Fun Size: Biobreakers — Teacher notes

Introduction
This is similar to a well-known TV game for pupils. Questions in this version are biological.

Running the activity
Print the playing grids onto OHT sheets. There are twenty spaces on the grids. Players must answer a series of questions to win a line that starts in one coloured zone and reaches to the other zone of the same colour. Team 1 plays top to bottom, Team 2 plays left to right. A session consists of the best of three games using different grids.

The quizmaster chooses the first letter. The first team to put up a hand may answer. An incorrect answer gives a chance for the opposing side to respond. Shouting out automatically forfeits the chance to answer. A successful answer gives the right to choose the next letter. If no successful answer then the quizmaster selects the next letter.

The teacher keeps track of questions answered correctly by marking the hexagon with a shaped counter, round for Team 1, triangular for Team 2. Teachers will need to make about a dozen of each shape of these counters.

Select two teams. In the TV version one person plays against two others so the teams should not be of equal strength or size as Team 1 has only to answer four questions to win a game where as Team 2 has to answer five.

Safety
Not applicable.

More ideas
Pupils write their own questions at the end of a topic.

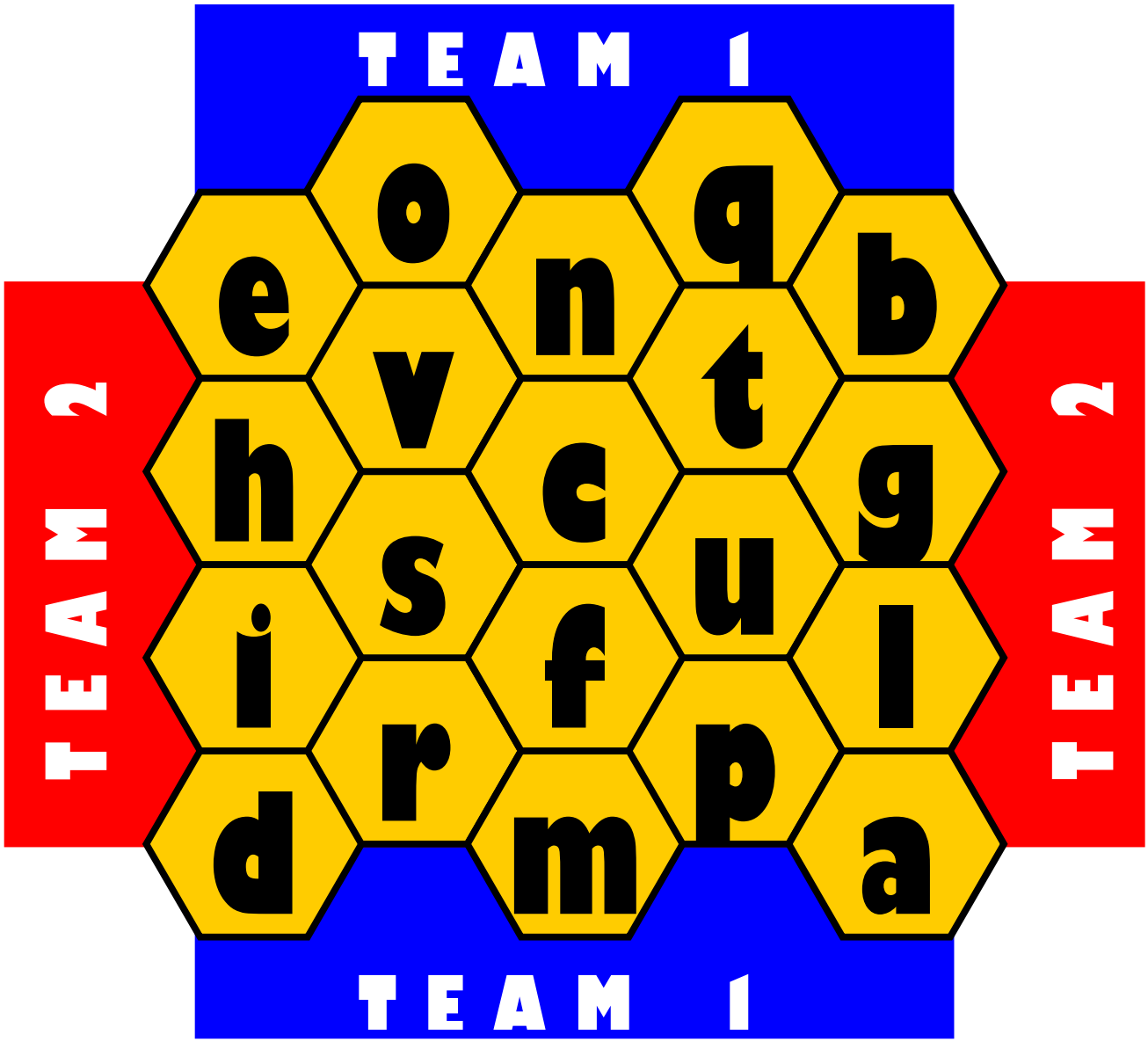
Learning outcomes
- Recall testing and vocabulary

Where the activity fits in
Review of Biology KS3 topics.

Skills
Team-work.

Acknowledgements
Thank you to the producers of similar games who suggested this activity.

Please send your fun size games to nigel.heslop@scienceyear.com for inclusion on future CDROMs.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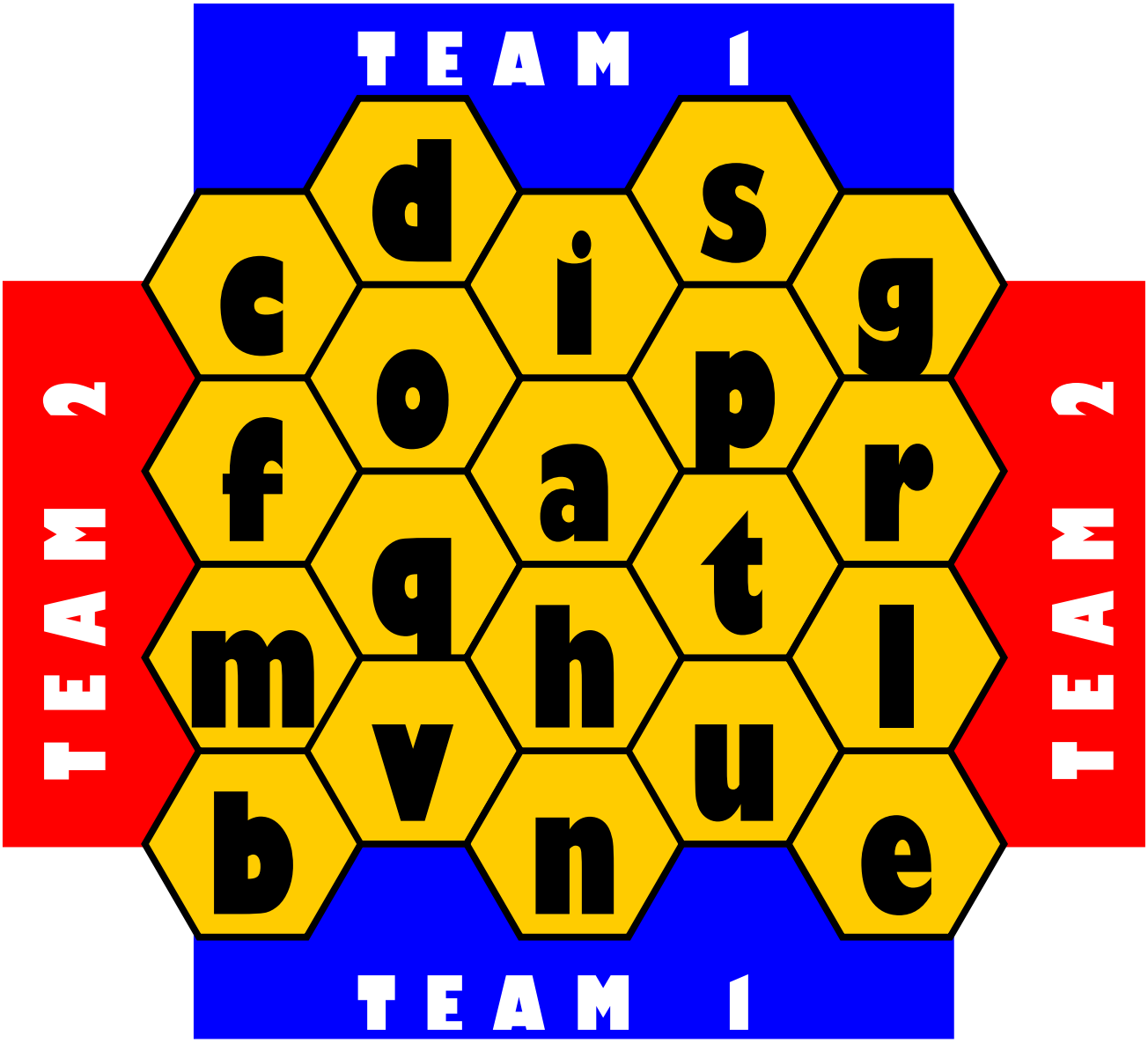
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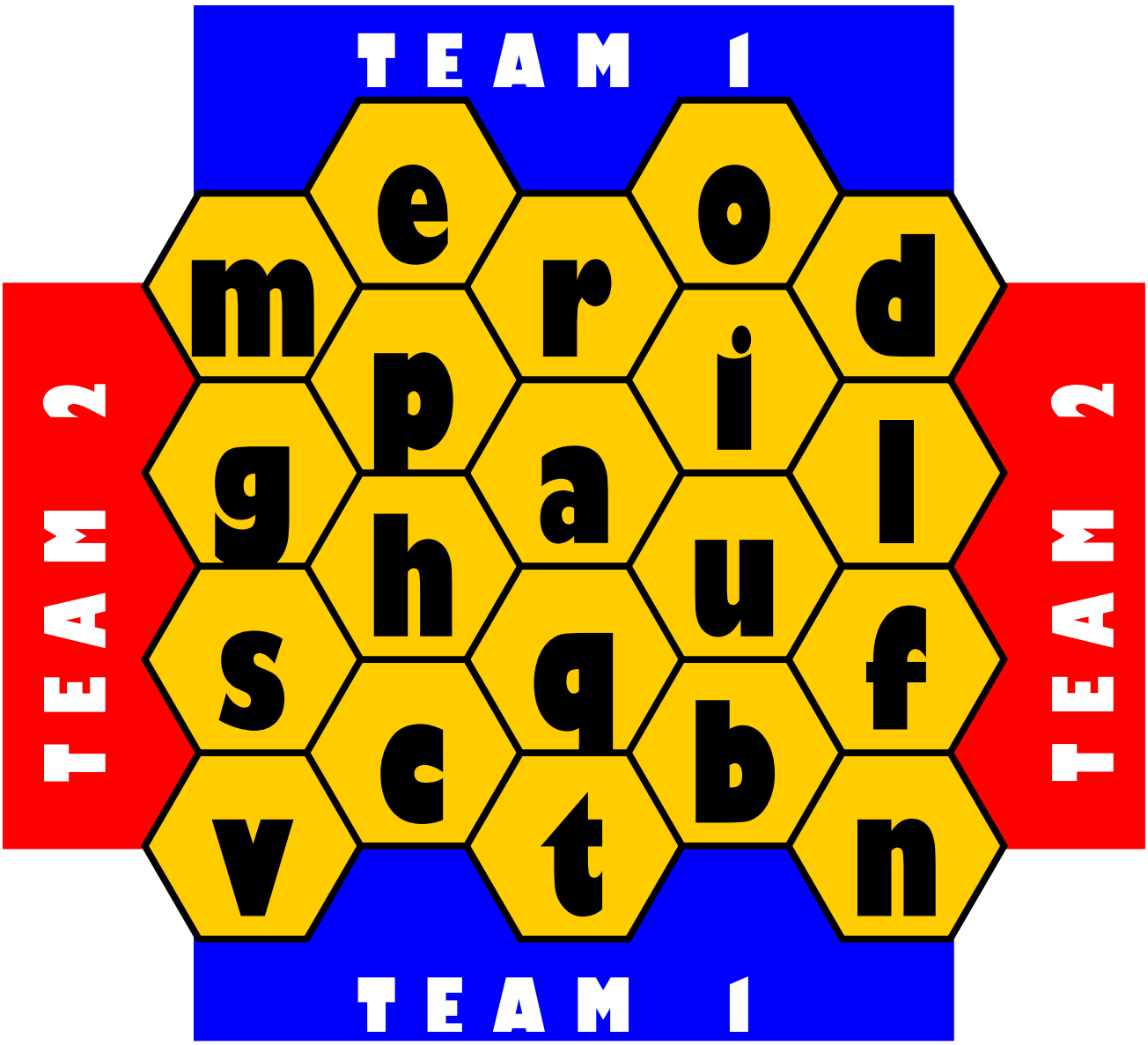
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Biobreakers Questions

Contestant(s) choose a letter from the chart.
The teacher selects a suitable question for the team and marks it off.
Questions should be asked in the form 'This (A) means …'

adolescence	the time from child to adult
aerobic	respiration using oxygen
anaerobic	respiration without oxygen
alimentary canal	the food tube from mouth to anus
animal	one kingdom of living organisms
antibiotic	a medicine which kills bacteria
aorta	the main blood vessel from the heart
artery	a blood vessel that carries oxygenated blood
asexual	reproduction without a mate
bacteria	one type of very small organism
biceps	a muscle in the arm
bile	a liquid that helps digest fat
biodegradable	a material that rots naturally
biomass	living material that is an energy resource
biosphere	where organisms survive
capillary	a tiny blood vessel
carbohydrate	food for energy
carbon dioxide	a gas we exhale
cardiac	to do with the heart
carnivore	meat eater
cartilage	tissue found in a joint
cell	smallest unit of a living thing
chlorophyll	chemical that absorbs light in photosynthesis
chloroplasts	structure in a cell where photosynthesis occurs
cholesterol	fat that can clog arteries
chromosome	a structure that contains genes
clone	an identical organism
conservation	keeping without needless losses
contraction	a muscle getting shorter
convex	eye lens
cytoplasm	the jelly-like material in a cell

decompose	to rot naturally
diabetes	a disease that produces uncontrolled blood sugar levels
diaphragm	a muscle which contracts so that we can inhale
diffusion	slow spreading out of particles
digestion	breaking down food
dilute	not concentrated
ecosystem	living and non-living factors interacting
enzyme	a biological catalyst
evolution	very gradual change in a species
excretion	removing waste from the body
extinction	the death of a species
fermentation	making alcohol
fertilisation	male and female sex cells joining together
foetus	a baby before it is born
food chain	the order that living things are eaten in
food web	many food chains linked together
fossil	preserved remains of living things
gamete	a sex cell
genes	a unit of genetic information
genetics	the study of inheritance
germination	the start of growth from a plant seed
glucose	a type of sugar
habitat	where an organism lives
haemoglobin	the pigment in red blood cells
herbivore	a plant eater
hormone	a chemical messenger carried in the blood
immunisation	a way of preventing disease
infra-red	heating rays
insulation	material to prevent cooling
invertebrate	an animal without a backbone
ligament	a structure that holds bones together
liquid	a state of matter with a fixed volume but no fixed shape
luminous	something that gives out light
lung	an organ for gas exchange

membrane	boundary layer around the cytoplasm of cells
menstrual	the monthly cycle of ovum release in a woman
microbe	a very small organism
microscope	the equipment we use to magnify very small things
mucus	a slimy secretion
mutation	a change in genes
nitrogen	an element in proteins
nucleus	the control centre of a cell
nutrients	types of food
nutrition	taking in food
oesophagus	the part of the gut from mouth to stomach
omnivore	an organism that eats animals and plants
organism	a living thing
ovary	the organ in a woman that releases eggs
oxygen	the gas we need from air
ozone	part of the atmosphere that protects us from UV radiation
parasite	a harmful organism that lives on or in another living thing
penicillin	a type of antibiotic
peristalsis	the way food is moved down the gut
photosynthesis	the process plants use to make food
placenta	the structure that nourishes a baby in the uterus
pollen	where the male sex cell is found in a plant
pollution	unnatural materials in the environment
predator	an animal that hunts others for food
prey	an animal that gets eaten
protein	the type of food we need for growth and repair
reproduction	making another living thing
respiration	the process that releases energy from food
result	reading in an experiment
retina	light sensitive layer in the eye
reversible	a reaction that can go the either way
saliva	liquid produced in the mouth
sensitive	being able to detect changes
skeleton	the bones of the body
sodium	metal part of common salt
species	a group of living things which can reproduce together

sperm	male animal sex cell
stimulus	a change in the environment which can be sensed
stomata	pores on the bottom surface of a leaf
symbiosis	a feeding relationship where both organisms benefit
tendon	part of the body that connects muscle to bone
thorax	section of the body between neck and abdomen
thyroid	a gland in the neck
tissue	lots of the same type of cells
transpiration	water evaporating from leaves
triceps	an arm muscle
ultrasound	waves beyond human hearing
ultraviolet	harmful waves that cause tanning
unsaturated	a solution that dissolve more solute
urine	liquid excreted from kidneys
uterus	the organ where an embryo develops
vacuole	where sap is stored in a plant cell
variation	differences between individuals
vertebrate	an animal with a backbone
virus	a type of microorganism
vitamin	a type of nutrient