

Introduction

This is a format for taking scientific ideas and making creative poetic outcomes from them. The poetic outcomes are constrained to make them easy to do. Encourage pupils to use ICT and different fonts to present their work.

Pupils may need a dictionary or a Thesaurus as a prompt.

Running the activity

Print out the rules sheet for constructing the simple poems as an OHT sheet. Discuss the format with pupils using the examples provided as illustrations.

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Safety

Not applicable.

More ideas

This makes an excellent display feature when processed and illustrated using ICT.

Learning outcomes

- Increased scientific vocabulary

Where the activity fits in

Anywhere

Skills

Literacy

Acknowledgements

This idea was supplied by Caroline McGrath, ASE Regional Officer, South East.

Poetry

1. The 1st line is one word and names the scientific idea.
2. The 2nd line has two words and describes what the first line means.
3. The 3rd line has three words and says what the first line does.
4. The 4th line has four words and tells how the writer feels about the first line.
5. The 5th line renames the first line in a single word.

FRICTION
Retarding force
Slows things down
Often wastes some energy
RUBBING

EROSION
Soil moving
Destroys arable land
We must stop it
DESERTIFICATION

RESPIRATION
Breaking down
Food giving energy
Oxygenated blood from lungs
EFFICIENCY

REACTION
Chemical change
Makes new substances
Fizz for frothy foam
CHANGE!

PHOTOSYNTHESIS
Uses light
To make food
Life dies without it
(Autotrophic)
FACTORY

NERVES
Very fast
Impulses travelling along
Brain controls the body
COMMUNICATION

DIGESTION
Breaking down
Use of enzymes
Provides nutrients for us
BREAKDOWN

RESPIRATION
Life process
Body releases energy
Food broken with oxygen
ACTIVITY

Introduction

Teams of pupils answer four rounds of general knowledge quiz questions. Each correct question answered wins a particular sum of 'money'. This is intended to be a fairly mixed set of general knowledge questions. Some more difficult questions are required so that the 'money' won gets taken away at regular intervals. There are 61 questions in the set. This should be enough for a game.

Running the activity

Choose 5 pairs or trios of pupils. This is to involve more people and to ensure the game does not drag on too long. Five teams will need four rounds to produce a winner. You will also need three officials: a banker, an assistant and a quizmaster (the teacher or a pupil). This is based on a well-known TV quiz, so pupils may know the rules well.

- The quizmaster chooses questions in turn from the three sections, humans, animals and miscellaneous.
- The banker declares the amount of money on offer, starting with £50 and increasing at £50 increments. Before they are asked a question a team may elect to bank the money they have accumulated so far in that round. After money is banked the value of the next question drops back to £50 again. The amount of money increases as more questions are asked. If a question is answered incorrectly the money built up and not banked is lost.
- Tokens can be used as money.
- The banker keeps a record of how much money has been banked.
- The assistant keeps a tally chart of who has the most correct and wrong answers. There is a table for this at the end of the file.
- The timekeeper times ten seconds per answer and two and a half minutes per round, including question-asking time.
- A team has 10 seconds (a long time) to answer.
- They vote out the weakest link in each of the first three rounds.

In the final round: The remaining two teams are asked five questions each, and the highest score wins. Use a 'first-to-answer' question in the event of a tie. The winners get a small prize.

Safety

Not applicable.

More ideas

There will be more sets of questions in all of the *Fun-Size* sections of CDROMs produced by ASE for Science Year.

Learning outcomes

- Sc2 knowledge, particularly human and animal biology.

Where the activity fits in

Anywhere. It is intended to provide interesting facts to generate further questions and discussion from pupils.

Skills

Vocabulary, recall, knowledge and understanding, team-work.

Humans

1. Where are your biceps muscles – in your arms, legs or chest?
Arms
2. Is the large intestine shorter or longer than the small intestine?
Shorter
3. Where are the smallest bones in the body?
In the ear
4. Where in the body is the tibia?
In the lower leg
5. How many teeth are there in an adult human mouth – 28, 30 or 32?
32
6. How much does the human brain weigh – 1.2kg, 1.5kg or 1.7kg?
1.5 kg
7. Dentures were once made from teeth taken from dead bodies – true or false?
True (They were popular after the Battle of Waterloo.)
8. Where in the body are the pectoral muscles – the jaw, the chest or the upper arms?
The chest
9. How much air can an adult's lungs hold – 2 litres, 3 litres or 5 litres?
3 litres
10. How long has a human been known to survive without food or water?
4, 11 or 18 days?
18 days is the record
11. If all your blood vessels were laid out end to end, how far would they stretch – once, 3 or 5 times around the world?
5 times around the world
12. Name the four main human blood groups
Groups A, B, O and AB

13. A human being living 70 years has about 500, 2,500 or 5,000 million heartbeats?
About 2,500 million
14. Where in the body is the femur – the thigh, the calf or the upper arm?
The thigh
15. The area of an adult's skin is about 2 m². What is the area of their lungs – 5, 25 or 70 m²?
About 70 m²
16. What does an omnivore eat?
Plants and animals
17. Which is the most common blood group – O, A, B or AB?
Group O
18. Who has the heaviest brain – a man or a woman?
A woman

Animals

19. How long is the world's largest Giant Squid – 5, 12 or 20 metres?
20 metres
20. One species of insect has survived volcanoes, hurricanes, floods, dinosaurs etc. Which is it?
The cockroach
21. The most destructive insect in the world can eat its own weight in food each day. What is it?
The locust
22. Which bird sheds half its weight every day in droppings – the blue tit, the starling or the crow?
The starling
23. Echolocation helps bats to do what?
Avoid obstacles and find prey
24. A species of crab makes any shell it can find its home. What is it called?
The hermit crab

25. Which bird lays the largest eggs?

The ostrich (15-20 cm long)

26. Can birds move their eyes inside the sockets?

No

27. Which mammal has the highest blood pressure?

The giraffe

28. How fast can a cheetah run - 65 km/h, 90 km/h or 112 km/h?

112 km/h

29. What is the largest animal that has ever existed?

The blue whale

30. Are birds warm-blooded or cold-blooded?

Warm blooded

31. Is a dolphin a fish, reptile or mammal?

A mammal

32. What is unusual about the chameleon?

It can change its colour to match its surroundings

33. There is only one group of mammals that can fly – which is it?

Bats

34. Which living creature makes the loudest noise?

The humpback whale (whose 'call' reaches 190 decibels)

35. Do polar bears live at the North or South Pole?

At the North Pole

36. There is a bird that flies for up to four years without landing – true or false?

True (the Sooty Tern, which feeds and sleeps on the wing)

37. How many feathers are there on an average sized robin – 400, 1,000 or 3,000?

3,000

38. How many stomachs does a cow have – 1, 3 or 4?

4

Miscellaneous

39. If you are sitting quietly, how many times does your heart beat a minute – 30, 70 or 120?

70 on average

40. On average, who has the greatest number of hairs on their head – blond, brown or red heads?

Blond (150,000 hairs, brown has 100,000, red has 60,000)

41. What is the main difference between insects and spiders?

The number of legs (spiders have eight, insects six)

42. Which is the world's tallest tree?

The Californian Redwood (it is 63 times taller than the average man)

43. Which tropical grass provides the staple diet of half the world's population?

Rice

44. Which of these foods is rich in protein – pasta, cheese or spinach?

Cheese

45. Do bananas grow on trees, shrubs or bushes?

Trees

46. Is sorghum a type of cereal, a large shrub or a species of tropical fish?

A type of cereal

47. Only one bird can fly backwards. Is it a hummingbird, a woodpecker or a bird of paradise?

A humming bird

48. Where did bananas originate from – South America, South East Asia or the Middle East?

South East Asia

49. What is the white of an egg called?

Albumen

50. How many tonnes of krill do blue whales eat in a day?

6 tonnes

51. Where does the kiwi fruit originate from?

China

52. Snakes have no external ears, but do they have eardrums?

No

53. How many petals are there on a buttercup - 4, 5 or 6?

5

54. Humans can breathe and swallow at the same time – true or false?

True (but only up to an age of 6 months)

55. How far does your hair grow in a month – 0.5 mm, 2mm or 5mm?

2mm

56. What life form neither breathes, eats nor moves?

A virus

58. Which kills most people – bee stings or snake bites?

Bee stings

59. Do snails have teeth?

Yes

60. What section of your body is your stomach in?

The abdomen

61. How many bones are there in an adult human's skeleton – 86, 106 or 206?

206

Link Record Card

	Team 1 Names	Team 2 Names	Team 3 Names	Team 4 Names	Team 5 Names
Round 1 Right answers Wrong answers Banked					
Round 2 Right answers Wrong answers Banked					
Round 3 Right answers Wrong answers Banked					
Final Round 1 2 3 4 5					

Introduction

A-Z quizzes are useful to change the pace or direction of lessons. They can be constructed for different topic areas. This example covers general knowledge and KS3 human biology.

Running the activity

Photocopy the question sheet or use as a quiz.

Do the activity against the clock to find the highest score. The questions are reasonably demanding.

Safety

Not applicable

More ideas

Pupils can generate their own quizzes at the end of a topic.
Use the quiz as a tutor time activity.

Lesson outcomes

- Vocabulary checking

Where the activity fits in

As a change of pace and direction to any of the KS3 topics.

As a lesson starter or finisher.

As a homework.

Skills

Knowledge and understanding, recall, vocabulary.

Acknowledgements

Please send your fun size quizzes to nigel.heslop@scienceyear.com for inclusion on future CD-ROMs.

A to Z Quiz

Animals	eat other living things for nutrition
Beak	mouth part of a bird
Cytoplasm	main material inside a cell
Diaphragm	muscle that contracts so you can breathe
Embryo	a young organism in early stages of development
Fungus	type of organism that causes Athlete's Foot
Glucose	type of sugar
Habitat	where a plant or animal lives
Influenza	common disease caused by a virus
Jaw	a bone in the head
Kingdom	the of plants and the of animals
Lactic acid	a product of anaerobic respiration in muscles
Mucus	slimy secretion in the breathing system
Nail	horny plate on the finger or toe
Orbit	bony cavity for the eye
Parasite	an organism that feeds on and damages a host
Quadrat	square frame for counting plants in an area
Radius	a bone in the arm and part of a circle
Seed	develops from a fertilised ovule
Thorax	part of body from neck to abdomen
Urine	a fluid excreted by the kidneys
Viruses	live in cells and cause diseases
Weed	a plant in the wrong place
Xylem	water conducting tissue in plants
Yolk	part of egg rich in fat
Zoology	the study of animals

A to Z Quiz

A _____	eat other living things for nutrition
B _____	mouth part of a bird
C _____	main material inside a cell
D _____	muscle that contracts so you can breathe
E _____	a young organism in early stages of development
F _____	type of organism that causes Athlete's Foot
G _____	type of sugar
H _____	where a plant or animal lives
I _____	common disease caused by a virus
J _____	a bone in the head
K _____	the of plants and the of animals
L _____	a product of anaerobic respiration in muscles
M _____	slimy secretion in the breathing system
N _____	horny plate on the finger or toe
O _____	bony cavity for the eye
P _____	an organism that feeds on and damages a host
Q _____	square frame for counting plants in an area
R _____	a bone in the arm and part of a circle
S _____	develops from a fertilised ovule
T _____	part of body from neck and abdomen
U _____	a fluid excreted by the kidneys
V _____	live in cells and cause diseases
W _____	a plant in the wrong place
X _____	water conducting tissue in plants
Y _____	part of egg rich in fat
Z _____	the study of animals

Introduction

A collection of very poor jokes based on examination answers.

Running the activity

It would be an idea to print out individual jokes and challenge pupils to give the right answer and to explain why the joke is funny, or not.

Safety

Not applicable.

More ideas

Get your own pupils to generate their own jokes.

Use the jokes as a tutor time activities across the school as a Science Year Joke Day.

Where the activity fits in

As an introduction to many topics.

Acknowledgements

More jokes can be found on the Science Year website

www.scienceyear.com

Please send your jokes to

nigel.heslop@scienceyear.com for inclusion on future CDROMs.

Jokes

- Q. What happens to your body as you age?
A. When you get old, so do your bowels and you get continental.
- Q. Name a major disease associated with cigarettes
A. Premature death.
- Q. How can you delay milk turning sour?
A. Keep it in the cow.
- Q. How are the main parts of the body categorised?
A. The body consists of three parts – the branium, the borax and the abominable cavity. The branium contains the brain, the borax contains the heart and lungs and the abominable cavity contains the bowels, a, e, i, o and u.
- Q. Briefly describe the skeleton and its function in the body
A. The skeleton is what is left after the insides have been taken out and the outsides have been taken off. The purpose of the skeleton is something to hang the meat on.
- Q. What is a seizure?
A. A Roman emperor.
- Q. What is a terminal illness?
A. When you're sick at the airport.
- Q. What is artificial respiration commonly known as?
A. The kiss of death.
- Q. What are steroids?
A. Things for keeping carpets still on the stairs.
- Q. Give an example of a fungus. What is its characteristic feature?
A. Mushrooms. They always grow in damp places so they look like umbrellas.
- Q. What is a magnet?
A. Something you find crawling on a dead animal.