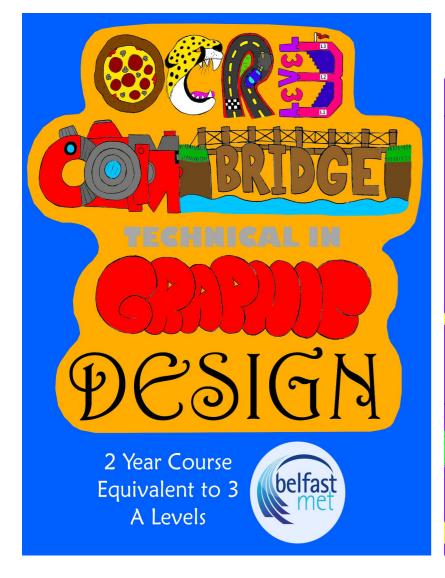
PORTFOLIO

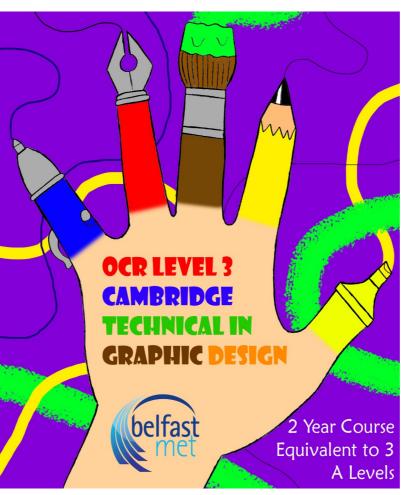
Jo – Jo Mc Laughlin

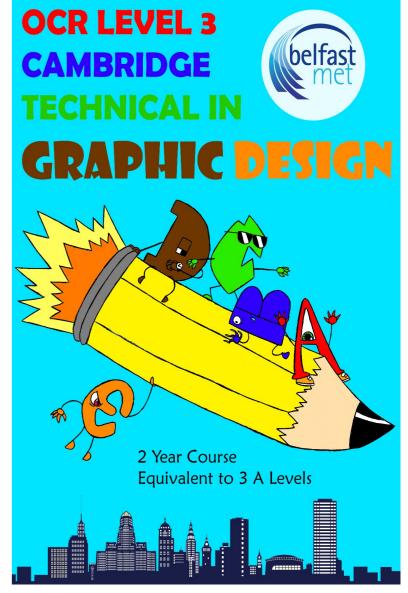


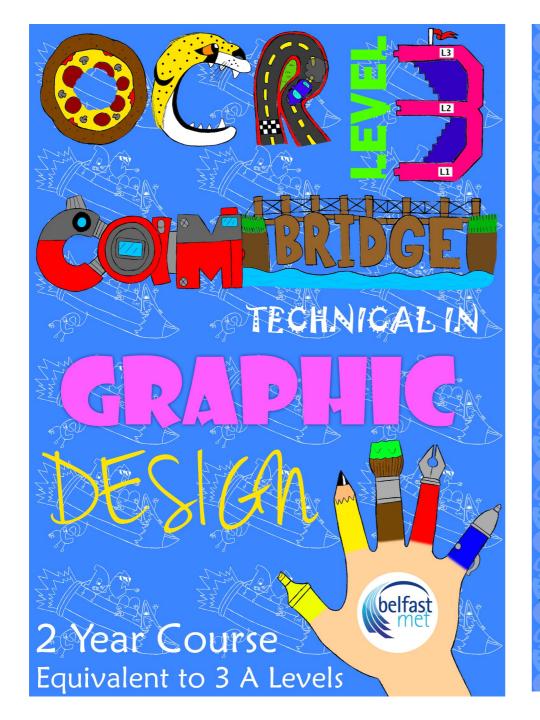












9 UNITS IN YEAR 1

- 1. Art and Desgin in Context
- 2. Fine Art Drawing
- 3. How artists and designers use 2D materials, techniques and processes
- 4. Digital image creation
- 5. Branding and corporate design
- 6. Using digital technology in graphic design
- 7. Art and design illustration
- 8. Character design and creation
- 9. Exploring digital photography

9 UNITS IN YEAR 2

- 1. Motion graphics
- 2. Creating animation
- 3. Design for advertising
- 4. Digital fine art
- 5. Creating 3D art and design work or 3D product design
- 6. Planning, researching and developing ideas for a design brief
- 7. Realising an outcome for a specialist art or design brief
- 8. Exhibting and presenting artwork
- 9. Presenting, displaying, promoting and selling artwork

Campus: Millfield Week Commencing: 09 Sep 19 End Date: 06 Jun 20



Successful completion of this course may allow you to progress to our Level 5 HND in Graphic design, HND in Motion Graphics, HND in Visual Effects or a degree (University discretion).

Entry Requirements

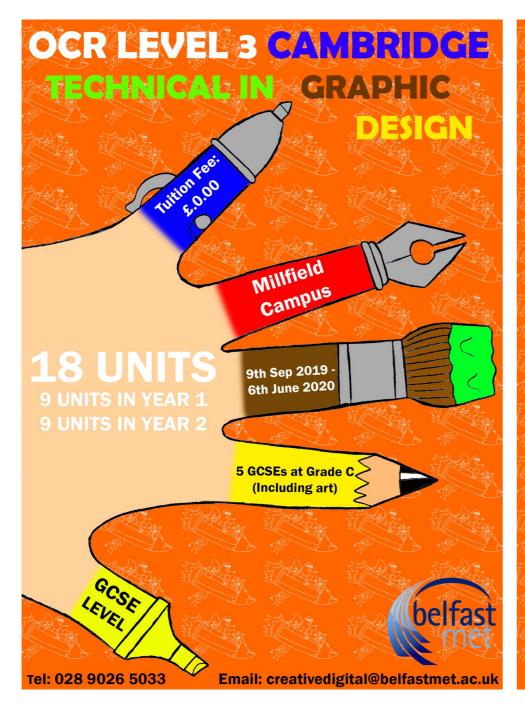
Students must have a minimum of five GCSEs at Grade C (including Art).



Tuition Fee: £0.00

Contact Information

Tel: 028 9026 5033 or email: creativedigital@belfastmet.ac.uk



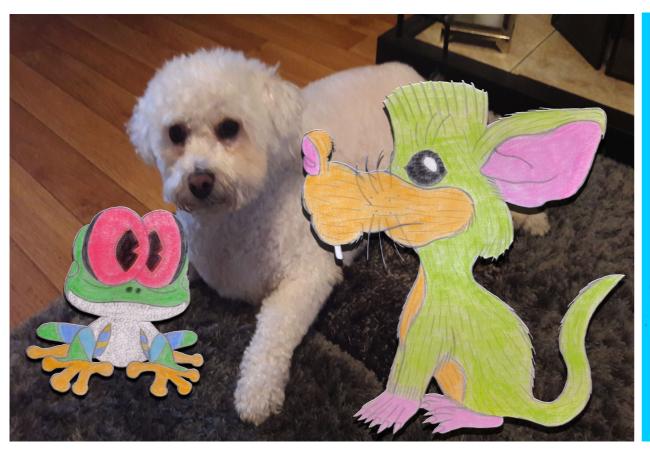


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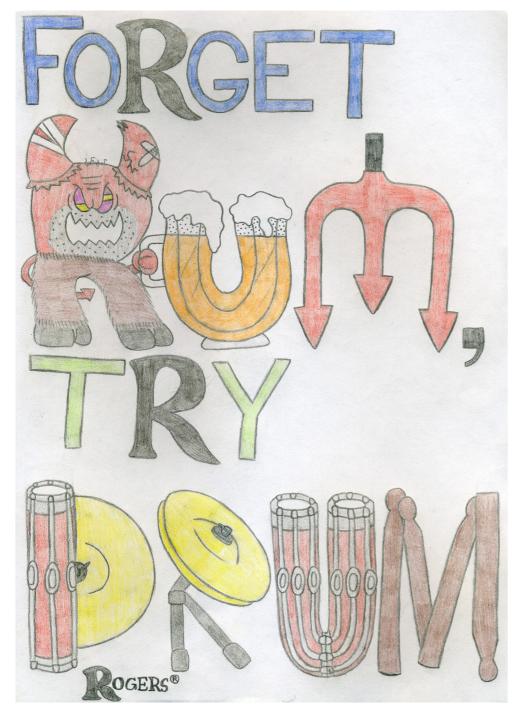
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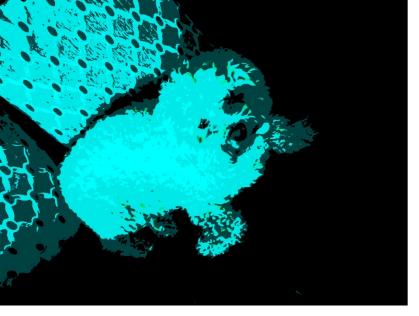






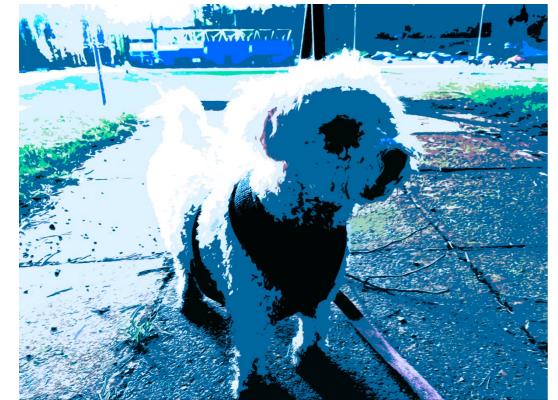
















The evolution of spiders has been going on for at least 380 million ears, since the first true spiders (thin-waisted arachnids) evolved from crab-like chelicerate ancestors More than 45,000 extant species have been described, organised taxonomically in 3,958 genera and 114 families. There may be more than 120,000 species.

Living fossils Amazingly, segmented mesothelid spiders have survived in eastern Asia (China to Indonesia) from late Palaeozoitimes to the present day. These large, impressive spiders live in soil burrows with trapdoors in forested areas and caves Segmented spiders are very similar to their ancestors and have virtually remained unchanged. They are not found

Despite this the spider fossil record

Period the rich record of amber

spider fossils - complete spider: trapped in clear, sticky, tree resins

is relatively poor. During the Tertiary

show us that a spider fauna basically

similar to that of the present day

existed more than 30 million years

The largest 'spider' ever? A 300-million-year-old, half metre long, fossil arachnid, Megarachne servinei, was originally described as a spider, but is now thought more likely to represent another type of spider-like ancient arachnid Its unique features include the enormous size, massive shovel-like jaws and ribbed, shield-like covering over the abdomen. An arachnid of this size must have fed on large prev like cockroaches and giant millipedes.

Fossil diversity rates make up a larger proportion than extant diversity would suggest with 1,593 arachnid species described out of 1,952 recognized chelicerates. Both extant and fossil species are described yearly by researchers in the field. Major developments in spider evolution include the development of spinnerets and silk secretion.

Trigonotarbids share many superficial characteristics with spiders, including a terrestrial lifestyle, respiration through book lungs, and walking on eight legs, with a pair of leg-like pedipalps near the mouth and mouth parts



piders are air-breathing hropods that have eight legs nd chelicerae with fangs able to inject venom. They are the largest order of arachnids and rank seventh in total species diversity among all other orders of organi

Spiders are found worldwide on every continent except for Antarctica, and have becom established in nearly every with the exceptions of



ers differ from

pods in that the usua

ments are fused into two

As of November 2015, at least 45.7 spider species, and 113 families have been recorded by taxon However, there has been distagmata, the cephalothorax and within the scientific comn abdomen, and joined by a small to how all these families shoul cylindrical pedicel. Unlike insects classified, as evidenced by the spiders do not have antennae. en proposed since 1900

COMMON ATTRIBUTES



piders have primarily four pairs of eyes on the top-front area of the cephalothorax, rranged in patterns that vary from one family to another. The principal pair at the front are of the type called pigment-cup ocelli ("little eyes"), which in most the shadow cast by the walls of the cup lowever, in spiders these eyes are capab of forming images. The other pairs, called ondary eyes, are thought to be derived from the compound eves of the ancestral facets typical of compound eyes



CAPTURING PREY

ample flat horizontal webs trap insects hat fly up from vegetation underneath while flat vertical webs tran insects in



irthropods are only capable of detecting the ction from which light is coming, using helicerates, but no longer have the separate



The best-known method of prey capture is by means of sticky webs. Varying placement of webs allows different species of spider to trap different insects in the same area, for horizontal flight. Web-building spiders hav poor vision, but are extremely sensitive to

though spiders are widely feared, only a ew species are dangerous to people. Spider will only bite humans in self-defence, and few produce worse effects than a mosquito ite or bee-sting. Most of those with nedically serious bites, such as recluse spiders and widow spiders, would rather flee nd bite only when trapped, although this an easily arise by accident. The defensive ctics of Australian funnel-web spiders include fang display. Their venom, although they rarely inject much, has resulted in 13 attributed human deaths over 50 year



Spiders can generate imes their resting level to extend the legs, and jumping spiders can jump up to 50 times their own length by suddenl increasing the blood pressure in the third or fourth pair of legs. Although larger spiders use hydraulics to straighten their egs, unlike smaller jumping spiders the depend on their flexor muscles to generat ropulsive force for their jumps. Mos piders that hunt actively, rather than relying on webs have dense tuffs of fine hair etween the paired claws at the tips of their



HABITATS



Where do spiders live?

Spiders live in almost every habitat on earth. The only places where there are no spiders are the polar regions, the highest mountain and the oceans. A few spider species have nvaded the ocean's edge, living in the rock and coral crevices of the intertidal zone.

Getting around

Many factors affect the distribution and evo lutionary history of spiders. These involve geological, environmental, genetic, ecologi cal and behavioural processes Continental drifters

The world's continents with the plants

and animals on them, have drifted together and broken apart over many millions of years. Some 150 million years ago, Australia was part of the southern supercontinent f Gondwana. When Gondwana broke up, spiders were isolated on separate continent here they evolved independently into new (but related) spider groups. The recognition of related plant and animal taxa on widely separated continents like Australia.

Spider species that are found in many places re often good travellers. Many of the spiders get around by behaviour called ballooning. Young spiders, and even small adults of some species, put out silk threads which are caught by the wind, carrying them up and away. Many land close by, sometimes wathing the landscape in gossamer silk; land or sea. Ballooning helps maintain and extend the distributions of these spiders Spiders as different as orb weavers and wolf spiders disperse by ballooning.

Staying at home

Many events, like climate change or rising sea levels, can result in animals like spiders becoming isolated in 'refuge' habitats, like caves, mountain tops and islands, where they are unable to survive in the 'hostile' reas surrounding their refuge. Thes isolated populations are often small and can variation - a 'bottleneck' effect.

HISTORY OF SPIDERS

Spiders probably evolved about 400 million years ago from thick waisted arachnid ancestors that were not long emerged from life in water. The first definite spiders, thin-waisted arachnids with abdominal segmentation and silk producing spinnerets, are known from fossils like Attercopus fimbriungus. This spider lived 380 million years ago during the Devonian Period, more than 150 million years before the dinosaur

Most of the early segmented fossil spiders belonged to the Mesothelae, a group of primitive spiders with the spinnerets placed underneath the middle of the abdomen (rather than at the end as in 'modern' spiders). They were probably ground dwelling predators, living in the giant clubmoss and fern forests of the mid-late Palaeozoic, where they were presumably predators of other primitive arthropods (like cockroaches, giant silverfish, slaters and millipedes). Silk may have been used simply as a rotective covering for the eggs, a lining for a retreat hole, and later perhaps for simple ground sheet web and trapdoor construction.

with spinneret at the end of the abdomen appeared more than 250 million years ago, presumably promoting the development of more elaborate sheet and maze webs for prev capture both on ground and foliage, as well as the development of the safety dragline.

As plant and insect

life diversified so

also did the spider's

use of silk. Spiders

By the Jurassic Period (191 136 million years ago), when dinosaurs roamed the earth, the sophisticated aerial webs of the orb weaving spiders had developed to trap the rapidly diversifying hordes of flying insects. Similarly, the diversification of hunting spiders in litter, bark and foliage niches would have progressed in response to new prey-capture and habitat opportunities.

SPECIES OF SPIDERS



When you think of hig Spiders what is the first one that comes to mind? For many people it happens to be the Tarantula. This is one of the most common Spiders around that people nave information about. It is also the Baboon Spider in regions such as Africa. This is due to the hairy body that it displays. Such a look makes it simple to tell them apart from other species of

This a definitely a large Spider so it can be frightening when you see one. The can grow as big as 12 inches in length. The females are quite a big bigger than the males - they average 8 inches. Most of them are grey or brown in colour and they have dark black stripes on the legs.

This is one type of Spider that doesn't spend time creating a web for capturing prev. As a result, most people don't ealize that it does have the ability to make silk. They will line the burrows where they live with this type of material. It helps them to be able to gain ccess into it and out of it with ease. At the same time though any predators that may have gotten in there won't be leaving so easily.



The Hobo Spider is one that is considered to be very aggressive in nature. They are highly adaptive to man locations. They are ranked right up there with the Black Recluse and the Black Widow when it comes to what people perceive from them.

The Hobo Spider don't have bands or colors like so many other Spiders do. This can be one way to narrow down what you are looking at. In the middle of the abdomen they have V shapes that point towards their head. They also have two spinnerets that come out of the abdominal. The sternum features a strip that runs down it

Spider but it has migrated to many new locations over time. It has been introduced to areas of the United State in the 1930s in Seattle. The theory is that many eggs may have been inside of an agricultural shipment. However, there is no way to know for sure. Today they are also found all the way into Idaho



There are more than 500 different genera of jumping spiders family and around 5,000 species. This is approximately 13% of all spider species in the world. They don't seem to scare easily but the fact that they can jump does tend to scare many people. They aren't sure of where this Spider is going to land.

This is one of the few types of Spiders what all is around them. Europe is the location of the Hobo

P8

There are many places out there that the Jumping Spider calls home. This and some mountain locations.



that does have excellent vision. They have four pairs of large eyes. They have three rows of eyes that help them to see They also have lungs and a trachea system that are well developed. The function through a process called bimodal breathing. They feature thousands of small hairs that allow them to have traction for climbing up terrain - including glass.

includes all types of forests, grasslands



Introduction The Black Widow Spider has a reputation for being one of the most dangerous Spiders in the world. This is because they have very large venon glands. When they do bite it is the female most of the time. The male almost never bite humans but it has been known to happen from time to

Description Females have a telling sign of the red hour glass or red dots on them. The males have this feature in vellow or white colour. They are also about 1/2 the size of the females. They are often mistaken for other types of Spiders. This is because they are usually brown in colour rather than black. As a word of caution, any time you see red on the body of a black Spider you need to be aware. It could very well be a dangerous female Back Widow Spider. I you aren't sure what you are looking at treat it like the Spider is very dangerous That way you can reduce the risk of being bitten.

EXPERTS ON SPIDERS LUDWIG CARL CHRISTIAN

KOCH Ludwig Carl Christian Koch (8

November 1825 - 1 November 1908) was a German entomologist and arachnologist. He was born in Regensburg,

Germany and died in Nuremberg, Germany. He studied in Nuremberg initially law, but then turned to medicine and science. From 1850 he practiced as a physician in the Wohrd district of Nuremberg. He is considered among the four most influential scientists on insects and spiders in the second half of the 19th century. He wrote numerous works on the arachnoids of Europe

earned him worldwide reputation a "Spider Koch". Sometimes confused with his fathe Carl Ludwig Koch (1778-1857), another famous arachnologist. His name is abbreviated I Koch on species descriptions; his father's name is abbreviated C.I. Koch

Siberia, and Australia. His work

Works

Die Arachniden Australiens (1871 1883), his major work on Australian spiders, completed by Eugen von Keyserling due to the onset of blindness (Worldcat)

CHRIS BUDDLE

Chris Buddle is one of the world's very few experts on the eight-legged epy crawlies that send a shiver up the spine of most folks. He's a spider expert, and loves them.

Chris Buddle spends a lot of his time crawling around on his hands and knees in the high arctic. He's one of vorld's very few experts on the ed creepy crawlies that end a shiver up the spine of most folks. Buddle is an arachnologist and ociate professor of forest insect ecology at McGill University. And he loves spiders. He chatted with us about how the heck he goes about finding teeny tiny animals scuttling nd the northern Tundra and why spiders aren't scary, they're bsolutely fascinating.

They're predators almost entirely within their own food web. They have a significant impact on whatever system they're in. Whether they run down beaches as tides go out and catch invertebrates or live in the high tundra. No matter where they are, they are always eating other things and sometimes each other. They're always eating. They have an impact on other animals around

WHY SPIDERS ARE MISUNDERSTOOD

If you have a house, you pro have house spiders. They mi live in your attic, basen windowsills, or they despite their reputa haven't simply wa home: Our hou

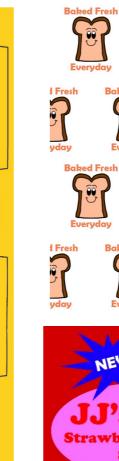
habitats Some people th legged invade But they're not don't want to r Much like their just want to quiet that do covet our fo they're on our side

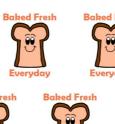
That may not help with of arachnophobia, but f respect aren't mutually e And the more we know abless fodder we have for misguid phobias. In hopes of clearing hou piders' name, here are interesting facts that might persuade you to pu down the shoe, pick up a magnifying glass and give peace a chance



















Everyday



Baked Fresh















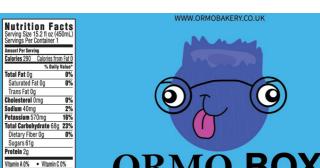












14KJ/3kcal

BLUEBERRY JUICE

12 FL0Z. (355ml)

Calcium 4% • Iron 0% *Percent Daily Values are based on a 2,000 calorie diet.



Ingredients: Water, Blueberry

Juice from Concentrate (Water,









BELFAST MET belfast met









