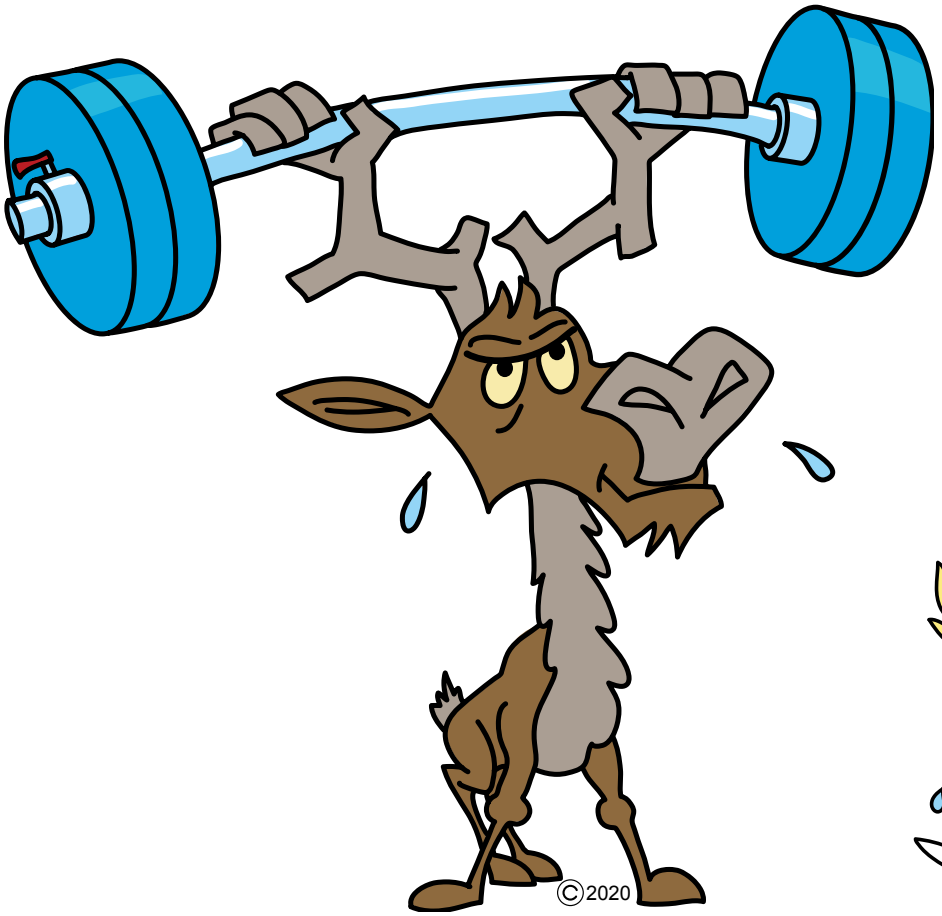
Colin and Coco's Daily Maths Workout

Workout 3.7

Properties of Shapes





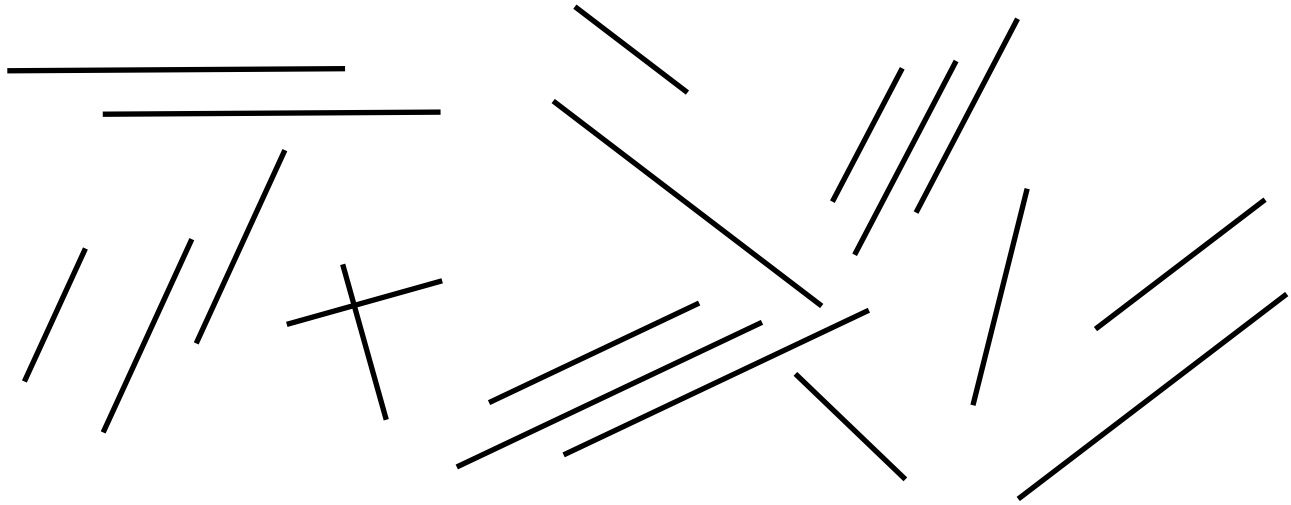
This product is licensed for the exclusive use of Meadow Green Primary School - www.buzzardpublishing.com



Shape Workout

Workout A

Find lines that are parallel to each other.



Shape Workout

Workout B

List all the 2D shapes that are surfaces of these 3D shapes.

Cuboid	Square based pyramid	Triangular prism

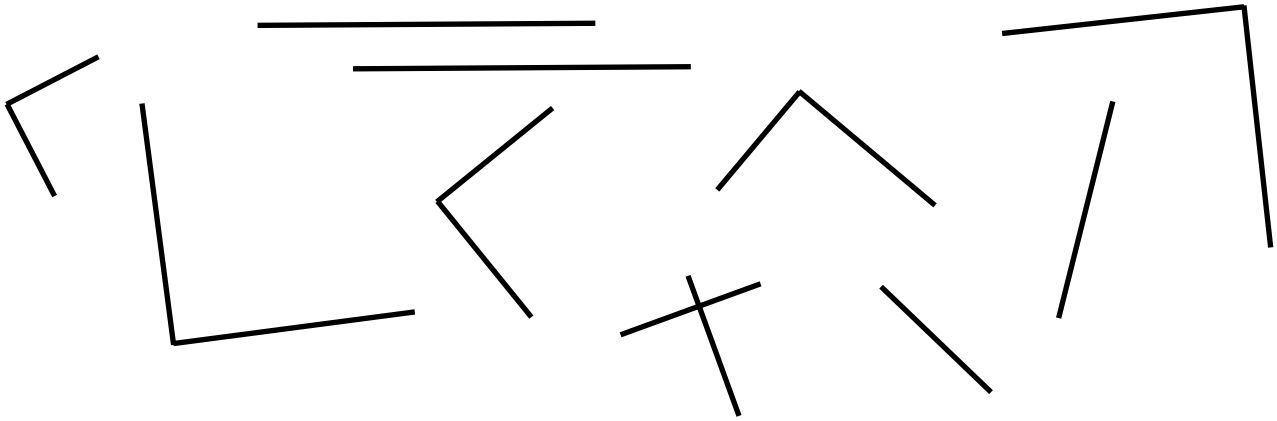
Which 3D shape has 6 square faces?

Which 3D shape has 2 circles and a curved surface?

Shape Workout

Workout C

Find lines that are perpendicular to each other.



This product is licensed for the exclusive use of Meadow Green Primary School - www.buzzardpublishing.com



Sketch a Shape Game

Workout D

You need:
Properties of shapes cards (on the next page.)

To play:
Shuffle the cards and place them face down on the table.
Start your turn by turning over a card.
Sketch a shape that has the property on the card.
Now turn over another card.
Sketch a shape that has the properties of both cards.
Now turn over another card.
Sketch a shape that has the properties of all three cards.
Continue until you cannot sketch a shape that has all your properties.
You score the number of properties that you matched.
Replace the cards and shuffle them.

My card says '4 straight sides.'
I have drawn a square.

My second card says 'at least one right angle.'
My square still works.

My third card says 'no equal sides'
I have drawn a 4 sided shape with a right angle.

My third card says '3 straight sides' so I cannot sketch a shape to match all my cards. I score 3

For example:
If you cannot sketch a shape with the 2 properties you score 1 and it is the next player's turn.

If you cannot sketch a shape with the 3 properties you score 2 and it is the next player's turn.

To win:
The winner is the first player to accumulate a score of 10

This product is licensed for the exclusive use of Meadow Green Primary School - www.buzzardpublishing.com



Properties of Shapes Cards

3 straight sides	4 straight sides	more than 4 straight sides
no equal sides	at least 2 equal sides	no right angles
at least one right angle	at least one horizontal side	at least one vertical side
at least one acute angle	exactly 2 right angles	at least one obtuse angle

This product is licensed for the exclusive use of Meadow Green Primary School - www.buzzardpublishing.com



Missing Number Workout

Workout E

Colin is playing with different types of 3-D shapes.
Place digits in the empty boxes to complete the statements
in several different ways where possible.

Name of Shape	Number of Faces	Number of Edges	Number of Vertices
	4	□	□
	□	□	6
	6	□□	□
	□	15	1□

Now try and complete all the statements together
using the digits 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 once each.

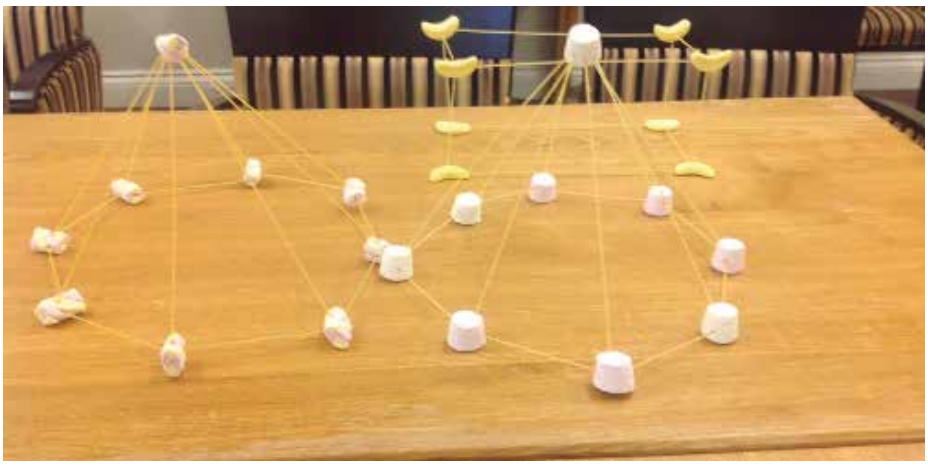
Which digit have you not used?
Create a statement using this digit.

This product is licensed for the exclusive use of Meadow Green Primary School - www.buzzardpublishing.com

Spaghetti and Marshmallows

Workout F

Resources:
Spaghetti (or anything that's long and thin ... straws, sticks, etc.)
Marshmallows (or anything that's good to stick your 'spaghetti' into such as Jelly babies, Blue Tac, etc.)



Using your resources, make different:

- Cuboids
- Pyramids
- Prisms
- Solids with 8 faces

Investigate if this statement is always, sometimes or never true:

Vertices + Faces – Edges = 2

This product is licensed for the exclusive use of Meadow Green Primary School - www.buzzardpublishing.com



Word Problems

Workout G

Coco and Colin are making shapes using spaghetti for edges and marshmallows for vertices.

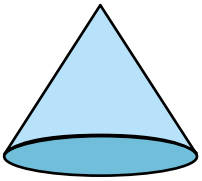
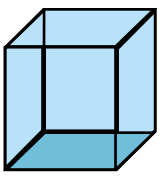
1. Colin makes 4 cubes.
How many marshmallows does he need?

2. Coco is making a triangular prism.
How many pieces of spaghetti does she need?

3. Colin has 12 marshmallows.
How many triangular-based pyramids can he make?
How many square-based pyramids can he make?

4. Coco has made a mixture of pentagonal prisms and pyramids
She counts 42 faces in total.
How many marshmallows and pieces of spaghetti has she used?

Colin likes to go on a 3-D Shape Treaure Hunt.
If Colin visited your house, where would he find ....

Shape	Name	Where in your house?
		
		
		

This product is licensed for the exclusive use of Meadow Green Primary School - www.buzzardpublishing.com



Workout H

Who am I?
Workout

Use the clues to work out Colin's mystery number.

You may want to cross numbers out on the 100 grid as you consider each clue.

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	72	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

1) I am not a multiple of 3
2) I am odd
3) My digits are different
4) I am not a multiple of 5
5) My tens digit is less than my ones digit
6) The sum of my digits is even
7) One of my digits is a multiple of 3
8) The difference in my digits is greater than 2
9) The product of my digits is not a multiple of 5
10) I am one less than a multiple of 4

Colin's mystery number is ☐

Create your own 'Who am I?' puzzle

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	72	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

Please share your puzzle with Colin @MathsCanDo

This product is licensed for the exclusive use of Meadow Green Primary School - www.buzzardpublishing.com