Minerals and Rocks

Take Out:

- pencil
- notebook
- agenda
- highlighter
- glue stick

Steps to Ready:

1. Write down homework. Put agenda away.
2. Decorate a **Minerals, Rocks and Soil** title page
3. Glue in notes and title according to board.
4. Update Table of Contents

Learning Objective

Today, we will be able to compare and contrast rocks and minerals.

What is a mineral?

1. Look at the three minerals with a hand lens.
2. In your notebook, write down any similarities that all three minerals share.
3. Be prepared to share out the similarities you observed.

- *All three minerals _____.*
- *One similarity between all three minerals is _____.*

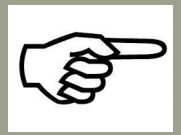
What is a mineral? (textbook page 49)

- In order to be called a mineral, a substance must have 5 characteristics.
  - As we read about minerals, identify the 5 characteristics and fill in the graphic organizer

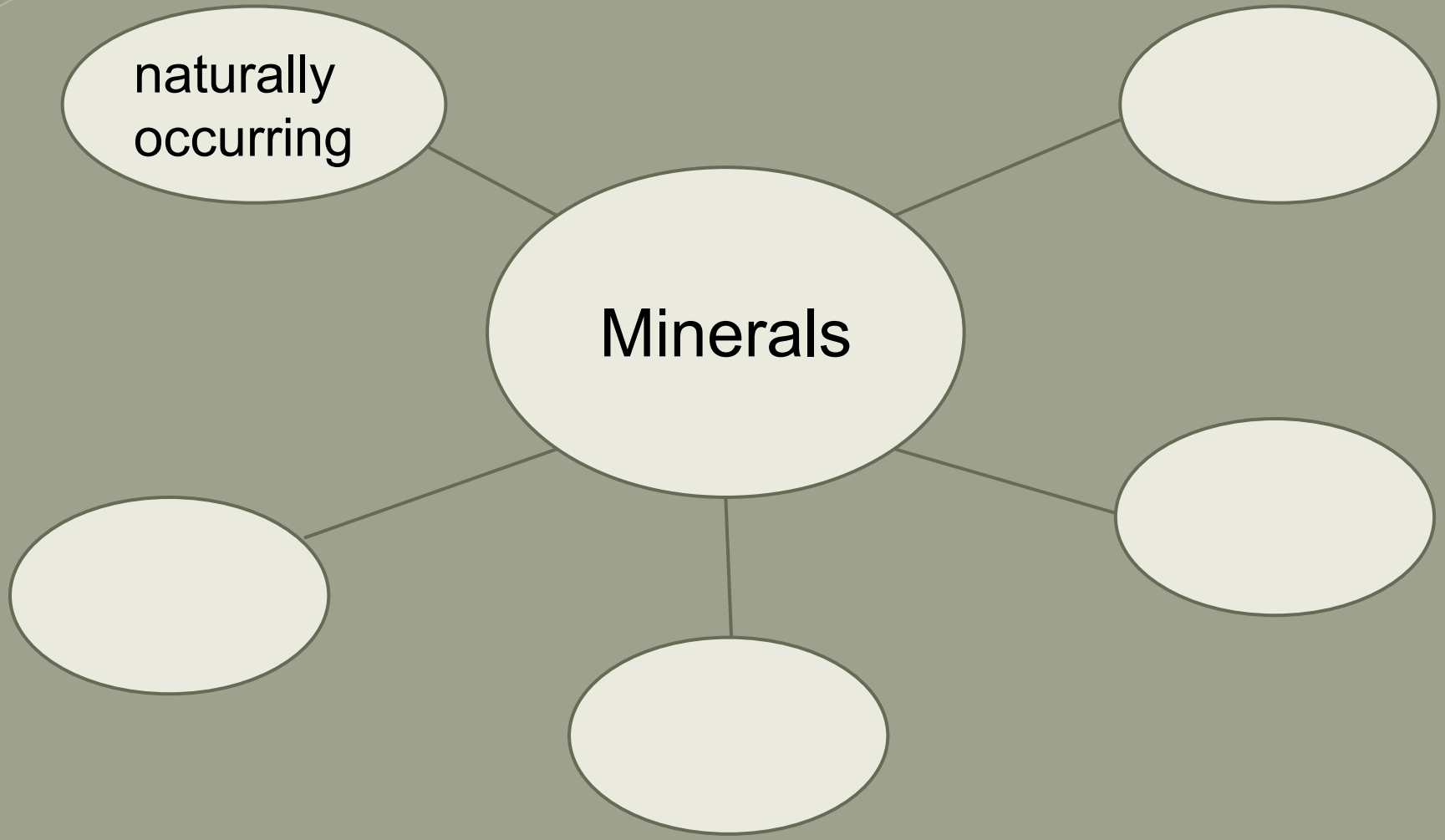
Minerals

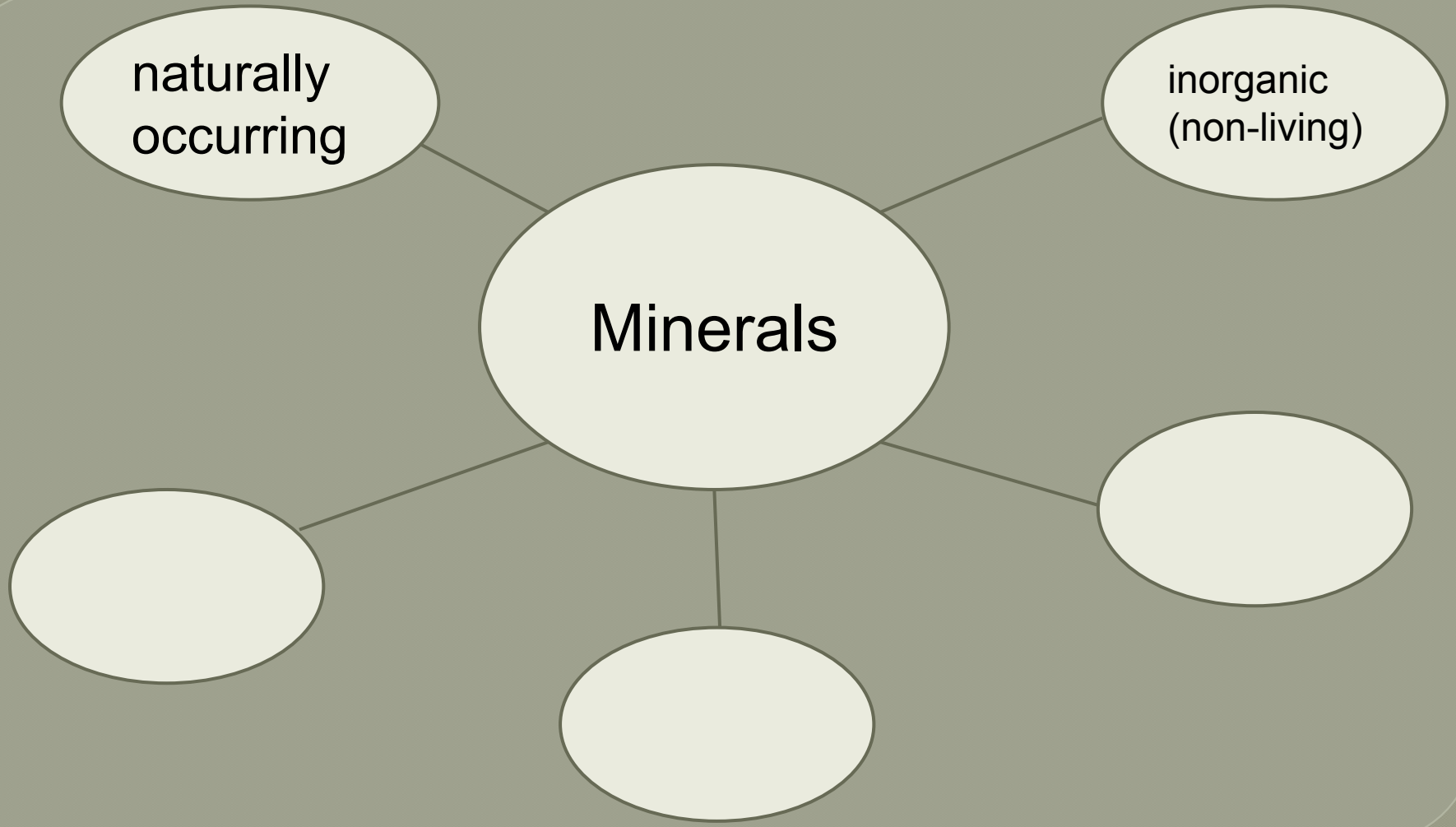
Minerals non-living

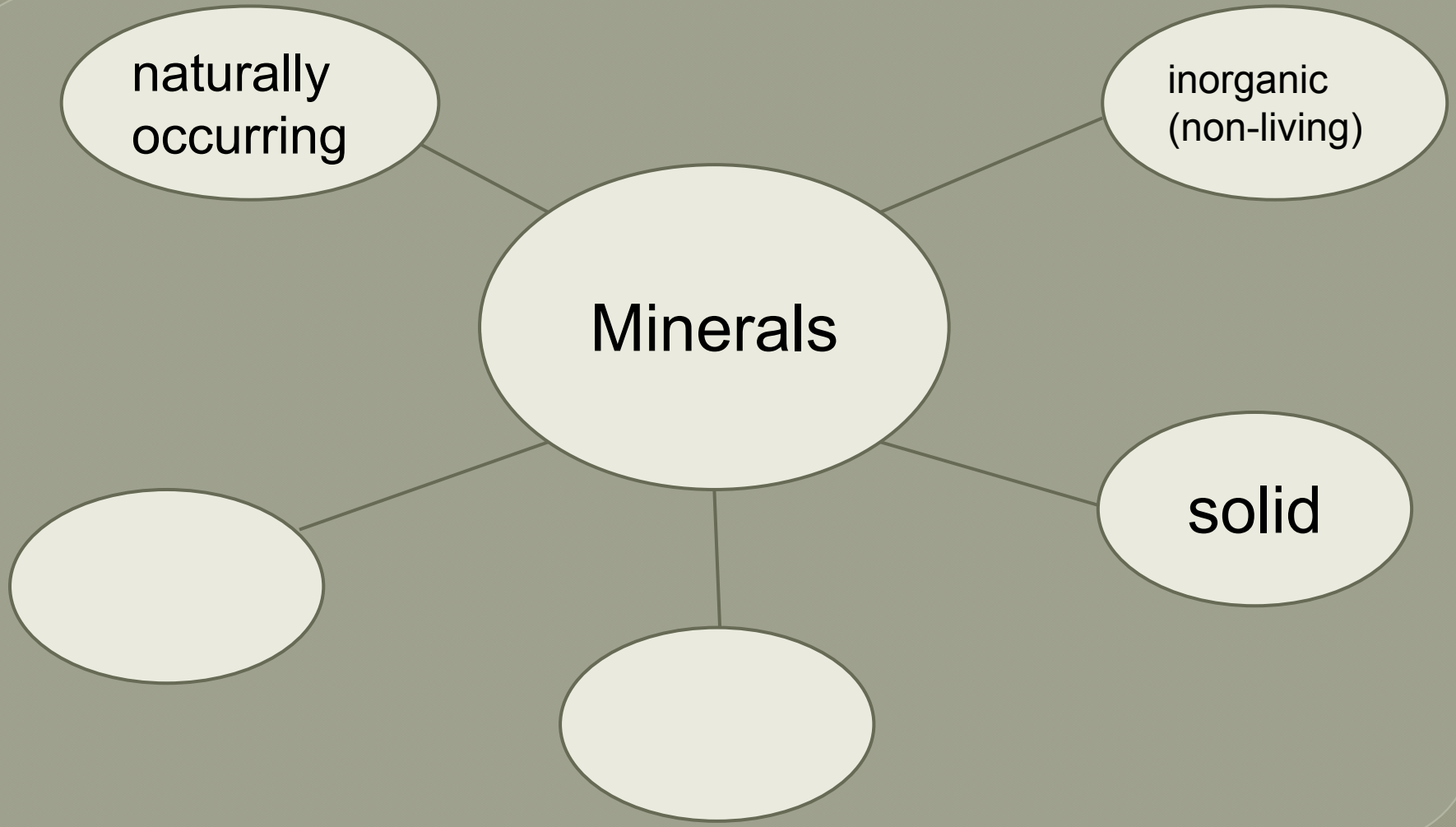
- A natural inorganic solid with a crystal structure and definite chemical composition



highlight the word “mineral”

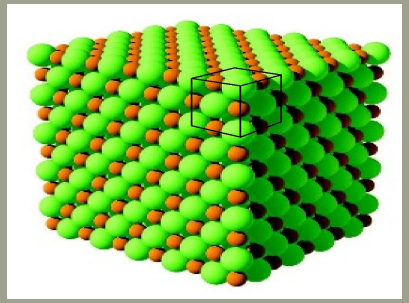

naturally occurring
Minerals

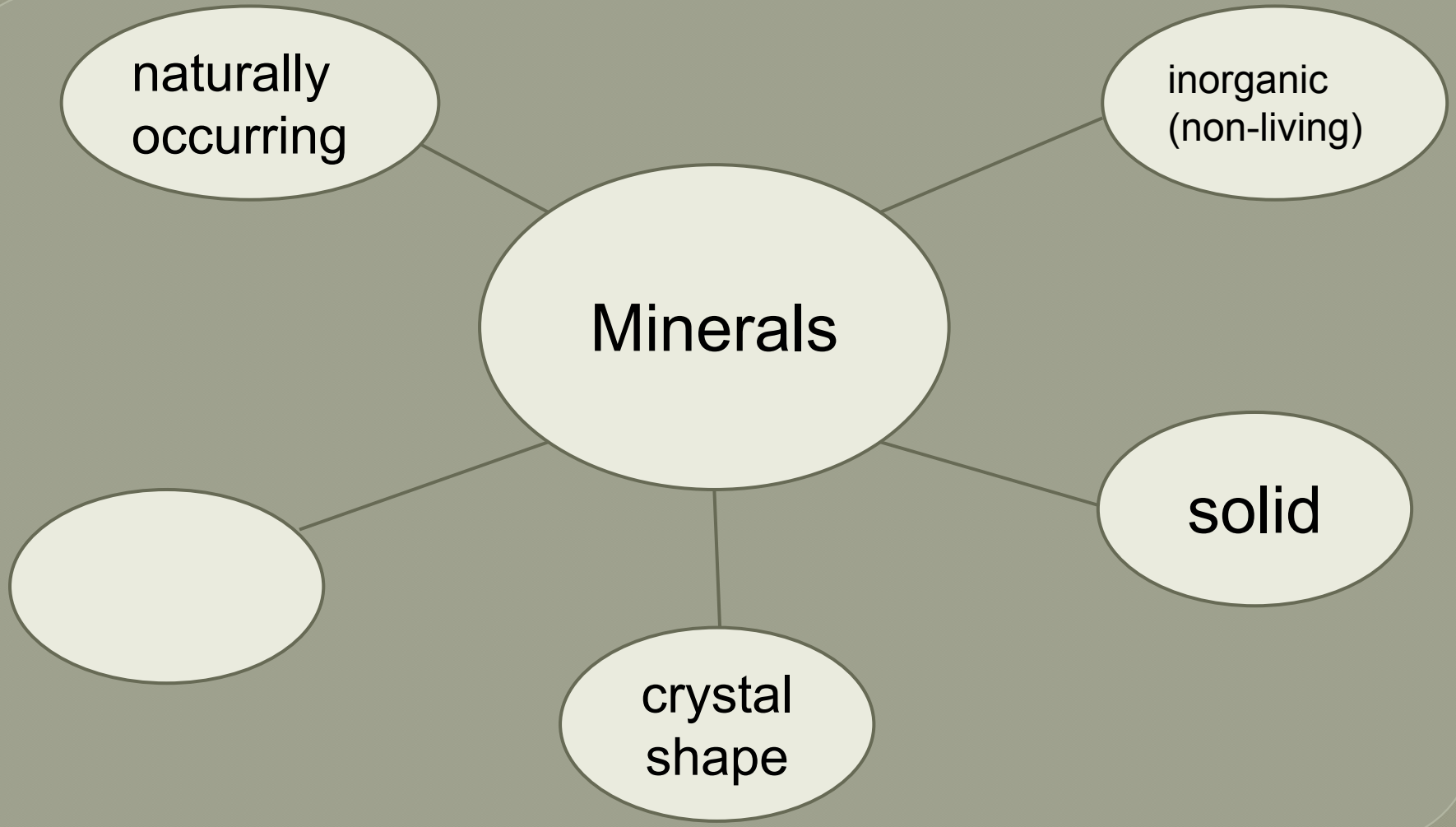

naturally occurring
inorganic (non-living)
Minerals


naturally occurring
inorganic (non-living)
Minerals
solid

Crystal Shape

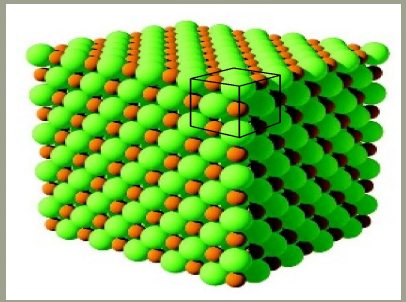
- Almost all minerals have a crystal shape.
  - A crystal is a solid that made up of particles that line up in a repeating pattern.

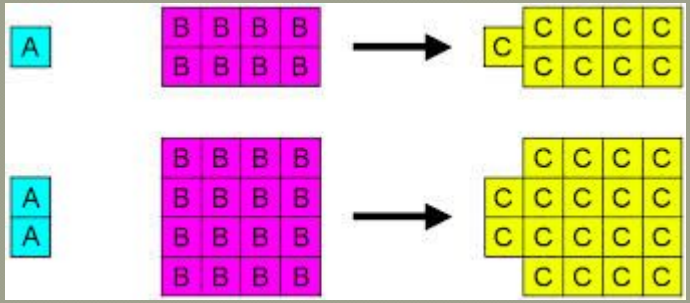


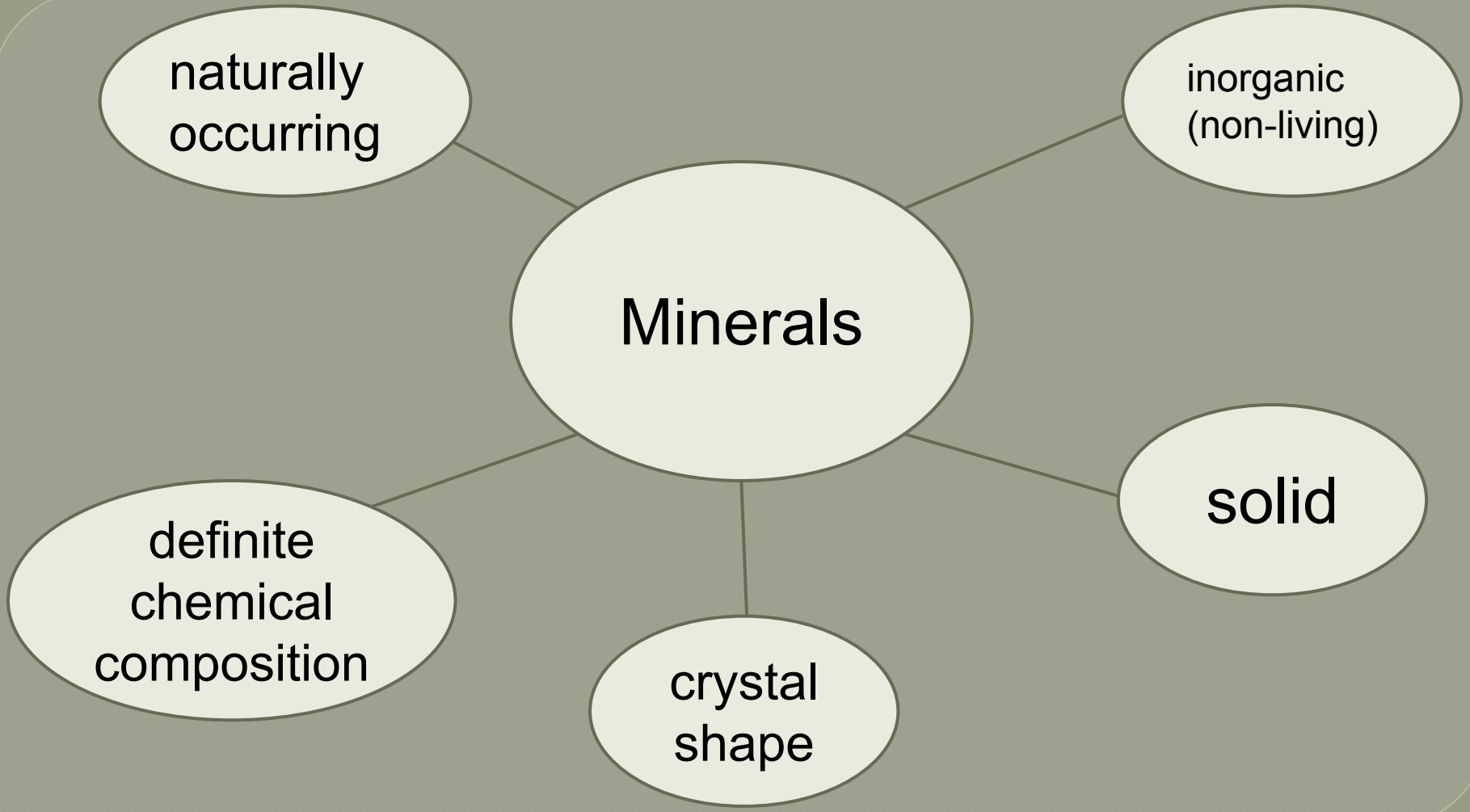

naturally occurring
inorganic (non-living)
Minerals
solid
crystal shape

Definite chemical composition

- All minerals have a definite chemical composition.
  - They have specific proportions of elements
    - ex: 1 hydrogen for every 2 oxygens






naturally occurring
inorganic (non-living)
Minerals
solid
definite chemical composition
crystal shape

Example: Minerals are like baking a cake

- the “recipe” is always the same (same basic ingredients)
- the proportions of “ingredients” are the same
- if you change or replace a basic “ingredient”, it is no longer the same type of cake

- Minerals can be as rare and precious as a diamond.
- They can also be as common as halite (salt).


Kiss The Geologist
SEDIMENT CRISPIES
Rocks and Minerals

Pair-Share

Use the definition of a mineral, to answer the following question.

Is liquid water a mineral? Why or why not?

- *Liquid water is / is not a mineral because* _____

Pair-Share

Use the definition of a mineral, to answer the following question.

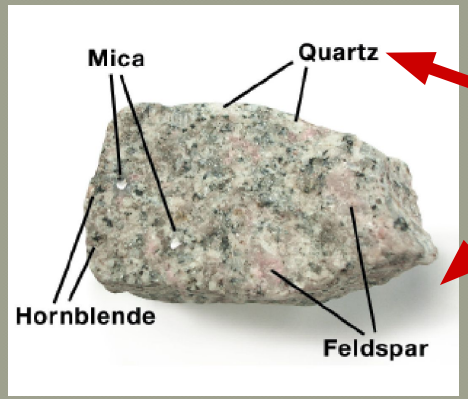
Is coal a mineral? Why or why not?

Coal is made from plants and lacks (does not have) a crystal structure.

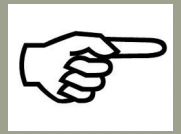
- *Coal is / is not a mineral because* _____

What is a rock?

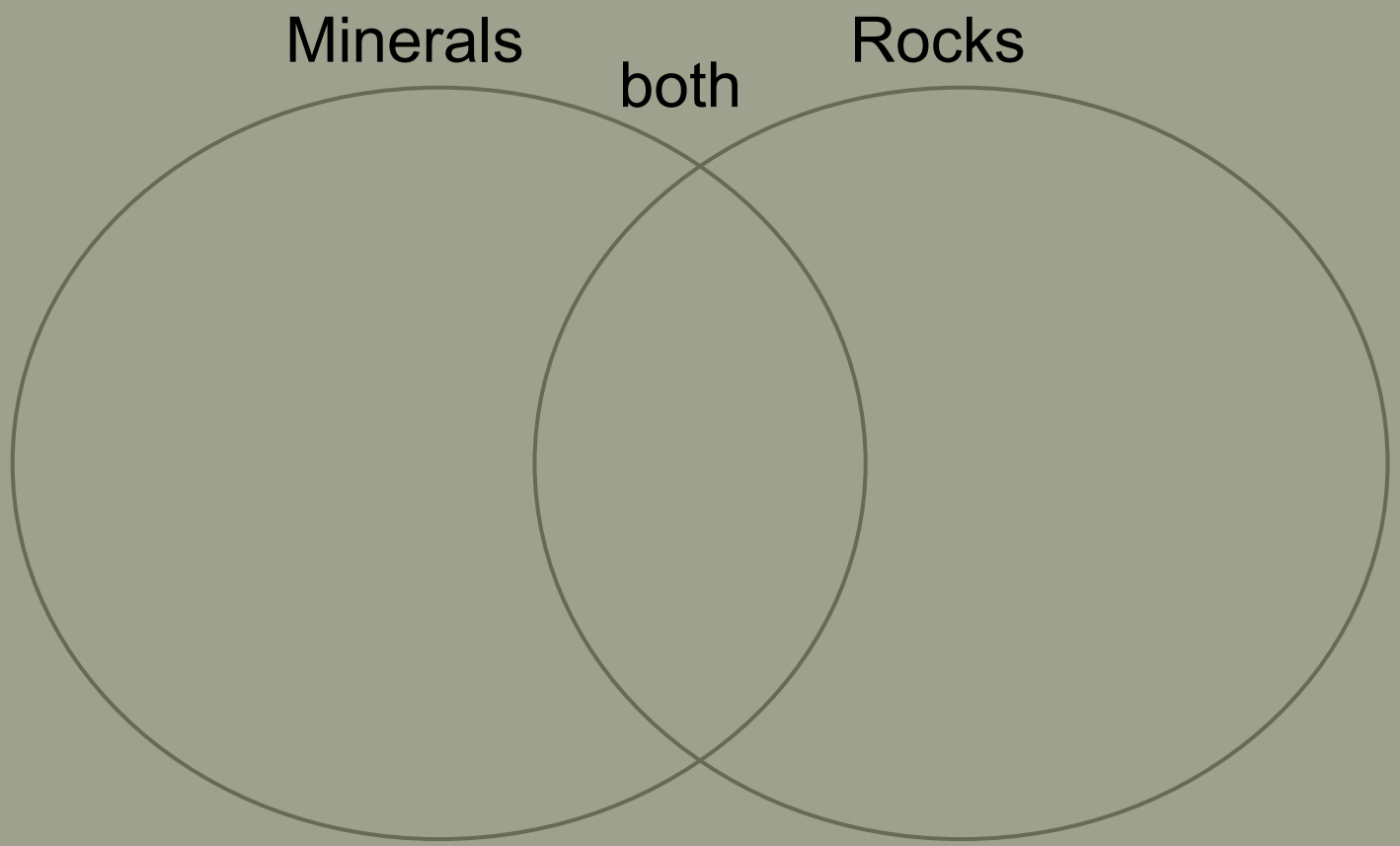
- Minerals are the main building blocks of rocks.
- Rock is a **inorganic, naturally formed solid** made up of **one or more substances**.



minerals



highlight the word “rock”


Minerals
both
Rocks

Pair-Share

Compare and contrast rocks and minerals.

How are they similar?

- *Both rocks and minerals _____*
- *One similarity between rocks and minerals is _____.*

Pair-Share

Compare and contrast rocks and minerals.

How are they different?

- *Rocks are/have ____ but minerals are/have _____.*
- *While rocks _____, minerals _____.*