# SUT I WNEUD... HOW TO MAKE...

SIARC

LLYFRGELLOEDD Gwynedd LIBRARIES

# casyn ŵy siarc

# a shark eggcase

Gweithgareddau crefft sy'n canolbwyntio ar siarcod a morgathod yng

Craft activities focused on sharks, skates and rays in Wales

# GWNEWCH EICH CASYN ŴY SIARC EICH HUN!

**Mae Prosiect SIARC (Siarcod yn Ysbrydoli Gweithredu ac Ymchwil gyda Chymunedau) a Llyfrgelloedd Gwynedd yn cydweithio i greu gweithgareddau crefft sy'n canolbwyntio ar siarcod a morgathod yng Nghymru y gellir eu gwneud yn y llyfrgell, yn y cartref, mewn clybiau, yn yr ysgol, yn yr awyr agored ac unrhyw le arall y gallwch feddwl amdano!**

Mae Prosiect SIARC yn dwyn ynghyd bysgotwyr, cymunedau lleol, ymchwilwyr a'r llywodraeth i ddiogelu a dathlu siarcod a morgathod yng Nghymru, a chynyddu cyfleoedd i bobl gael mynediad i'r arfordir a'r môr a chael profiad ohonynt. Amcanion Prosiect SIARC yw:

- pysgotwyr a gwyddonwyr yn cydweithio i rannu gwybodaeth a phrofiadau
- casglu gwybodaeth bwysig i ddeall siarcod a morgathod yn well
- gweithio gyda phartneriaid lleol i nodi ffyrdd i sicrhau y gall ystod ehangach o bobl gael mynediad i'r arfordir a'r môr, a chael profiad ohonynt
- plant ysgol yn defnyddio ffyrdd newydd o ddysgu i archwilio'r arfordir a'r môr
- partneriaethau â chymunedau lleol i gyflwyno gweithgareddau gwyddoniaeth dinasyddion a phrofiadau dysgu
- dathlu bywyd morol a diwylliant lleol Cymru

Gellir dysgu mwy am sut i gymryd rhan ym Mhrosiect SIARC yn yr adrannau 'Cymryd Rhan' neu 'Adnoddau' ar wefan Prosiect SIARC (prosiectsiarc.com) sy'n cynnwys amrywiaeth o adnoddau addysgol a gweithgareddau.

Gellir dod o hyd i holl ddigwyddiadau Llyfrgelloedd Gwynedd yn gwynedd.spydus.co.uk gan gynnwys y Clwb Crefft a'r Clwb Creu.

## Beth yw cas wyau a ble allwch chi eu gweld nhw?

Mae rhai siarcod, a phob morgath, yn atgenhedlu trwy ddodwy wyau. Mae'r wy yn cael ei ddodwy gan siarc benyw ac yn aros o dan y dŵr am ychydig fisoedd i flwyddyn. Mae'r wyau wedi'u hamgylchynu gan gas lledr caled sy'n amddiffyn yr embryo (anifail bach sy'n datblygu) wrth iddo ddatblygu y tu mewn. Mae casys wyau wedi'u gwneud o golagen a cheratin. Yr un deunydd â gwallt ac ewinedd! Mae casys wyau morgathod yn betryal o ran siâp, gyda chorn ym mhob cornel. Mae casys wyau cath-siarcod wedi'u siapio fel pin bowlio, yn aml gyda thendrilau cyrliog. Unwaith y bydd wy yn deor, mae'r cas wy gwag (a elwir hefyd yn bwrs môr-forwyn) yn aml yn golchi i fyny ar y traeth. Lle gall helwyr casys wyau craff, fel CHI, ddod o hyd iddynt a chymryd rhan yn Great Eggcase Hunt y Shark Trust!

Y Great Eggcase Hunt yw prosiect gwyddoniaeth dinasyddion blaenllaw y Shark Trust. Drwy gymryd rhan yn Great Eggcase Hunt y Shark Trust a chofnodi casys wyau sy'n golchi i fyny ar y traeth, gallwch helpu i gasglu gwybodaeth bwysig am siarcod a morgathod sy'n dodwy wyau, darganfod mwy a chofnodi eich darganfyddiadau yma: eggcase.org

# CRAFT YOUR OWN SHARK EGGCASE!

**Project SIARC (Sharks Inspiring Action and Research with Communities) and Gwynedd Libraries are collaborating to create craft activities focused on sharks, skates and rays in Wales that can be done at the library, from home, at clubs, in school, outdoors and anywhere else you can think of!**

Project SIARC brings together fishers, local communities, researchers and government to safeguard and celebrate sharks, skates and rays in Wales and increase opportunities for people to access and experience the coast and sea. Project SIARCs objectives are:

- Fishers and scientists work together, to share knowledge and experiences.
- Gather important information to better understand sharks, skates and rays
- Work with local partners to identify ways for a wider range of people to access and experience the coast and sea
- Schoolchildren use new ways of learning to explore the coast and sea
- Partner with local communities to deliver citizen science activities and learning experiences
- Celebrate Wales' marine life and local culture.

You can find out more about how to get involved with Project SIARC on the 'Get Involved' or 'Resources' sections on the Project SIARC website ProjectSIARC.com which includes a range of educational resources and activities.

All Gwynedd library events can be found as gwynedd.spydus.co.uk including Clwb Crefft and Clwb Creu

## What is an eggcase and where can you find them?

Some sharks, and all skates, reproduce by laying eggs. The egg is laid by a female shark and stays underwater for a few months to a year. The eggs are surrounded by a tough leathery case that protects the embryo (developing baby animal) as it develops inside. Eggcases are made of collagen & keratin. The same material as human hair & fingernails! Skate eggcases are rectangular in shape, with a horn at each corner. Catshark eggcases are shaped like a bowling pin, often with curly tendrils. Once an egg hatches, the empty eggcase (also known as a mermaid's purse) often washes up on the beach. Where eagle-eyed eggcase hunters, like YOU, can find them and take part in Shark Trust's Great Eggcase Hunt!

The Great Eggcase Hunt is the Shark Trust's flagship citizen science project. By taking part in the Shark Trust's Great Eggcase Hunt and recording eggcases that wash up on the beach, you can help to gather important information about egg-laying sharks and skates, find out more and report your finds here: eggcase.org

# DEUNYDDIAU CREFFT

# CRAFT MATERIALS

## Casglwch eich deunyddiau ynghyd. Byddwch angen y canlynol:

- Dalen blaen o bapur neu gerdyn A4 i dynnu llun eich cenau siarc (neu argraffwch ein templed ni)
- Dalen o bapur brown maint A4 ar gyfer eich casyn ŵy, wedi'i phlygu yn ei hanner i faint A5
- Dalen o bapur sidan brown ar gyfer eich casyn ŵy
- Pedair gwifren neu goesynnau crefft blewog brown ar gyfer eich tendriliau
- Caead potel neu rywbeth tebyg ar gyfer melyn yr ŵy
- Ffon glud
- Pensel
- Tâp gludiog
- Siswrn
- Pensiliau lliwio

## Gather your materials, you will need:

- An A4 plain sheet of paper or card to draw your baby shark on (or print out our template)
- An A4 sized sheet of brown paper for your eggcase, folded in half to A5
- A sheet of brown crepe paper for your eggcase
- 4 brown furry craft wires or stems for your tendrils
- A bottle cap or something similar for your yolk
- A glue stick
- A pencil
- Cellotape
- Scissors
- Colouring pencils

Mae casys wyau wedi'u gwneud o ddeunydd cadarn, sy'n debyg i'n gwallt a'n hewinedd ni. Mae embryo (cenau siarc sy'n datblygu) yn tyfu ac yn datblygu mewn gofod siâp poced yng nghanol casyn yr ŵy a elwir yn 'gapsiwl', sy'n ei gadw'n ddiogel. Crëwch siâp eich casyn ŵy trwy dorri ymylon crwn siâp C i bob pen byr o'ch casyn ŵy o bapur brown.

Eggcases are made up of a tough material, similar to our hair and fingernails. An embryo (developing baby shark) grows and develops in a pocket shaped space in the centre of the eggcase known as a 'capsule', which keeps it safe. Create your eggcase shape by cutting rounded C-shaped edges into each short end of your brown pager eggcase.

Pan fydd golau'n cael ei ddisgleirio yn erbyn casyn ŵy, efallai y byddwch chi'n gallu gweld yr embryo sy'n datblygu yn tyfu y tu mewn.  I ailgreu'r effaith hon, crëwch 'ffenestr' yn eich casyn ŵy. Gwnewch dwll gyda siswrn neu bensel er mwyn torri ffenestr yn eich casyn ŵy tua 2-3 cm o'r ymyl. Rhowch eich siswrn yn y twll a thorrwch siâp petryal o ganol eich casyn ŵy.

When a light is shone against an eggcase, you may see the developing embryo growing inside. To recreate this effect, create a 'window' in your eggcase. About 2-3 cms from the outside edge make a hole with scissors or a pencil to allow you to cut a window into your eggcase. Insert your scissors into the hole and cut out a rectangle shape from the middle of your eggcase.

Nawr dylai fod gennych ffenestr drwy eich casyn ŵy. Cadwch y cerdyn rydych chi wedi'i dorri allan ar gyfer crefftau yn y dyfodol.

You should now have a window through your eggcase, save the card you cut out for future crafts.

Wrth i'r embryo ddatblygu'n genau siarc, bydd yr esgyll a'r gynffon yn cyrlio o amgylch y siarc yn y casyn ŵy. Mae'n cymryd rhwng pump a naw mis i'r cenau bach dyfu a dod yn barod i ddeor (yn dibynnu ar y math neu'r rhywogaeth o siarc). Rhowch eich casyn ŵy ar eich dalen o bapur neu gerdyn plaen rydych chi'n ei defnyddio i dynnu llun eich cenau siarc. Tynnwch lun eich cenau siarc, wedi cyrlio i fyny yn ei gasyn ŵy.

4

As the embryo develops into a baby shark, the fins and tail will curl around the shark in the eggcase. It takes roughly 5-9 months (depending on type or species of shark) for the baby to grow and become ready to hatch. Place your eggcaseonto your plain sheet of paper or card which you are using for the drawing of your baby shark. Draw your baby shark, curled up in it's eggcase.

Mae siarcod a morgathod â lliw tebyg i'r lle maen nhw'n byw. Maen nhw'n tueddu i fod â boliau golau a chefnau tywyllach i helpu i atal ysglyfaeth rhag eu canfod (gelwir hyn yn 'wrthliwio').

Bydd siarcod neu forgathod sy'n byw ger gwely'r môr â chefnau yr un lliw â'r tywod, efallai, wedi'u britho â brown a llwyd. Mae hyn yn helpu i'w cuddio

Lliwiwch ddwy ochr eich siarc (gallwch ychwanegu ceg ar y bol a'r tagellau hefyd!)

5

Sharks, skates and rays are coloured, similar to where they live. They tend to have light bellys and are darker on top to help prevent prey detecting them (this is called countershading).

Sharks or skates that live close to the bottom of the sea might have backs which are the same colour as the sand, speckled in browns and greys. This helps camouflage them.

Colour both sides of your shark (you could add a mouth on the belly and gills too!).

Torrwch eich siarc a'i roi o'r neilltu.



6

Cut out your shark and place it to one side.

Mae casys wyau siarcod ychydig yn dryloyw os ydych chi'n eu dal i fyny at olau, ond nid yw papur brown yn dryloyw! Torrwch ddau ddarn o bapur sidan fel eu bod yn gorchuddio'r ffenestr a dorrwyd i mewn i'ch casyn ŵy yng ngham 2. Gwnewch yn siŵr eich bod yn torri'r papur sidan ychydig yn fwy fel y gallwch ffitio melyn yr ŵy (caead y botel) y tu mewn i'ch casyn ŵy.

7

Shark eggcases are slightly see through (translucent) if you hold them up to a light, but brown paper isn't! Trim two pieces of tissue paper so that they cover your window cut into your eggcase in step 2. Make sure to cut the tissue paper a little big so that you can fit your yolk (bottle cap) inside your eggcase.

Gludwch eich darnau papur sidan y tu mewn i'ch ffenestri.

8

Glue your tissue paper pieces onto the inside of your windows.

Nawr dylai fod gennych gasyn ŵy â darn o bapur sidan yn gorchuddio'r ffenestr ar y naill ochr a'r llall.

9

You should now have an eggcase with apiece of tissue paper covering the window on each side.

Gludwch eich cenau siarc i mewn.

10

Glue in your baby shark.



Mae'n amser gludo melyn yr ŵy wrth ymyl eich cenau siarc. Mae'r melyn ŵy cochlyd mewn casyn ŵy siarc yr un fath â melyn ŵy iâr. Mae'r melyn ŵy yn darparu bwyd i'r embryo sy'n datblygu, ac wrth i'r cenau siarc dyfu bydd yn amsugno'r melyn ŵy.  Efallai yr hoffech chi liwio neu baentio'r caead potel yn debyg i felyn ŵy, neu ddod o hyd i un sydd o liw melyn-oren.

11

It's time to glue in your yolk next to your baby shark. The yellowy-orange yolk in shark eggcases, is the same as yolk in a chickens egg –the yolk provides food to the developing embryo and as the baby shark grows it will absorb the yolk.  You may wish to colour or paint your bottlecap yolk or find one that is a yellow-orange colour.

Nawr yw'r amser i ychwanegu'r tendriliau (gwifrau neu goesynnau crefft blewog). Mae gan rai casys wyau siarc, fel rhai'r morgi brych a'r morgi lleiaf, dendriliau cyrliog ar bob cornel. Pan fydd yr wyau'n cael eu dodwy, cânt eu lapio mewn gwymon i gadw'r casys wyau yn eu lle wrth i'r rhai ifanc ddatblygu. Gallai nifer o gasys wyau hefyd fod ynghlwm wrth ei gilydd, mewn llinyn o gasys wyau. Ychwanegwch dendril tua 3cm o hyd o'r gwifrau neu'r coesynnau crefft blewog at bob cornel o'ch casyn ŵy gan ddefnyddio tâp gludiog.

12

It's now time to add the tendrils (furry craft wires or stems). Some shark eggcases, like the Nursehound and Smallspotted Catshark, have curly tendrils on each corner. When the eggs are laid, these are wrapped around seaweed to keep the eggcase in place as the young develops. Multiple eggcase might also be attached to each other, in a string of eggcases. Add a tendril to each corner of your eggcase by cellotaping approximately 3cms of the furry craft wires or stems to the eggcase.

Nawr dylai fod gennych gasyn ŵy agored gyda chenau siarc a melyn ŵy wedi'u gludo i mewn, a phedair tendril—un ynghlwm wrth bob cornel.

13

You should now have an open eggcase with a baby shark and yolk glued in and 4 tendrils,1 attached in each corner.

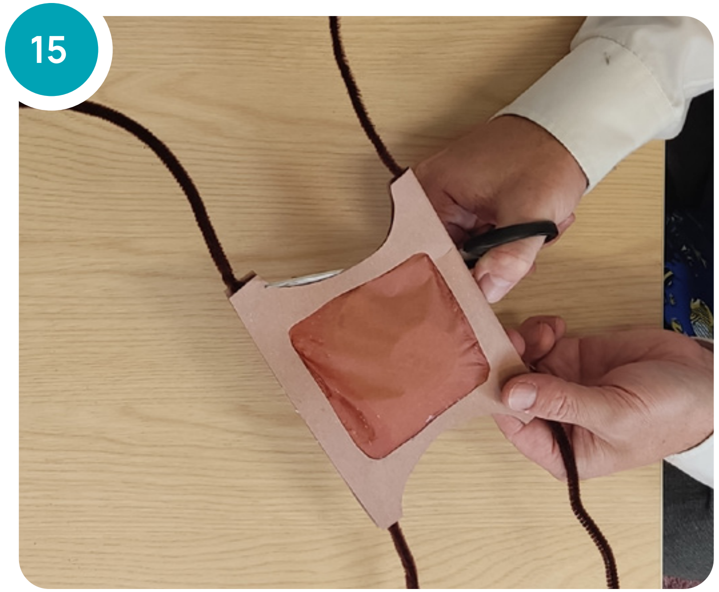
Caewch a gludwch eich casyn ŵy.

14

Close and glue your eggcase shut.

Dewisol – efallai yr hoffech chi drimio'n ofalus unrhyw bapur sidan sy'n hongian drosodd, ond nid yw casys wyau yn berffaith, a bydd casys wyau o'r un fam ychydig yn wahanol hyd yn oed.

15



Optional – you may want to carefully trim any overhanging tissue paper, however, eggcases in nature aren't perfect and even eggcases from the same mother will all be slightly different.

Mae tendriliau ar wyau siarc yn gyrliog, gan eu helpu i aros ynghlwm wrth gasys wyau eraill a gwymon tra bod y cenau siarc yn datblygu. Gan weithio fesul un, lapiwch bob un o'ch pedwar tendril o amgylch eich bys neu bensel i'w gwneud yn gyrliog.

16

Tendrils on shark eggs are curly, helping them to stay attached to other eggcases and seaweed while the baby shark develops. Working one by one, wrap each of your 4 tendrils around your finger or a pencil to make it curly.

Mae gennych chi gasyn ŵy siarc! Daliwch ef i fyny i'r golau i weld eich cenau siarc yn tyfu y tu mewn.

17

You have a shark eggcase! Hold it up to the light to see your baby shark growing inside.

# BETH NESAF?

# WHAT'S NEXT?

## Beth am wneud casyn ŵy gwahanol? Edrychwch ar Helfa Fawr y Casys Wyau – Canllaw Adnabod Casys Wyau ar wefan Prosiect SIARC i gael ysbrydoliaeth!

Fe allech chi wneud y canlynol:

- defnyddio cerdyn du a phapur sidan i wneud casyn ŵy morgath
- torri ymylon eich casyn ŵy fel bod ganddyn nhw gyrn casyn ŵy morgath yn hytrach nag ychwanegu tendriliau casyn ŵy siarc
- gwneud casyn ŵy tebyg i siâp potel, sy'n debycach i siâp casyn ŵy siarc
- bod yn greadigol a dylunio casyn ŵy cwbl newydd!

## Why not make a different eggcase? Check out The Great Eggcase Hunt - Eggcase ID Guide on Project SIARCs website for inspiration!

You could:

- use black card and tissue paper for skate eggcases
- cut the edges of your eggcase so they have skate eggcase horns rather than adding shark eggcase tendrils
- Make your eggcase more bottle shaped, closer to the shape of a shark eggcase
- Get creative and design a whole new eggcase!

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Peidiwch ag anghofio rhannu eich crefftau â ni drwy dagio Prosiect SIARC a gwasanaeth Llyfrgelloedd Gwynedd ar y cyfryngau cymdeithasol.

Don't forget to share your crafts with us by tagging Project SIARC and Gwynedd Library service on social media.

Mae Prosiect SIARC wedi'i ariannu gan:

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