

Name _____ Date: _____ Hour: _____

GOOD BUDDIES ACTIVITY

On the line, identify the type of symbiosis in each relationship. The three types are MUTUALISM, COMMENSALISM, and PARASITISM.

SKUNKCABBAGE PLANT/FLY

Skunkcabbage plants attract flies in cool weather by making heat and provide food to the flies that come. Flies move from one skunkcabbage plant to the next feeding and transferring pollen as they go.

Does the Skunkcabbage plant benefit from the fly's actions? YES NO

Does the fly benefit from the Skunkcabbage plant's actions? YES NO

Is either harmed? YES NO _____

CUCKOO BIRD/ ROBIN

Red-chested cuckoo birds find an unattended robin nest, push out the robin eggs, and lay their eggs in the robin's nest, and leave. Robin babies die and robin parents feed and take care of the cuckoo babies.

Does the cuckoo bird benefit from the robin's actions? YES NO

Does the robin benefit from the cuckoo's actions? YES NO

Is either harmed? YES NO _____

MYCORRHIZAL FUNGI/TREE or other PLANT

Mycorrhizal fungi invade and live in or among roots cells of many plants. The plant provides nutrients to the fungi. The Mycorrhizal fungi help the host plant absorb inorganic nitrogen and phosphorus from the soil. Some mycorrhizal fungi also secrete antibiotics which may help protect their host from invasion by parasitic fungi and bacteria.

Does the Mycorrhizal fungi benefit from the tree's actions? YES NO

Does the tree benefit from the fungi's actions? YES NO

Is either harmed? YES NO _____

REMORA/SHARK

REMORA use suckers to attach temporarily to large marine animals such as sharks, manta rays, whales, turtles, or large fish. The SHARK provides free transportation, protection, and dropped food and feces which the remora feeds on. The host is not injured.

Does the Remora benefit from the shark's actions? YES NO

Does the shark benefit from the Remora's actions? YES NO

Is either harmed? YES NO _____

ATHLETE'S FOOT FUNGI/HUMAN

Athlete's foot fungus lives on the skin of humans and feeds on keratin, a protein. Humans have itchy, cracked skin which can become infected.

Does the Athlete's foot fungi benefit from the human's actions? YES NO

Does the human benefit from the Athlete's foot fungi's actions? YES NO

Is either harmed? YES NO _____

SNAPPING SHRIMP/GOBY FISH

Snapping shrimp have poor vision and depend on their goby fish roommate to give the danger signal when predators come and guide them back home if they wander too far. Goby fish that don't have a place to hide are quickly eaten. They find a snapping shrimp roommate who digs a hole for both to live in.

Does the Snapping shrimp benefit from the Goby's actions? YES NO

Does the Goby benefit from the Snapping shrimp's actions? YES NO

Is either harmed? YES NO

SNAIL/HERMIT CRAB

Hermit crabs find shells left by snails that have died and move in. Snails die and leave behind their shells.

Does the hermit crab benefit from the snail's actions? YES NO

Does the snail benefit from the hermit crab's actions? YES NO

Is either harmed? YES NO

HONEYGUIDE BIRD/HONEY BADGER

Honeyguide birds find a beehive, then chatter loudly to attract the Honey badger. They fly toward the hive making sure the badger is following. Upon arrival at the bee hive, the badger tears open the hive and feasts on the honey. Then the Honeyguide bird feeds on the remaining wax and larvae.

Does the Honeyguide bird benefit from the badger's actions? YES NO

Does the badger benefit from the Honeyguide bird's actions? YES NO

Is either harmed? YES NO

ALGAE/FUNGI FORM A LICHEN

Fungi form lichens by living in a close relationship with an algae. The fungus provides a protective home for the algae, and gathers mineral nutrients from rainwater and from dissolving the rock underneath. The algae gathers energy from the sun using photosynthesis. Both organisms share their nutrients with each other.

Does the algae benefit from the fungi's actions? YES NO

Does the fungi benefit from the algae's actions? YES NO

Is either harmed? YES NO

KUDZU/TREE

Kudzu vines grow by climbing, and wrapping around trees. Kudzu covered trees die as they are smothered and break under the weight of the growing Kudzu vines.

Does the Kudzu benefit from the tree's actions? YES NO

Does the tree benefit from the Kudzu's actions? YES NO

Is either harmed? YES NO

BACTERIA/HUMAN INTESTINE

Human intestine provides food for bacteria that live inside digestive system. Beneficial bacteria live in the intestine of humans help digest cellulose from plants which humans don't have the enzymes to break down.

Does the bacteria benefit from the human's actions? YES NO

Does the human benefit from the bacteria's actions? YES NO

Is either harmed? YES NO

GALL INSECT/OAK TREE

The gall insect lays their eggs in the leaves of branches of Oak trees causing a lump to form. Oak trees provide shelter and food to the insect larvae, but are not harmed.

Does the Gall insect benefit from the Oak tree's actions? YES NO

Does the Oak tree benefit from the Gall insect's actions? YES NO

Is either harmed? YES NO

HUMMINGBIRD/FLOWER

Hummingbirds feed on nectar from flowers. Flowers are pollinated by hummingbirds as they move from flower to flower.

Does the hummingbird benefit from the flower's actions? YES NO

Does the flower benefit from the hummingbird's actions? YES NO

Is either harmed? YES NO

TICK/DOG

Tick lives on dog and feeds on its blood and tissue. Dog gets skin irritation and can pick up diseases carried by the tick.

Does the tick benefit from the dog's actions? YES NO

Does the dog benefit from the tick's actions? YES NO

Is either harmed? YES NO

SKUNK/WOODCHUCK

Skunks often live in burrows that have been dug and abandoned by woodchucks. Woodchucks abandon holes which are later used by skunks.

Does the skunk benefit from the woodchuck's actions? YES NO

Does the woodchuck benefit from the skunk's actions? YES NO

Is either harmed? YES NO
