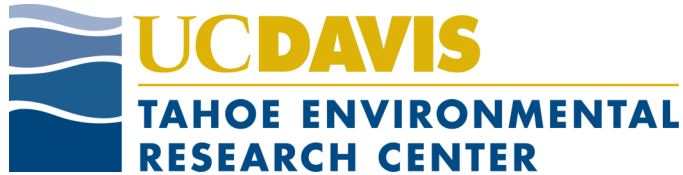


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... and to our participants!



Science Expo 2018

Life Science & Health Fair Answer Key

Name: _____

Date: _____



Organisms and Ecosystems

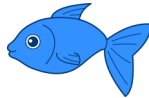
Food Chains

Food Chain Aim: Producers create their own food using energy from the sun (through photosynthesis).
Consumers get their energy by eating other organisms.
Decomposers act as nutrient recyclers in the ecosystem by breaking down dead and decaying organisms.

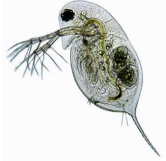
On the Ground and Beneath the Surface:



Producers, consumers, and decomposers are all important parts of a food chain.



Tahoe Plankton: Zooplankton play an important role in Tahoe's food web. They eat algae/phytoplankton and are eaten by fish.



Gone Fishin' in Lake Tahoe:



Name one fish found in Lake Tahoe. Is it native or non-native?

Answers will vary

Life Cycles

Pumpkins and Butterflies and Frogs, Oh My!:

Many animals and plants go through similar stages during their life cycles.

True or **False** (circle one)

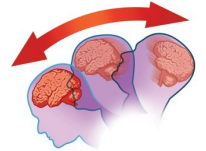


Health and Nutrition

Anatomy and Physiology

A Bone of Your Own: Your balance is based on posture and the movement of your skeleton.

Brain Waves: You get a concussion when your soft brain whacks against the inside of your skull. Name one symptom of a concussion: Answers will vary. Examples: headache, nausea, blurry vision, etc.



What is the best way to prevent a concussion when you do potentially dangerous activities? Wear a helmet

Nutrition and Wellness

Re-Think Your Drink: Students should be getting no more than 3-5 teaspoons of added sugar a day.

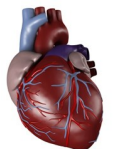
Germ Transfer: Germs are tiny living organisms that spread disease and make you sick. Name one or more ways you can prevent the spread of germs.

Answers will vary. Examples: Wash your hands, cough into your elbow, etc.

Anatomy and Physiology (Hallway)

Play to Your Strength: Give two reasons why it's important to exercise. Answers will vary. Examples: Exercise strengthens muscles, strengthens joints, strengthens bones, prevents injury, improves endurance, etc.

Your Amazing Heart: Your heart is a muscle that pumps blood and circulates it around your body.



Health and Nutrition

Brain

Train Your Brain: Every time you learn something new you change the structure of your brain.

True or False (circle one)



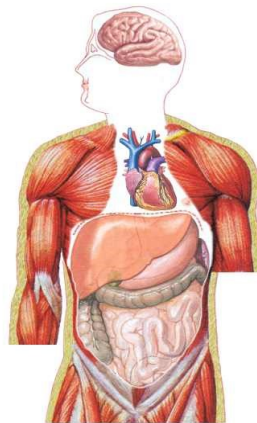
Think Fast!: _____ Reactions _____ are voluntary or something you control, _____ reflexes _____ are involuntary and happen unintentionally.

Confusing the Senses: Illusions trick your _____ brain _____, changing how you perceive and experience your sense of touch, taste, hearing, smell, or sight.

Anatomy and Physiology

Name That Organ: Name one organ and the role it plays in your body.

Answers will vary. Examples: heart circulates blood, lungs circulate oxygen, liver filters blood, etc.



Don't Hold Your Breath: Your respiratory system transports _____ oxygen _____ from the air into your lungs, and _____ carbon dioxide _____ from your lungs into the air.



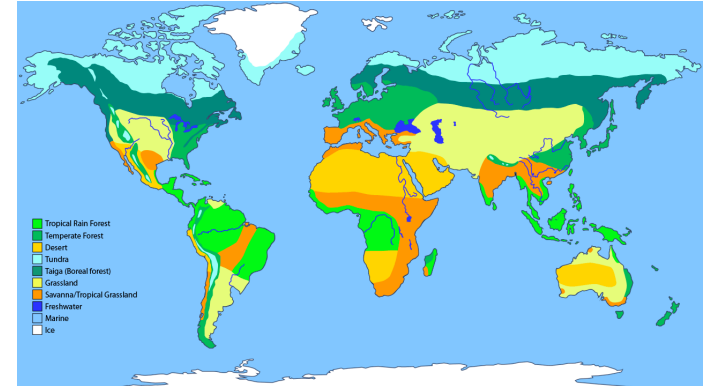
A Close Up of You: Tissue performs special functions in the body and is made up of _____ cells _____.

Organisms and Ecosystems

Ecosystem Diversity

Bioramas: Organisms have specific physical and behavioral adaptations that allow them to survive in particular biomes.

True or False (circle one)



Magical Microbes: A _____ microbe _____ is a tiny, microscopic organism found in water, soil, and in us!

Living Together: Name two organisms that have a symbiotic relationship.

Answers will vary



Plant Processes

In Search of Pollen: Pollination is the process by which _____ pollen _____ is transferred to the female reproductive organs of a plant, thereby enabling fertilization.

Planting Party: Which four things do plants need to grow?

1. _____ sunlight _____ 2. _____ water _____ 3. _____ CO₂ _____ 4. _____ nutrients/soil _____

Inheritance and Adaptation

Plant Adaptations

Flower Engineers: The color and shape of different flowers are adaptations that help the plant to attract pollinators.

True or False (circle one)



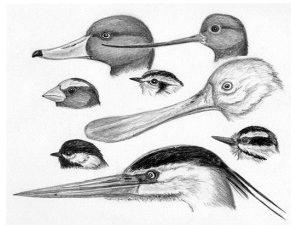
Seeds on the Move: What is one way a seed can travel?

Wind, water, on animals, in animals

Animal Adaptations

Natural Selection in Action: What process caused the moth population to change over time? **Natural selection**

Brilliant Bird Beaks: The shape of a bird's beak is an adaptation for gathering specific food.



Blubber Glove: What helps animals living in arctic waters stay warm and keep afloat?

Blubber

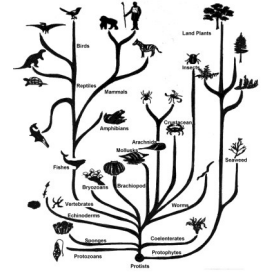
When Do I Rise?: Name one animal that is nocturnal, one that is diurnal, and one that is crepuscular. **Answers vary: Examples of nocturnal:** owls, bats, mice, squirrel, moths, raccoons, beetles, porcupines; **Examples of diurnal:** most butterflies, humans, squirrels, hawks, bees, Western tanagers, Mountain chickadees, American pikas, woodpeckers; **Examples of crepuscular:** rabbits/hares, Mule deer, skunks, Mountain lion, bobcat, bears

Inheritance and Adaptation

Diversity of Life

Tree of Life: All living things are related.

True or False (circle one)



Inheritance

DNA Recipes: All living things have their own unique code called DNA that is located inside their cells.



Fruit and Veggie DNA: Name an example of one thing that has DNA and one thing that does not have DNA.

Answers will vary. All living organisms (humans, strawberries, peas, etc.) have DNA. Non-living things (desks, rocks, etc.) do not have DNA.

In TCES Room 215

Crazy Traits: Different organisms vary in how they look and function because they have different inherited information from their parents.

These traits are based on chance.

