MATHS YEAR 2000

MATHEMATEG 2000

Helpu eich plentyn gyda Mathemateg

Helping your Child with Maths

Coleg Digidol Cymru
Wales Digital College

Cynulliad Cenedlaethol Cymru
The National Assembly for Wales

Mae'r llyfryn yma

- ✔ ar gyfer eich helpu chi i helpu eich plant i ddysgu mathemateg;
- ✔ yn rhoi enghreifftiau o bethau y gallwch eu gwneud gartref gyda'ch plant;
- ✔ yn esbonio rhai o'r dulliau mae athrawon yn eu defnyddio yn yr ysgol;
- ✔ yn dangos o ble y cewch chi fwy o wybodaeth.

Helpu plant i ddysgu mathemateg

Beth sydd wir yn bwysig:

- ✔ Mae plant yn dysgu'n well os ydyn nhw'n hapus a hyderus. Mae cadw'r hyder hwnnw yn holl bwysig i'w llwyddiant.
- ✔ Mae hyder yn dibynnu ar ddeall beth maen nhw'n ei wneud, a pham.
- ✔ Bydd plant yn gweithio galetaf pan fydd ganddyn nhw ddiddordeb mewn tasg a phan fydd honno'n cynnig her iddyn nhw.
- ✔ Mae angen llawer o siarad mewn mathemateg – gwnewch eich plentyn yn rhan o'r fathemateg a wnewch chi yn y siopau ac yn y cartref – gofynnwch iddyn nhw helpu.
- ✔ Pan fydd eich plentyn yn gwneud camgymeriad, byddwch yn ofalus wrth dynnu sylw at hynny – y ffordd orau yw cael y plant i weld eu gwallau drostynt eu hunain.
- ✔ Pan fydd eich plentyn yn dweud "Dydw i ddim yn gwybod sut i wneud hwn", peidiwch â dweud beth yw'r ateb ond, yn hytrach, dywedwch "Beth am i ni roi cynnig arni gyda'n gilydd?"

Cofiwch!

Dydy pob plentyn ddim yn dysgu mathemateg ar yr un cyflymder. Os ydych chi'n meddwl bod eich plentyn yn dysgu'n arafach na phlant eraill, y ffordd orau i helpu yw trwy sicrhau bod eich plentyn yn cadw ei hyder i ddefnyddio yr hyn y mae yn ei wybod. Dydy gwthio plant yn rhy galed byth yn gweithio.

This booklet

- ✔ is to help you help your children learn maths;
- ✔ gives examples of things you can do at home with your children;
- ✔ explains some of the methods teachers are using in school;
- ✔ tells you where you can find out more.

Helping children to learn maths

What really matters:

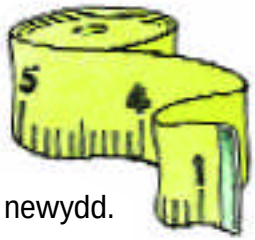
- ✔ Children learn best when they are happy and confident. Keeping that confidence is crucial to their success.
- ✔ Confidence depends on understanding what they are doing, and why.
- ✔ Children work hardest when they are interested in a task and it gives them a challenge.
- ✔ Maths needs lots of talking – include your child in the maths you do in the shops and at home – ask them to help.
- ✔ When your child makes a mistake, be very careful how you tell them about it – it is best if they see it for themselves.
- ✔ When your child says “I don’t know how to do it”, don’t just tell them the answer, say “Let’s work it out together”.

Remember!

Children do not all learn maths at the same pace. If your child seems to be learning more slowly than others, the most important way to help is to keep up their confidence in using what they do know. Pushing them too hard will not work.

Mathemateg – mae arnom ei angen bob dydd!

Mae arnom angen yr iaith a'r syniadau mathemategol ar gyfer:



- ✔ cyfrif, gosod pethau yn eu trefn, cyfrifo, amcangyfrif;
- ✔ mesur amser, hyd, pwysau, cynhwysedd ac arwynebedd;
- ✔ disgrifio siapiau, symudiadau a safleoedd;
- ✔ deall gwybodaeth a welwn ar y teledu ac yn y papur newydd.

Mae llawer iawn o fathemateg mewn:

Cynllunio taith

- ✔ pa mor bell ydyw, faint o amser y bydd y daith yn ei gymryd;
- ✔ darllen amserlenni, cymharu dulliau teithio, newid bysiau;
- ✔ defnyddio map, siarad am gyfeiriadau.

Paratoi pryd o fwyd i'r teulu

- ✔ faint sydd angen arnom, cyfrif, pwyso, mesur;
- ✔ beth i'w baratoi a'i goginio, ac ym mha drefn;
- ✔ cyflwyno'r bwyd a'i rannu'n gyfartal.

Trin arian

- ✔ talu ag arian parod, pa ddarnau arian i'w defnyddio, faint o newid i'w ddisgwyl;
- ✔ defnyddio llyfrau budd-daliadau, llyfrau siec, archebion arian;
- ✔ dehongli hysbysebion a labeli prisiau;
- ✔ gwneud i arian ymestyn dros wythnos neu fis.

Maths – we need it every day!

We need the language and the ideas of maths to:

- ✔ count, put things in order, calculate, estimate;
- ✔ measure time, length, weight, capacity and area;
- ✔ describe shapes, movements and positions;
- ✔ understand information on the TV and in the paper.

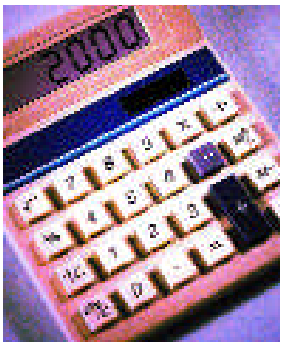
There is a lot of maths in:

Planning a journey

- ✔ how far it is, how long it will take;
- ✔ reading timetables, checking routes, changing buses;
- ✔ using a map, talking about directions.

Getting a meal for the family

- ✔ how much we need, counting, weighing, measuring;
- ✔ what to prepare and cook and in what order;
- ✔ sharing the food out.



Handling money

- ✔ paying with cash, what coins to use, what change to expect;
- ✔ using benefit books, cheque books, money orders;
- ✔ interpreting advertisements and price labelling;
- ✔ making money stretch for a week or a month.

Hwyl mathemateg i blant dan bump oed

Dyma pryd mae plant yn datblygu'r iaith i ddisgrifio'r byd o'u cwmpas a'r hyn maen nhw'n ei wneud.

Siaradwch â'ch plentyn, defnyddiwch iaith rhifau, siâp, amser ac arian wrth fynd o gwmpas yn eich bywyd bob dydd. Helpwch nhw:

- ✔ i ddechrau adnabod geiriau a symbolau sy'n ymwneud â rhif ac i ddeall sut i'w defnyddio i gyfrif;
- ✔ i ddeall a defnyddio geiriau cymharu, er enghraifft "llai", "mwy", "trymach";
- ✔ i roi pethau yn eu trefn a defnyddio geiriau fel "cyntaf", "ail", "cyn", "nesaf";
- ✔ i ddysgu geiriau sy'n ymwneud â safle, er enghraifft "chwith", "de", "uwchben", "o dan", "o flaen";
- ✔ i wneud patrymau ac i drafod sut maen nhw'n eu ffurfio.

Rhigymau, caneuon a storïau –

mae gan nifer o'r rhain elfennau mathemategol, ac mae rhigymau sy'n cynnwys symudiadau yn arbennig o addas. Un enghraifft ydy cân Wil Cwac Cwac wrth iddo gyfrif malwod:

"Un, dwy, tatws ac wy,
Tair, pedair, cynffon pry genwair,
Pump ar fy mhen, llygoden fach wen,
Chwech ar fy nhrwyn, llysywen mewn brwyn,
Saith, wyth, malwod yn llwyth,
Naw, deg, dyma lond ceg!"

Gallech actio rhannau o'r gân, pwyntio at rannau'r corff ac ati, wrth gyfri'r gwahanol eitemau.

Maths fun with under-fives

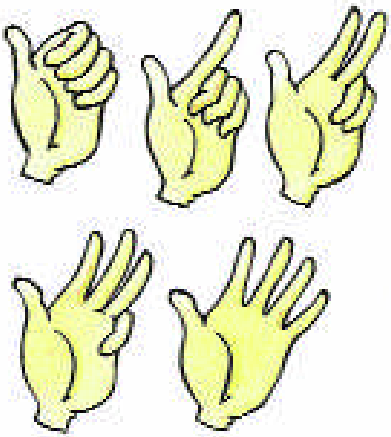
This is when children develop the language to describe their world and what they are doing.

Talk to your child, use the language of numbers, shape, size, position, time and money as you go about daily life. Help them to

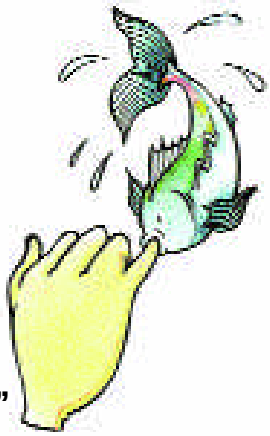
- ✔ begin to recognise number words and symbols and to understand how to use them to count;
- ✔ understand and use comparing words like “less”, “more”, “smaller”, “heavier”;
- ✔ put things in order and use words like “first”, “second”, “before”, “next”;
- ✔ learn words of position like “left”, “right”, “top”, “below”, “in front”;
- ✔ make patterns and talk about how they do it.

Rhymes, songs and stories –

often have maths content, and action rhymes are particularly good:



“One, two, three, four , five,
Once I caught a fish alive.
Six, seven, eight , nine, ten,
Then I let it go again.
Why did you let it go?
‘Cos it bit my finger so.
Which finger did it bite?
This little finger on the right.”



Match each number to a finger and show which is the right hand.

Amser bwyd

Ydyn ni'n mynd i ddefnyddio platiau bach neu blatiau mawr?

Wnei di osod cyllell a fforc ar gyfer pawb fydd wrth y bwrdd?

Oes digon o fisgedi i bawb gael dwy bob un?

Fydd y gwydryn yma yn dal mwy o ddiod na'r gwydryn acw?

Yn yr archfarchnad

Wnei di roi tri grawnffrwyth yn y fasged?

Helpa fi i ddewis y pecyn grawnfwyd mwyaf.

Oes mwy o bobl yn y rhes dalu yma nag yn yr un acw?

Ydyn ni wedi prynu digon o gacennau i allu rhoi un i bawb?

Ydy'r tun yma yn drymach na'r tun acw?

Gêm i'w chwarae

Bydd arnoch angen:

Dis

Llinell rif

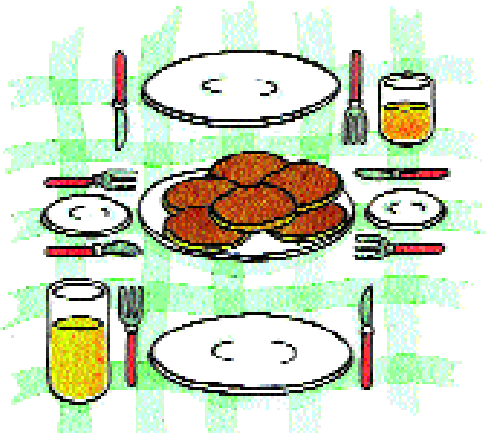
Cownteri (dau liw, 4 o bob un)

Rhowch gownteri o liw gwahanol i'r ddau chwaraewr.

Yn eu tro, mae'r chwaraewyr yn taflu'r dis, enwi'r rhif sy'n ymddangos a gosod cownter ar y rhif hwnnw ar y llinell.

Yr enillydd ydy'r chwaraewr sy'n gallu gosod cownter ar y rhif olaf.

Meal times



Do we need small plates or big plates?

Please give a knife and a fork to each person.

Have we got enough biscuits to have two each?

Will this glass hold more drink than that one?

At the supermarket

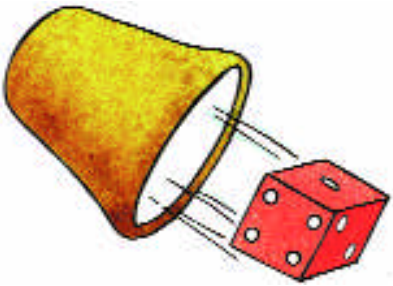
Please put three grapefruit in the basket.

We need the biggest size of cornflakes.

Are there more people in this queue than that one?

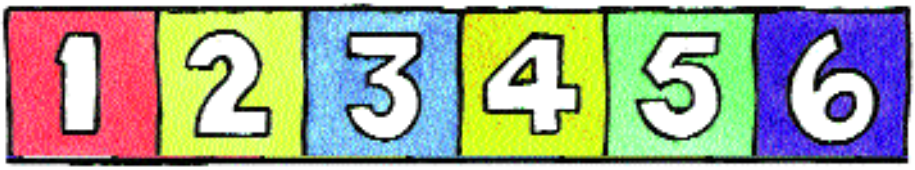
Have we got enough cakes for everyone to have one?

Is this tin heavier than that one?



Play a game

You need:
A dice
A number track
Counters (4 each of two colours)



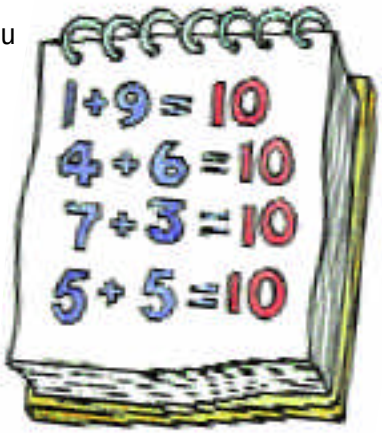
Give the two players counters of different colour.

The players take it in turn to roll the dice, say the number and put a counter on the number on the line. The player to place a counter on the last number wins.

Helpu eich plentyn ym Mlwyddyn 1 neu Flwyddyn 2 (oedran 5 i 7)

Yn y blynyddoedd yma bydd eich plentyn yn debygol o ddysgu

- ✔ cyfrif hyd at 20, ac yna hyd at 100 a rhagor;
- ✔ darllen ac ysgrifennu'r rhifau yma, a'u rhoi yn eu trefn;
- ✔ gwybod pa barau o rifau sy'n adio i 10, er enghraifft 1 a 9, 4 a 6;
- ✔ adio a thynnu rhifau llai na 10 yn y pen, ac yna fynd ymlaen i wneud yr un peth â rhifau hyd at 20;
- ✔ dyblu a haneru rhifau hyd at 20 a thu hwnt;
- ✔ gwybod y tabl 2 a'r tabl 10, ac eraill hyd at 5x5;
- ✔ enwau siapiau cyffredin fel sgwâr, cylch, ciwb, silindr;
- ✔ cymharu hyd, pwysau a chynhwysedd pethau, ac yn ddiweddarach sut i fesur mewn metrau, centimetrau, cilogramau a litrau;
- ✔ adnabod y darnau arian hyd at £1, dod o hyd i gyfansymiau syml a rhoi newid.



Y pethau pwysicaf yn y blynyddoedd yma ydy

- ✔ bod y plant yn gwneud eu gwaith rhif trwy ddefnyddio gwrthrychau go iawn hyd nes eu bod yn gallu gwneud y gwaith cyfrifo yn eu pen;
- ✔ bod y plant yn dysgu gwneud cymaint â phosibl o'r gwaith yn eu pen;
- ✔ bod y plant yn defnyddio'r ffeithiau maen nhw'n eu gwybod i'w helpu i gyfrifo atebion newydd. Er enghraifft:

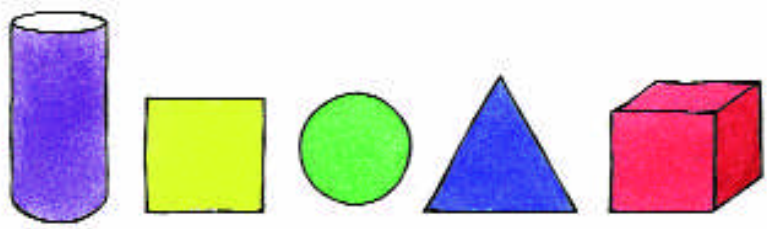
- **Mae 7 + 7 yn** 14 **, felly mae'n rhaid bod 7 + 8 yn** 15
- **Gallwch gyfrifo beth ydy dwbl** 13 **trwy adio dwbl** 10 **at ddwbl** 3

Y ffordd orau i ddatblygu'r sgiliau yma ydy trwy ddigonedd o sgwrsio a thrafod wrth wneud enghreifftiau ymarferol.

Helping your child in Year 1 or Year 2 (age 5 to 7)

In these years, your child is likely to learn to

- ✔ count up to 20, and then on to 100 and more;
- ✔ read and write these numbers, and put them in order;
- ✔ know the pairs of numbers which add up to 10, like 1 and 9, 4 and 6;
- ✔ add and subtract numbers less than 10 in their head, going on to do the same with numbers to 20;
- ✔ double and halve numbers to 20 and beyond;
- ✔ know the 2 and 10 times tables, and others up to 5x5;
- ✔ the names of common shapes like square, circle, cube, cylinder;
- ✔ compare the lengths, weights, capacities of objects, and later to measure using metres, centimetres, kilograms and litres;
- ✔ to recognise coins to £1, find simple totals and give change.

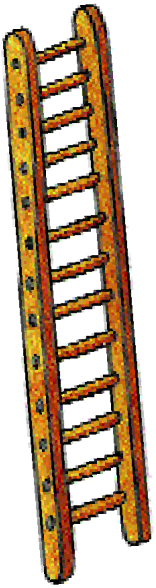


The really important things in these years are

- ✔ for children to do their number work with actual objects until they can do the sums in their head;
- ✔ for them to learn to do as much as possible in their heads;
- ✔ for children to use the facts they know to help them work out new answers. For example:

- **7 + 7 is** 14**, so 7 + 8 must be** 15
- **You can work out double** 13 **by adding double** 10 **to double** 3

Each of these skills come best from lots of talking and explaining in practical examples.



Mae byrddau chwarae **Seirff a Sgolion** yn dangos y rhifau 1 i 100 mewn ffordd sy'n helpu plant i ddeall trefn rhifau a gwneud gwaith cyfrifo yn eu pen.

Gallwch:

- ✔ ddefnyddio'r bwrdd i chwarae'r gêm 'Chwiliwch am fy rhif". Bob yn ail, mae un chwaraewr yn enwi rhif ac mae'n rhaid i'r chwaraewr arall osod cownter ar y rhif hwnnw (mae hyn yn help plant i ddod dros unrhyw ansicrwydd a ydy 23 yn ddau ddeg tri neu'n dri deg dau);
- ✔ chwarae'r gêm ond annog y plant i gyfrifo eu symudiad yn eu pennau yn hytrach na chyfrif ymlaen: "Rydw i ar 23; rydw i wedi taflu 5; mae 23 a 5 yn gwneud 28".

Dewis deg

Tynnwch y cardiau lluniau o becyn cardiau chwarae. Gwasgarwch y cardi coch, wyneb i fyny, o gwmpas y bwrdd. Cymysgwch y cardiau duon a'u gosod yn bentwr, wyneb i lawr. Yn eu tro bydd chwaraewyr yn codi cerdyn du, enwi'r rhif a chwilio am gerdyn coch i wneud pâr sy'n adio i ddeg.

Gallwch symleiddio'r gêm yma, e.e. defnyddio'r cardiau 1, 2, 3, 4 a 5 yn unig i wneud cyfansymiau o chwech.

Rydw i'n meddwl am rif

Mae'r syniad yma yn cynnig pob math o bosibiliadau ac mae rhai wedi eu rhestru isod.

Bydd arnoch angen llinell rif neu sgwâr rhifau i edrych arnyn nhw gyda'ch plentyn.

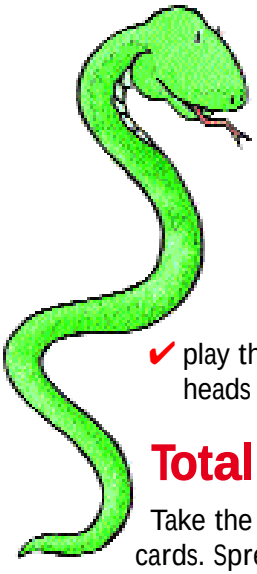
Gallech ofyn cwestiwn syml fel "Rydw i'n meddwl am rif sydd 6 yn llai na 20. Beth ydy'r rhif?"

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	7 2	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Neu gallai'r cwestiynau ganolbwyntio ar y patrwm adio 10: "Rydw i'n meddwl am rif sydd 10 yn fwy na 32", wedyn "10 yn fwy na 47", wedyn "10 yn fwy na 25" ac ati.

Neu gallai eich rhif fod ag angen sawl dyfaliad i gyfyngu'r amrediad: "Rydw i'n meddwl am rif rhwng 1 a 100" (Beth ydy'r nifer lleiaf o gynigion cyn y gallwch chi gael y rhif yn union?)

Rhowch gynnig ar "Rydw i'n meddwl am rif rhwng 2 a 3".



A Snakes and ladders board

sets out the numbers from 1 to 100 in a way that helps children understand number order and do sums in their head.

You can:

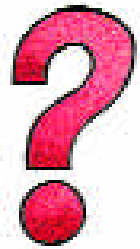
- ✔ use the board to play "Find my number". Two players take it in turn to name a number on which their opponent must place a counter (helps children sort out whether 23 is twenty three or thirty two);
- ✔ play the game, but encourage children to work moves out in their heads rather than count on: "I'm on 23, I've thrown 5, 23 and 5 is 28".

Total ten

Take the picture cards out of a pack of cards. Spread out the red cards face up on the table. Shuffle the black cards and place face down in a pile. Players take it in turn to take the top black card, say the number and find a red card to go with it to add up to ten.

You can simplify this game, eg. by only using cards 1, 2, 3, 4, 5 to make totals of six.

I'm thinking of a number



There are lots of possibilities, some of which are listed below.

You need to have a number line or a number square to look at with your child.

It could be a simple question like "I'm thinking of a number which is 6 less than 20. What's my number?"

Or questions could focus on pattern in adding 10: "I'm thinking of a number which is 10 more than 32", then "10 more than 47", then "10 more than 25" etc

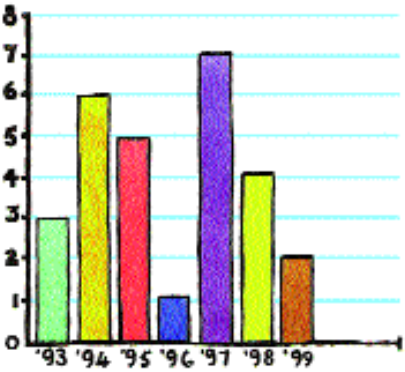
Or your number might need several guesses to narrow the range: "I'm thinking of a number between 1 and 100" (What is the minimum number of guesses before you can pinpoint the number?)

Try "I'm thinking of a number between 2 and 3".

Helpu eich plentyn ym Mlwyddyn 3 neu Flwyddyn 4 (oedran 7 i 9)

Yn y blynyddoedd yma bydd eich plentyn yn debygol o ddysgu:

- ✔ deall a defnyddio rhifau hyd at 1000;
- ✔ gwybod yr holl ffeithiau adio a thynnu hyd at 20, ee 5 + 7 = 12 neu 18 – 3 = 15;
- ✔ gwneud yn y pen waith cyfrifo tebyg i 43 + 28 a 64 – 21 ac, yn ddiweddarach, 64 – 38;
- ✔ estyn y dulliau gwaith pen i gyfrifo symiau fel 145 + 283 a 365 – 192 ar bapur;
- ✔ gwybod y tablau lluosi 2, 5 a 10 ac, yn ddiweddarach, y tablau 3 a 4;
- ✔ lluosi â 10 ac â 100;



- ✔ lluosi a rhannu rhifau hyd at 100 â 2, 3, 4, 5 a 10, a deall beth yw cael gweddill;
- ✔ dechrau deall a defnyddio ffracsiynau syml, er enghraifft 1/2, 1/3, 1/4;
- ✔ dechrau deall degolion trwy eu defnyddio i drin arian ac ar gyfer mesuriadau, ee £3.47;
- ✔ dweud faint o'r gloch ydy hi i'r munud agosaf;
- ✔ adnabod a defnyddio nodweddion siapiau, er enghraifft cymesuredd, onglau sgwâr, hyd;
- ✔ defnyddio a dehongli graffiau syml.

Y pethau pwysicaf yn y blynyddoedd yma ydy

- ✔ bod y plant yn defnyddio'r ffeithiau maen nhw'n eu gwybod i ddod o hyd i atebion newydd. Er enghraifft:

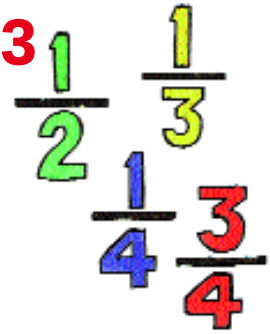
Mae sawl ffordd wahanol o gyfrifo 43 + 28 yn eich pen. Un ffordd ydy adio 20 at 40 a chael 60, wedyn adio y 3 a'r 8. Ffordd arall ydy adio 20 at 43 a chael 63, yna cyfrif ymlaen 7 i 70 ac yna adio 1 arall i gael yr ateb 71.

Yn yr un ffordd, gallai plentyn gyfrifo 64 – 38 trwy gyfrif ymlaen o 38: 48, 58, 60, 64 a rhoi at ei gilydd 10 + 10 + 2 + 4 i gael 26.

I gyfrifo 5 x 13, dywedwch "Rydw i'n gwybod bod 5 x 10 yn 50 a bod 5 x 3 yn 15. Felly yr ateb ydy 65".

- ✔ bod y plant yn siarad am y dulliau maen nhw'n eu defnyddio.

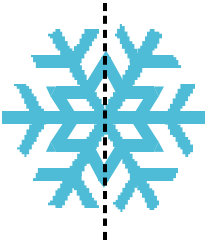
Helping your child in Year 3 or Year 4 (age 7 to 9)



In these years, your child is likely to learn to;

- ✔ understand and use numbers to 1000;
- ✔ know all the addition and subtraction facts to 20 eg 5 + 7 = 12 or 18 – 3 = 15;
- ✔ work out sums like 43 + 28 and 64 – 21 and later 64 – 38 in their head;
- ✔ extend mental methods to work out sums like 145 + 283 and 365 – 192 on paper;
- ✔ know the 2, 5, 10 times tables, and later tables 3 and 4;
- ✔ multiply by 10 and 100;
- ✔ multiply and divide numbers up to 100 by 2, 3, 4, 5, 10 and understand remainders;
- ✔ begin to understand and use simple fractions like 1/2,1/3,1/4;
- ✔ begin to understand decimals through their use in money and measurement, eg £3.47 or 5.19m;

- ✔ tell the time to the nearest minute;
- ✔ recognise and use properties of shapes such as symmetry, right angles, lengths;
- ✔ use and interpret simple graphs.



The really important things in these years are

- ✔ for children to use the facts they know to work out new answers. For example:

There are many ways to do 43 + 28 in your head. One way is to add 40 and 20 to get 60,then add on the 3 and the 8. Another is to add 20 to 43 to get 63, move on 7 to 70 and a final 1 to get the answer 71.

Similarly, a child might do 64 – 38 by counting on from 38: 48, 58, 60, 64 and putting together 10 + 10 + 2 + 4 to give 26.

To work out 5 x 13, say "I know 5 x 10 is 50 and 5 x 3 is 15, so the answer is 65."

- ✔ for children to talk about the methods they use.

Mathemateg yn y car

Gwyliwch yr arwyddion ffyrdd – Beth yw'r pellter i'r dref nesaf? Pa mor gyflym ydyn ni'n teithio? Pryd y byddwn ni'n cyrraedd yno?

Edrychwch ar rifau cofrestru ceir – ydy'r rhif yna yn eilrif neu'n odrif?

Tua faint ydy oed y car acw sydd â'i rif cofrestru yn dechrau â P? (Cafodd y llythyren gofrestru G ei defnyddio ym 1990 ac ni chafodd y llythrennau I ac O eu defnyddio o gwbl.)

Dewiswch rif, er enghraifft 345.

Pa rifau 3 digid eraill allwch chi eu gwneud â 3, 4 a 5? Faint o rifau gwahanol sy'n bosibl?

Pa rifau 2 ddigid allwch chi eu gwneud â 3, 4 a 5?

Mathemateg yn y gegin

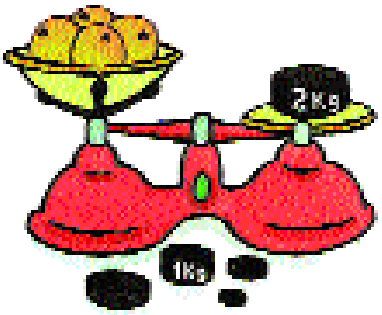
Siaradwch am y pecynnau bwyd ac am y labeli sydd arnyn nhw.

Defnyddiwch eich clorian cegin a darllenwch y labeli sy'n nodi'r gwahanol bwysau.

Cydbwyswch wahanol bethau gyferbyn â phecyn (1kg) o siwgr ar y dafol. Faint o datws sy'n pwyso 1 cilogram? Sut mae 1kg o reis neu spaghetti yn edrych?

Gofynnwch i'ch plentyn eich helpu i fesur y cynhwysion ar gyfer rysáit. Siaradwch am y rhifau a gadewch i'ch plentyn deimlo'r pwysau ac arllwys yr hylifau.

Ar gyfer gweini'r bwyd, meddyliwch sut i'w rannu rhwng pawb – rhannwch y pizza yn ddarnau cyfartal – enwch y ffracsiynau a thrafodwch nhw.



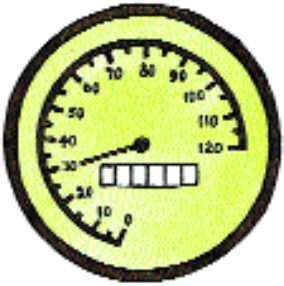
Sut gallwn ni rannu 2 pizza yn gyfartal rhwng pump o bobl? (Un dull teg ydy rhannu'r ddau pizza yn 5 darn cyfartal a rhoi dau ddarn i bob person – mae hynny'n ddau bumed o'r pizza i bob person!)

Beth ydy'r gwahaniaeth?

Tynnwch y cardiau lluniau a'r degau o becyn cardiau chwarae. Cymysgwch weddill y pecyn a chodwch ddau gerdyn a'u gosod ochr yn ochr i wneud rhif, er enghraifft 26. Codwch ddau gerdyn arall i wneud rhif gwahanol, 73 efallai. Gofynnwch i'ch plentyn dynnu'r rhif lleiaf o'r rhif mwyaf gan ddweud wrthych yn uchel sut mae'n gwneud hynny.

Anogwch eich plentyn i ddefnyddio dull cyfrif ymlaen: "Mae'n 4 i gyrraedd 30, wedyn mae 40 arall yn gwneud 70, yna 3 eto. Felly yr ateb ydy 4 + 40 + 3 = 47".

Maths in the car



Watch the road signs – How far to the next town? How fast are we going? When will we get there?

Look at the number plates – is that number even or odd?

Roughly how old is that car with the number plate beginning with P? (The registration letter G was used in 1990 and the letters I and O were not used).

Pick a number – say 345

What other 3 digit numbers can you make with 3, 4 and 5? How many different ones are there?

What 2 digit numbers can you make from 3,4, 5?

Maths in the kitchen

Talk about the packets and the labels on the food.

Get out the kitchen scales and read the labels for the weights.

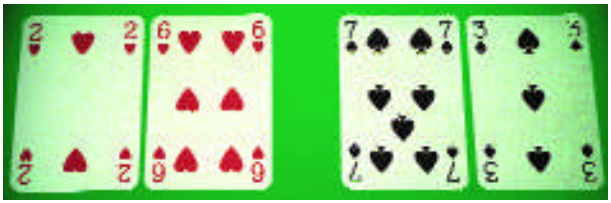
Balance things against a packet (one kg) of sugar. How many potatoes weigh 1kg? What does 1kg of rice or spaghetti look like?

Ask the child to help you measure ingredients for a recipe. Talk about the numbers, let them feel the weights and pour the liquids.

Share out the food – divide the pizza into equal pieces – name the fractions, talk about them.

How can we share 2 pizzas between five people? (One fair way is to divide both into five equal parts, and each person has two portions – that's two fifths of a pizza each!)

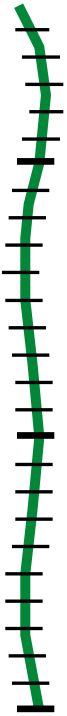
What's the difference?



Remove the picture cards and the tens from an ordinary pack. Shuffle the pack and deal out two cards next to each other to make a number like 26. Deal out two more to make another, say 73. Ask your child to subtract the smaller from the bigger, telling you out loud how they do it.

Encourage a counting-on method: "It's 4 to 30, then another 40 gets you to 70, then 3. So the answer is 4 + 40 + 3 = 47".

Helpu eich plentyn ym Mlwyddyn 5 neu Flwyddyn 6 (oedran 9 i 11)



Yn y blynyddoedd yma bydd eich plentyn yn debygol o fod yn gweithio ar y canlynol:

- ✔ y tablau lluosi hyd at 10 x 10, a defnyddio yr hyn mae'n ei wybod yn barod i'w helpu i luosi a rhannu rhifau mwy yn y pen ac ar bapur;
- ✔ deall degolion (er enghraifft fod 1.07 yn un a saith canfed) a'u defnyddio, yn arbennig wrth wneud mesuriadau;
- ✔ adio, tynnu, lluosi a rhannu â degolion, yn aml wrth drin mesuriadau neu arian;
- ✔ gwybod sut a pha bryd i ddefnyddio cyfrifiannell, deall yr atebion y mae'n eu cael a gwirio eu bod yn atebion synhwyrol;
- ✔ problemau syml yn ymwneud â chymhareb, er enghraifft "Mae angen 2 wy, 300ml o laeth a 240g o flawd i wneud crempogau ar gyfer 4 o bobl. Beth fydd ei angen ar gyfer 6 o bobl?";
- ✔ dechrau deall canrannau syml, er enghraifft fod 10% o £25 yn £2.50;
- ✔ sut i amcangyfrif atebion, er enghraifft y byddai cost 29 cyfrifiannell am £3.95 yn fras tua 30 x £4 = £120;
- ✔ defnyddio onglydd i fesur onglau mewn graddau;
- ✔ cyfrifo arwynebedd siapiau syml, er enghraifft petryalau a thrionglau;
- ✔ casglu gwybodaeth sydd ar ffurf rhifau a'i gosod mewn tablau, graffiau a siartiau.

Y pethau pwysicaf yn y blynyddoedd yma ydy

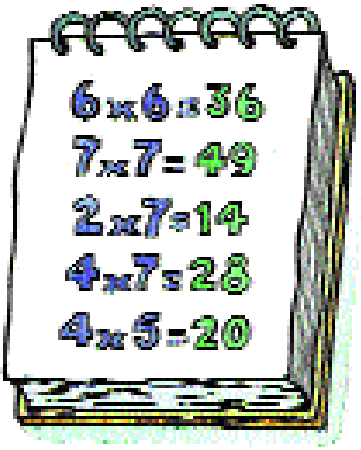
- ✔ bod y plant yn datblygu'r hyder i wybod beth i'w wneud a sut i fynd ati pan fyddan nhw'n wynebu problem newydd;
- ✔ bod y plant yn dechrau gweld cysylltiadau, er enghraifft:

Mai'r 'gwrthwyneb' i adio ydy tynnu, neu fod lluosi yn 'dadwneud' gwaith rhannu;

Mai dim ond ffyrdd gwahanol o ddweud yr un peth ydy ffracsiynau, degolion, cymarebau a chanrannau;

- ✔ bod y plant yn cael digon o gyfleoedd i ddefnyddio eu mathemateg yn y cartref, yn y siopau, ar deithiau ac ymweliadau, ac yn gallu gweld rhifau, siapiau, mesuriadau a graffiau ar waith yn y byd o'u cwmpas.

Helping your child in Year 5 or Year 6 (age 9 to 11)



In these years, your child is likely to be working on:

- ✔ tables up to 10 x 10, and using what they know to help multiply and divide bigger numbers in their head and on paper;
- ✔ understanding decimals (for instance that 1.07 is one and seven hundredths) and using them, particularly in measurement;
- ✔ addition, subtraction, multiplication and division with decimals, often in measurement or money;
- ✔ how and when to use a calculator; understanding the answers they get and checking they make sense;
- ✔ simple problems about ratio, such as "You need 2 eggs, 300ml milk and 240g flour to make pancakes for 4 people. What do you need for 6?";
- ✔ beginning to understand simple percentages, for instance that 10% of £25 is £2.50;
- ✔ how to estimate answers, for instance that the cost of 29 calculators at £3.95 each will be roughly 30 x £4 = £120;
- ✔ measuring angles in degrees with a protractor
- ✔ working out the areas of simple shapes like rectangles and triangles
- ✔ collecting numerical information and putting it into tables, graphs and charts.

The really important things in these years are

- ✔ for children to grow in confidence in sorting out what to do and how to do it when they are faced with a new problem;
- ✔ for children to begin to see connections, for instance that:

Addition "reverses" subtraction, or multiplication "undoes" division. Fractions, decimals, ratios and percentages are just different ways of saying the same thing;

- ✔ for children to have many opportunities to use their maths at home, at the shops, on trips and visits and to see numbers and shape and measurement and graphs at work in the world around them.

Tablau

Helpwch eich plentyn i ddefnyddio'r patrymau sydd yn y tablau lluosi.

Helpwch nhw i ddefnyddio'r ffeithiau maen nhw'n eu cofio'n hawdd o'r tablau i gyrraedd rhai sy'n fwy anodd:

- ✔ Gallwch bob amser ei ddweud y ffordd arall – mae tri wyth yn 24, a dyna beth ydy wyth tri hefyd.
- ✔ Fel arfer, mae plant yn gweld ffeithiau fel chwe chwech = 36, saith saith = 49 yn hawdd i'w dysgu oherwydd eu seiniau. Defnyddiwch y rhain i gyrraedd ffeithiau eraill – er enghraifft, bydd wyth chwech yn chwe chwech a dau chwech arall: bydd 36 + 12 yn gwneud 48, tra bydd wyth saith yr un fath â saith yn fwy na 49.
- ✔ Unwaith y gwyddoch y tablau 2, 5 a 10, a'r tabl 3, gallwch yn hawdd gyrraedd rhai eraill:

"mae dau saith yn 14, felly bydd pedwar saith yn ddwywaith 14"

"mae pum pedwar (pedwar pump) yn ddau ddeg. Mae saith pedwar yn 8 yn fwy na hynny, sy'n 28".

Dyma'r ateb, beth oedd y sym?

Gwnewch eich cardiau rhif eich hun trwy ysgrifennu'r rhifau yma ar y tu mewn i becyn grawnfwyd, a'u torri o'r cerdyn:

4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 24, 25, 27, 28, 30, 32, 35, 36, 40, 42, 45, 48, 49, 50, 54, 56, 60, 63, 64, 70, 72, 80, 81, 90, 100

Gwasgarwch y cardiau ar y bwrdd, wyneb i lawr. Bydd dau chwaraewr, bob yn ail, yn troi cerdyn ac ysgrifennu cymaint ag y gallan nhw o symiau lluosi sy'n gwneud y rhif sydd ar y cerdyn. Er enghraifft, ar ôl codi'r cerdyn 30 gallech ysgrifennu:

30 = 5 x 6 = 3 x 10 = 2 x 15

Bydd chwaraewr yn sgorio un pwynt am bob sym gywir ac yn rhoi'r cerdyn ar ben y pentwr 'cardiau wedi'u defnyddio'.

Y chwaraewr â'r sgôr uchaf fydd yn ennill.

Hwyl Dwy Fil

Faint o amser ydy 2000 eiliad?

Sawl tudalen ydy 2000 o eiriau?

Pa mor fawr mae'n rhaid i neuadd fod ar gyfer dal 2000 o bobl – yn sefyll, yn eistedd?

Faint o ddiwrnodau ydy 2000 o oriau?

Beth ddigwyddodd 2000 o ddiwrnodau yn ôl – beth oedd y dyddiad?

Tables

Help your child to use the patterns in the tables.

Help them to use the table facts they remember easily to get to those which are harder:

- ✔ You can always say it the other way round – three eights are 24, so are eight threes.
- ✔ Children usually find that facts like six sixes = 36, seven sevens = 49 are easily learnt by their sound. Use them to reach others – for instance eight sixes will be six sixes and two more sixes: 36 + 12 is 48, or eight sevens will be seven more than 49.
- ✔ Once you know the 2 times, 5 times, 10 times and 3 times tables, you can quickly reach others:

"two sevens are 14, so four sevens will be twice 14"

"five fours (four fives) are twenty. Seven fours are 8 more, that's 28".

This is the answer, what's the sum?

Make your own number cards by writing these numbers on the inside of a cereal packet and cutting them out:

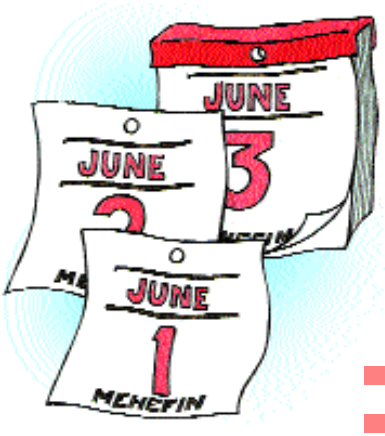
4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 24, 25, 27, 28, 30, 32, 35, 36, 40, 42, 45, 48, 49, 50, 54, 56, 60, 63, 64, 70, 72, 80, 81, 90, 100

Spread the cards out face down on the table. Two players take it in turns to turn over a card and write as many multiplication sums as they can that come to the number on the card. For instance, turn over 30 and you could write:

30 = 5 x 6 = 3 x 10 = 2 x 15

Score one point for each sum and put the card on the "used cards pile".

The player with the most points wins.



Fun with 2000

How long is 2000 seconds?

How many pages is 2000 words?

How big does a hall need to be to hold 2000 people – standing up, sitting down?

How many days is 2000 hours?

What happened 2000 days ago -what was the date?

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- **Ieithoedd i bawb**
- **Dysgu darllen a chyfrif**
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- ✔ Holwch yn y llyfrgell leol am gemau a llyfrau mathemateg (gan gofio dweud wrthyn nhw beth ydy oedran eich plentyn).
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  www.mathsyear2000.org
  www.bbc.co.uk/education

Os hoffech atgyfnerthu eich sgiliau mathemategol

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- ✔ Edrychwch yn y llyfr ffôn am y ganolfan addysg i oedolion neu'r ganolfan addysg gymuned agosaf
- ✔ Ffoniwch Cyswllt Dysgu: 0800 100 900
- ✔ Ymwelwch â'r safle **www.coleg.digidol.co.uk** ar y We o Dachwedd 2000

If you want to know more

- ✔ Talk to the playgroup leader or your child's teacher. Ask how you can help at home.
- ✔ Look out for maths events and activities at the school and in your area.
- ✔ Ask at the local library for maths games and books (tell them how old your child is).
- ✔ Have a look at TV programmes for schools and for parents and young children.
- ✔ Listen to BBC radio maths programmes.
- ✔ Visit maths learning websites eg:
  www.mathsyear2000.org
  www.bbc.co.uk/education

If you want to brush up on your own maths skills

- ✔ Ask at the local library for information about numeracy classes for adults
- ✔ Look in the phone book for your nearest adult or community education centre
- ✔ Ring Learning Direct: 0800 100 900
- ✔ Visit the web site **www.digitalcollege.co.uk** from November 2000

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