * have additional sample rock kits as well
- Have students work in small groups to sort their rocks by the different categories (colour, texture, size, shape, lustre)
- Discuss similarities and differences ~~at the end of class~~.
Allow students to share an explanation of one of their "cool" rocks.

Reminders

Supplies Needed

- Describing rocks table
- Rocks

Homework

Notes

Grade 4 Science

Lesson: 2-8

Unit: Rocks and Minerals

Topic: Erosion Talk
~~Testing Rocks - Hardness~~

Lesson

- Hand out reading to groups of ~4
 - * → students read through entire package (taking turns as suits abilities)
- After finished ask class to volunteer a quick ~~summary~~ ^{re-cap}
- Groups then make a dot-jot summary of reading
- Take up dot-jots, put them in order * on chart paper ^{or} on smart board
- ~~g. talk~~ Read summary with students
- Inform them that they will get a copy next class

Reminders

- Permission Forms

Supplies Needed

- Reading sheets
- Computer or chart paper to take notes

Homework

Notes

Grade 4 Science

Lesson: 2-9

Unit: Rocks and Minerals

Topic: Drawing Rocks

Lesson

- Prior to class organize three baskets (igneous, sedimentary and metamorphic) with the rocks listed on the worksheet. Rocks should be in labelled bags
- Set up 3 stations and divide class amongst them
- Hand out worksheets
- Students read through papers, then draw rocks
- Discuss detail in drawings
- Rotate every 12-15 minutes.
- Stop students and inform them they have a quiz in about one week.
- Hand out study sheet and discuss ways to study and advantages of studying.

Reminders

- Students need permission forms / appropriate clothing next class.

Supplies Needed

- Specific rock ~~specimens~~ as listed on sheets (in labelled bags and baskets)
- Worksheets
- Review sheet

Homework

Notes

* Can be done out of order, after erosion.

Grade 4 Science

Lesson: 2-10

Unit: Rocks and Minerals

Topic: Rock walk

Lesson

- All students need their permission slips
 - Take students to stream
 - Sit down students to discuss rules
 - Boundaries
 - School rules apply
 - Try to stay dry
 - Can collect rocks, leave all other things
 - Back on 3 whistles
 - Students explore stream
 - Bring students back, have them clean and dry their rules
- * Need to organize time for all Gr 4 to go together for 2 periods.

Reminders

Supplies Needed

- Permission Forms
- Cell Phone

Homework

Notes