

Science – Year 5/6A Autumn 1

Living Things and Their Habitats

Illustrating Life Cycles

Session 3

Resource Pack

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We refer you to our warning, at the foot of the block overview, about links to other websites.

Lifecycle ingredients

Pre-cut out all 'ingredients' and see if children can create the 5 life cycles and link in the corresponding animals and images

Ingredient	Animal
egg	Frog (frogspawn)
newly hatched larva	Frog (tadpole)
maturing larva	Frog (tadpole with legs)
froglet	Frog

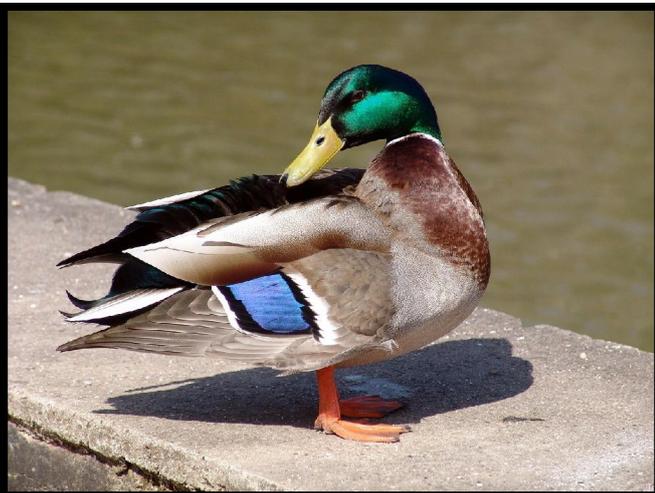
adult	Frog
egg	Duck
chick	Duck
fledgling	Duck
adult	Duck

foetus	Chimpanzee
infant	Chimpanzee
juvenile	Chimpanzee
adult	Chimpanzee
egg	Butterfly

larva	Butterfly (caterpillar)
pupa	Butterfly (chrysalis)
adult	Butterfly
egg	Dragonfly
nymph	Dragonfly

adult

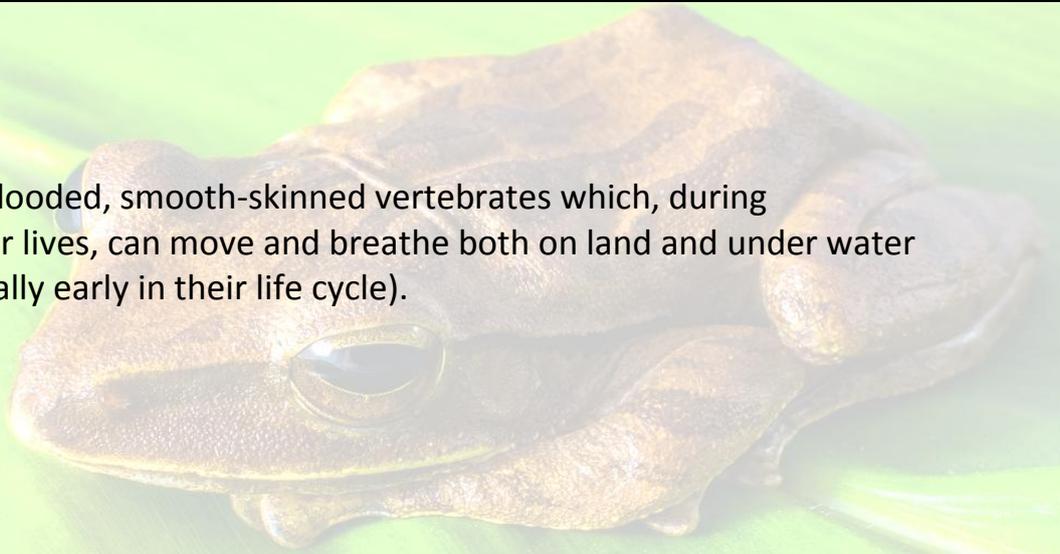
Dragonfly



Key Fact sheets

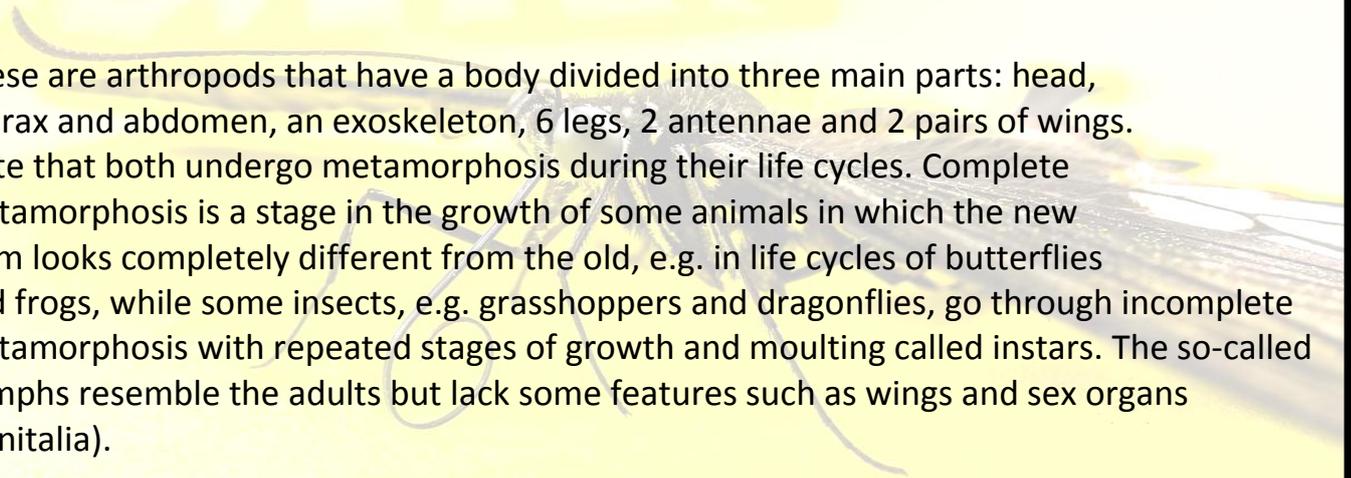
Amphibians

These are cold-blooded, smooth-skinned vertebrates which, during part or all of their lives, can move and breathe both on land and under water (the latter is usually early in their life cycle).



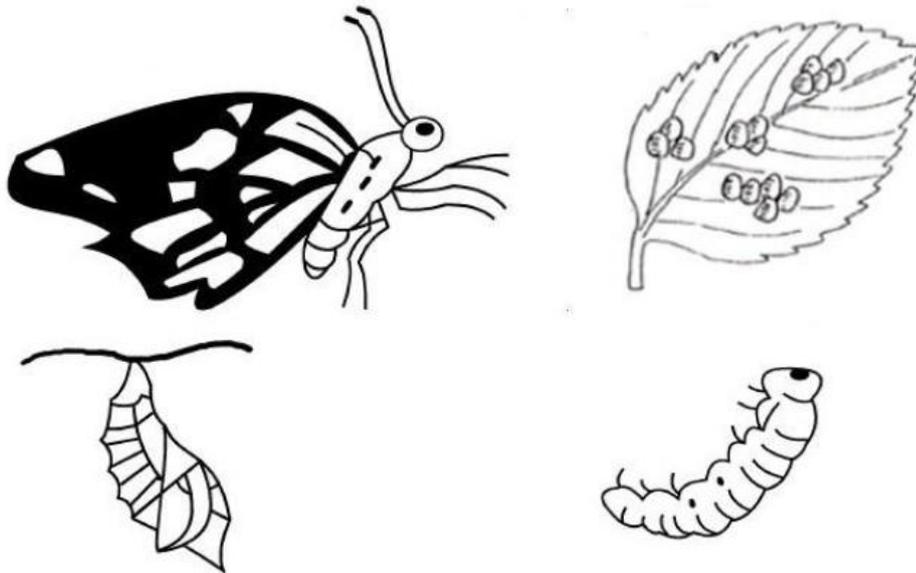
Insects

These are arthropods that have a body divided into three main parts: head, thorax and abdomen, an exoskeleton, 6 legs, 2 antennae and 2 pairs of wings. Note that both undergo metamorphosis during their life cycles. Complete metamorphosis is a stage in the growth of some animals in which the new form looks completely different from the old, e.g. in life cycles of butterflies and frogs, while some insects, e.g. grasshoppers and dragonflies, go through incomplete metamorphosis with repeated stages of growth and moulting called instars. The so-called nymphs resemble the adults but lack some features such as wings and sex organs (genitalia).

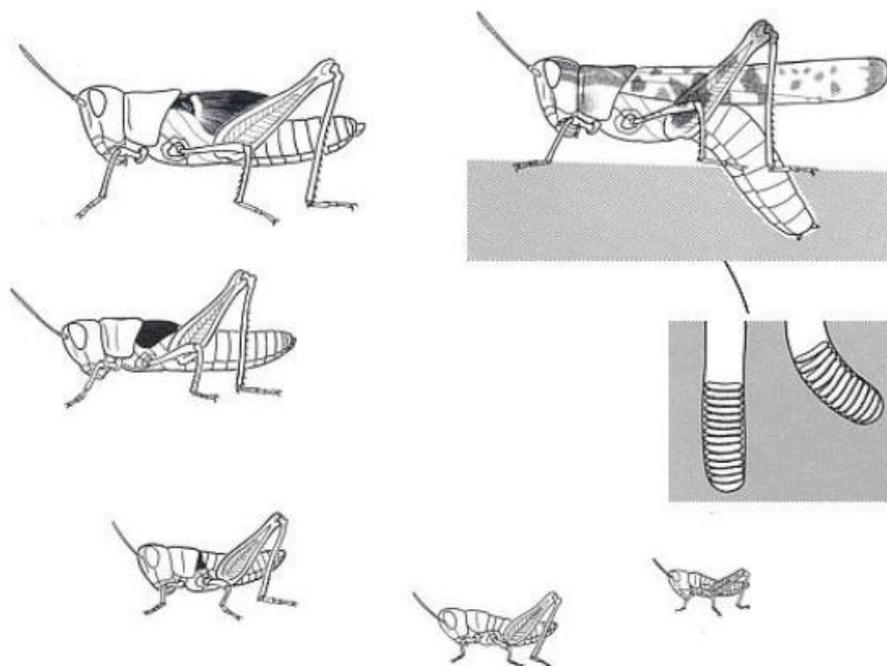


Amphibian and insect life cycles

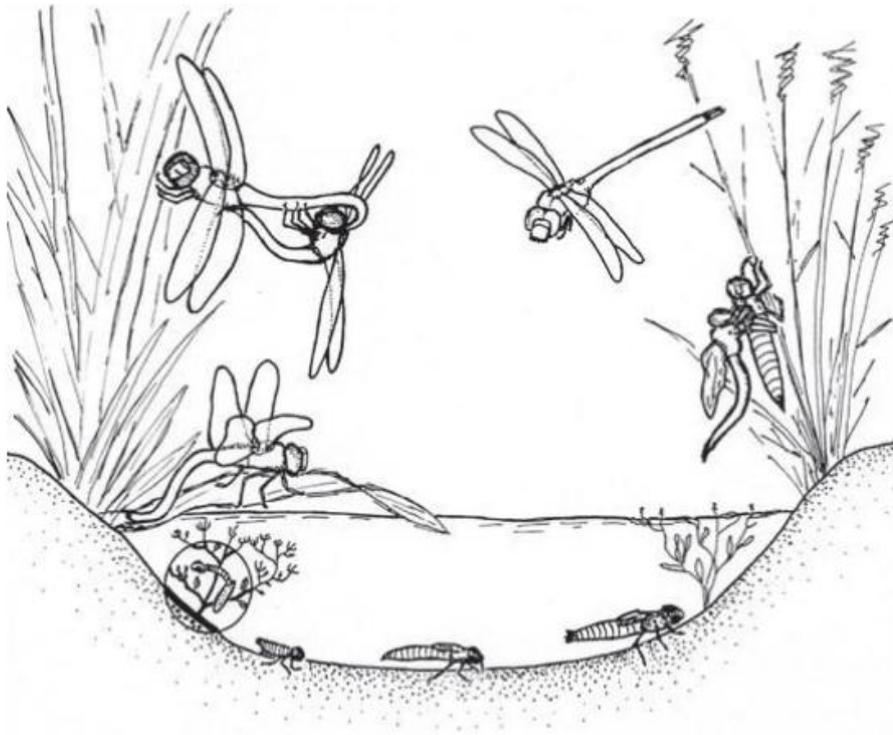
Butterfly Life Cycle



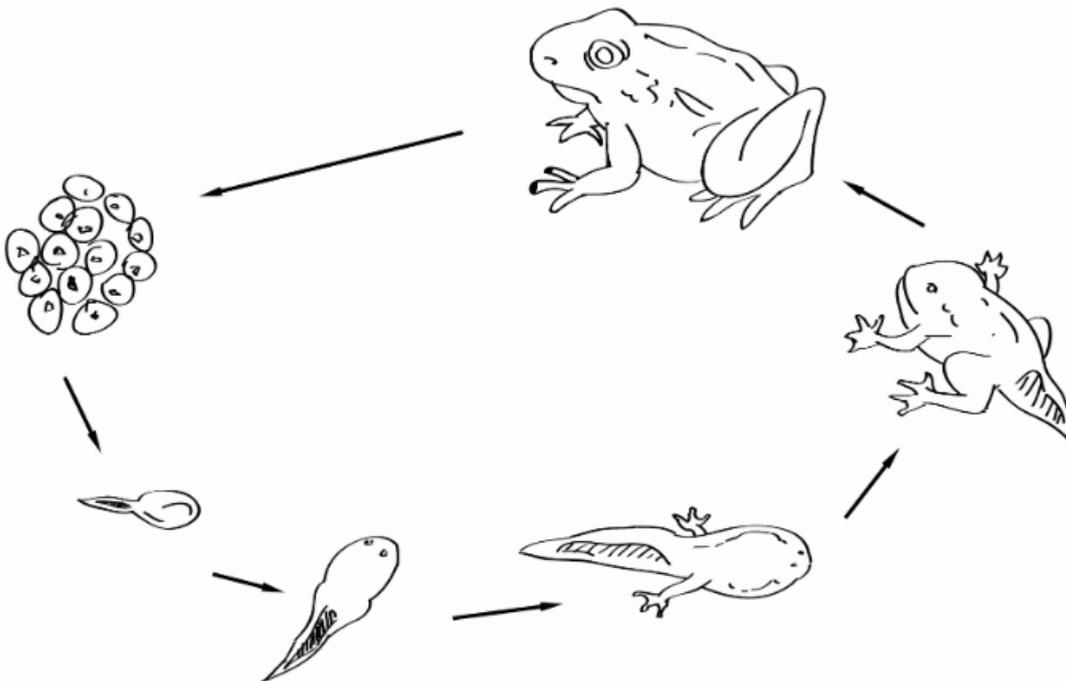
Locust Life Cycle



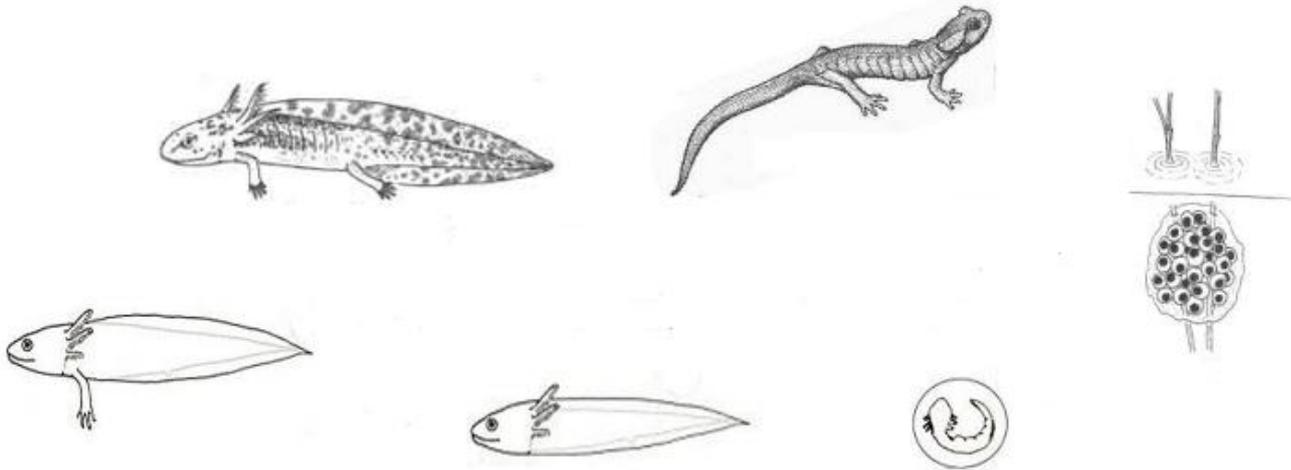
Dragonfly Life Cycle



Frog Life Cycle



Salamander Life Cycle



Insect and amphibian lists for illustrations

Insects showing complete metamorphosis:

- Butterfly
- Ladybird
- Lacewing
- Beetle
- Scorpion fly
- Caddis fly
- Wasp
- Bee
- Flea

Insects showing incomplete metamorphosis:

- Dragonfly
- Grasshopper
- Locust
- Cockroach
- Silverfish
- Mayfly
- Termite
- Stick-insect

Amphibians:

- Frog, including toad
- Caecilian
- Salamander, e.g. newt

Suggested research links for illustrations

https://d43fweuh3sg51.cloudfront.net/media/assets/wgbh/tdc02/tdc02_doc_stagecards/tdc02_doc_stagecards.pdf

<http://www.bbc.co.uk/guides/z9xb39q#zt4xmnbn>

<http://www.bbc.co.uk/education/clips/zgcb4wx>

<http://www.bbc.co.uk/education/clips/z283qty>

<http://www.dkfindout.com/uk/video/animals-and-nature/life-cycle-frog/>

<http://www.dkfindout.com/uk/video/animals-and-nature/from-chrysalis-to-butterfly-video/>

<http://www.dkfindout.com/uk/animals-and-nature/insects/damselfly-life-cycle/>

<http://studyjams.scholastic.com/studyjams/jams/science/animals/animal-life-cycles.htm>

<http://www.bbc.co.uk/nature/life/Insect/by/rank/all>

<http://www.nationalinsectweek.co.uk/discover-insects>

<http://www.uksafari.com/creepycrawlies.htm>

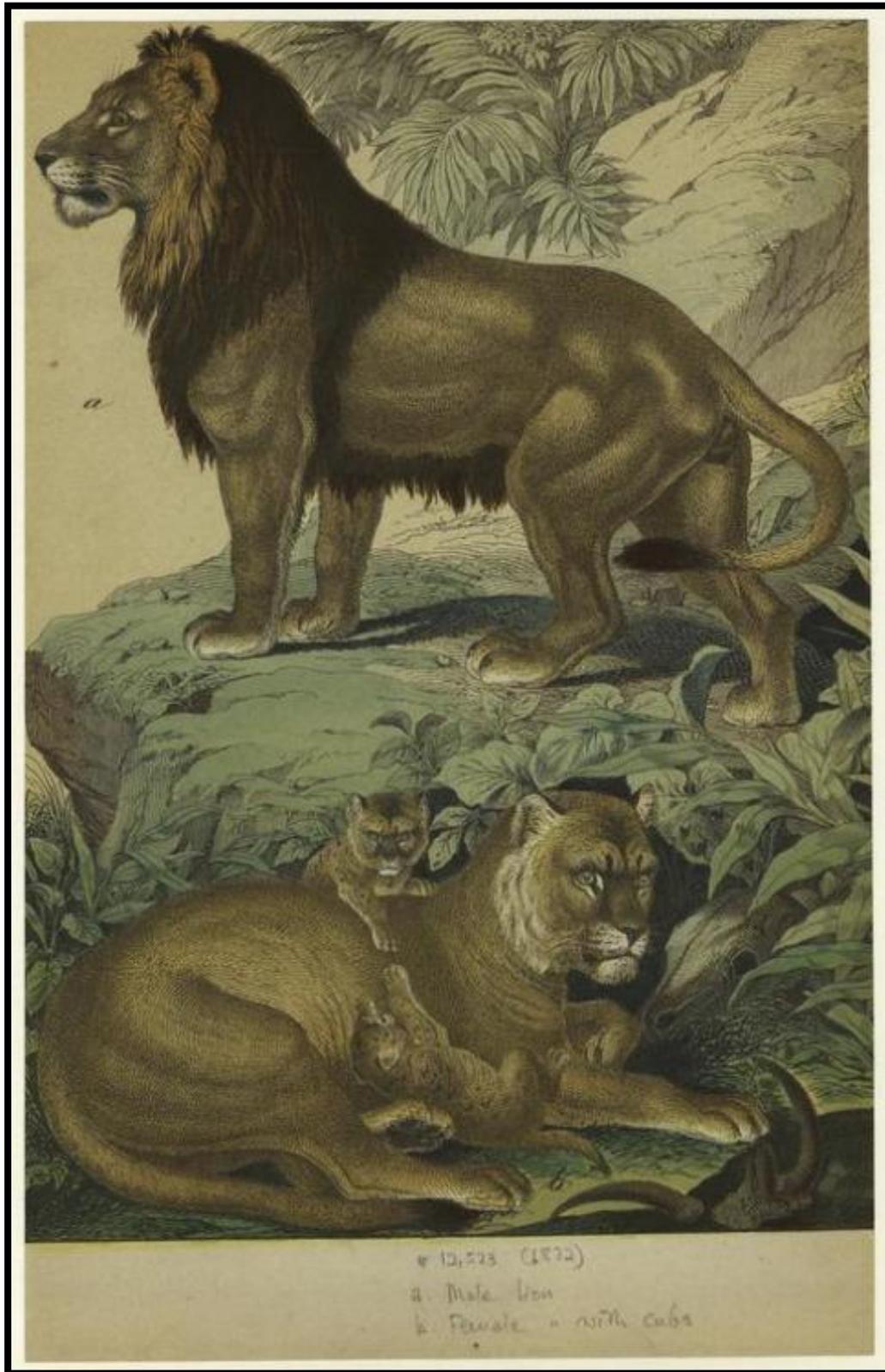
<https://www.amentsoc.org/insects/>

<http://www.oum.ox.ac.uk/thezone/insects/instant/index.htm>

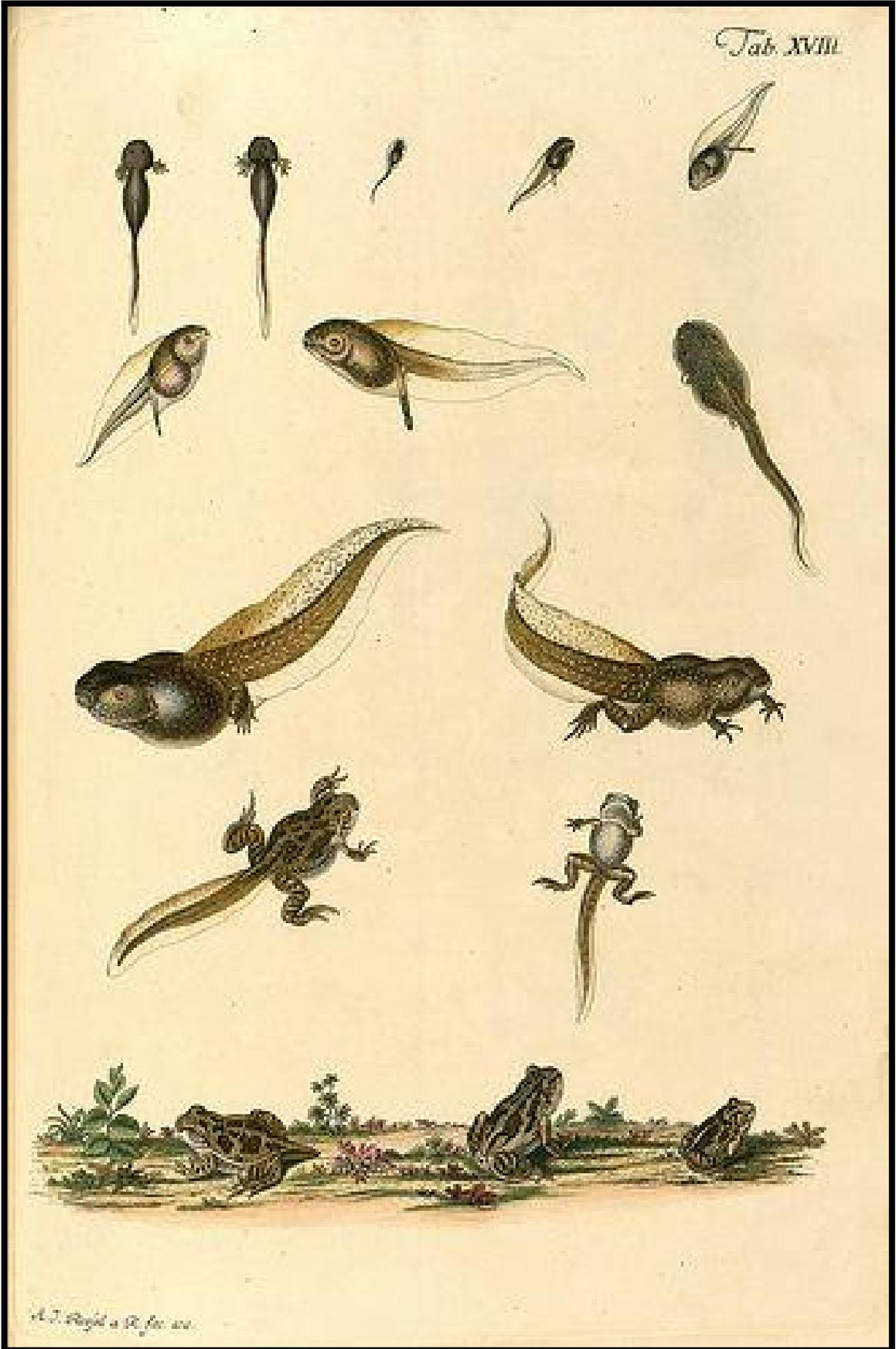
<http://www.arc-trust.org/>

<http://www.bbc.co.uk/nature/life/Amphibian>

Zoological illustrations



<http://scientificillustration.tumblr.com/post/101940161440/humanoidhistory-male-lion-and-female-lion-with>



A. J. Poyet a. R. fec. 1772.



<https://uk.pinterest.com/byzantinarticon/birds-butterflies-insects/>



<https://uk.pinterest.com/yacutinga/wildlife-illustrations/>

Help with Keeping Tadpoles

How many – If you do take some tadpoles from a pond, take just a few. They are more likely to survive if they are not too crowded and it makes sure that the pond will have frogs and tadpoles in the future.

The water – Make sure you don't use water direct from the tap. Tap water often has chemicals in it which can kill the tadpoles. If you do have to use tap water, leave it in sunlight for 5–7 days – this gets rid of chemical chlorine. Keep some spare water to top up the tank. Tadpoles need fresh, clean water. If you use water from a stream or pond, make sure it isn't polluted. Don't let the water get polluted by decaying food. Scoop out any unwanted food and top up the tank with fresh water.

Food – Put some pondweed in the container, which helps oxygenate the water as well as providing food. But tadpoles also like lettuce, apparently – boil the lettuce for 10 to 15 minutes and then drain and chop. You can then freeze it. Give the tadpoles a pinch of lettuce every few days. Don't give too much. You can get tadpole and frog food at pet stores. If tadpoles aren't fed enough - they can start eating each other. After a while some tadpoles can turn carnivorous anyway (they may not) – in which case we feed them dried ants eggs from the pet shop.

Letting tadpoles go – When the tadpoles start to turn into froglets, put a rock in for them to climb, otherwise they can drown. Then when they want to leave the water let them go where you found them.

The best advice is of course to make your own wildlife pond instead of taking the creatures out of ponds. Natural ponds are being destroyed all the time and we need to help wildlife by making new ponds.