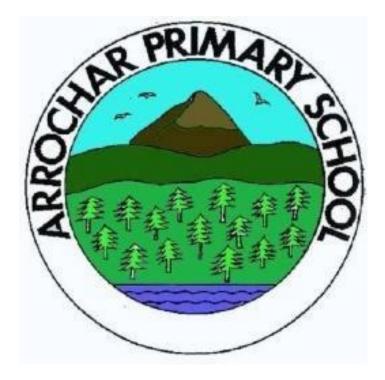
Home Learning



Arrochar Primary P4-P7 Handbook 2020-21

We completed a review of our homework policy in June 2019. After taking your responses into consideration, the whole staff team have devised a new format that will link learning between home and school in a flexible way so that it can fit around family commitments. Home Learning refers to learning activities which children undertake at home. Home Learning offers parents and children the opportunity to experience learning together. We will trial this new methodology and ask for your feedback again in June 2020.

Overview of Home Learning for P4-7

<u>Reading -</u> all children should read every evening at home for at least 20-30 minutes. We have included suggestions on how you can support your child. The Blooms Taxonomy questions can be used with any text to check for understanding.

<u>Writing -</u> if your child wishes to practise writing at home, we have created a booklet of activities that they can complete over the year.

<u>Spelling</u> - will be taught in class but formal spelling homework will no longer be sent home. Class teachers will advise parents of the spelling rule or pattern being taught in class. A list of activities that you can use to reinforce the spelling rules are included in this booklet.

<u>Maths -</u> Class teachers will inform you of what is being covered in class via diaries and Seesaw. Regular practice at home of number bonds to 100 and multiplication tables to 12 is very important as it aids speed of recall and accuracy and increases confidence in all areas of maths. Examples of activities and games that can be completed at home are included in this booklet and class teachers will provide further suggestions as and when required.

Whole School

<u>Health and Wellbeing -</u> This year we are structuring our Health and Wellbeing programme around the SHANARRI indicators. Each month we will focus on a different indicator and will provide a selection of activities that you can complete with your child to enhance their learning in this area.

HOMEWORK CHALLENGES - there will be up to 2 Homework Challenges set each year.

We have included a list of websites that may be useful.

P4-7 Home Learning - Useful Websites

| <u>General</u> |
|--|
| Parent Zone |
| https://education.gov.scot/parentzone |
| Super Movers |
| https://www.bbc.co.uk/teach/supermovers |
| Top Marks |
| https://www.topmarks.co.uk/ |
| Brain Games |
| https://www.brain-games.co.uk/Brain+Games |
| Words For Life |
| http://www.wordsforlife.org.uk/ |
| Read, Write, Count |
| https://www.scottishbooktrust.com/reading-and-stories/read-write-count |

<u>Maths</u>

Sumdog https://www.sumdog.com/user/sign in Hit the Button https://www.topmarks.co.uk/maths-games/hit-the-button Daily 10 https://www.topmarks.co.uk/maths-games/daily10 Math Magician (addition) https://coolsciencelab.com/math magician addition.html Math Magician (subtraction) https://coolsciencelab.com/math magician subtraction.html

Math Magician (division)

https://coolsciencelab.com/math magician division.html

Math Magician (multiplication)

https://coolsciencelab.com/math magician.html

Maths Frame

https://mathsframe.co.uk/

Multiplication.com

https://www.multiplication.com/games/all-games

Top Marks

https://www.topmarks.co.uk/maths-games/7-11-years/times-tables

Literacy

Spelling City https://www.spellingcity.com/ Spell Zone https://www.spellzone.com/word lists/index.cfm Spelling Frame https://spellingframe.co.uk/ Literacy Zone http://www.primaryhomeworkhelp.co.uk/interactive/literacy.html#7 Top Marks https://www.topmarks.co.uk/english-games/7-11-years/punctuation Teach Your Monster to Read https://www.teachyourmonstertoread.com/ Story Nory

https://www.storynory.com/

Reading

The following pages provide guidance about supporting your child with reading activities at home. Fostering a love of books and reading for pleasure is important to learning.



Stage 1 - Getting Ready to Read

There are lots of fun and easy ways to help get your child ready to read. The most obvious way is through sharing and enjoying books together, but singing nursery rhymes, playing 'I spy' in the car and talking about your child's day can all help your child to develop important very early reading skills. Here are some simple ideas of things to try with your child.

Things to try with your child:

1. Talk together

It might seem odd to suggest something that all parents do with their children every day, but spending time talking to your child about their day, about their play and about things around them encourages the development of speaking and listening skills, so important when children go on to start learning to read.

2. Talk about books, words and pictures

Before you start reading a book, talk about the title, the pictures on the cover (front and back). Look through the pictures together and ask your child what they think the story might be about.

3. Talk about stories and events

As you read and when you've finished, sometimes ask questions about the story. 'What was your favourite bit? What do you think about that? What would you do?' Get your child to ask you questions too. Don't overdo it though - otherwise you can lose the thread of the plot.

4. All join in

Start asking your child to join in with bits that are repeated in stories, e.g. 'Run run as fast as you can! You can't catch me I'm the Gingerbread Man!' Traditional stories, like The Gingerbread Man are really good for this and children will love doing the voices!

5. Find your favourites and add to them

Children love to listen to their favourite books over and over again and to remember some parts by heart. That's fine as enjoyment and memory play a key part in learning to read. Add to their list of favourites by reading stories of all kinds, rhymes, poetry and information books too.

6. Retell stories

Sometimes after you have shared a story ask your child to retell it to you. 'What happened first? What next? And then what? Can you remember what happens at the end?' Encourage them to use plenty of expression.

7. Read everywhere you go

Read on the move and show your child how you read words everywhere you go too. Point out words they might recognise, including signs and logos in the street or on labels.

8. Listen to and sing songs and rhymes

Singing lots of songs and nursery rhymes helps your child to hear the sounds in words and build up a bank of known favourites. Play with words and sounds and make up nonsense rhymes in songs or nursery rhymes they know. Encourage them to join in.

9. Remember when...

Compare events in stories or information books with things you've done together, so your child starts to make connections between these things and their own experiences: 'That's just like when we went to Thorpe Park. Do you remember? Dad was scared...'

Early reading skills

1. Talk about letters and sounds

If you draw attention to letters and sounds, your child will begin to notice them as well. Knowing the letter sounds is a very important first step in early phonics teaching so start talking about these at the earliest opportunity.

2. Signs that your child may be ready to begin learning early reading skills

There are no hard and fast rules about this but if your child can do these things then it may be that they are ready to begin learning early reading skills:

- listen to a story and retell bits of it
- recognise some letter sounds like the first sound in their name
- match some words (like Mum) when they see them in different places
- concentrate for 5-10 minutes

Stage 2 - Starting to Read

Your Primary 1 child will begin to start learning to read at school, using a phonics-based approach. There are lots of things you can do to support this at home. At this stage they will still enjoy sharing picture books of all kinds with you.

Things to try with your child:

Reading together

1. Read together every day

Reading with your child continues to be really important so keep reading lots of different books together. Most picture books will be too hard for a child of this age to read alone, but it's good for them just to listen to a story or information book and talk about the pictures with you.

2. Allow some reading alone time

Try a short reading time when you are reading (newspaper, magazine, book, onscreen) and your child is too. It's good to start this habit of quiet reading time early, however short to begin with.

3. Talk about the book before you begin reading

Before reading a book together, always talk about the title, the pictures and the information on the cover (front and back). If it's new, ask what your child thinks the book might be about. If it's an old favourite then talk about the bits you love most! Don't worry if some books get chosen again and again!

4. Read with different voices

When reading aloud use lots of expression and try different voices for different characters. Get your child to join in with bits too, such as, 'They pulled and they pulled!' and 'Fee, fi, fo, fum... See if your child can copy you!

5. Ask each other questions

Talk about the stories and information books when you've finished reading together and ask questions. What did you like best? Why did the tiger let Floppy go? Have you ever played a trick on anybody? Get your child to ask you questions too.

6. Retell stories and events

Ask your child about things that happened at school or with their friends. Sometimes, after you've shared a story or watched a TV programme, ask your child to tell you about it. Help them by asking: What happened first? What next? And then what?

Early reading skills

1. Listen to your child read

Your child might bring home books from school. Designed to allow your child to learn how to read independently, these books help children apply their phonic skills -Sounding out the words on the page. Be patient and be impressed!

2. Link letter sounds to letter shapes

Your child will be learning letter sounds at school. Make sure you know how to say the sounds correctly. And don't forget that some words, like said and the, are tricky and can't be sounded out so keep pointing these out to practise them.

3. Looking at words and letters

After you have read a book, play letter-spotting and word games like these with your child: 'Can you find Dan's name on this page? Can you find the word 'and' on this page? How many words can you find on this page that begin with t?' Get your child to ask you too!

4. Sound out first...

If your child gets stuck on a word, check first if it can be sounded out or blended by saying the letter sounds individually and putting them together quickly to hear the word. If your child can't work out the word, then you say it and move on.

Stage 3 - Building Skills

By the time your child is in Primary 2 they will probably have had some experience of early reading and will be building up a range of reading skills. Now it's all about gaining more confidence so take a look at these ideas to help you get a good balance of reading for enjoyment and skills practice.

Things to try with your child:

Sharing reading

1. It's still good to share

Don't give up on talking about picture books with your child and sharing that bedtime story or information book. It's just as important now to enjoy reading these books together, as well as those that come home from school, to help develop your child's vocabulary, their understanding of stories and to encourage a love of reading.

2. Read with expression

Read with expression when reading to your child. Use different voices and vary the volume for effect or for different bits of information such as, Did you know that the Tyrannosaurus Rex...? Wow! You'll soon see that your child will then try these skills when reading to you.

3. Talk about books, words and pictures

Before reading a book together, always talk about the title, the pictures and the information on the cover (front and back). If it's new, ask what your child thinks the book might be about. If it's an old favourite, then talk about the bits you love most! Don't worry if some books get chosen again and again!

4. Retell stories or events

When reading aloud use lots of expression and try different voices for different characters. Get your child to join in with bits too, such as, 'They pulled and they pulled' and 'Fee, fi, fo, fum... See if your child can copy you!

Practising early reading skills

1. Listen to your child read

Books that your child brings home from school should be at the right level for your child. The words should be readable for your child - we say they are levelled reading scheme books. They are written to ensure steady progress and success. Many of these books include helpful notes for parents inside the front cover.

2. Sound it out

If your child gets stuck on a word, try phonics first. Get your child to say the letter sounds and say them quickly to try to hear the word; this is called blending. If the word can't be sounded out then it's best if you say it quickly and move on. If the book is at the right level then this should not happen too much.

3. Clap and chunk

Clapping out syllables or chunks in words and names can help with reading longer words: Di-no-saur! Cho-co-late! Or point out that some words are made up of two words, so wind and then mill makes windmill.

4. Try expression and flow

Your child's expression might sometimes sound stilted on the first read of a sentence or a page. This is because they are focusing on making sounds into words. To keep your child hooked into the story, read it again with expression - after lots of praise, of course.

5. Don't be afraid to back track

It's sometimes good to get your child to re-read a sentence or even a page if it has been tricky to work out. This helps with meaning, flow and confidence - we all still have to do this sometimes!

6. Read, read, read!

It's really important to read as much as possible with your child. Read the books that come home from school, borrow library books, buy books and magazines. Read signs and notices, and find interesting websites to read. And keep reading together at bedtime too!

Stage 4: Developing Confidence as A Reader

Your child will now be building on those early reading skills and developing confidence in reading more broadly and fluently. These ideas will help you to keep a good balance between reading for enjoyment across a range of interests and developing the skills to help your child read with even more confidence and efficiency.

Things to try with your child:

Sharing reading

1. It's still good to share

Don't give up on talking about picture books, short chapter books and even sharing bedtime stories and information books with your child. Choose what to read together and exchange views. Sharing a love of reading will rub off on them.

2. Take the lead

Try reading slightly more difficult books together - you read one page and your child reads the next, or you read the main information and they read the captions. Hearing you read fluently and seeing you read for information will help them to see what reading can be.

3. Encourage an option

Talk about books when you've finished reading together. Talk about the characters and what happens in a story, or what specific bit of information was most useful, but also get them to give you their opinions too. Let them tell you if they don't like a book, and why. Part of growing as a reader is learning that it's OK not to like some books or to prefer reading on-screen sometimes.

4. Make links

As well as talking about the book itself, make links between events or information in the book and your child's own experiences: Do you remember when we did that ...?! Get them to ask questions too: 'Is that how Grandad does it too?'.

Practising developing reading skills

1. It's still important to listen

Your child may be bringing home slightly longer books from school now, but they are still likely to be levelled in difficulty so teachers can match the best books to your child's skills. It should be a comfortable read - endless struggling is no fun and can put children off! Enjoy talking about it together too.

2. Still phonics first

It's still good to try sounding out and blending a word your child gets stuck on. But now you may also try different tactics too. For example, get them to say the first sound of the word, or break it into chunks or syllables, for example camp-ing or butter-fly. Alternatively, ask them to read the whole sentence again, focusing on the meaning.

3. Spot letter patterns in words

Ask your child to point out words that look like they should rhyme but don't: home and come; do and no. And words which do rhyme even though they look different: come and sum; there, bear, hair. This will help with their writing too.

4. Get your child to perform

When your child reads aloud encourage lots of expression and get them to use different voices for the different characters or to use different volume or pace. Reading to a younger sibling might demand this and is great practice! Or get them to try learning a poem off by heart. And making a sound recording is fun too.

5. Quiet time and silent reading

As well as reading books aloud together, encourage your child to sometimes read alone and sometimes silently. This isn't as easy as it sounds, but it shows that your child is reading more effortlessly. Show how you read your own book or newspaper silently.

Stage 5: Building Independence

Your child will now be developing confidence and increasing independence not only in what they read but in what they choose to read. But they still need you to guide them. These ideas will help you to keep a good balance between reading for enjoyment across a range of interests, developing the skills to help your child read fluently and encouraging independence.

Things to try with your child:

Sharing reading

1. It's still good to share

Hearing a story read to you (rather than watching a story on TV or as a film) is hugely important for developing reading skills, but it's also a relaxing routine which prepares children for a good night's sleep. Hearing a story read out loud also means that children can have access to books that may as yet be too challenging to read alone.

2. Open up the world of reading

Share the variety of your reading with your child: books, magazines, websites, and apps, to show how reading can help you to follow your interests and to get involved. Help them to read blogs, online communities and clubs that link to their hobbies whether it's swimming, football, dance or music. Always check that any online communities children sign up to are safe and monitor their use of them.

Developing fluency and understanding

1. Encourage prediction

When reading stories, good readers are always thinking ahead to start to work out what might happen next. You can help your child become better at this by asking key questions such as: 'I wonder if ... will happen? Who do you think will...?!

2. Research for home learning

Your child may be asked to investigate a topic as part of a home learning project. You can help them with their research skills by talking about where to look to find the answers, although you may need to remind them to look in books and use the library as well as the internet. Children can struggle with information overload so they need your help to 'search and sift' both sites and information to make decisions.

Building independence

1. Valuing choice

It's really important to value your child's choices even when a book looks too easy or too difficult. Children can read books that appear to be too difficult (especially if it is on a topic that interests them) but you'll need to guide them through tricky words, pictures, ideas or even the layout of an information book.

2. Not giving up

As children read more challenging books be aware that there might be times when they struggle and may seem reluctant to continue - so help them through those patches by reading a bit with them to get them started or hooked into the next chapter. Always balance this with sensitivity and valuing their choice - it's got to be fun!

Stage 6: Encouraging Reading

At this stage your child may well be reading independently at home and school for lots of different purposes, although some children may be reluctant to read adventurously and can get stuck on one author, series or type of book.

If you are concerned about your child's reading progress then pop into school to talk to the teacher first. If you are worried about your child's interest in reading then there are lots of people to help (the teacher, local librarian, booksellers) and good sites too.

Things to try with your child:

Sharing reading

1. It's still good to share

It might get increasingly difficult to make time for the 'bedtime reading experience' now but it's still really useful and enjoyable; reading to your child, listening to your child read, leaving them to read alone and listening to audio books are all valuable. Try to chat informally about reading and swap ideas about good reads - no pressure!

2. Keep opening up the world of reading

Share the variety of your reading with your child: books, magazines, websites, and apps, to show how reading can help you to follow your interests and to get involved.

Developing fluency and understanding

1. Read between the lines

Talking about stories, poems and information books can help your child to understand a book in different ways. It's not just about what's happened or who did what so talk about the issues, what a book means to your child and whether they think there are any less obvious meanings that the author wants us to spot.

2. Research for home learning

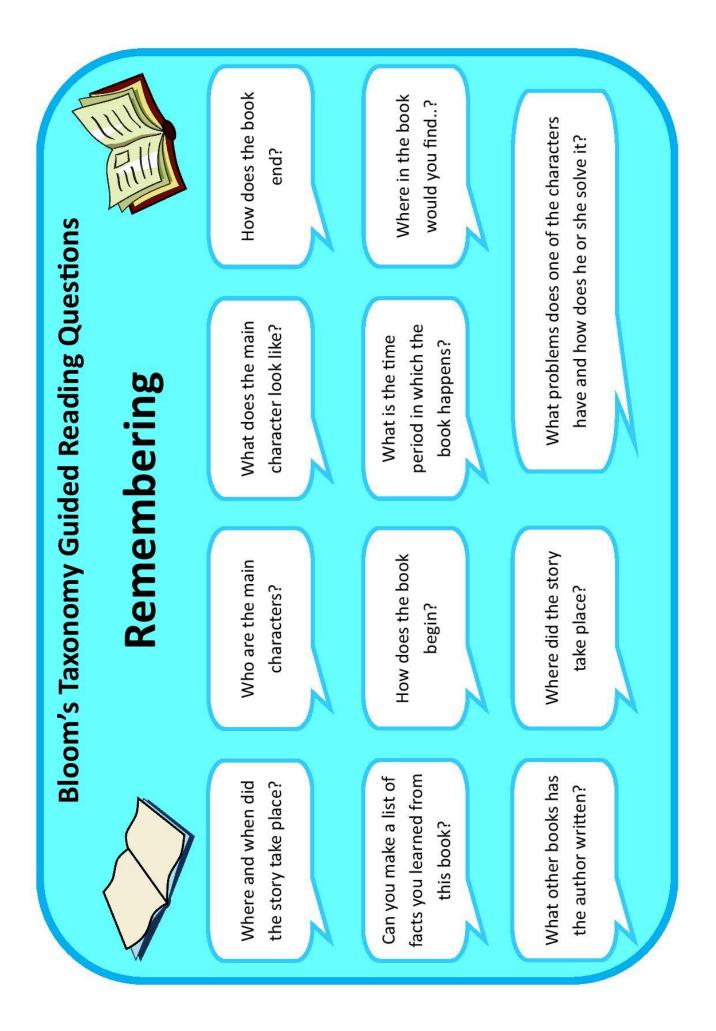
If your child is asked to research a topic, talk to them about how they will tackle the task. Remind them to look in books and use the library as well as the internet. Talk to them about how you decide what to use and what to reject - as well as how you know how to trust sources.

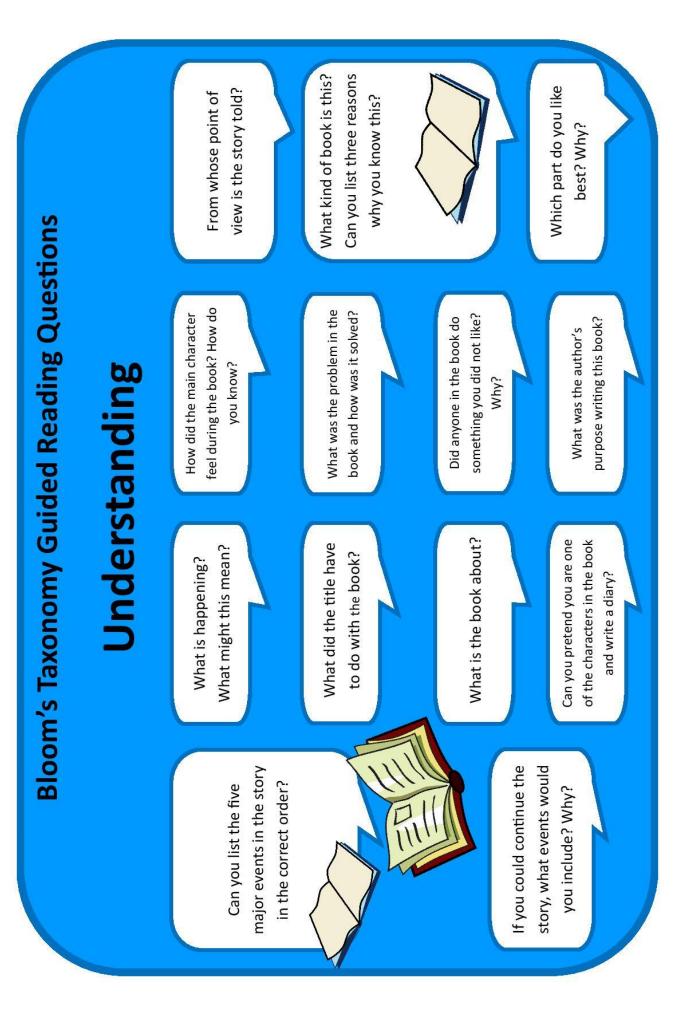
Building independence

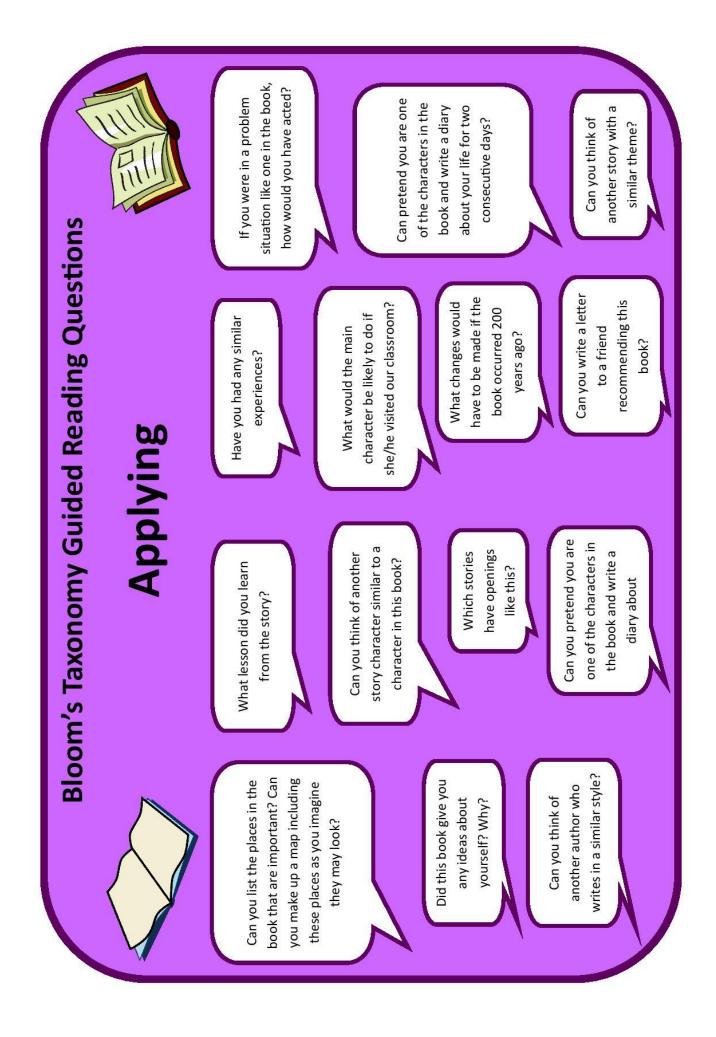
1. Valuing choice but nudging forward

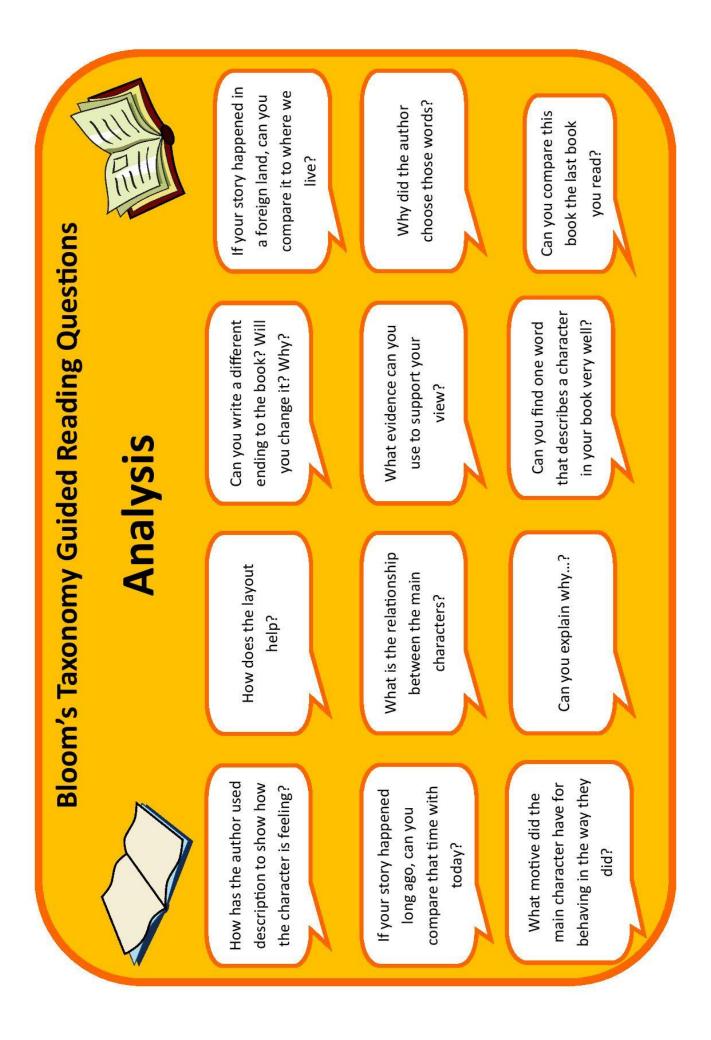
It continues to be really important to value your child's choices even when a book might not be your first choice. Children enjoy reading series of books, such as Beast Quest, or Rainbow Fairies, or books by one author, e.g. Jacqueline Wilson, and these really help with their reading pace and stamina. However, over time it's a good idea to try to gently move them on to keep their reading experience fresh and broad.

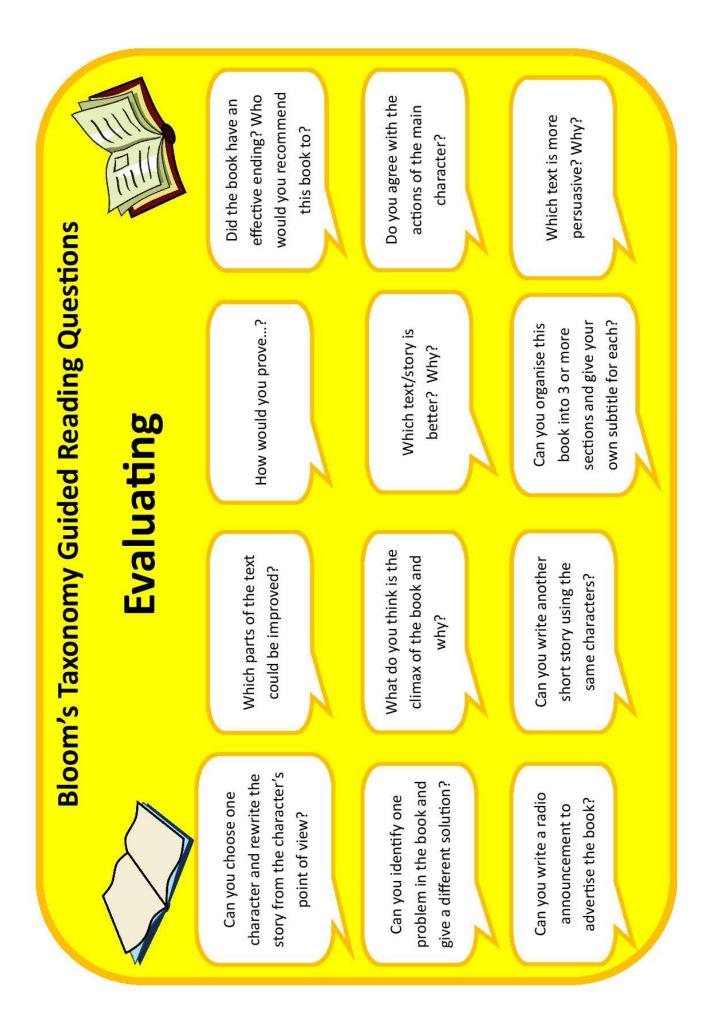
Use booklists, websites, and/or talk to experts such as librarians, teachers and booksellers,

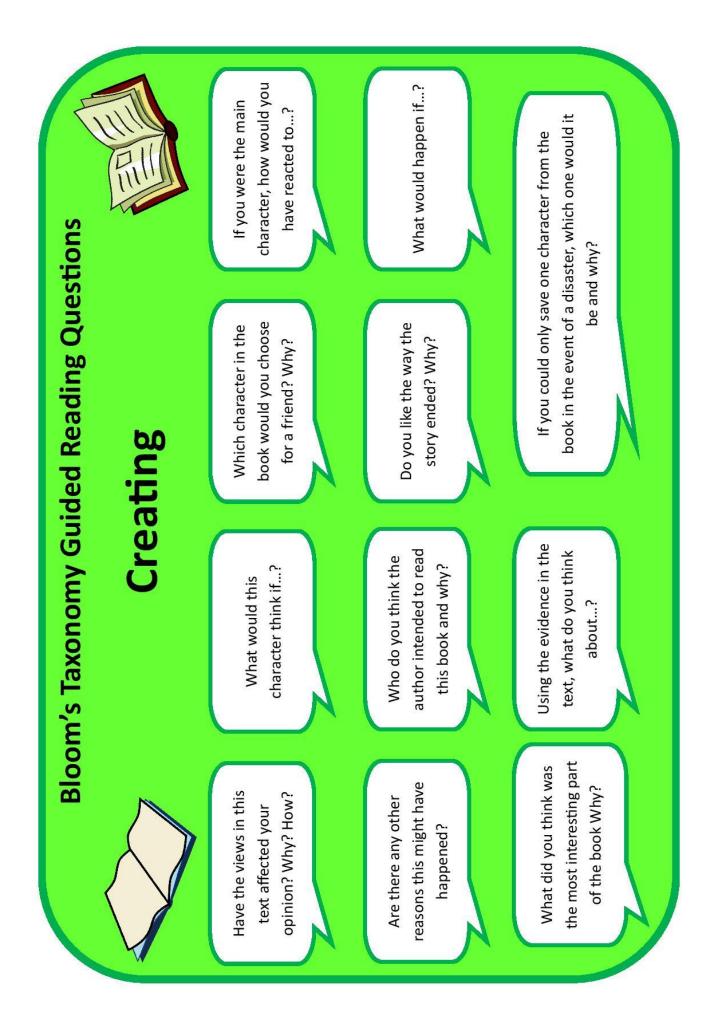












Spelling

The following pages provide a list of activities that you can use to reinforce spelling rules and lists.



SPELLING MENU

| 1. ABC Order | 2. Word Parts | 3. Other Handed | 4. Vowel Spotlight |
|--|---|---|--|
| Write all of your spelling words in alphabetical (ABC) order. | Write your words. Then use a coloured pencil to divide the words into syllables. e.g. jumping caterpillar | Write each word 5 times, switching the hand you write it with each time. Say the word as you spell it. | Write your words using one colour for the vowels and another colour for the consonants. (vowels: a, e, i, o, u) |
| 5. Use Technology | 6. Pyramid Words | 7."Ransom" Words | 8. Rainbow Words |
| Type out your spelling words on the computer. Try to use at least 4 different fonts. | s sp spe spel spell spelli spellin | "Write" your words by cutting letters out of a newspaper or magazine and gluing the letters on a piece of paper to spell your words. | Write your spelling words with coloured pencils. Make each letter a different colour. |
| | s p e l l i n g (or make them boat shaped, star, smiley face, etc.) | KNOWLEDGR | |
| 9. Scrambled Words | 10. Silly Sentences | 11. Prefixes and Suffixes | 12. Word Search |
| Write your words. Then write them again with the letters mixed up. Can you unscramble them again the next day? e.g. watch - cwhta | Write 3 or more sentences that use all your spelling words. | Underline the prefixes and suffixes in the words you are learning. Make sure you know what they mean. e.g. <u>im</u> portant happi <u>ness</u> | Create your own word search with your spellings. Show the answers to your puzzle in a different colour. |
| 13. Flashcards | 14. Picture & a Story | 15. Words without Vowels | 16. Train Words |
| Make and practice with flashcards. Put the word on one side and definition (meaning) on the other. | Draw a picture defining each word. Write a sentence about your picture using the word. | Write all of your words replacing vowels with a line. Go back and see if you can fill in the vowels. e.g. qstn = question | Write the entire list end-to-end as one long word. Write each new word in a different colour. e.g. trainbackstop |
| 17. Write a Story, Poem or Song with Words | 18. Bubble Letters | 19. Words Within Words | 20. Picture words |
| Write a story using all your spelling words. Underline the words you used. | Write your spelling words out in bubble writing. | Write each spelling word and then write at least 2 words made from that word. e.g. catch - cat, hat | Draw a picture and hide your spelling words in the picture. |

SPELLING MENU

| 21. Question/Answers | 22. Riddles | 23. Crossword Puzzle | 24. Rhyming Words |
|---|--|---|--|
| Write questions with half of your spelling words. Then use the other half to answer the questions. Underline the words you used. | Write a riddle for each of your words. Don't forget to answer them. e.g. I am grey. I have a trunk and big ears. Answer: elephant. | Make a crossword puzzle with your spelling . Show the answers to your puzzle. | Write your spelling words out with a rhyming word next to them. Remember that words do not need to have the same spelling pattern to rhyme. e.g. men and again |
| 25. Homophones | 26. Writing Race | 27. Code Words | 28 Word Classes |
| Can you find any homophones which go with your spelling words? What do they mean? e.g. wear and where, to, too and two their, there and they're | Set a timer for 2 minutes. See how many times you can write each word perfectly during that time. | Come up with a code for each letter of the alphabet and then write each word in code. e.g. a = □ b = ♦ c =♠ | Sort your spelling words into word classes - nouns, verbs, adjectives etc. Be careful - some words can be used in more than one category e.g. swimming. |
| 29. Synonyms | 30. Antonyms | 31. Joker | 32. Backwards Words |
| Find at least 2 synonyms for each of your spelling words. | Find an antonym (opposite) for each of your spelling words. | Write jokes containing each of your spelling words. | Write your spelling words forwards and then backwards. Remember to write neatly! |
| 33. X Words | 34. Acrostic Poem | 35. Scra | abble |
| Write 2 words with one letter in common so that they cross over each other. e.g. b r c h e e s e a d | Write an acrostic poem for your spelling words. See if you can stick to a theme when writing. e.g. sun Sun shines brightly Up in the sky Nice and warm on my face | | r words and then add the /our spelling words has the al value? |

| 36. Noughts and Crosses | 37. Hide and Seek | 38. Chop It Up | 39. Trace My Back |
|---|--|--|---|
| Place the spelling words faced up on a table. Take turns to select a word then ask your spelling partner to spell that word. If correct, place your nought/cross on the grid. | Place your words face up on the table. Take one word away. Can your spelling partner spot which word is missing? Can they spell that word? | Cut each word in two and try to put the words together again. Try timing how fast you can do this. | Trace the letters of a word with your finger onto your spelling partner's back. Your partner should try to write down each letter as it is traced. Can they work out the word being traced? |
| 39. Hangman using spelling words | 40. Battleships Use a 100 square grid, placing spelling words on. Partners take in turn to guess grid locations. Write down letters which | | Joerny fracea. |
| | are found to try to spell and locate the words, | | |

Spelling Selection

| day. |
|----------------|
| do each |
| activities to |
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| Select two |
| o know. |
| I need t |
| words] |
| spelling |
| I can practise |
| Aim: |

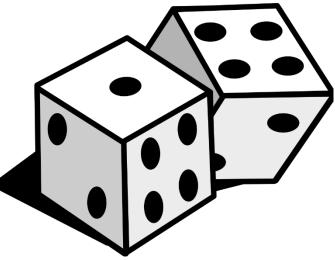
| Monday | Tuesday | Wednesday | Thursday |
|---|---|---|---|
| I. UPPER and Lower Write each of your words out two times. Write in UPPERCASE the first time and in lowercase the second time. | 4. Pyramid Writing Write each of your words like a pyramid: so some some | I. Blue Vowels Write out each of your words. Go over the vowels in each word using blue pencil | Air Writing Write your words in the air with your finger. Ask someone to read your words as you write. Or ask someone to air write the letters you tell them to spell your word. |
| Curly Words First write out your words in normal writing. Next, write them again in curly letters. | 2. F Spelling Flowers Draw a big flower. Write each of your spelling words on one of the petals! | 2. Rainbow Words Write your words out in pencil. Next draw around each letter 5 more times using a different coloured pencil. | Letter Magnets Look at the words in your jotter. Try to make each one using the letter magnets. Check if you used the correct letters! |
| Across and Down Write your words across and down, sharing the same first letter. when h n | 3. Backwards Words Write your words out forwards then backwards. | 3. Fancy Letters Write each of your words using fancy writing. Your letters could be curly or dotty or whatever you decide! | 3. ABC Order Write your words out in alphabetical order. |
| 4. Pyramid Writing Write each of your words like a pyramid: so som some | 4. Curly Words First write out your words in normal writing. Next, write them again in curly letters. | 4. Join the Dots Write each of your words using dots. Then join the dots with a coloured pencil to make your word. | 4. Tell a Story Use all of your spelling words in a short story that makes sense! Underline your words with a ruler! |

| Grid |
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| Spelling List | Use chalk to write your spelling words outside. | Pop some paint in a freezer bag and seal it. Then, use your finger to write your words in the paint without getting messy! | Pick 2 words and make them using sticks or twigs. | Pick 4 words. Using an old magazine, cut out the letters you need to make the words and glue them down on a new sheet. |
|---------------|---|--|--|--|
| | Give an adult a spelling test! How many of your words can they get correct? | Sing your words. | Say the word then jump for each letter, shouting them out as you jump. | Make your spelling words using dough. |
| | Pick 2 words and draw pictures of them. | Make up a short poem using as many of your spelling words as possible. | Write a short story using as many of your spelling words as you can. | Use jigsaw pieces, toy cars or other small toys to make 3 words from your list. |

Maths and Numeracy

The following pages provide guidance about supporting your child with maths and numeracy activities at home. We have included some examples of Number Talks strategies commonly used in school to solve mental maths calculations.



Mental Maths/Number Talks Strategies

Addition

| Making Tens/Bridging through 20 49 + 38 1 - 7 50 + 37 = 87 | Bridging through 60 The second secon |
|--|--|
| Place Value - Partitioning 116 + 127 100 + 100= 200 10 + 20 = 30 $6 + 7 = 13$ 200+30+13=243 | Friendly Numbers 28+47 +2 -2 30 + 45= 75 |
| Reordering 25 + 26 + 75 20 + 26 = 126 | Doubles/Near Doubles 16 + 17 16 - 1 16 + 16 = 32 32 + 1 = 33 |
| Adding <i>C</i> p in <u>Chunks/Counting</u> 37 + 48 37 + 48 38 + 48 38 + 48 37 + 48 38 + 48 + 48 38 + 48 38 + 48 + 48 + 48 + 48 + 48 + 48 + 48 + | Compensation 67 + 28 +2 7 67 + 30 = 97 97-2 = 95 |

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Multiplication & Division

| Friendly Numbers | Repeated Addition | Partial Products | Doubling and Halving |
|-------------------------------|------------------------------|--------------------------|-----------------------------------|
| 9 X 15 | 6 × 15 | 6 × 125 | × |
| $10 \times 15 = 150$ | 15+15+15+15+15+15 | 6 X (100 + 20 + 5) | Z÷ ZX |
| 150 - 15 = 135 | 15 + 15 = 30 | (6×100) + (6×20) + (6×5) | × |
| | 30 + 15 = 45 | | x2 +2 |
| Don't forget to 'undo' vour | 4 5 + 15 = 60 | 600 + 120 + 30 = 750 | 96 X 2 |
| change! | 60 + 15 = 75 | | x2 +2 |
| | 75 + 15 = 90 | | 192 |
| Breaking Factors into Smaller | Grid Method | Partial Quotients | Multiplying Up |
| | 35×7 | | 72.÷ 8 |
| 12 X 25 | | -150 (10 x 15) | $8 \times \overline{5} = 40$ |
| 2×6 | × 30 5 | 400 - 300 (20 x 15) | 8 X <u>4</u> = 32 |
| 2 × 25 = 50 | 7 210 35 | 100 - 30 (2x15) | $(\bar{2} + \bar{4}) = (40 + 32)$ |
| 50 × 6 = 300 | 210 + 35 = 245 | 70 - 60 (4 x 15) | 8 X <u>9</u> = 72 |
| | | 10 | |
| | Repeated Subtraction | lbtraction | |
| 2 | 24 ÷ 6 24 - 6 - 6 - 6 | 6 × 4 = 24 SO 24 ÷ 6 = 4 | 4 |

Mental Maths/Number Talks Strategies Subtraction

| etitioning Adding <i>Clp/Bridging through 10</i> 4 23 - 16 267 16 + 4 = 20 267 16 + 4 = 20 267 26 + 3 = 23 $-4 = 213$ 7 $-4 = 213$ 7 $-4 = 213$ 7 $-4 = 213$ $-4 = 213$ | |
|---|---|
| Place Value - Partitioning 367 - 154 $367 - 156 = 267$ $367 - 50 = 217$ $217 - 4 = 213$ $217 - 4 = 213$ $367 - 100 - 50 - 4 = 213$ | Keep a Constant Difference 151 - (98+2) 153 - 100 = 53 151 - 98 = 53 |
| Reordering 25 - 6 - 5 20 - 6 = 14 | Adjusting for Easter Numbers 123-59 $+1$ 123 - 60 = 63 63 + 1 = 64 |
| Removal or Counting Back 123 - 69 123 - $(20+40+3+6)$ 123 - $20 = 103$ 123 - $40 = 63$ 63 - 3 = 60 60 - 6 = 54 | Place Value & Negative Numbers 399 - 254 (300+90+9) - (200+50+9) 300 + 90 + 9 - 200 + 50 + 4 100 + 40 + 5 |

The Early Years

In the early years children learn to count accurately, and to recognise which numbers are bigger or smaller than others. They begin to work on practical tasks involving addition and subtraction. They also work on other parts of mathematics, such as making and recognising regular patterns; comparing weights, or estimating the capacity of containers; and investigating how different shapes fit together. You can help your child by:

- involving them in the maths that is present in your everyday activities
- providing mathematical books, games and toys
- reading and playing games, and inviting friends and family to join in

Everyday activities

In the kitchen

Help your child:

- set the timer on the microwave
- count how many yoghurts there are left in the fridge, or oranges in the bowl

Ask your child to:

- put four mugs on the table for tea, or bring you five carrots to chop up
- put the spoons and forks in the right compartment of the cutlery tray
- put out enough biscuits on the plate for everybody to have one each

Getting dressed and undressed

Ask your child:

- what order he puts his clothes on: shoes or socks first
- if her skirt is getting too small
- if it's time to pass his trousers onto his younger brother
- how many buttons her cardigan has
- if his socks match or are the patterns different
- what her next shoe size will be when she grows out of her present one

At bath and bedtime

Ask your child:

- if the bubble bath bottle is full or empty . what order you will do things tomorrow: first you'll collect her friends, then
- you'll go to the swimming pool, then you'll go to the cafe for an ice-cream
- how many days it is until Christmas or his birthday or Diwali
- how old her cousins are, who is oldest or youngest, who comes next

Challenge your child to:

- count the stairs on the way to bed: are there the same number as yesterday
- count the plastic lids or ducks or shapes in the bath
- get washed and get his teeth cleaned before the minute hand on the clock points to 6
- find a book with fewer than 30 pages for her bedtime story

In the supermarket

Help your child:

- look in the freezer cabinet for a packet with six pizzas
- · look in the chill cabinet for a packet of eight yoghurts
- check there are enough samosas in the bag for the whole family
- read the price per kilo of frozen fish
- find the largest pack of his favourite cereal
- choose the longest cucumber
- pick out five of the best apples
- choose the heaviest potato
- find a pound coin in your purse to pay the shopkeeper

Playing with dolls, bears and cuddly toys

Help your child:

- have a cuddly toy party; provide enough raisins for one each, two each
- make a bed for his bear from a cardboard box, and cover the outside of the bed with wrapping paper
- count how many beanie animals there are
- make the toys play hide-and-seek and describe where they are hiding
- teach the bear to find the right channel on the TV or the right time on the microwave

Other things you can do

Look together at number books

Read number books that you and your child like the look of. (Books that are dull and hard work may put your child off both books and maths).

Help your child:

- talk about, and count, the things in each picture
- read the number symbols and talk about them: for example, 6 is the age her brother is, 4 is the number on the front door...
- outline a number with her finger, or draw one like it on paper
- say the number names in order. If some of the maths is too old or too hard for him, don't worry. He will come to it in good time.

Sing number songs

You may remember songs or rhymes from your childhood, or learn new ones from your child, from the TV or from a book. Songs and rhymes help children learn to count and to say the number names in order - sometimes backwards as well as forwards.

Ask your child to:

- recite the rhyme with you
- sing the song on her own, with your help when she needs it
- listen as you sing the song and fill in the bits you miss out

Play board games and card games:

You can buy board games for young children that can help them count and make pairs and sets. Games that involve money and shopping are good value. Play old favourites such as Ludo, Happy Families and Snakes and Ladders, also Ladybird, Beetle and Incey Wincey Spider. Use ordinary playing cards to play Snap, Donkey or Pairs.

Talk with your child about:

- whose turn it is 'the person to your left'
- the order to do things in 'pick a card, then put one down'
- pairs that are the same 'those two are the same'

Help your child:

- count how many spots there are on the dice, or pips on the card
- understand the number sequence 'you are on 23 so you go to 24 next'

Do maths when you're out and about

Your child might get bored when you are waiting for the bus, doctor's surgery, or on a car journey.

You could:

- look out for numbers, on the buses, on car number
- collect numbers from 1 to 10 (or 20) in order, one number at a time: 1 on a motorway sign, 2 on the side of the van...
- count how many of one kind of thing you can spot: cats, red cars, post boxes, bicycles...
- play / Spy Numbers: 'I spy with my little eye, five of something' (five fingers on
- his left hand) or 'I spy with my little eye, three of something' (a woman walking three dogs)

Build and make things

Construction sets, building blocks and small world sets with play people are important learning toys. Children learn from activities which involve building, stacking and balancing. They also make up fantasy worlds and pretend with them. They use the maths they know while playing.

Talk with your child about:

- how the pieces fit together or don't
- what shape will and won't balance on top of another one how nuts and bolts, and other fixings work
- which shapes are the same, but in different sizes
- where to place the farm building or garage or lorry or firefighter: next to the bridge, under the building, on top of the hill...

Make pictures and patterns

Children can make pictures with felt-tipped pens, adhesive stickers, or cut-out pictures from magazines. They can use felt kits, magnetic shapes, mosaic sets or stencils.

Help your child:

- make repeating patterns: red, blue, red, blue, or flower, star, star, flower, star, star
- find shapes that look like things in the real world
- make a jigsaw puzzle by sticking a picture on card, cutting it into shapes, and putting it back together again

Talk with your child about:

- how shapes fit together or overlap
- whether shapes have straight or curved sides
- which shapes are the same but in different colours
- how to make a butterfly pattern, the same both sides

Games that Involve Maths

Marbles - a game for three or more players

This game is good for recognising numerals, and counting. You need at least 30 marbles, and a dice. (You may already have a dice as part of a board game). Give each player a saucer with ten marbles in it.

The rules are:

- take turns to roll the dice and take that many marbles from the player on your
- right. (You may need to help your child learn the skill of taking one at a time,
- counting as they go.)
- put the marbles in your saucer
- keep going until someone has won all the marbles, or you decide to finish.
- The winner is the player with the most marbles.

Variations:

- aim to be the first player to get rid of your marbles
- use buttons, toy cars or pennies instead of marbles

Add Dominoes - for two or more players

This is good for counting, and beginning to learn how to add numbers. You need an ordinary set of dominoes. Give five dominoes to each player. Put the rest face down on the table.

The rules are:

- the first player looks at their dominoes and chooses one to put face up on the table
- the next player puts down another domino, joining on to the first one, so that the spots add up to 6
- if a player can't 'go', they take one of the face-down dominoes
- continue taking turns like this The first player to get rid of all their dominoes is the winner.

Jigsaw puzzles

Jigsaws give children useful experience in fitting shapes together. They also encourage them to think about the order in which they do things. As well as ordinary jigsaws to suit your child's age, you can stick a picture or large photo onto card, then cut it up into pieces to make your own Jigsaw. Or use an old jigsaw, which is too easy for your child, turned over with the pictures face down.

First Level

In the middle years children continue to work practically, with counters and cubes, and they also learn to do calculations in their heads and they begin to learn multiplication facts. They work on other parts of mathematics, such as number patterns; weighing sand, or measuring the length of their desks; and learning the names of different shapes.

You can help your child by:

- taking an interest in what they do at school and talking with them about it
- involving your child in the maths that is part of the family's everyday life
- providing mathematical books, games and toys
- reading and playing games, and inviting friends and family to join in.

Everyday activities

Going to the shop

Ask your child to:

- find the £5 note in your purse
- see if you've got £5 worth of coins
- work out what two pints of milk at 49p each will cost
- choose a shopping bag big enough for your purchases
- find the pack of fish fingers which is cheapest
- buy a kilogram pack of granulated sugar

Help your child:

- work out how many eggs to buy so there are enough for two each
- · know what change to expect from the shopkeeper
- check their change
- sort out pocket money

Ask your child:

- . how many pound coins she has saved for the family holiday
- how many more pounds she needs to make £10
- how much his hamster's food costs and if he has enough to pay for it
- how much is in her purse, and how much she plans to spend today
- how much she will have when Granny pays her that £3 she promised

Preparing meals

Ask your child to:

- cut the burger exactly in half, and talk about whether the halves are equal
- cut the chappati into quarters or eighths, then talk about what shape the pieces are
- work out how many biscuits to put out so there are enough for three each

Help your child:

- type in the right number of hours and minutes on the cooker
- follow a simple recipe: reading numbers, counting spoonful's of flour, weighing sugar...

Enjoying life

Help your child:

- find important dates on the calendar and write in coming events
- use the calendar to work out how many weeks or days it is until the important event
- · keep scores when playing games such as football, rounders or bowling
- work out what skating boots to hire if she needs a size bigger than her usual shoes
- make paper hats for the party, measuring round their head to find out the right size

Gardening

Involve your child in:

- working out any calculations you do: "If we get three packs with four bulbs in each, how many bulbs will we get?"
- anything to do with shape, or measurement: "Do you think the cold frame will fit between the shed and the flower bed? Can you help me measure it?"

Getting ready for bed

Help your child:

- sort their toys and belongings into piles: clothes here, books there, and toys in the corner
- count their cars to make sure they've got them all
- stack their bricks on the shelf so they all fit

Tell your child:

 they've got twenty minutes until bedtime - and help them find when that will be on the clock

Ask your child if they can:

- get washed and get their teeth cleaned in less than five minutes
- find page 56 of the book you're reading her, because that's where you got up to yesterday
- say how many pages you will read if you get up to page 70 tonight

Other things you can do

Do maths when you're out and about

Suggest that your child:

- adds up the numbers on each car number plate they see, and works out which has the highest total
- 'collects' bicycle wheels or car wheels or van wheels: every bicycle
- scores 2, every car scores 4, every van scores 6; see how many wheels you collect in the whole trip
- tries to count up to 500 or 1000

Play games

Many well-known games involve maths. There are commercial games, such as Scrabble®, Connect 4 and Chinese Checkers. There are paper and-pencil games, such as noughts and crosses, boxes, and battleships.

And there are playing-card games, such as Rummy or Twenty-one.

Talk with your child about:

- whether there are enough cards or counters for everyone to play
- what everyone's score is
- what their total score will be when they've added on the score for this round
- who has the highest score, and how much more this is than theirs
- what their options are in their next move

Build and make things

Children learn about measuring, about shape and space, and how things fit together, through making things. At this age children can work with more complex construction sets and building blocks. Provide balsa word or offcuts of wood or card for them to create their own house, magic island or car. You can buy kits to make a house, a castle, a boat orange aeroplane. Children can use modelling clay or other products to make jewellery, doll's house furnishings or miniature cars.

Use calculators

Research shows that using calculators can improve children's mathematics, and help them feel more positive about the subject. It's a good idea to get your child a calculator along with one or two books of calculator activities. Sometimes your child will enjoy just exploring on their own what they can do with it. At other times you could play a game from one of the books with them - or try Teen Numbers on the next page.

Use computers

At this age children will enjoy playing games on their computer. There are many card games and games of strategy that involve using mathematical strategies as well as calculating. Some computer games involve scoring and some timing, all of which entail some maths. Doing anything on a computer will help your child develop general ICT skills, which are useful later in school as well as in adult life.

Games that involve maths

Make Fifteen - for 2 players

You need to make a set of number cards 1 to 10, by writing numbers on squares of paper - or use part of a pack of playing cards. The aim of the game is to choose numbers which add up to 15. Spread the cards face up on the table.

The rules are:

- the first player chooses a card and places it in front of them, face up
- the next player does the same
- the first player chooses another card, and so on

The first person who can make 15 by adding any of their cards (all of the numbers or some of them) is the winner.

Teen Numbers – for 2 players

You need a calculator and a set of number cards from zero to 10 (you can make these by writing numbers on squares of paper). Shuffle the cards and put them in a pile face down. Then switch on the calculator. Decide who will be the Teen Person and who will be the Non-Teen Person.

The Teen Person wins if the final score in the calculator's display is a number in the teens. So that's their aim.

The Non-Teen Person wins if the final number is not in the teens. So that's their aim.

The rules are:

- The Teen Person picks the top card and presses that number on the calculator
- The Non-Teen Person picks the next card and decides whether to add it to the number in the calculator, or whether to take it away. (Rule: you mustn't let the calculator go below zero.)
- Carry on taking turns to pick a card until all the numbers are used up.

(Each time you must add that number to, or take it away from, the running total.) At the end, see what the final total is, and who wins.

Second Level You can do a lot to help your child with maths at home by helping them to be more independent. They can plan how to use their money, arrange simple outings

and organise their own space in the home, and in the process use maths just as adults do to keep track of money, think about timings, and so on. Other ways to help your child with maths at home are: - giving them a quiet space to do their homework - involving your child in the maths that is part of the family's everyday life - providing mathematical books, games and toys.

Everyday activities

Watching TV Encourage your child to:

- work out the duration of their favourite programmes
- work out how long it will be until their programme starts

Help your child to make decisions by:

giving them a time limit - say two hours' viewing a night - and helping them to plan what to watch asking them to calculate the cost of watching a number of major sporting events on pay-per-view TV

Shopping and cooking for meals and parties Ask your child to:

- find the best value cheesecakes, pizzas or crisps
- calculate approximately how much five bottles of juice will cost Your child can:
- plan a dish to cook, and find a recipe for it
- decide whether there will be enough or whether they should make double the

quantity follow a recipe - planning the order in which to do things, weighing, measuring and so on

Being a music or sports fan Support your child in:

- researching and recording and comparing facts and figures
- keeping track of a football club in the league table
- saving up money for a concert and then buying the ticket
- · collecting magazines and storing them in date order

Planning and making trips and holidays Help your child:

• make a page-a-day calendar and tear off the days as they go by until the

holidays write down the dates and times of the holiday trip, to discuss with their friend's family whether the friend can come too ring up the cinema and find out what is on and when plan which showing to go to and how long it will take to get there work out how much pocket money to spend a day, so as to make it last the

holidays

• work out how much money they have saved for the trip to the seaside

investigate why, in Vietnam, the clocks are seven hours ahead of ours

Other things you can do Provide board games and card games At this age children enjoy playing a range of games, many of which are at least partly mathematical. Your child may enjoy chess, or games such as Boggle, Monopoly, Backgammon or Halma, or card games such as Whist. Buy a book of card games or buy games focusing on children's interests, such as football, darts, or winning and

noney. You can get many card and solitaire board games to play on the computer. All these games make the players think logically and plan ahead, and many of them involve numbers.

Use puzzles Many children enjoy puzzles of various kinds, such as 'slide it' tablet puzzles, or metal 'link' puzzles. There are also 3D jigsaws, and wooden or plastic models to take apart then reassemble. These are all good for developing children's ability to imagine and think about shapes. They also make them think about the best order to do things in.