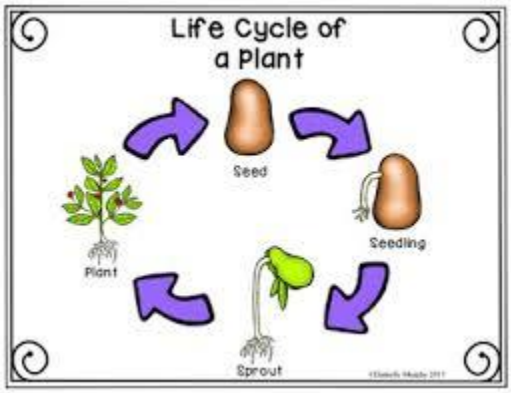
LESSON SUMMARY Lesson 1: Plant Life Cycles

IMPORTANT VOCABULARY	
seed	structure that can grow into a new plant
embryo	young plant
germinate	begin to grow
flower	plant structure that makes seeds
pollination	movement of pollen from the male part of a flower to a female part
Fruit	structure that holds seeds
cones	plant structures that make seeds
spores	not a seed but can make a new plant
bulb	underground stem

1. How do plants grow?

- plants need a seed to grow
- A young plant is called an embryo



2. How do plants make seeds?

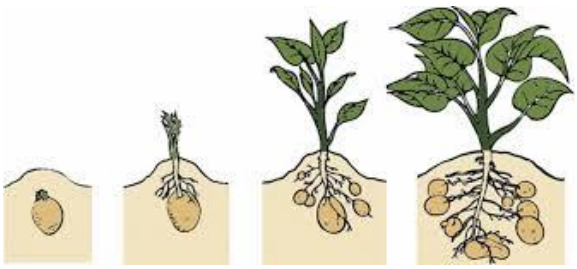
- plants that use flowers to make seeds are called flowering plants
- pollination- the movement of pollen from the male part of the flower to the female part

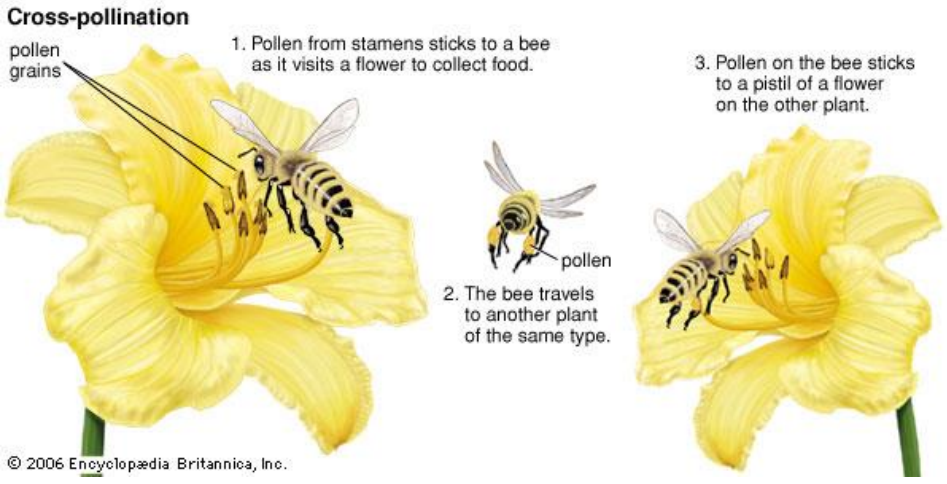
3. What is a plant's life cycle?

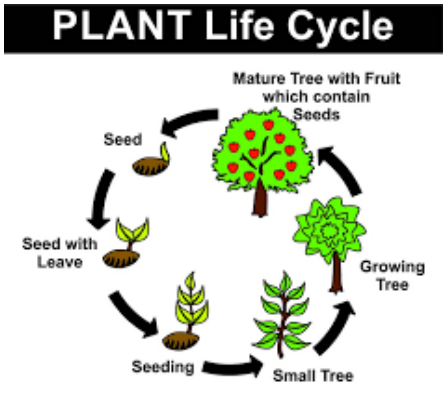
- how a plant germinates, grows and reproduces is known as a PLANT LIFE CYCLE

4. How do plants grow without seeds?

- plants that do not make seeds have SPORES
- Plants can grow from white spots or "eyes" on a potato plant
- other plants grow from an underground stem called a bulb

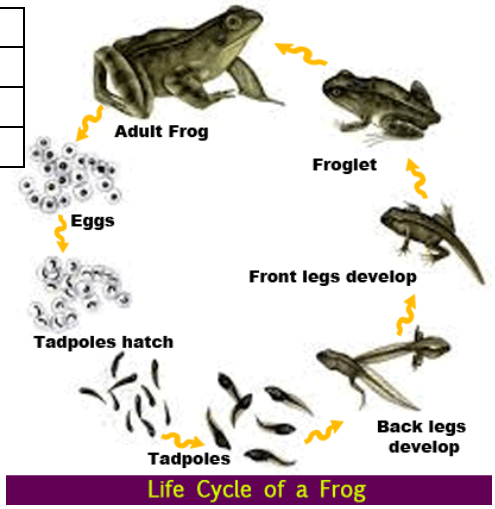






LESSON SUMMARY Lesson 2: Animal Life Cycles

IMPORTANT VOCABULARY	
metamorphosis	change through a process
egg	contains food for the young gives protection
hatches	breaking out of the shell



1.What is some animal life cycles?

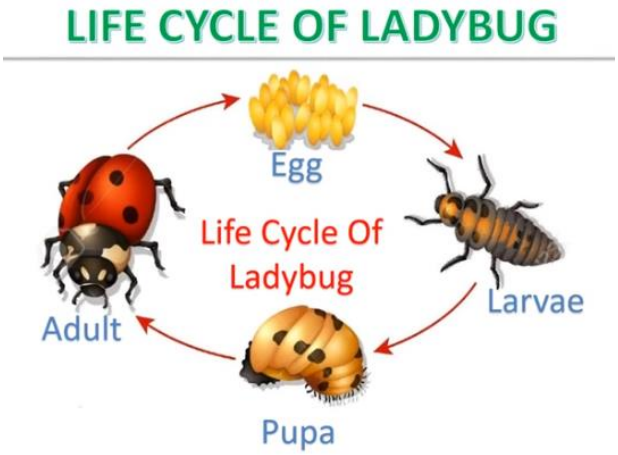
- life cycle of the frog
- life cycle of the ladybug
- life cycle of the: sea turtle, salmon, cheetah

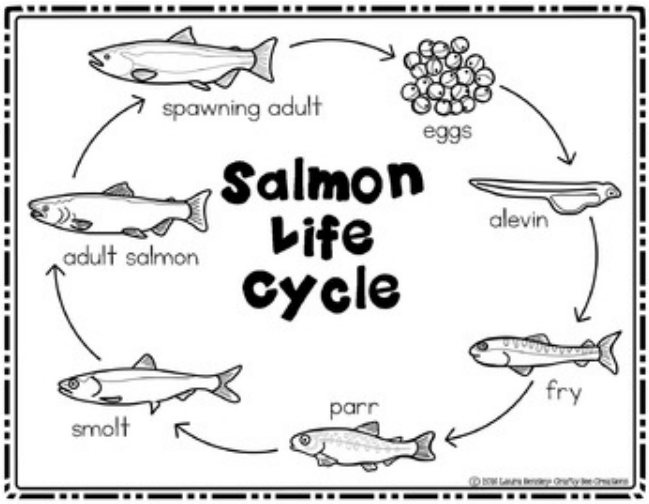
2.How do reptiles, fish, and birds change as they grow?

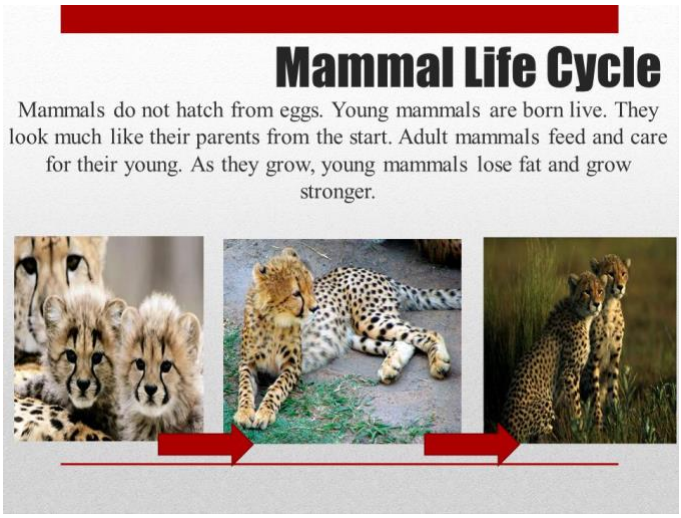
- reptiles, fish and birds do not go through metamorphosis
- they look similar to adults of their kind when they hatch

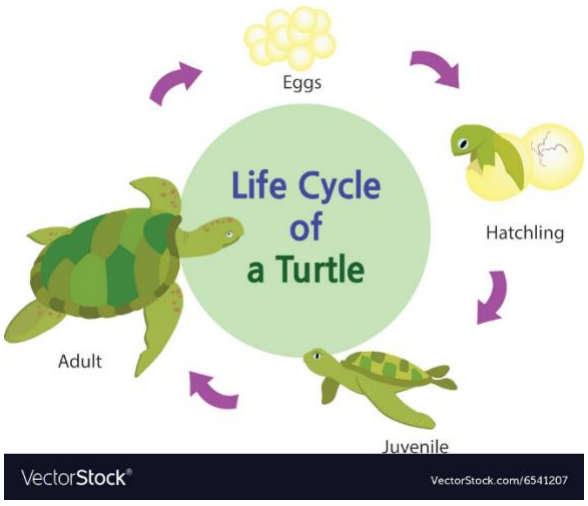
3.What is the life cycle of a mammal?

- most mammals do not hatch from eggs
- they are born alive
- they look like their parents
- they grow stronger and lose fat
- they grow into adults that can reproduce









LESSON SUMMARY Lesson 3: From Parents to Young

IMPORTANT VOCABULARY	
trait	a feature of a living thing
heredity	passing on of traits from parents to young
inherited traits	traits that come from parents
offspring	an organism's young (the babies)
learned traits	new skills that organisms learn

1. **What are inherited traits?**
    - inherited traits are traits that come from parents-a flowers shape and color, eye color, number of legs
2. **Which traits are not inherited?**
    - learned traits are not inherited- we have to learn them
    - riding a bicycle
    - learning a language
    - learned traits are not passed from parent to child

Inherited Trait

Definition

A characteristic that is passed from parents to their offspring.

Picture

Organism

Definition

A living thing.

Picture

Learned Behavior

Definition

A behavior that an animal develops by observing other animals or by being taught.

Picture

Offspring

Definition

New organisms that come from parent organisms.

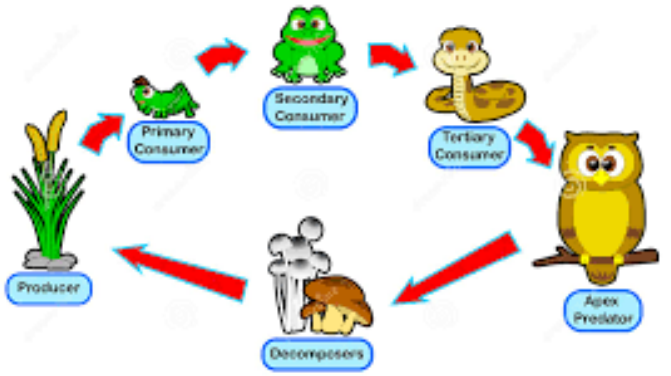
Picture

LESSON SUMMARY Lesson4: Food Chains and Food Webs

IMPORTANT VOCABULARY	
ecosystem	environment where living and nonliving things interact
food chain	shows how energy moves from one organism to another
producer	can make its own food
consumer	an organism that eats other organisms
decomposer	an organism that breaks down dead plant and animal material
food web	food chains that connect
predators	hunt other organisms
prey	what predators hunt
herbivores	eat only plants
carnivore	eats other animals
herbivore	eats plants and animals

1.What is an ecosystem?

- an environment where living and nonliving things live together and interact



2.What is a food chain?

- a food chain shows how energy passes from one organism to another

3.What is a food web?

- food chains that connect

4. Why are decomposers important?

- decomposers eat dead material
- They release nutrients into water or soil
- nutrients help plants and other organism to grow
- worms. mold, mushrooms and some insects and snails are decomposers

CHAPTER 4 TECHNOLOGY AND DESIGN

LESSON SUMMARY Lesson 1: Technology

IMPORTANT VOCABULARY	
technology	all the ways people change nature to meet their needs
system	a group of parts that work together to solve a problem
scientific advance	an important scientific discovery
globalization	the way technology makes the world seem smaller

1. What is technology?

- the ways in which people change nature to meet their needs
- computers, phones and cars are technology
- A system is a group of parts that work together to solve a problem

2. How do communication systems connect people?

- a communication system has four basic parts:
    1. input
    2. process
    3. output
    4. feedback
- communication systems help us connect to other people- sending an email, making a call

3. How is technology used in medicine?

- we use a stethoscope
- we use x-rays
- MRI's lets doctors look inside the body
- PROSTHETICS- artificial limbs that people who have lost legs or arms can use

4. How will technology shape the future?

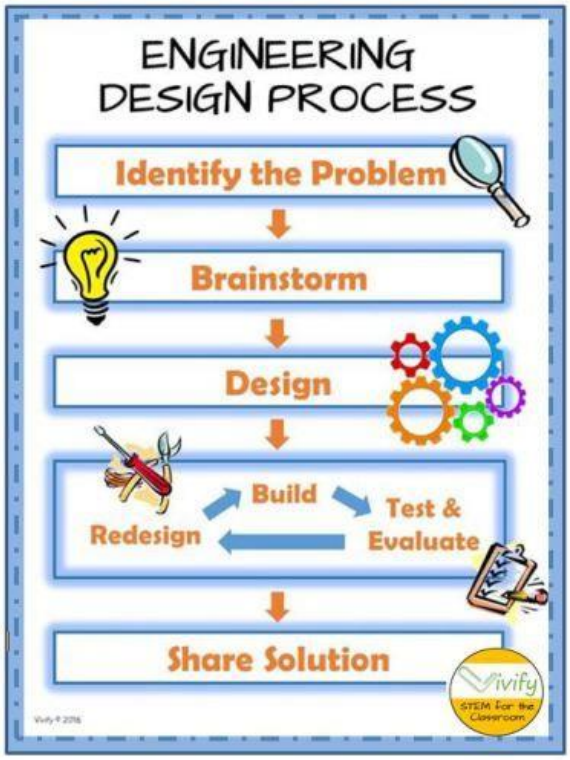
- we don't know, but we can predict
- the internet will improve
- people might rely more on solar power rather than fossil fuels

CHAPTER 4 TECHNOLOGY AND DESIGN

LESSON SUMMARY Lesson 2: The Design Process

IMPORTANT VOCABULARY	
design process	a series of steps for developing products and processes for solving problems
prototype	life size working model
patent	permission to claim a solution as your own

1. What are the steps in the design process?



- identify the problem
- thinking of solutions- BRAINSTORM
- build a model
- test your model
- communication- share how you solved the problem

2. **What is the last step in the design process?**

- communication- you need to tell people how you solved a problem

CHAPTER 4 TECHNOLOGY AND DESIGN

Lesson 3: Technology and the Environment

IMPORTANT VOCABULARY	
ethics	rules
conserve	use resources wisely
landfills	places where garbage is dumped
biodegradable	garbage that breaks down quickly and naturally

1. **How does technology impact society?**
    - technology has changed society
    - sometimes we get positive results and sometimes negative results
    - example: computers make communication easier-POSITIVE
    - computers can be used to steal your personal information-NEGATIVE
2. **How does technology affect nature?**
    - technology can have good and bad effects on the environment
    - EXAMPLE: DDT
    - DDT is a chemical that kills weeds and pests- GOOD EFFECT
    - DDT can also poison water. this affected fish and birds -BAD EFFECT
3. **How is technology helping to protect the environment?**
    - landfills have been designed
    - Some garbage is biodegradable- apple cores, banana peels and paper
    - New technology is helping to turn trash into fuel
    - Landfills give off methane gas
    - Scientists collect the gas and it can be used as energy