# 1. What makes plants different than animals?

tiger lily 


tiger

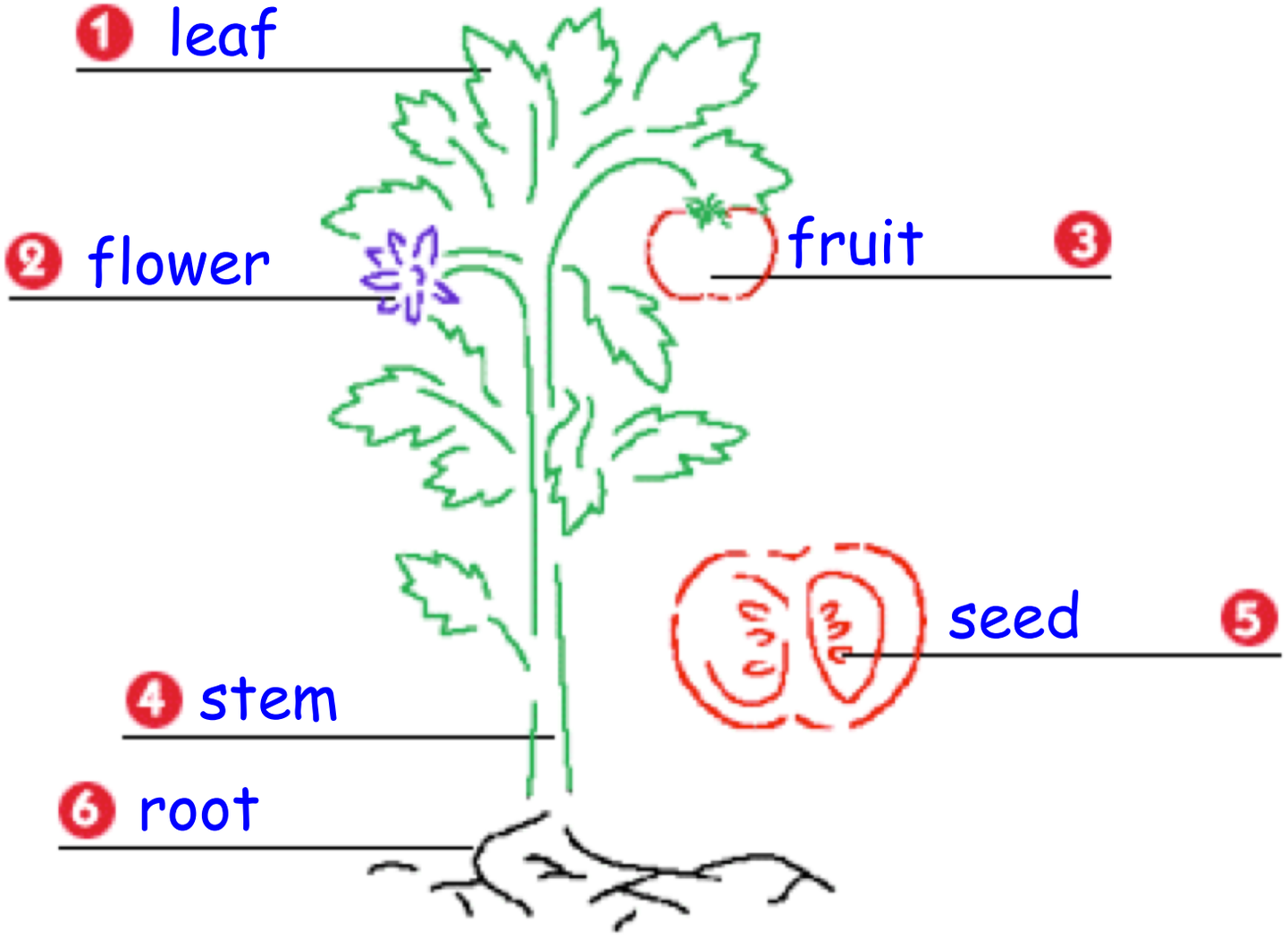
1. Plants are **producers**, which means they make their own food (through photosynthesis).

2. While plants can move certain structures, they cannot change location.

1. Animals are **consumers**, which means they must eat other organisms to get nutrients.

2. Animal structures allow animals to a new location by walking, flying, swimming, etc.

# 2.Label the following structures of plants.



# 3. Explain the function of each plant part.

Root 1. Collects water and nutrients from the soil. 2. Provides support for the plant.

Stem 1. Transports water to the rest of the plant structures. 2. Provides support for the plant.

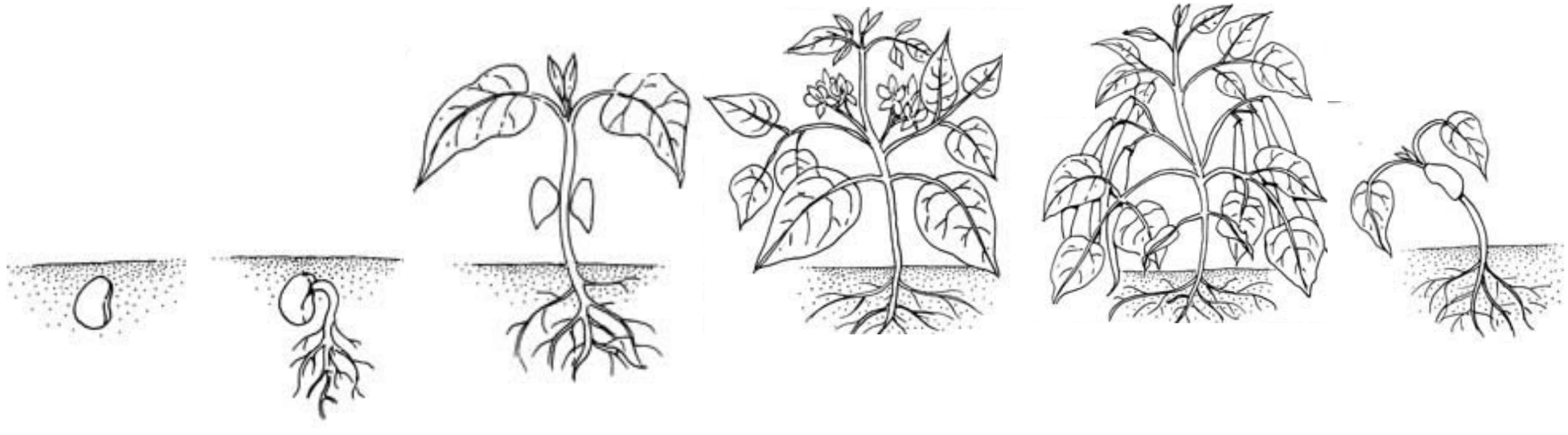
Leaves Make food for the plant.

Flower Makes fruit.

Fruit Protects the seeds.

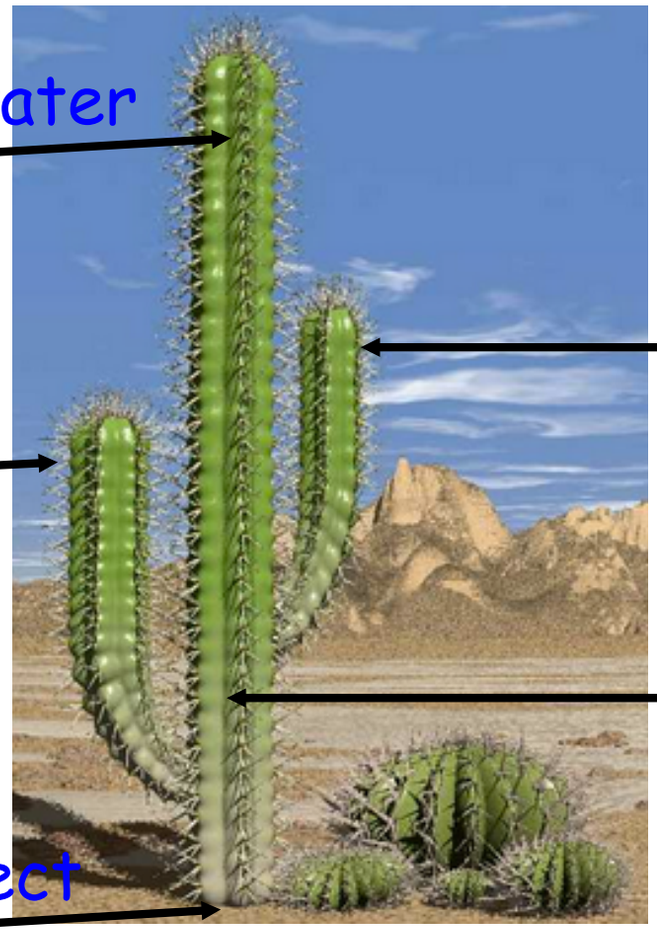
Seeds Make new plants.

# 4. Label the life cycle stages of the lima bean plant.



Seed Germination Growing Flowering Seeds Dying

5. Identify the specialized characteristics or **adaptations** that help this plant survive in the desert.



**Waxy stem** keeps water from evaporating.

**Needles** protect the cactus from animals.

**Roots** spread out to collect as much water as possible.

**Needles** are modified leaves that allow for little loss of water with small surface area.

**Large stem** stores water for later use.

These animals are all vertebrates, which means they have backbones.

Amphibians

Mammals

Birds

Fish

Reptile

These animals are all invertebrates, which means they do not have backbones.

Mollusks

Arachnids

Annelids

Insects

Protozoa

# 2. Fill in the chart for animals in the mammal class.

| **Vertebrate or Invertebrate** | **Skin Covering** | **Respiration** (Breathing) **Structure** | **Reproduction** (Eggs or Live Birth)? | **Warm-blooded or Cold-blooded** |
|---|---|---|---|---|
| Vertebrate | fur or hair | lungs | live birth | warm-blooded |

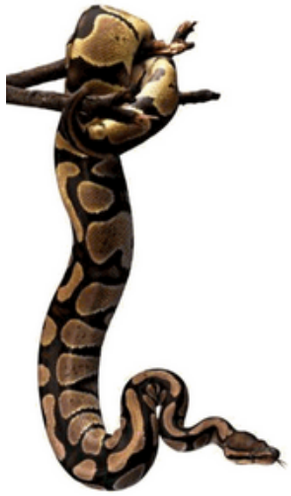
# 3. Fill in the chart for animals in the bird class.

| **Vertebrate or Invertebrate** | **Skin Covering** | **Respiration** (Breathing) **Structure** | **Reproduction** (Eggs or Live Birth)? | **Warm-blooded or Cold-blooded** |
|---|---|---|---|---|
| Vertebrate | feathers | lungs | eggs in nest | warm-blooded |

# 4. Fill in the chart for animals in the fish class.

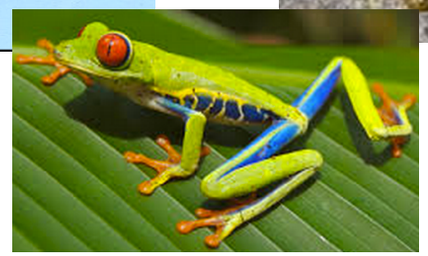
| **Vertebrate or Invertebrate** | **Skin Covering** | **Respiration** (Breathing) **Structure** | **Reproduction** (Eggs or Live Birth)? | **Warm-blooded or Cold-blooded** |
|---|---|---|---|---|
| vertebrate | scales | gills | both | cold-blooded |

5. Fill in the chart for animals in the reptile class.



| **Vertebrate or Invertebrate** | **Skin Covering** | **Respiration** (Breathing) **Structure** | **Reproduction** (Eggs or Live Birth)? | **Warm-blooded or Cold-blooded** |
|---|---|---|---|---|
| vertebrate | scales | lungs | eggs on land | cold-blooded |

6. Fill in the chart for animals in the amphibian class.



| **Vertebrate or Invertebrate** | **Skin Covering** | **Respiration** (Breathing) **Structure** | **Reproduction** (Eggs or Live Birth)? | **Warm-blooded or Cold-blooded** |
|---|---|---|---|---|
| vertebrate | smooth, moist skin | gills - young<br>lungs - adult | eggs in water | cold-blooded |

7. To which vertebrate class would this animal belong? Give 3 pieces of evidence to support your answer.

Sea turtles are reptiles. I know this because they have scales, they breathe through lungs, and they lay eggs on land.
(Could also mention that they are cold-blooded).

8. To which vertebrate class would this animal belong? Give 3 pieces of evidence to support your answer.


The salamander belongs to the amphibian class. I know this because it has smooth, moist skin, lays eggs in water, and breathes through gills when young and through lungs as an adult.
(Could also mention that they are cold-blooded.)

9. To which vertebrate class would this animal belong? Give 3 pieces of evidence to support your answer.

The bat belongs to the mammal class. I know because it has fur covering its body, it gives live birth, and it breathes through lungs. (Could also mention that they are warm-blooded.)

1. List as many ways as you can think of in which a body of water (lake, river, ocean, etc.)might be useful to humans.

Note - There could be more!

habitat for food

hydroelectric power

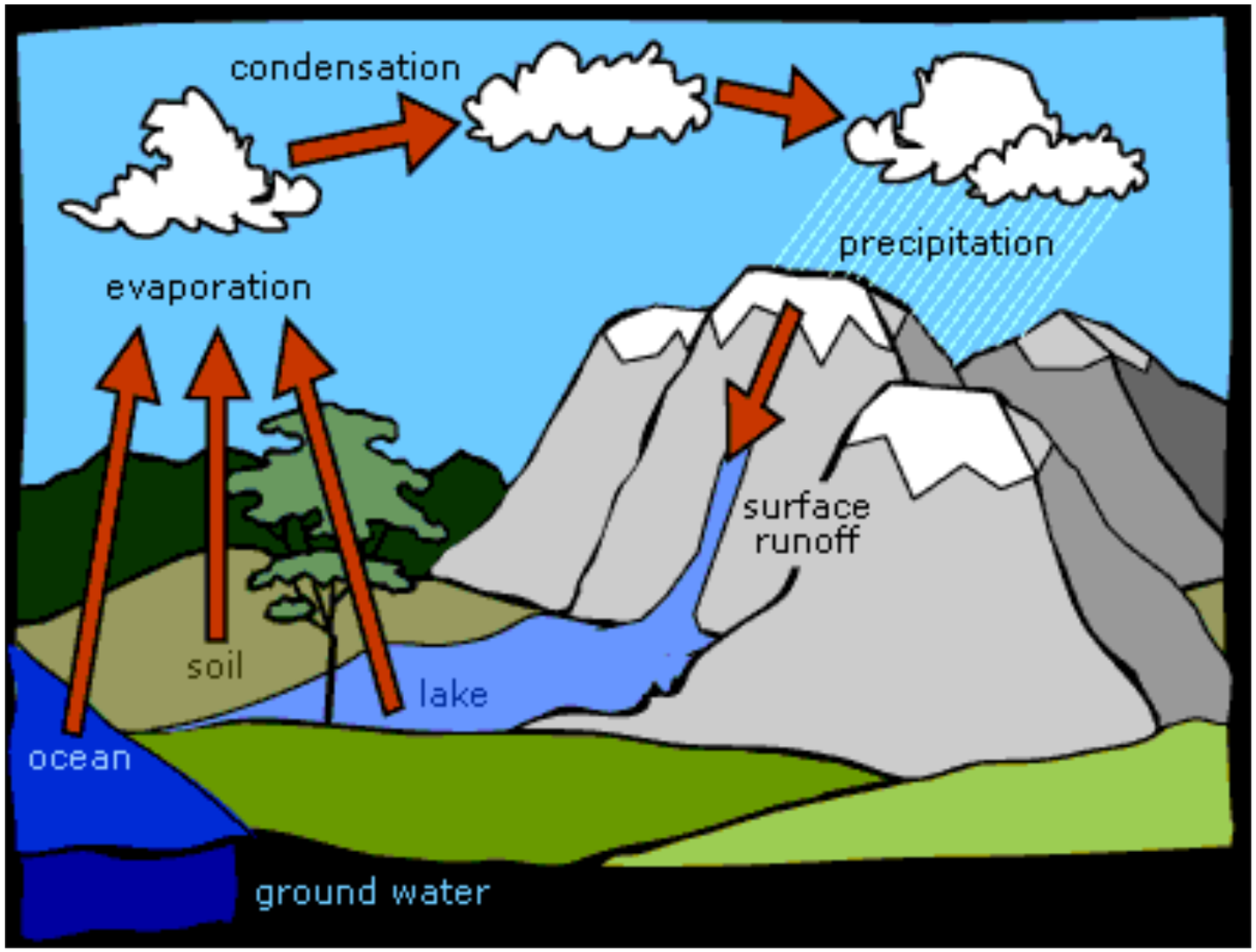
dissolving solutes

transportation

recreation

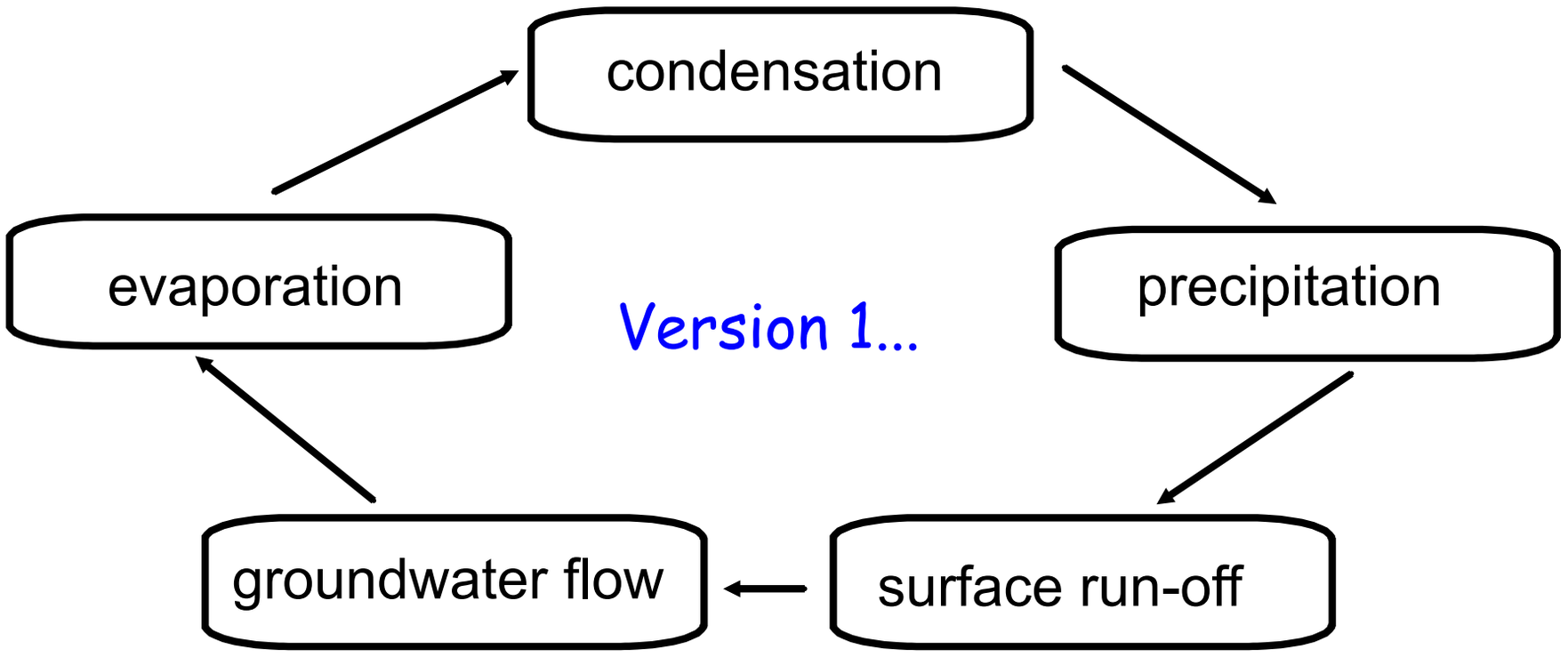
irrigation

2.Write what each of the processes in the water cycle is called.



3.Complete the simplistic water cycle model by putting the words into the blank boxes.

**Hint - Since this is a "cycle" you can begin in any box so long as the processes are in the correct order.**



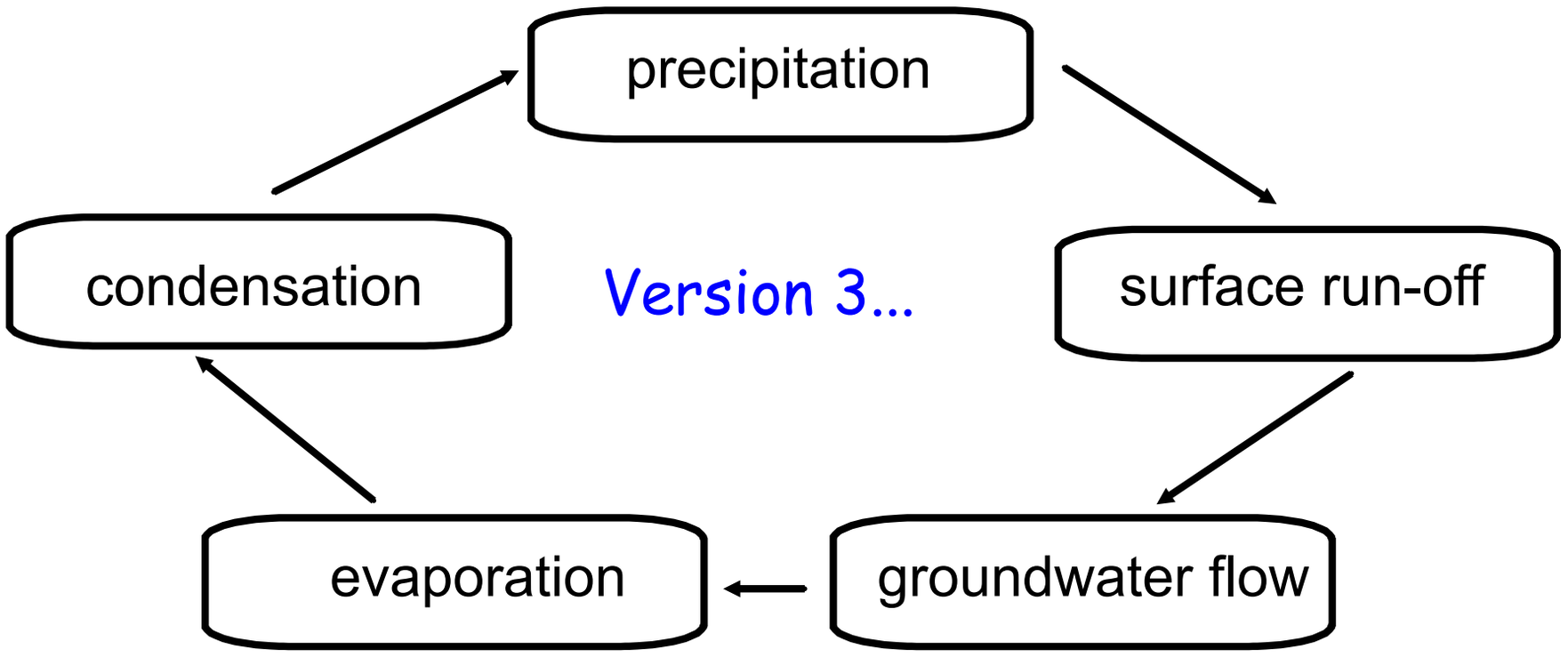

Version 1...

Remember this mnemonic device to help...

**E**ven **C**ats **P**lay **S**illy **G**ames

3.Complete the simplistic water cycle model by putting the words into the blank boxes.

**Hint - Since this is a "cycle" you can begin in any box so long as the processes are in the correct order.**




There are 2 more versions depending on where you place your first word. Make sure "Even Cats Play Silly Games" works in your diagram!

4. List the four main types of precipitation.

1. rain
2. snow
3. sleet
4. hail

5. Where could you find water in the various states as part of the water cycle?

| Solid | Liquid | Gas |
|---|---|---|
| snow<br>glacier<br>sleet<br>hail | clouds/fog/dew (condensation)<br>rain<br>lake/river/ocean<br>plants<br>animals | water vapor (in the air) |

# How would you attach 2 wires to create a complete circuit?

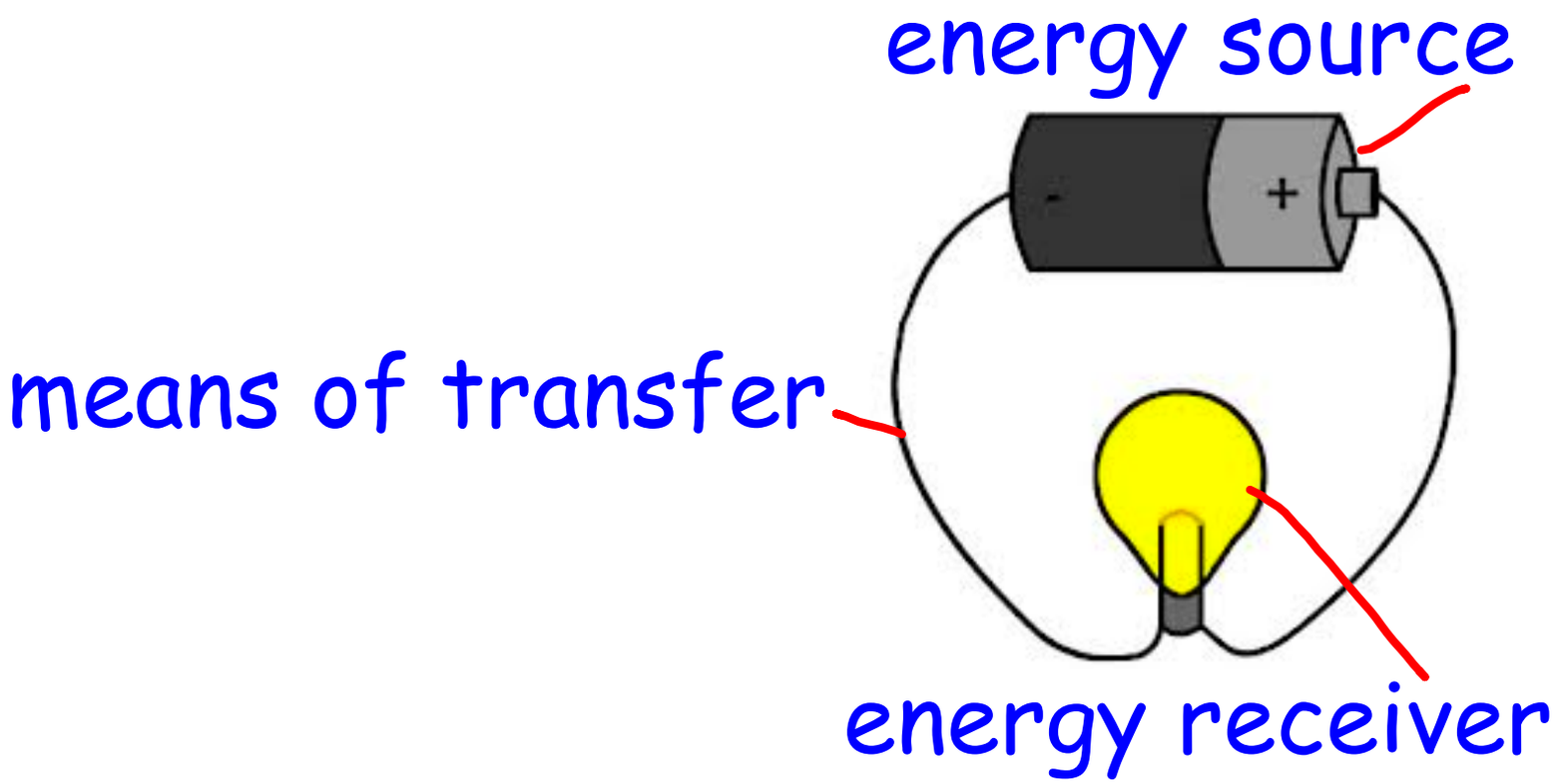
One wire would need to be connected from the negative terminal to the metal tip of the bulb.The other would need to connect the positive terminal to the metal casing.


Or...

# How would you attach 2 wires to create a complete circuit?

One wire would need to be connected from the negative terminal to the metal casing of the bulb.The other would need to connect the positive terminal to the metal tip

Label the following parts in a complete circuit.



3. Identify each item as a **conductor** or **insulator** of electricity.

insulator

insulator

conductor

conductor



insulator

Conductor: Any object that allows electricity to travel through to complete a circuit (ALL METALS)

Insulator: Any object that does not allow electricity to travel through to complete a circuit (Non-metals: paper, plastic, wood, rubber, etc.)

1. List the 4 main components of soil.

1. rock
2. humus
3. air
4. water

2. List as many ways that you can think of that beach soil would differ from forest soil.

size and amount of rock

amount of humus

color fertility

texture scent

3. The process by which weathered (broken) rock is being moved is called _____.

a. erosion

b. deposition

c. dissolving

d. saturation

4. The process by which weathered (broken) rock settles or is deposited somewhere is called _____.

a. erosion

b. deposition

c. dissolving

d. saturation

5. Write an E next to any landform that is formed as a result of erosion. Write a D next to any landform that is formed as a result of deposition.

E canyon

D alluvial fan

D delta

E hill

1. The Sun and Moon both rise in the __east__ and set in the __west__.

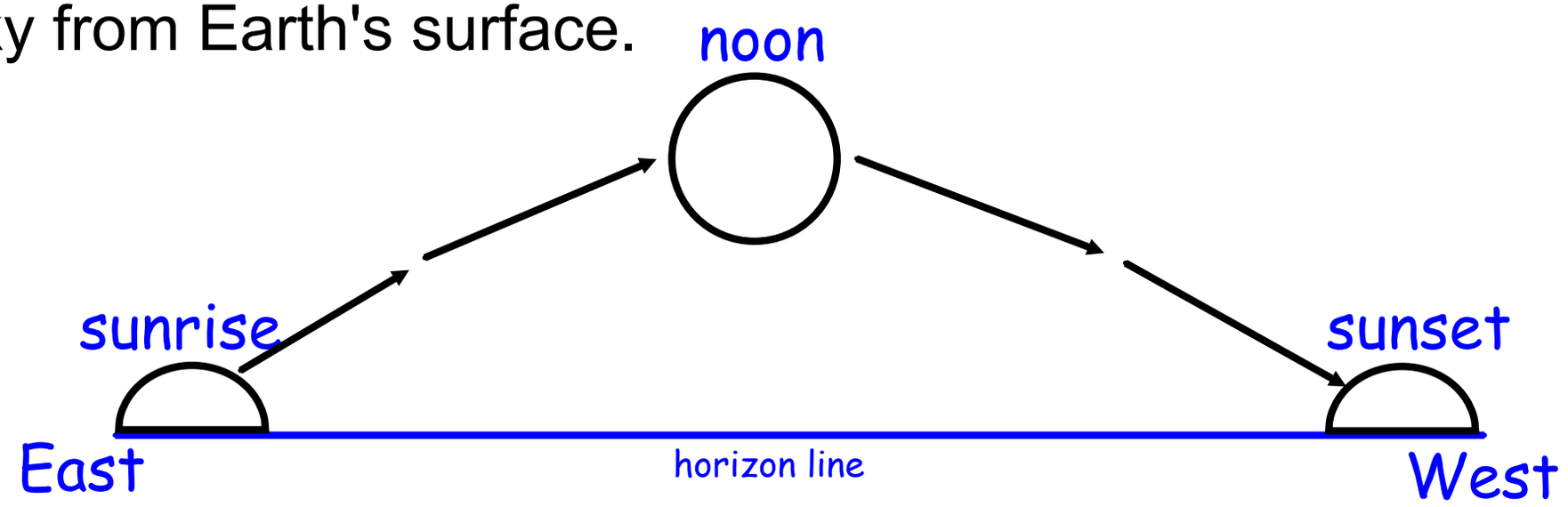
Hint - Use cardinal directions in your answer.

sunrise

gibbous moonrise

2. Diagram the path of the Sun across the sky labeling where sunrise and sunset would happen, where the Sun would be at noon, and the cardinal directions.

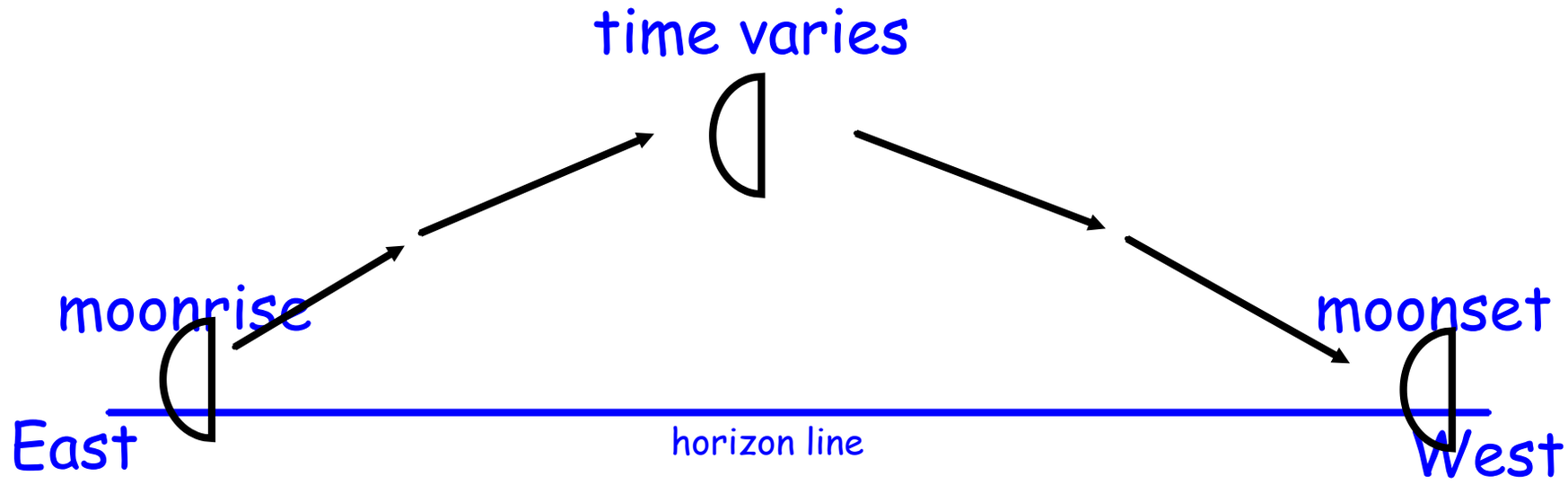
Hint - Think about how it appears to move when you look up to the sky from Earth's surface.




*Note - This diagram is drawn assuming you are facing south.

# 3. Diagram the path of the Moon across the sky labeling where moonrise and moonset would happen as well as the cardinal directions.

Hint - Think about how it appears to move when you look up to the sky from Earth's surface.




*Note - This diagram is drawn assuming you are facing south.

4. Circle the times of the day you could see the Moon.

midnight

2:00 am

4:00 am

6:00 am

8:00 am

10:00 am

noon

2:00 pm

4:00 pm

6:00 pm

8:00 pm

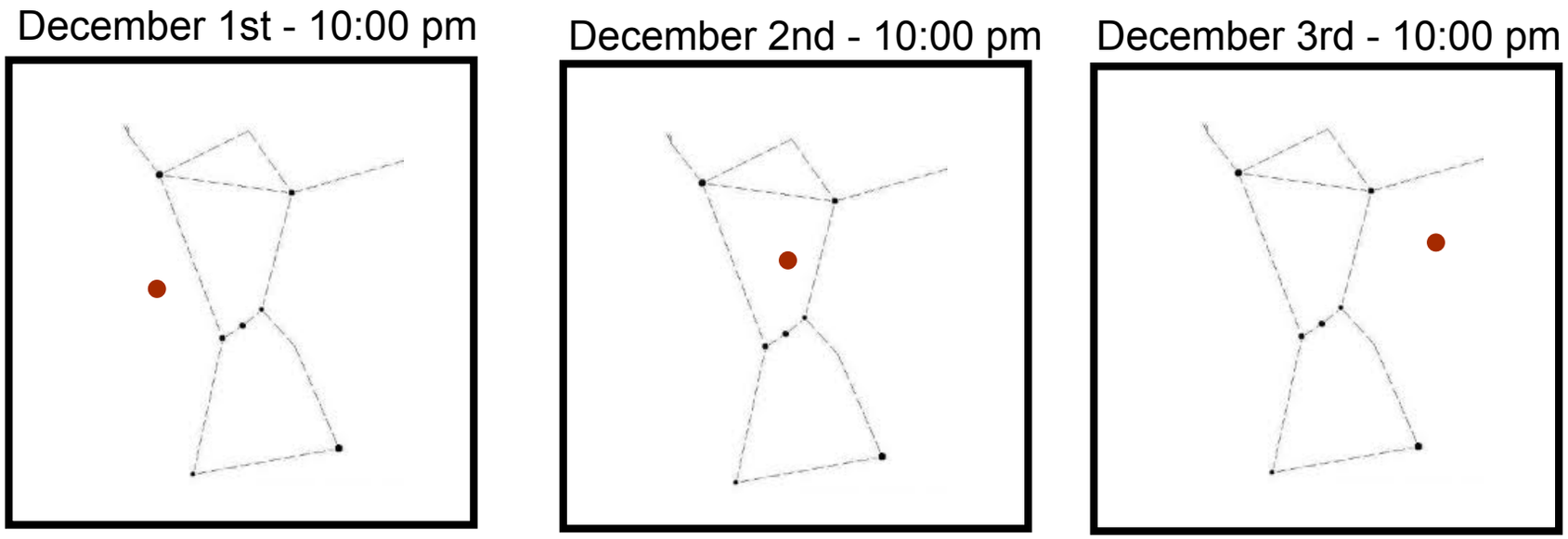
10:00 pm

*Note - The moon can be seen at ALL times of the day. Each phase can be seen at different parts of the day.

5. What is the major difference between the Sun's movement across the sky and the Moon's movement across the sky in a day?

The Sun will always rise in the morning and set in the evening, but the Moon will rise and set at different times depending on which phase it is in at the moment.

6. The object moving "through" the constellation is a **planet**.
*Note - If it were a star, it would appear to move at the same speed as the other stars because its movement would be a result of Earth's rotation. Since the planets move in their orbit - they will appear in a slightly different part of our sky each night.



# 7. What features of Earth make it ideal for life to exist?

1. **Water** - necessary for all living organisms.
2. **Air** - necessary for all living organisms (though plants and animals use different parts of the air).
3. **Ideal Temperature Range** - Our **atmosphere** helps keep temperatures on Earth in a much closer range as compared to other planets, the Moon, etc.