Woodland

Food

Chains

Woodland Food Chains

Teacher's notes

This activity can be run with varying degrees of complexity depending on the age and ability of your pupils.

For all versions, each child is given an animal character, e.g. print as a sticker/ on string.

You may also need lots of string, or tokens that represent energy that can be passed around/ along string/ from hand to hand.

Basic: Who eats who?

Pupils need to find another character they might eat, or that might eat them.
Move around the room until you are in a group of 3 or 4.

Give each plant a ball/star/object representing energy. Roleplaying eating and passing the energy on.

Introduce the vocabulary,
> *predator, prey* OR
> *producer, consumer, secondary consumer*

Basic: Who eats what?

Pupils find someone who eats the same thing as them.

Introduce the vocabulary
> *producer, herbivore, carnivore, omnivore, detritivore (eats/ gains their energy from dead material e.g. beetle, fungus)*

Intermediate: Food chain game

Pupils are all given a role.

Plants and dead wood are sited around the room with a supply of pegs, tags or tokens (energy).

Pupils can only take tokens from a creature they would eat. Gradually introduce secondary and tertiary consumers into the game. Who ends up with all the energy?

This can be simplified by using "characters" from just one food chain, or by only having three layers e.g. bluebells, aphids, ladybirds.

If using multi-coloured tokens and pegs, why not reveal a secret poison, that only acts when a character has three or more tokens of that colour (bio accumulation of chemicals, e.g. slug pellets kill hedgehogs)

Advanced: Rings game

Using the rings diagram, or a large version chalked on the playground floor.

Ask pupils to arrange themselves with the sun at the centre, and producers and consumers in concentric rings working outwards, linking up to the character the eat/ are eaten by. They will soon discover that they need to create loop back into the middle because of the detrivores!

What happens if one character is removed? E.g. a tree, the sun? Lay down if you are dead. Nb. It is sometimes difficult to see the patterns from the inside of the circle. Get one or two pupils to be directors, or video the others, then play it back so pupils can be part of the patter and then look at it from the outside.

Advanced: create your own food chain game and rules!

Asking pupils to create their own game is great for teamwork and negotiating. It shows which pupils have understood the flow of energy and provides a good chance to reflect on "what happens in reality". E.g. animals need to use up energy to move around at different speeds, where does this energy go? How much time do animals have to spend eating? However, you will need a lot of tokens to make these versions work!
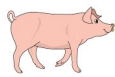
Acorns → Pig

Holly → Pony

Grass → Rabbit → Fox

Foxgloves → Bee → Honey buzzard
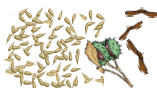
Dead leaves → Worm → Hedgehog

Seeds → Mouse → Owl

Berries → Blackbird → Goshawk

Dead wood → Stag beetle → Badger

Leaves → Moth → Bat

Dead wood → Mushrooms → Deer
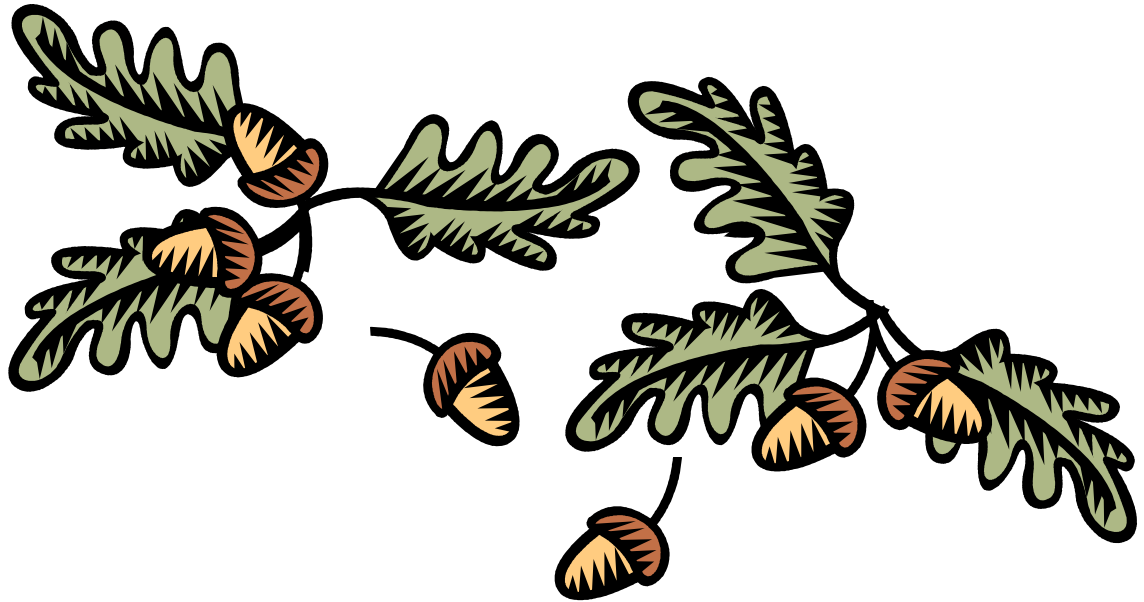
Bluebells → Aphid → Ladybird
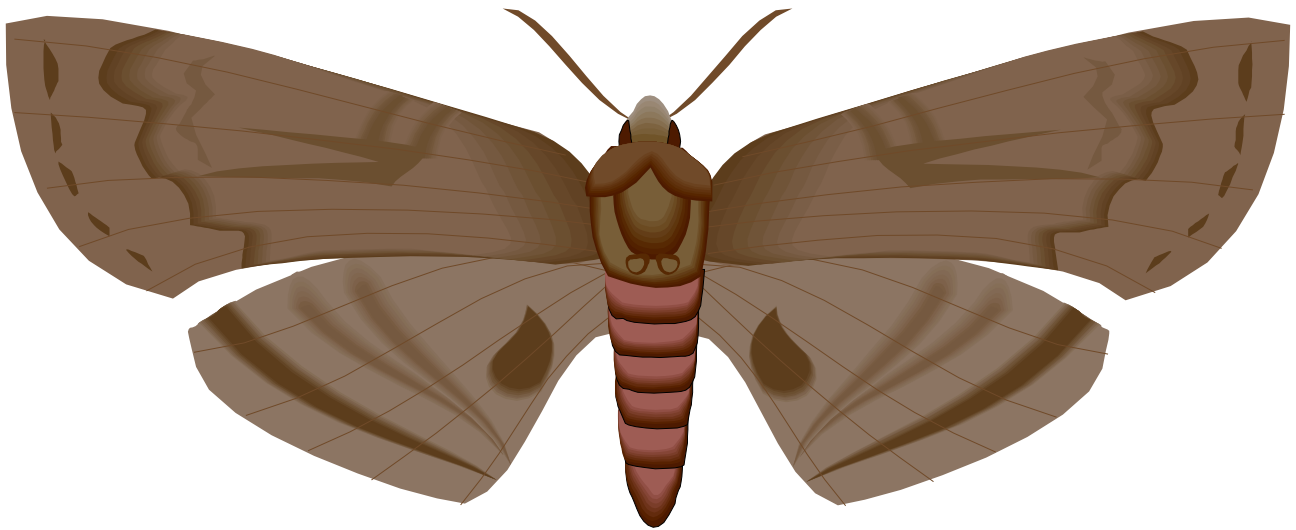
Dead wood → Fly → Spider → Robin

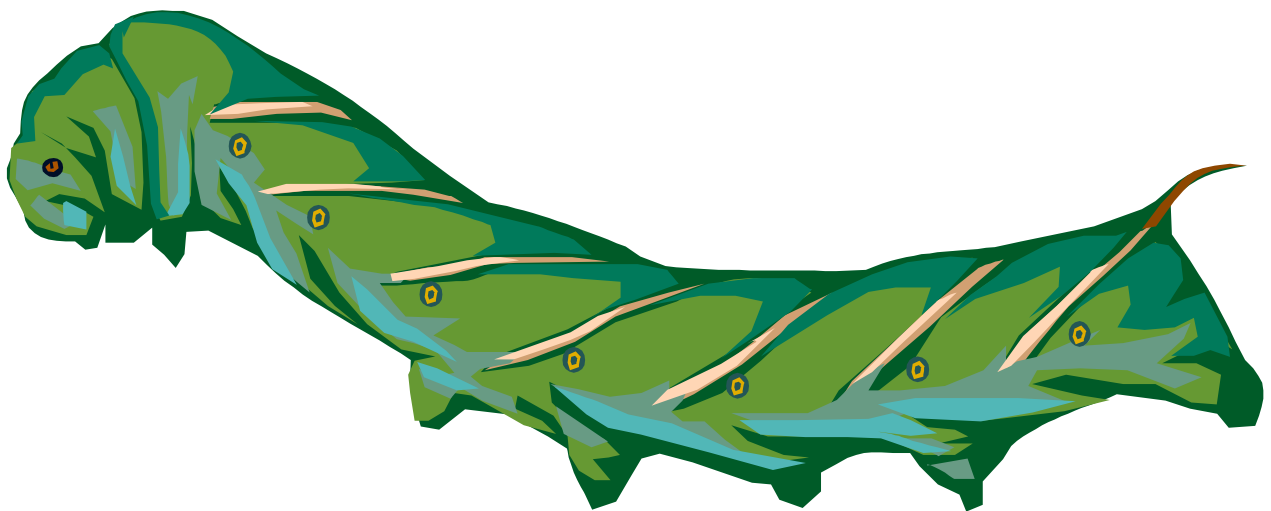Leaves → Caterpillar → Blue tit → Sparrowhawk

Acorns

Grass

Bat

Moth

Badger

Caterpillar

Deer

Fly
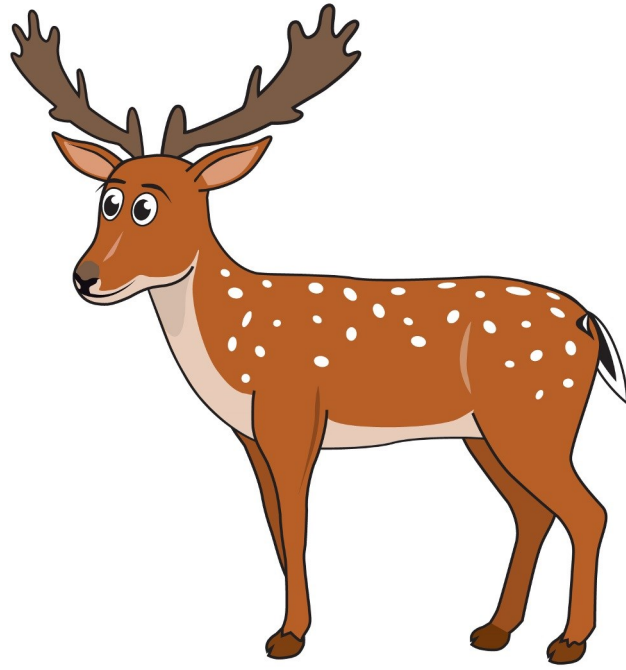
Goshawk
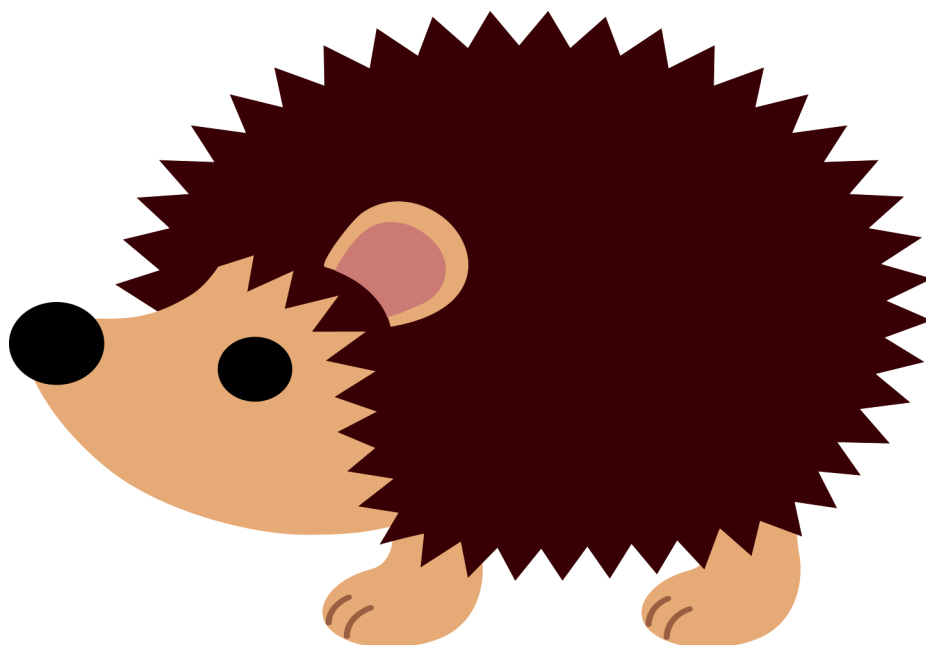
Hedgehog
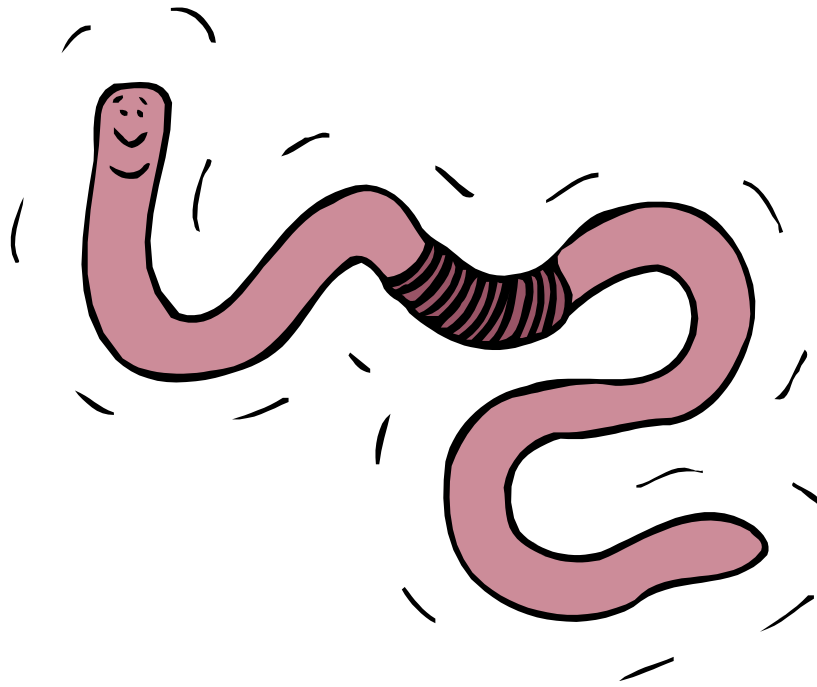
Worm

Dead leaves

Ladybird
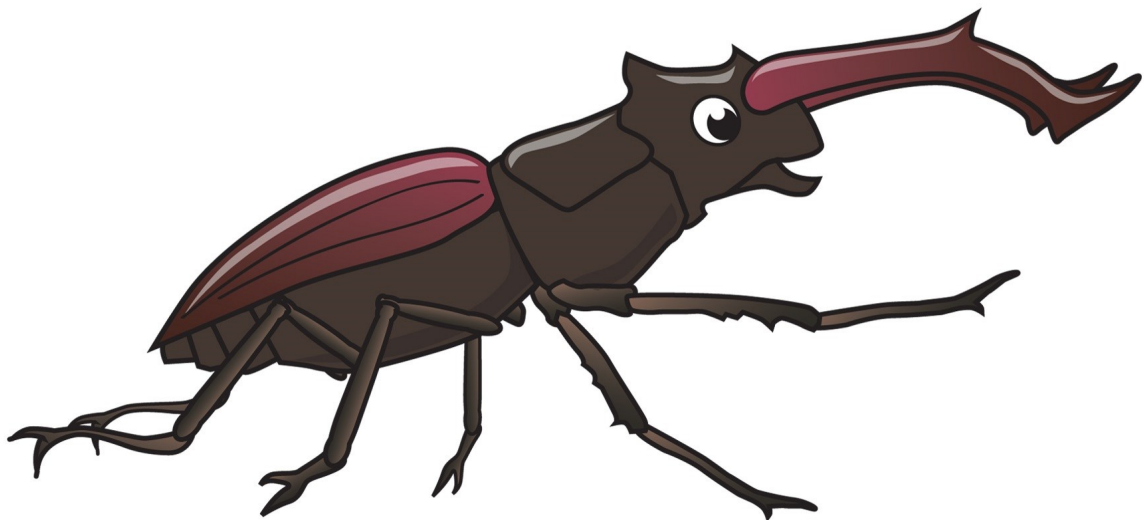
Stag beetle

Mouse

Leaves

Owl
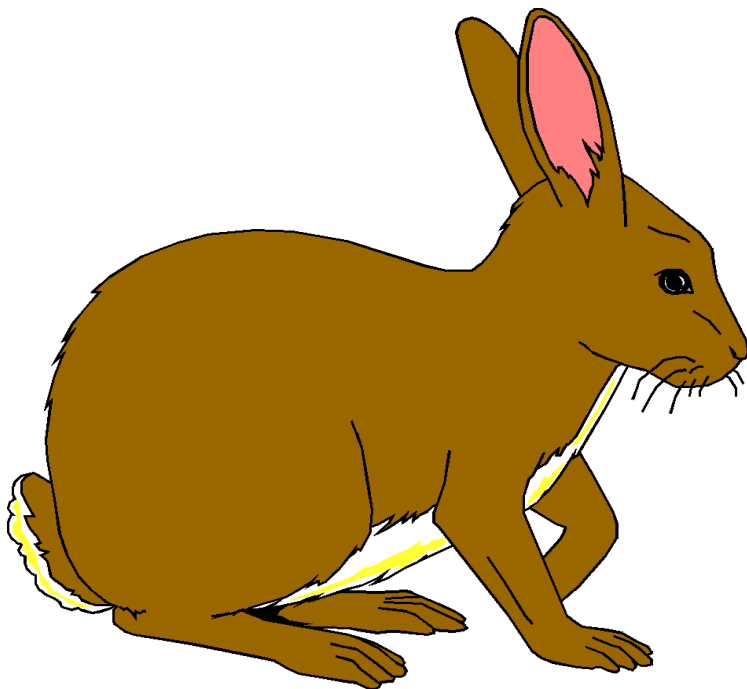
Rabbit

Blackbird

Spider

Seeds
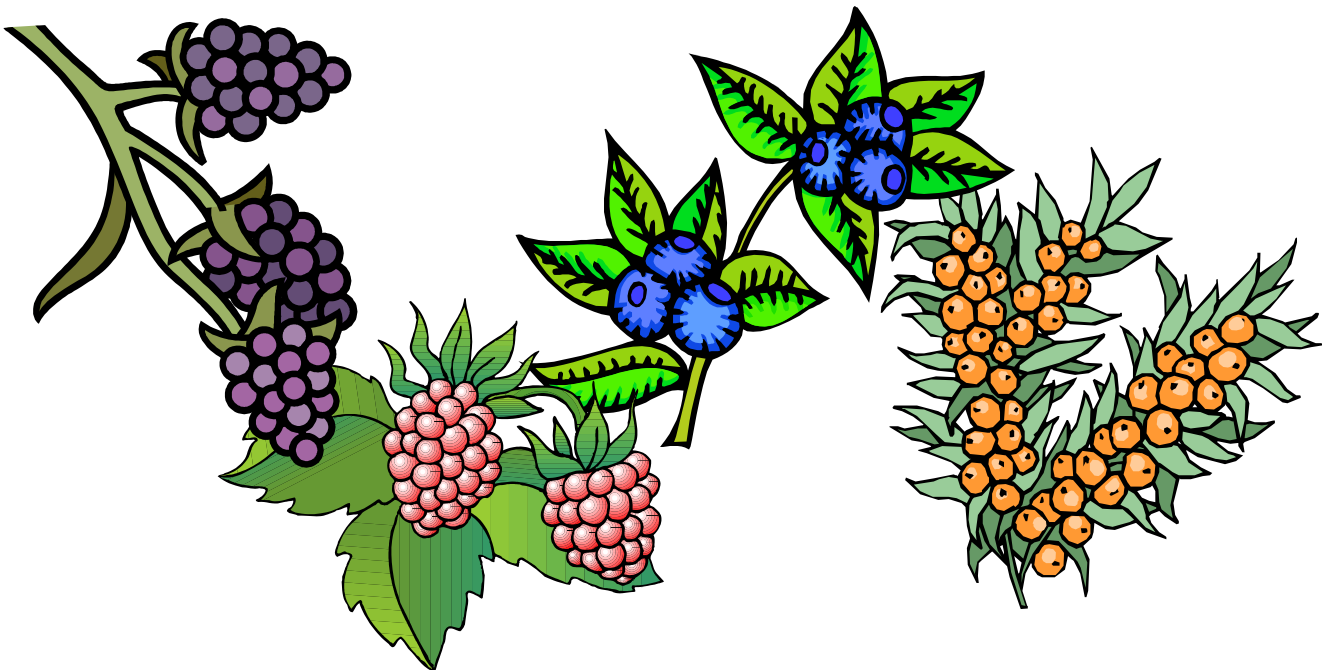
Berries

Bluebells

Bee

Honey buzzard
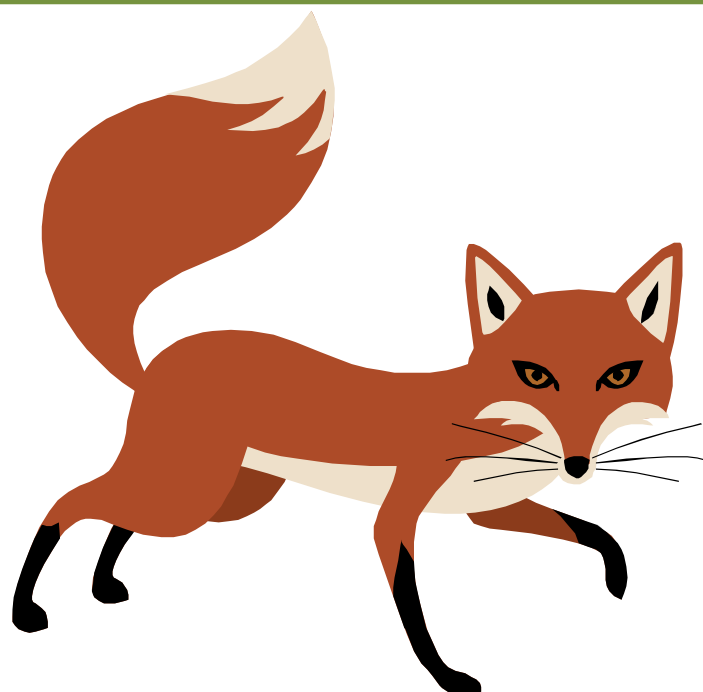
Fox
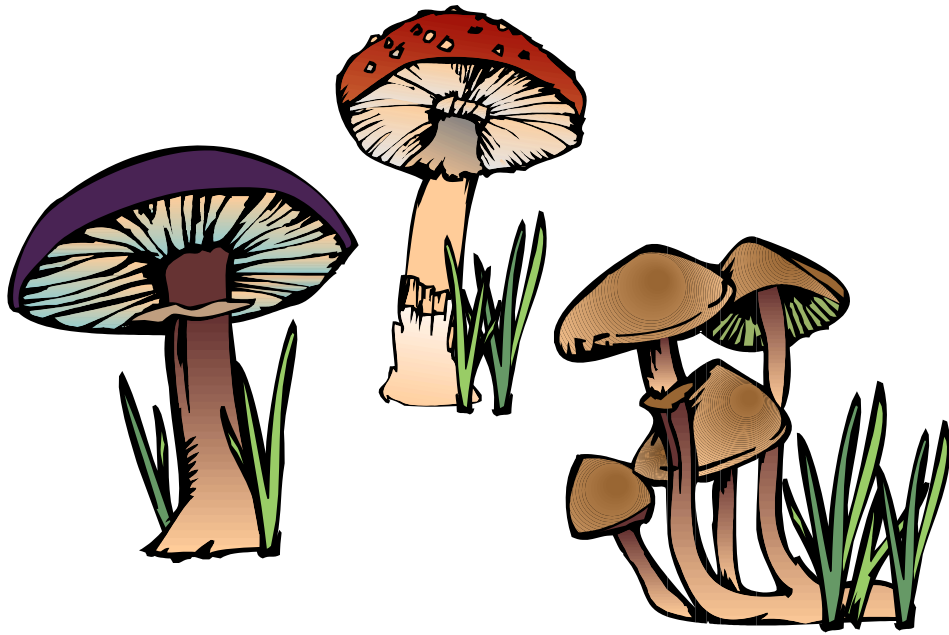
Mushrooms
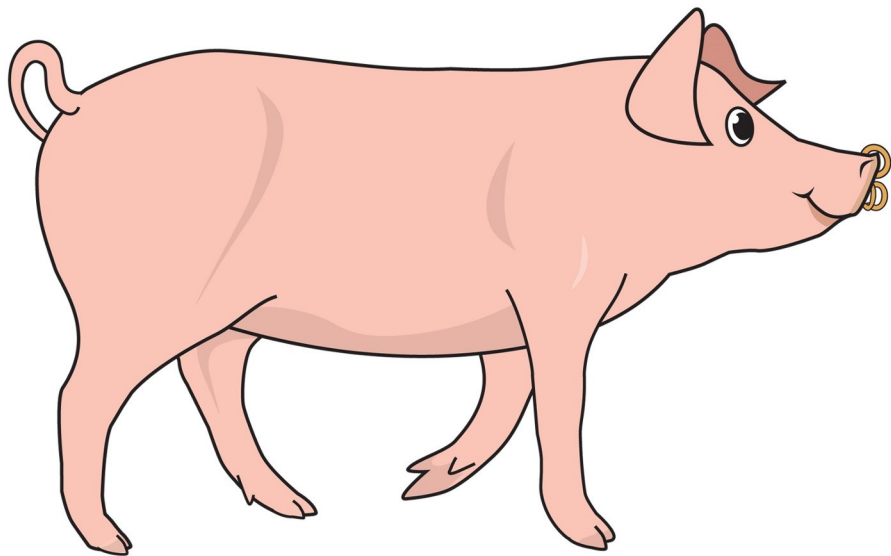
Pig
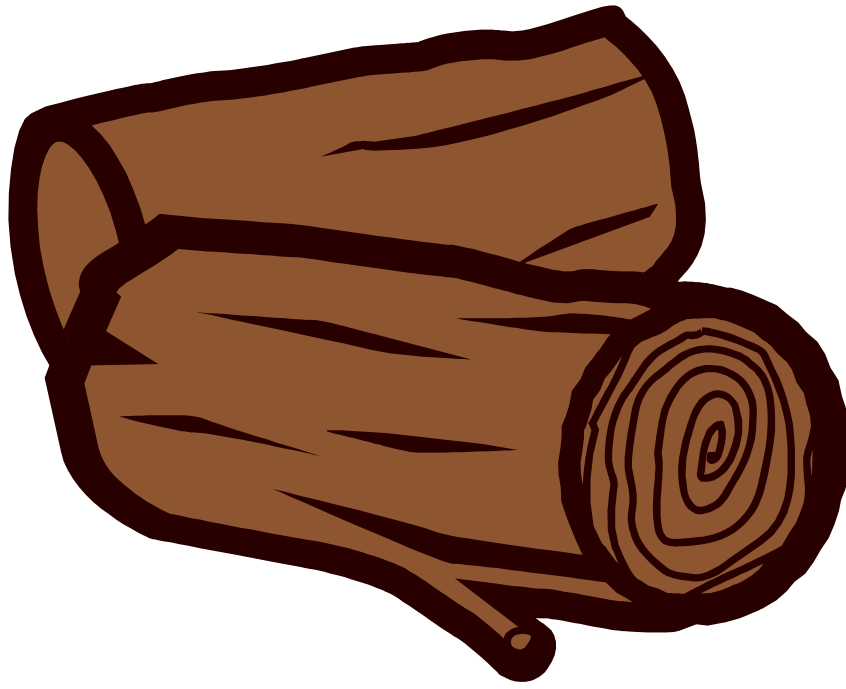
Dead wood

Dead wood
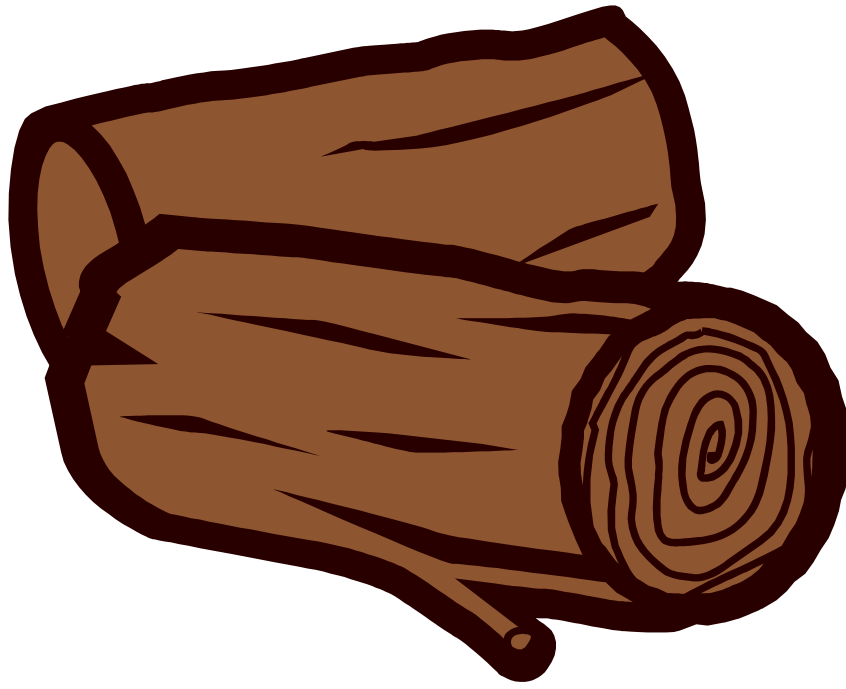
Dead wood

Leaves

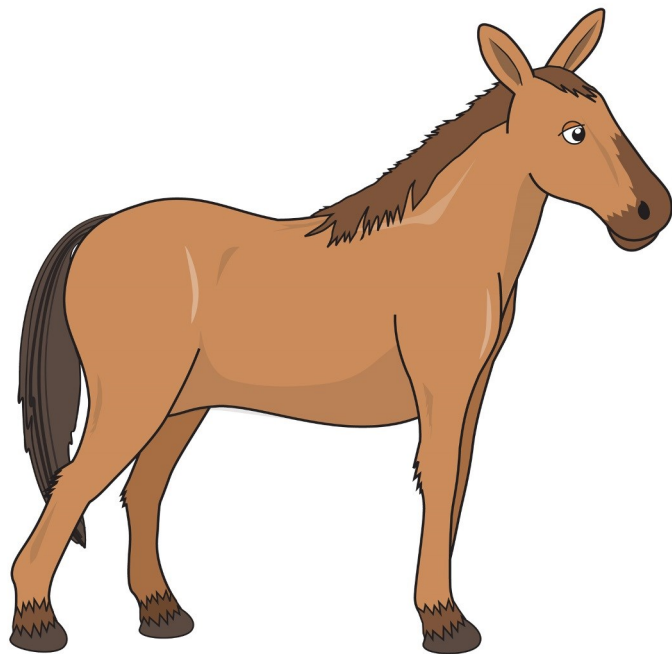# Foxgloves

Blue tit

Sparrowhawk

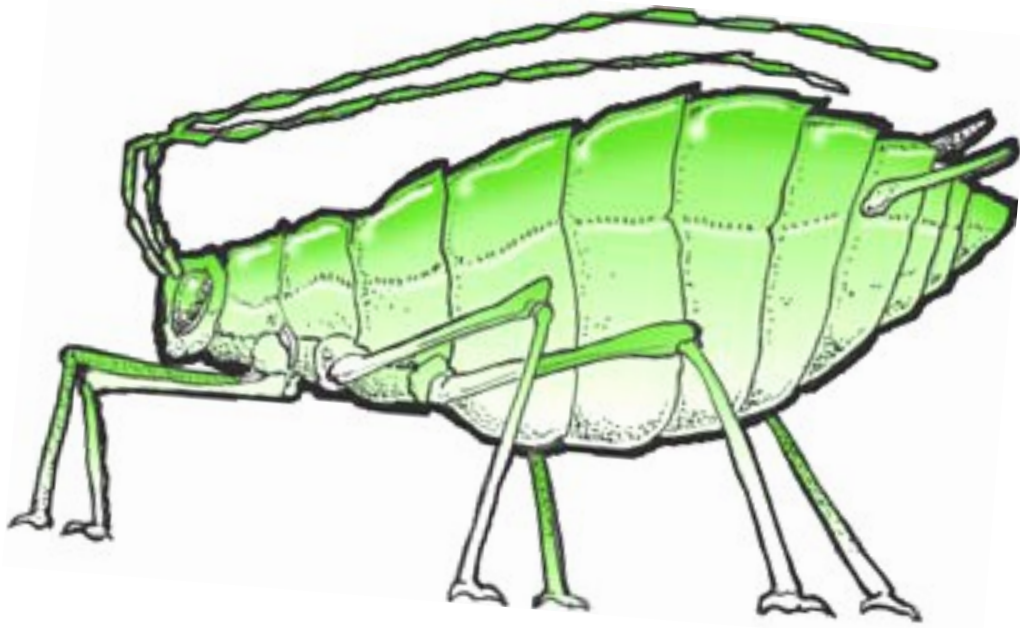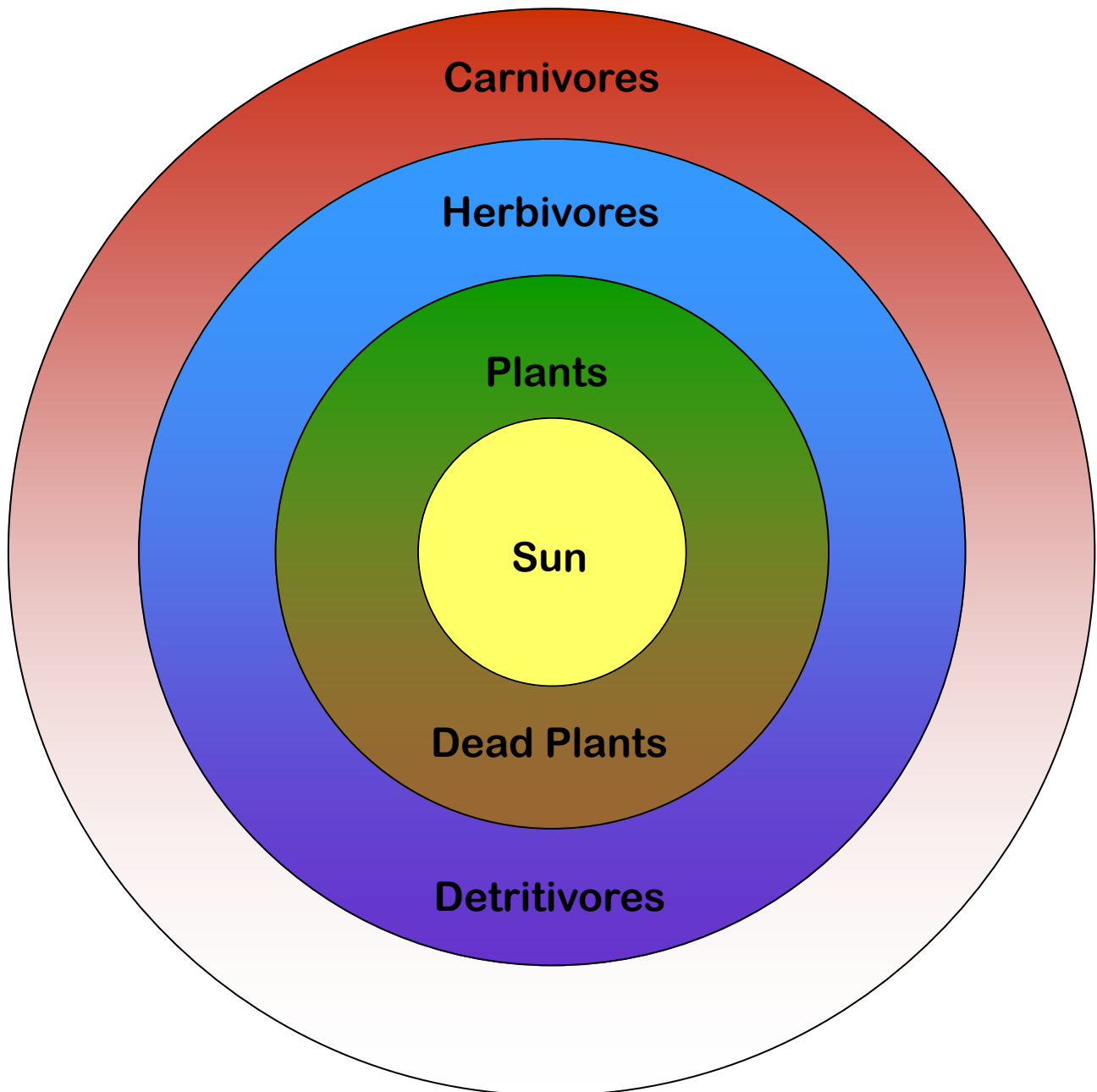# Robin
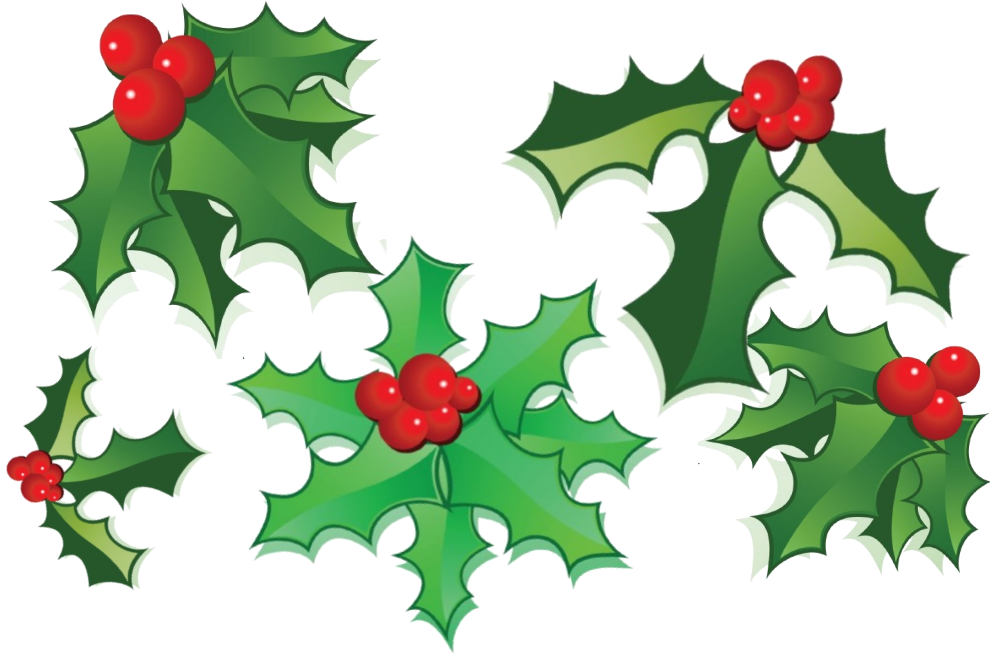
Holly

Pony

Aphid

Sun

Food chains (webs)

Students to each (or in pairs) put around their necks a food chain card (picture).

Sit the sun in the middle of the room.

Next get all the plants to sit around the sun in a circle.

Follow this up with herbivores and then carnivores in their correct ring, near to the plant/animal they might eat.

Additional element - add in/separate the dead plants.