

quarter

past

past

o'clock

half

to

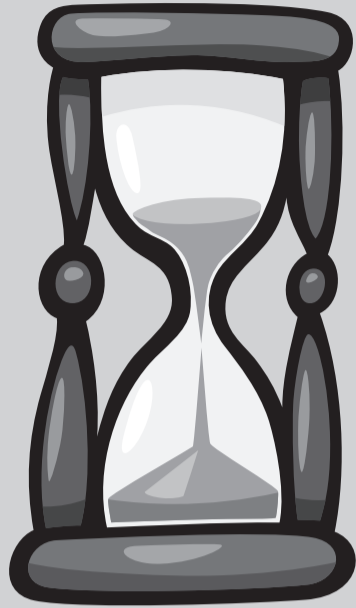
to

quarter



INSTRUCTIONS FOR THE TEACHER
Cut out the arrows representing the long hand and the short hand. Use a split pin or paper clip and matchstick to attach the hands to the clock face.

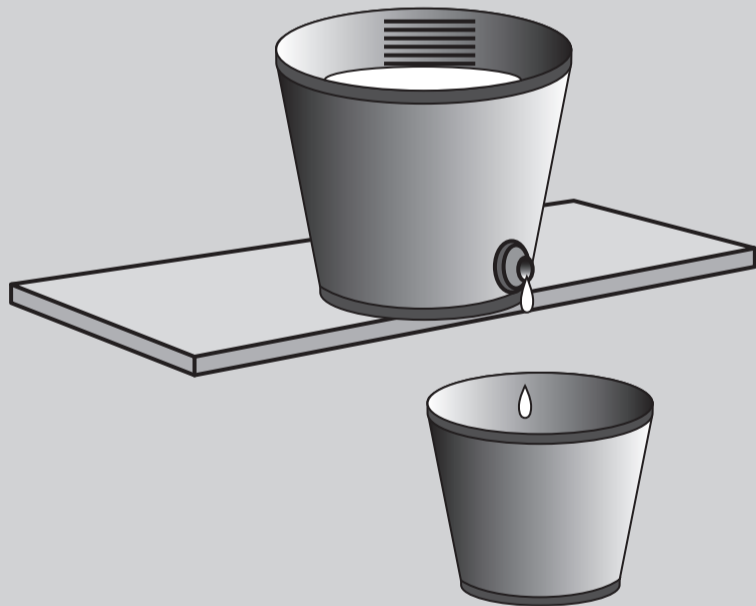
Measuring time long ago



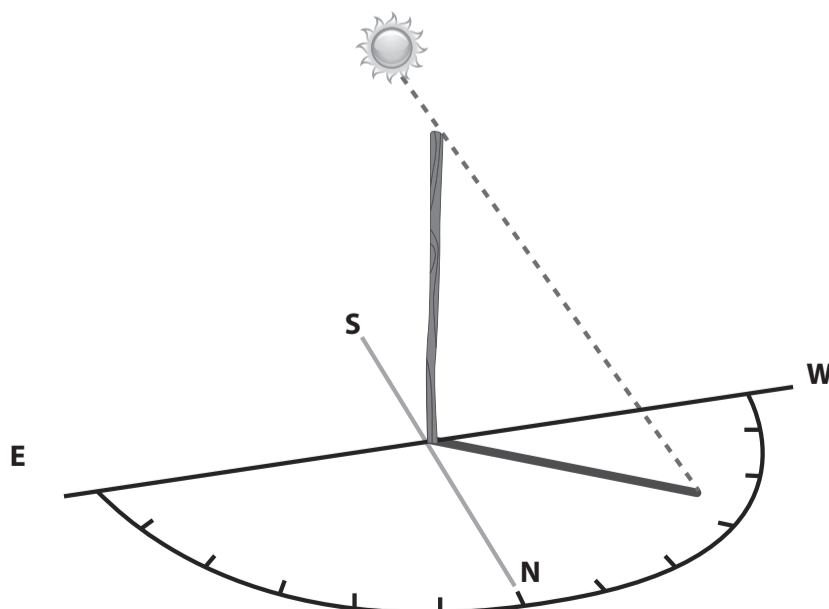
Sand clock or hourglass



Sundial



Water clock



Shadow stick clock

Clocks and Watches Today

Analogue clocks and watches

- An analogue clock has hands to show the time
- Most analogue clocks are 12-hour clocks



A 12-hour analogue clock showing hours, minutes and seconds



A 12-hour analogue watch showing hours, minutes and seconds



A 24-hour analogue clock showing hours, minutes and seconds

Digital clocks and watches

- A digital clock shows the time in digits
- Digital clocks can be 12- or 24-hour clocks



A 12-hour digital clock showing hours and minutes

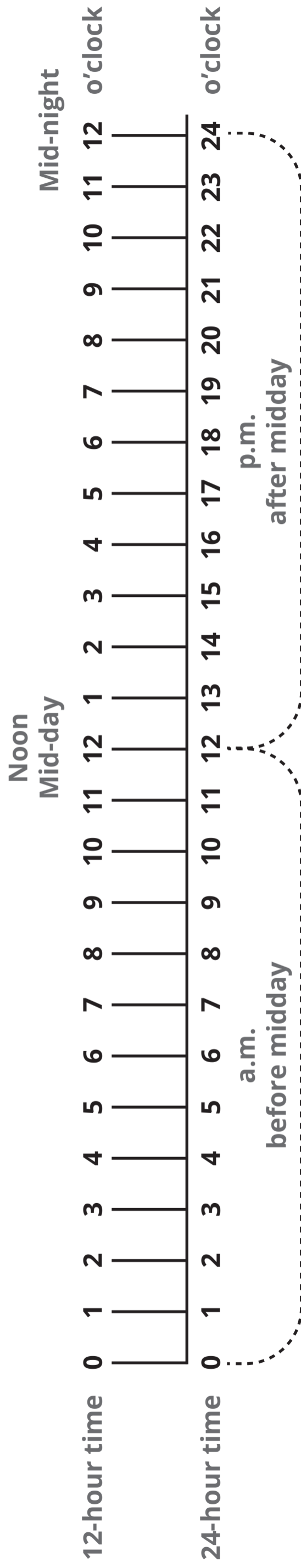


This 24-hour digital watch shows the day, date, and time in hours, minutes and seconds



Most cell phones show digital time in hours and minutes

Analogue Time and Digital Time

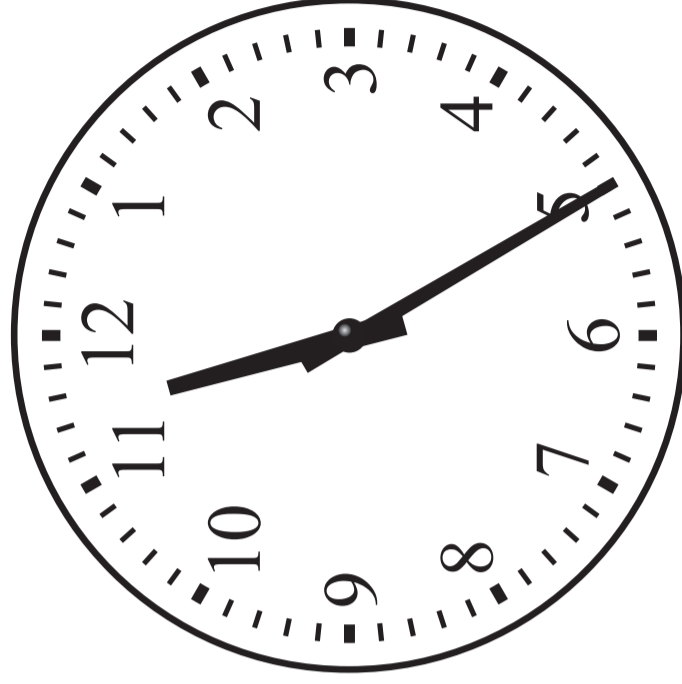


How long was the mathematics lesson?

Clock A



Clock B



10:00



11:00



12:00



Thuto Pele Primary School
Grade 4: WEDNESDAY

Period	Subject	Start time
1	English	08:00
2	English	08:40
3	Tswana	09:20
	Break	10:00
4	Mathematics	10:20
5	Mathematics	11:00
6	Social Sciences	11:40
	Break	12:20
7	Natural Sciences and Technology	12:50
8	Life Skills	13:30
School ends at 14:10		

2021

January

S	M	T	W	T	F	S
					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

February

S	M	T	W	T	F	S
	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						

March

S	M	T	W	T	F	S
	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			

April

S	M	T	W	T	F	S
			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	

May

S	M	T	W	T	F	S
						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					

June

S	M	T	W	T	F	S
	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			

July

S	M	T	W	T	F	S
				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

August

S	M	T	W	T	F	S
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				

September

S	M	T	W	T	F	S
			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		

October

S	M	T	W	T	F	S
					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

November

S	M	T	W	T	F	S
	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				

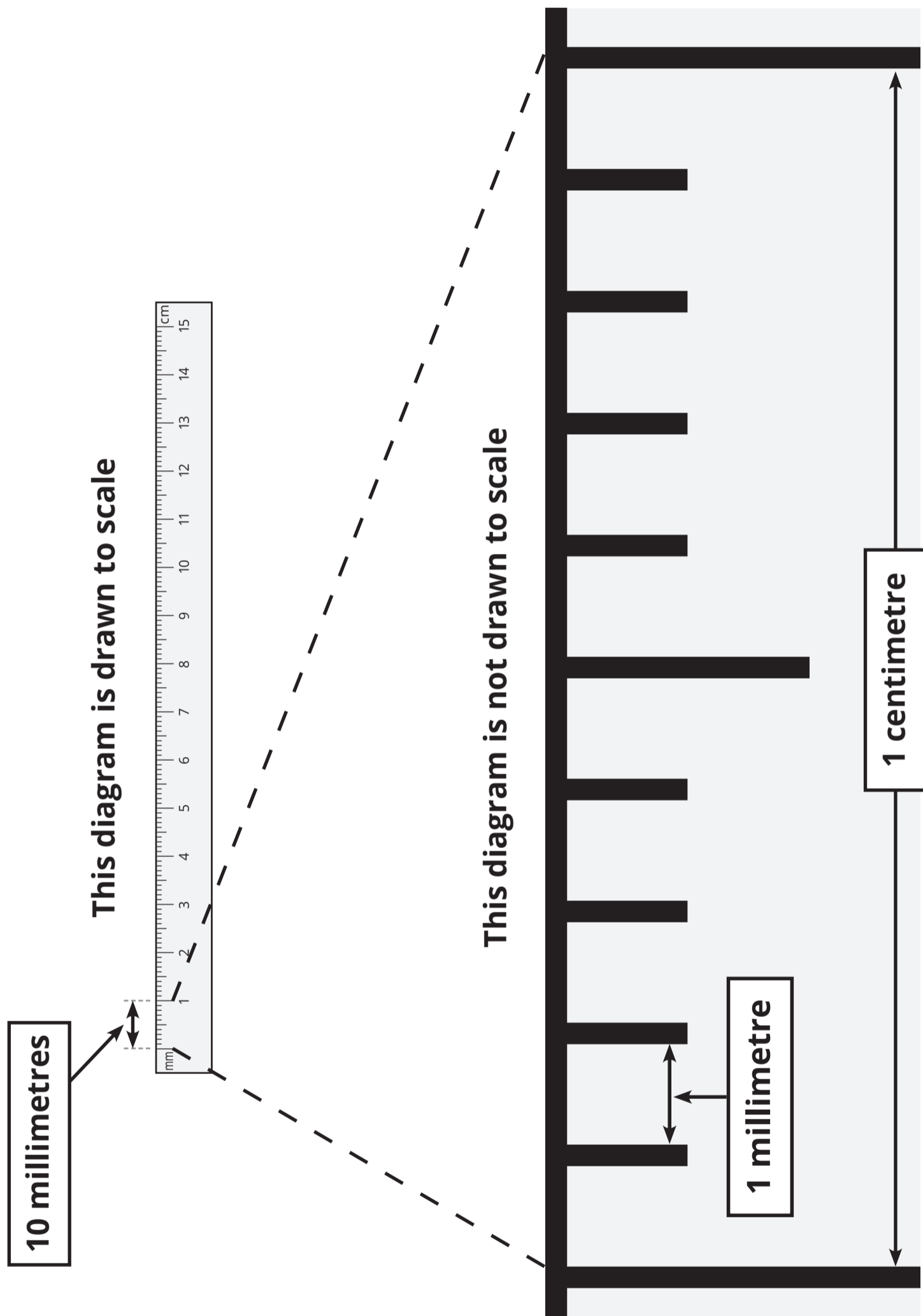
December

S	M	T	W	T	F	S
			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	

2021 JULY						
SUN	MON	TUES	WED	THURS	FRI	SAT
				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

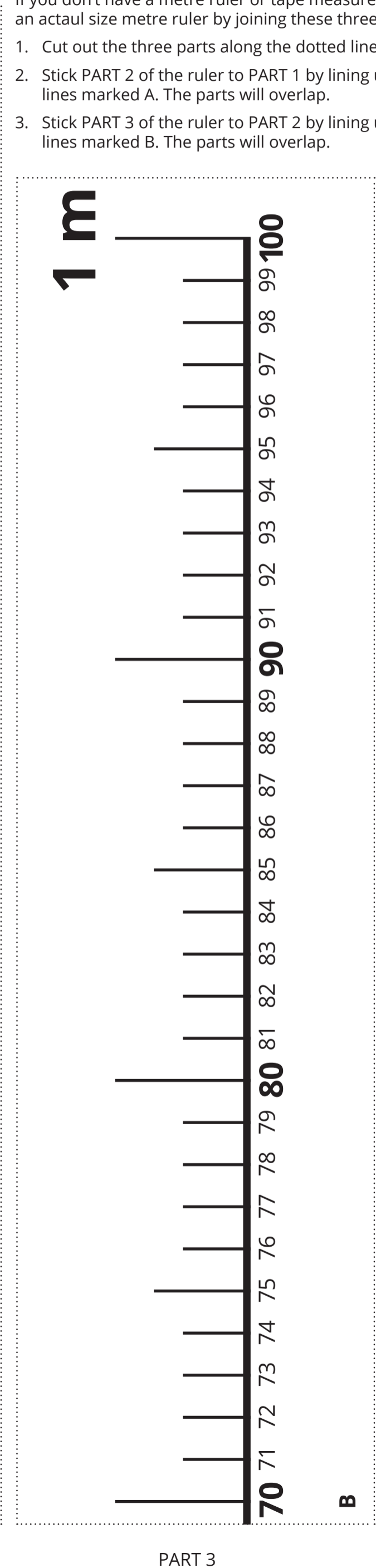
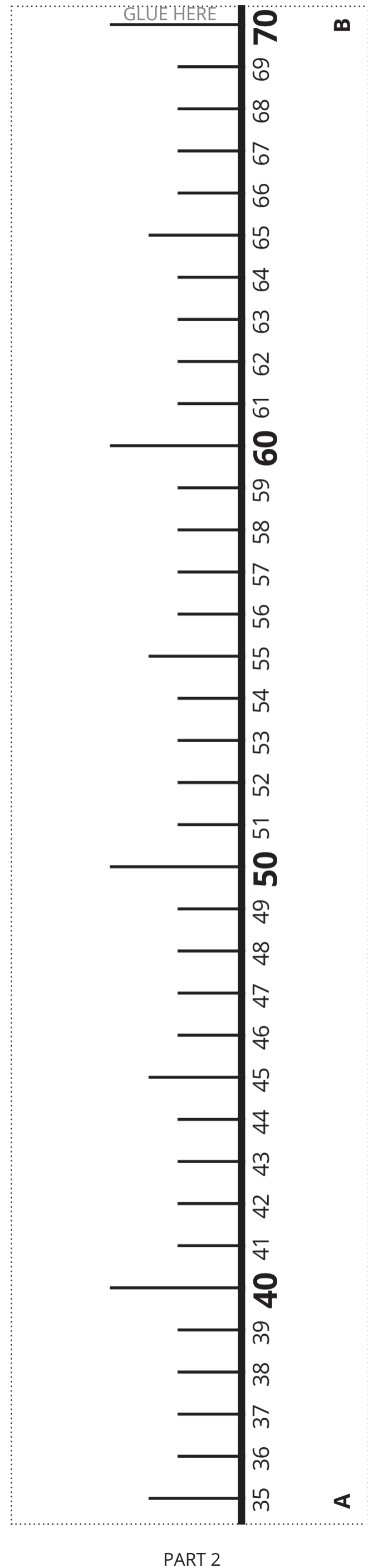
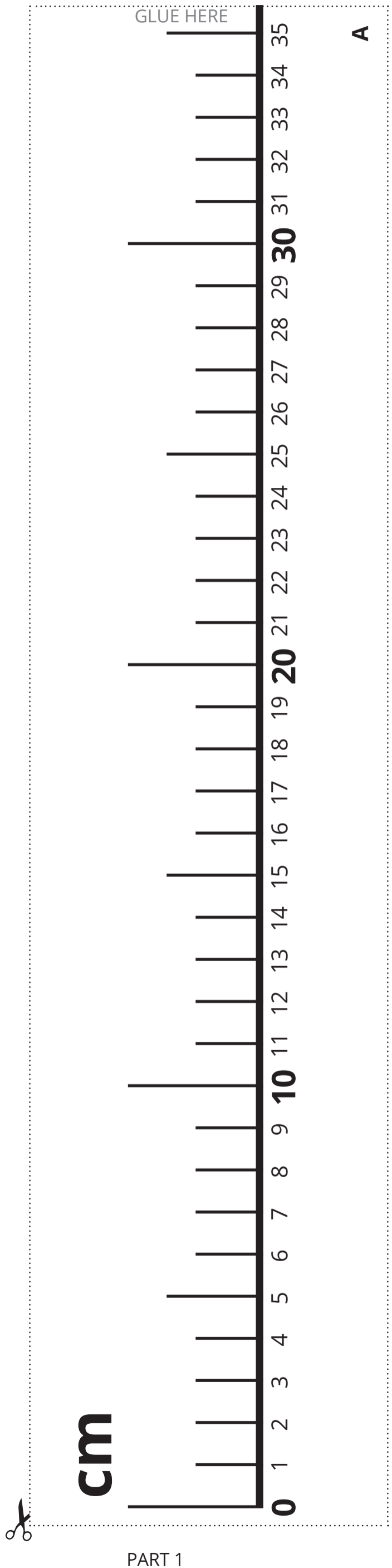
Millimetres and centimetres

There are 10 mm in 1 cm



Enlarged ruler showing millimetres and centimetres





If you don't have a metre ruler or tape measure, make an actual size metre ruler by joining these three strips:

1. Cut out the three parts along the dotted lines.
2. Stick PART 2 of the ruler to PART 1 by lining up the lines marked A. The parts will overlap.
3. Stick PART 3 of the ruler to PART 2 by lining up the lines marked B. The parts will overlap.

Conversions

$$1 \text{ cm} = 10 \text{ mm}$$

$$1 \text{ mm} = 0,1 \text{ cm}$$

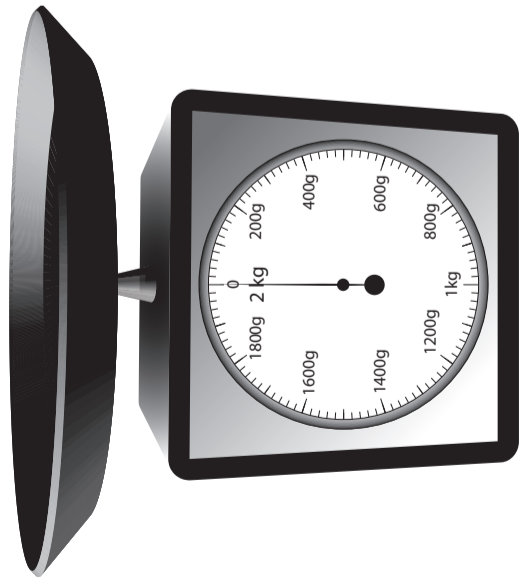
$$1 \text{ m} = 100 \text{ cm}$$

$$1 \text{ cm} = 0,01 \text{ m}$$

$$1 \text{ km} = 1\,000 \text{ m}$$

Some instruments for measuring mass

Kitchen scale



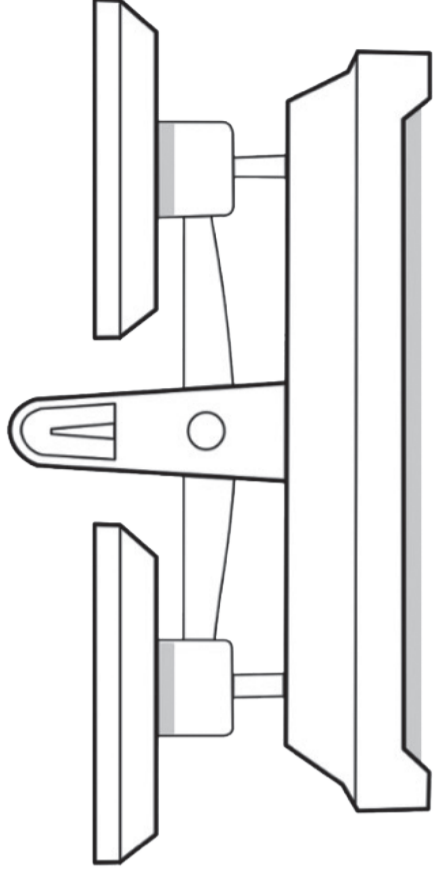
An analogue kitchen scale

Bathroom scale



An analogue bathroom scale

Balance scale



A balance scale

Kitchen scale



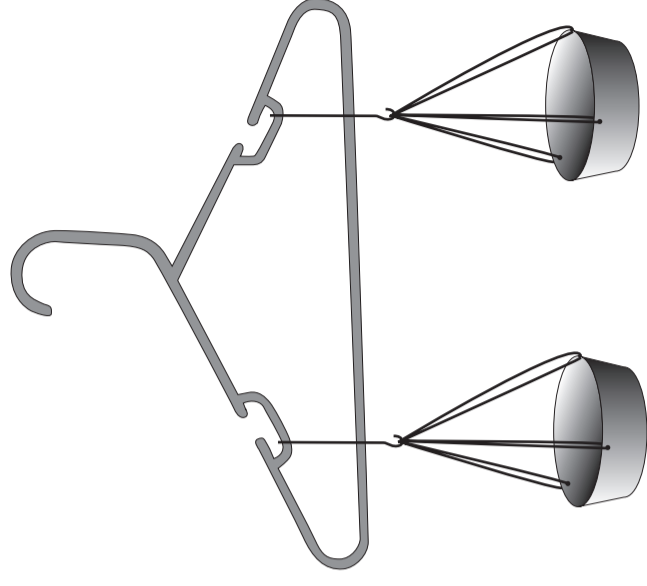
A digital kitchen scale

Bathroom scale



A digital bathroom scale

Balance scale



A hanging balance scale

Grams and Kilograms

1 gram is written 1 g

1 kilogram is written 1 kg

1 kg = 1 000 g

Conversion table:

	kg					g
	1	0	0	0	0	0

The conversion table shows that 1 kg = 1 000 g

2-D Shapes and 3-D Objects

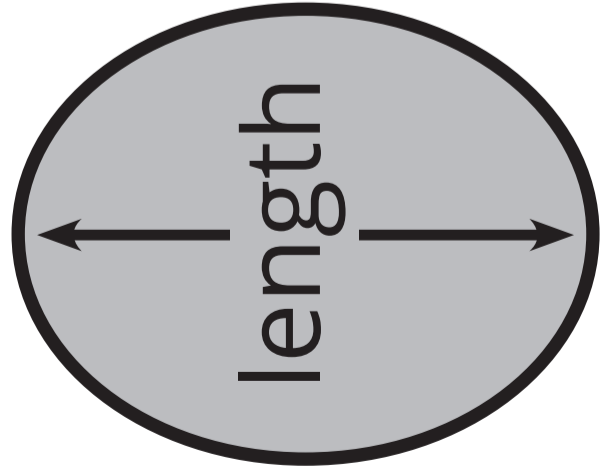
2-D shapes

Two-dimensional shapes are flat shapes.

They have length and breadth (width) but no height.

2-D is short for two-dimensional.

width



width

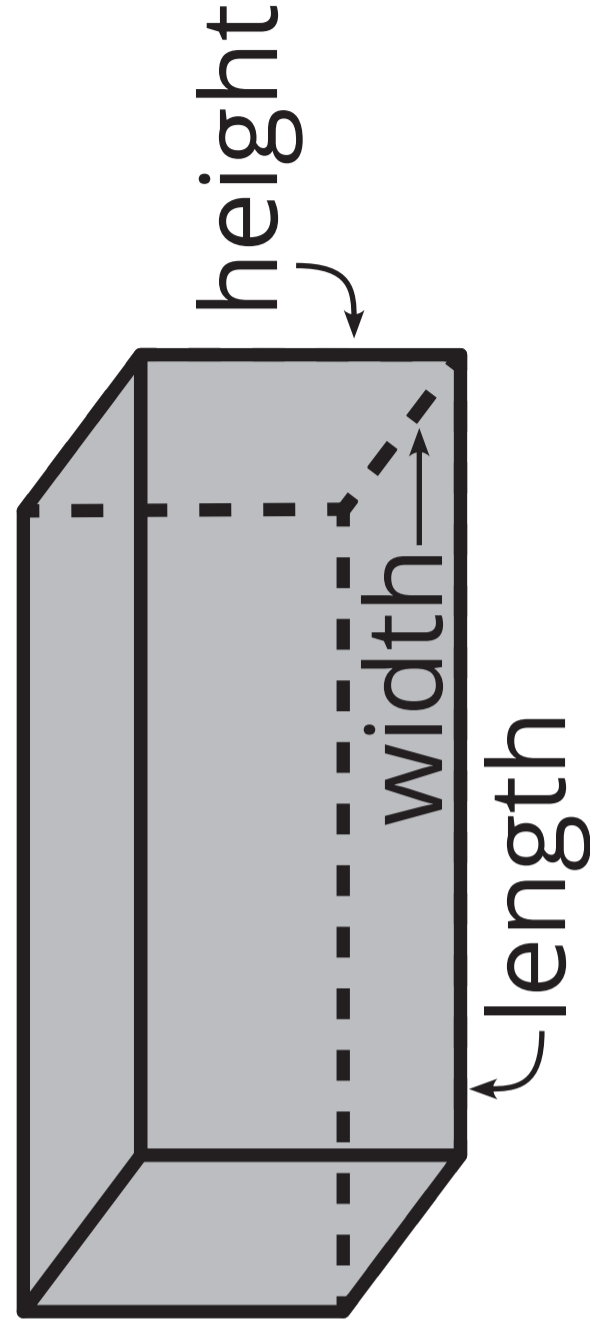


3-D objects

Three-dimensional objects are not flat.

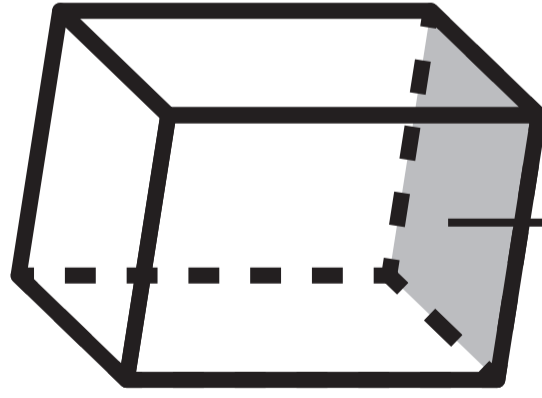
They have length, breadth (width) and height.

3-D is short for three-dimensional.

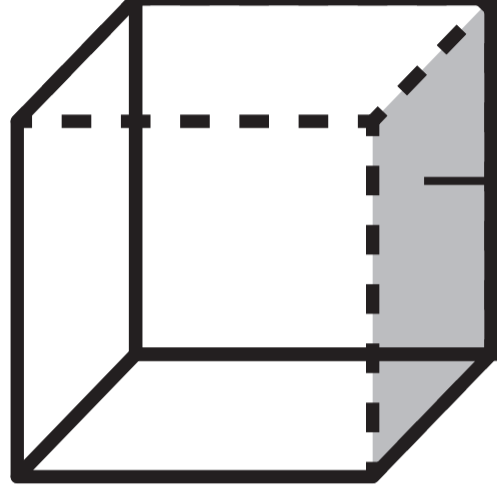


Rectangular prisms and cubes

Prisms (boxes) are named according to the shape of the base



The base is a rectangle



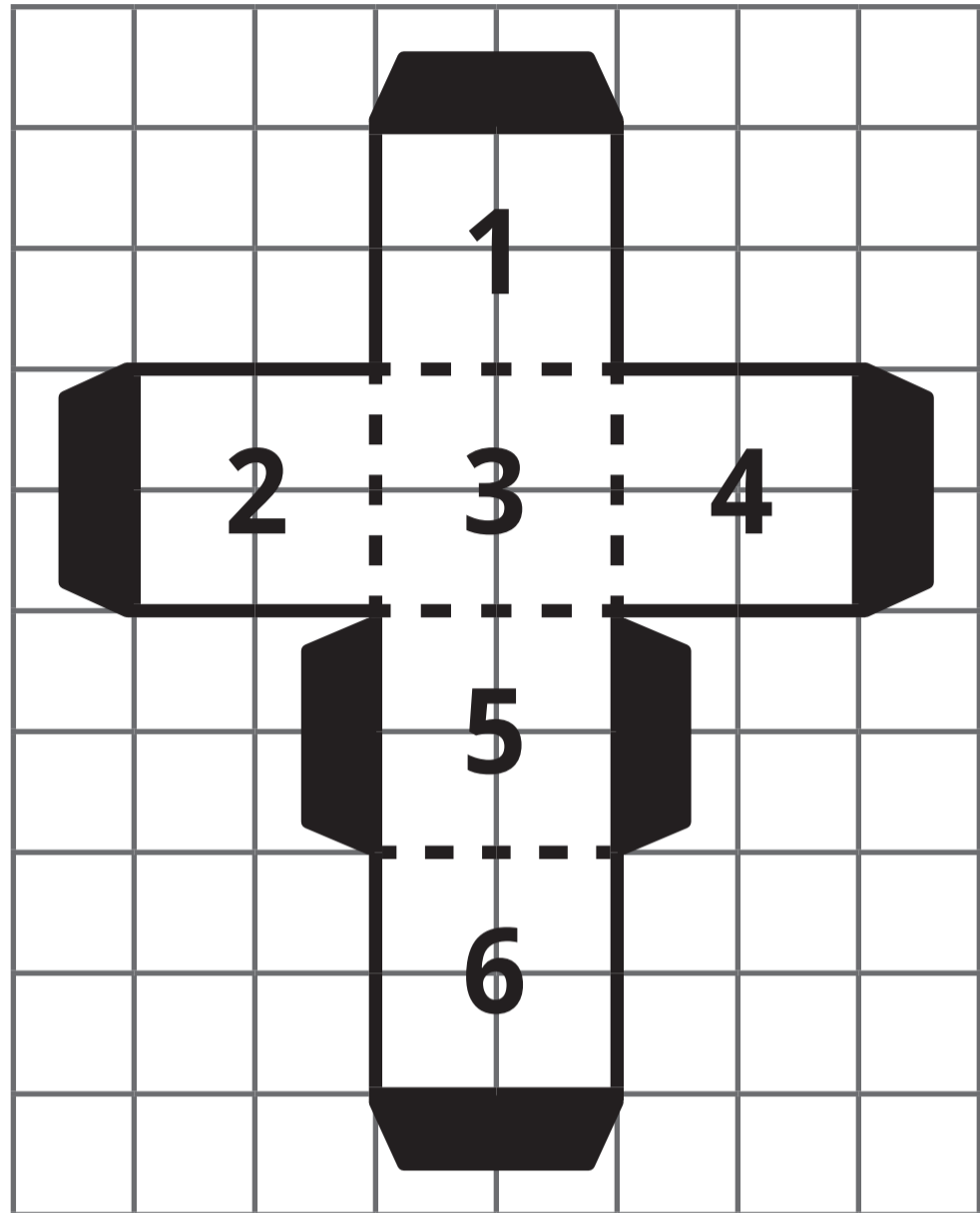
The base is a square

A rectangular prism is a 3-D object which has six faces that are all rectangles (or squares which are special kinds of rectangles)

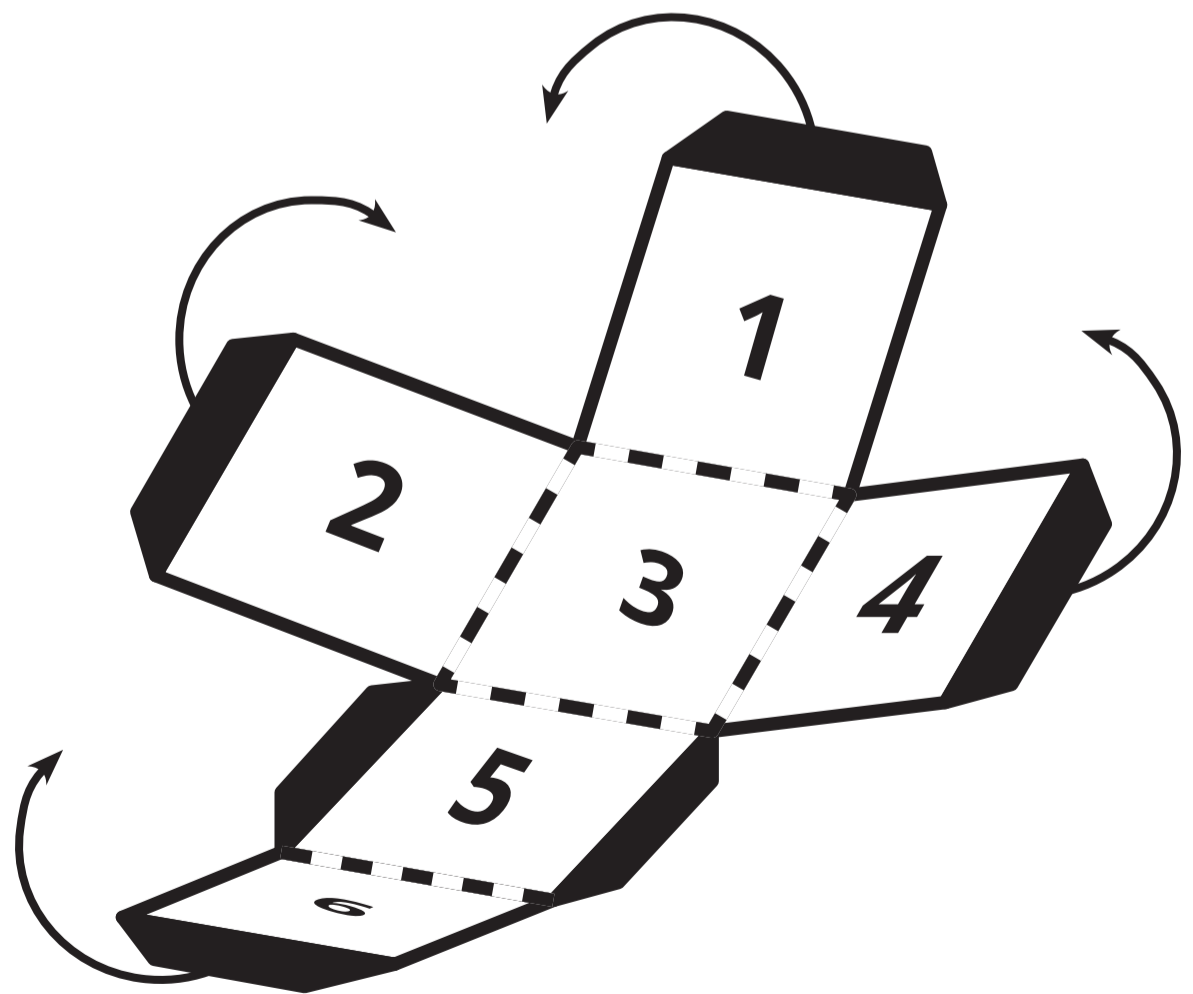
A cube is a 3-D object which has six faces that are all identical squares.

How to build a cube from a net

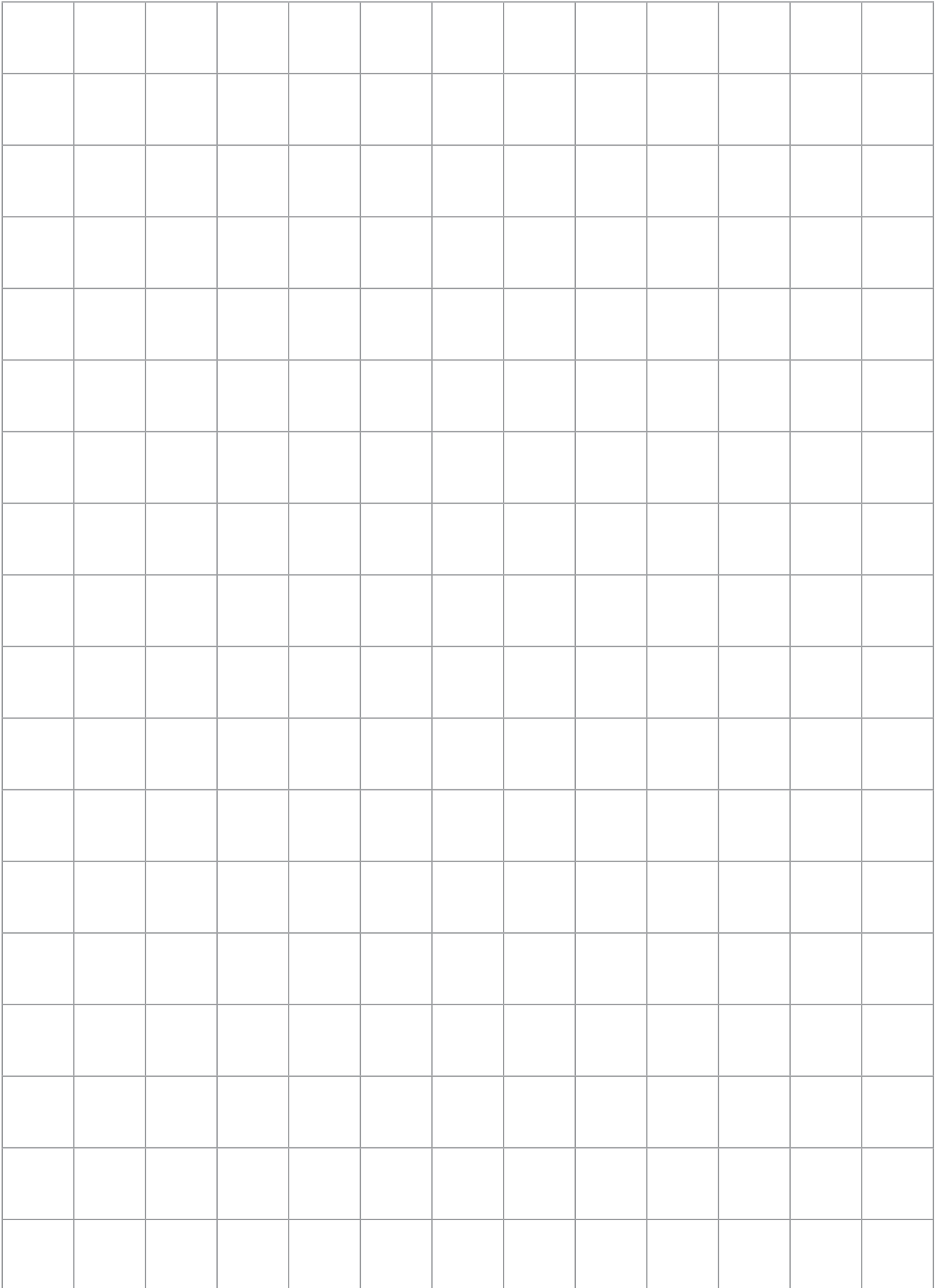
**The net
of a cube**



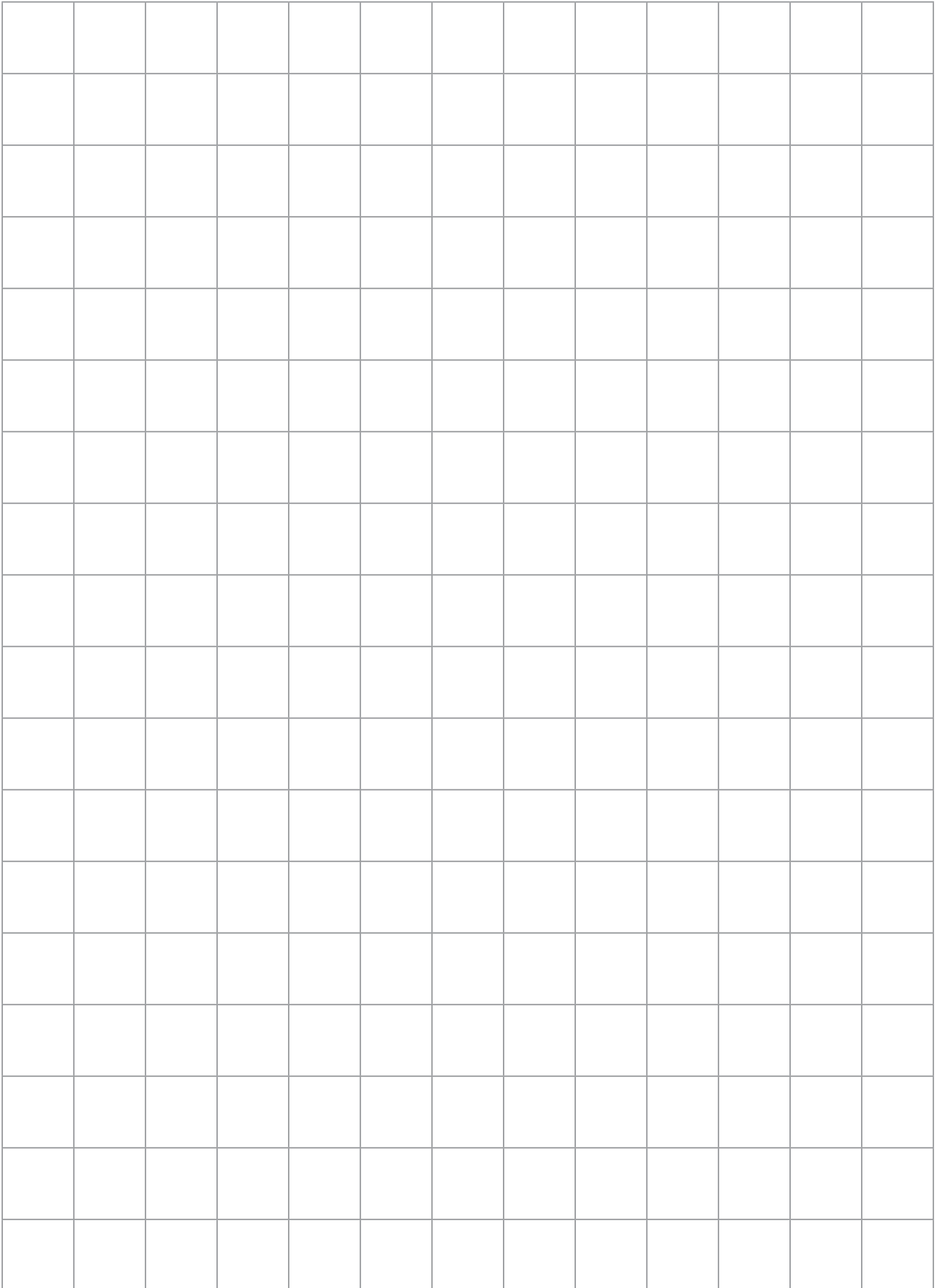
**A net is the
2-D shape
that can
be used to
make a 3-D
object**



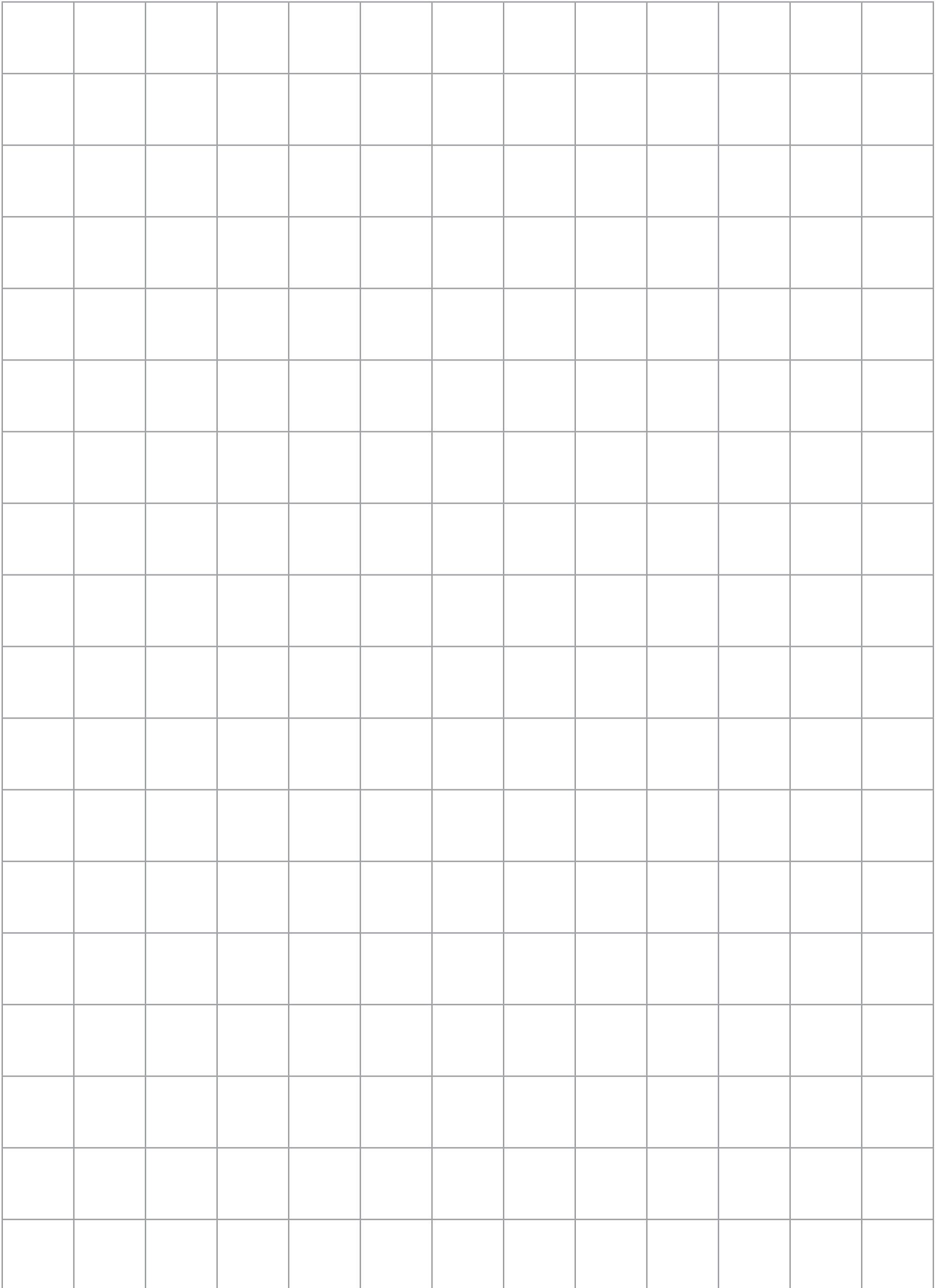
Grid paper



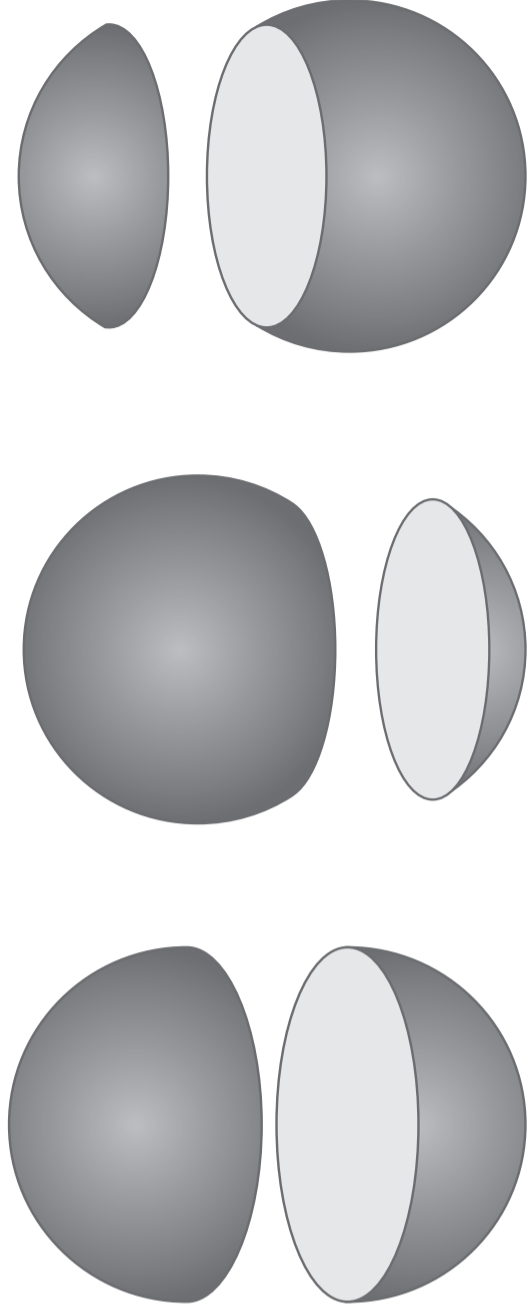
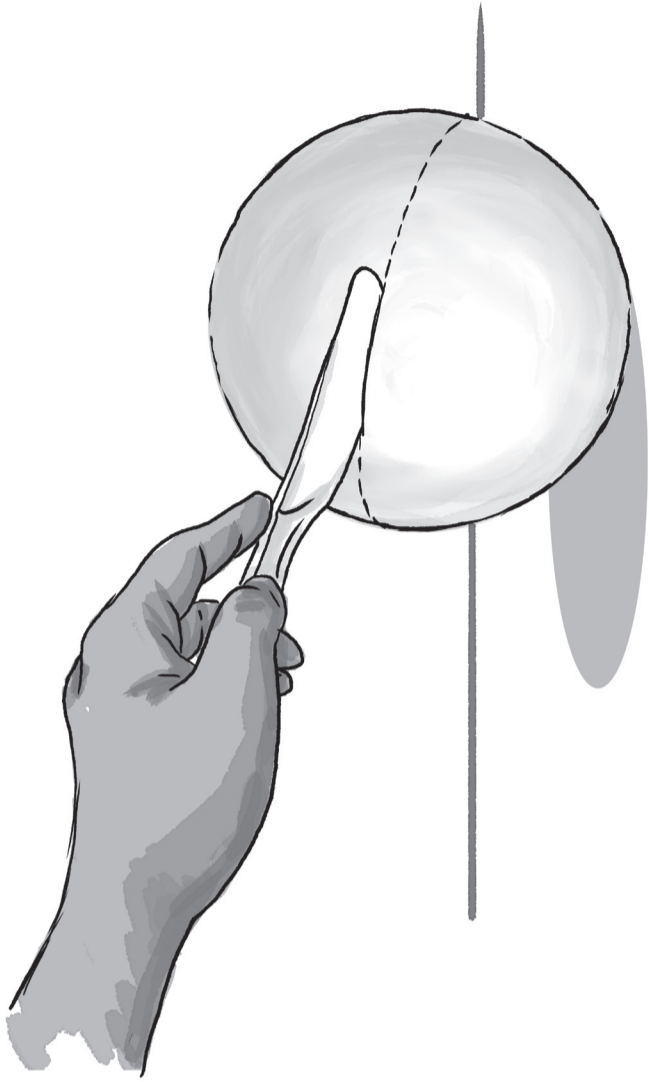
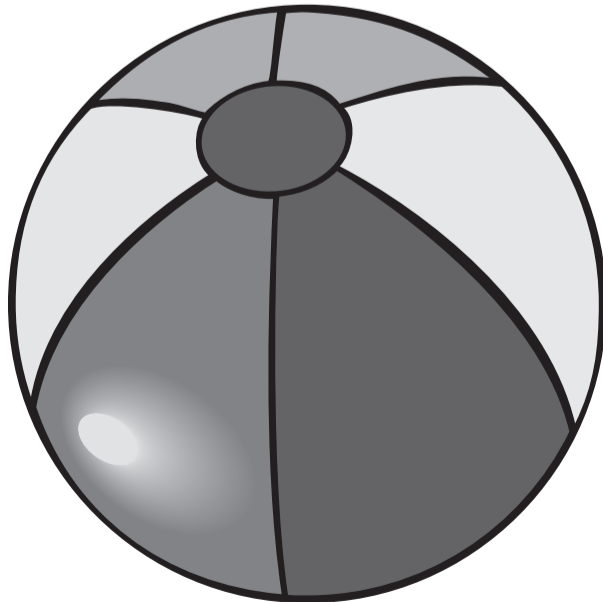
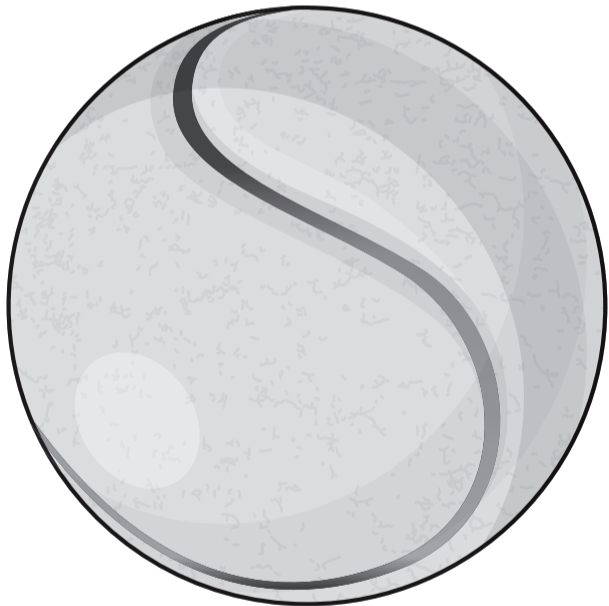
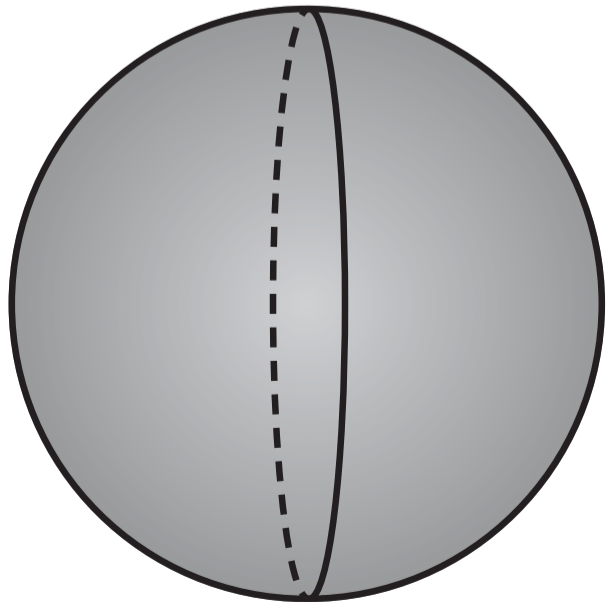
Grid paper



Grid paper



Spheres



A sphere

The shapes you get when you cut across a sphere.

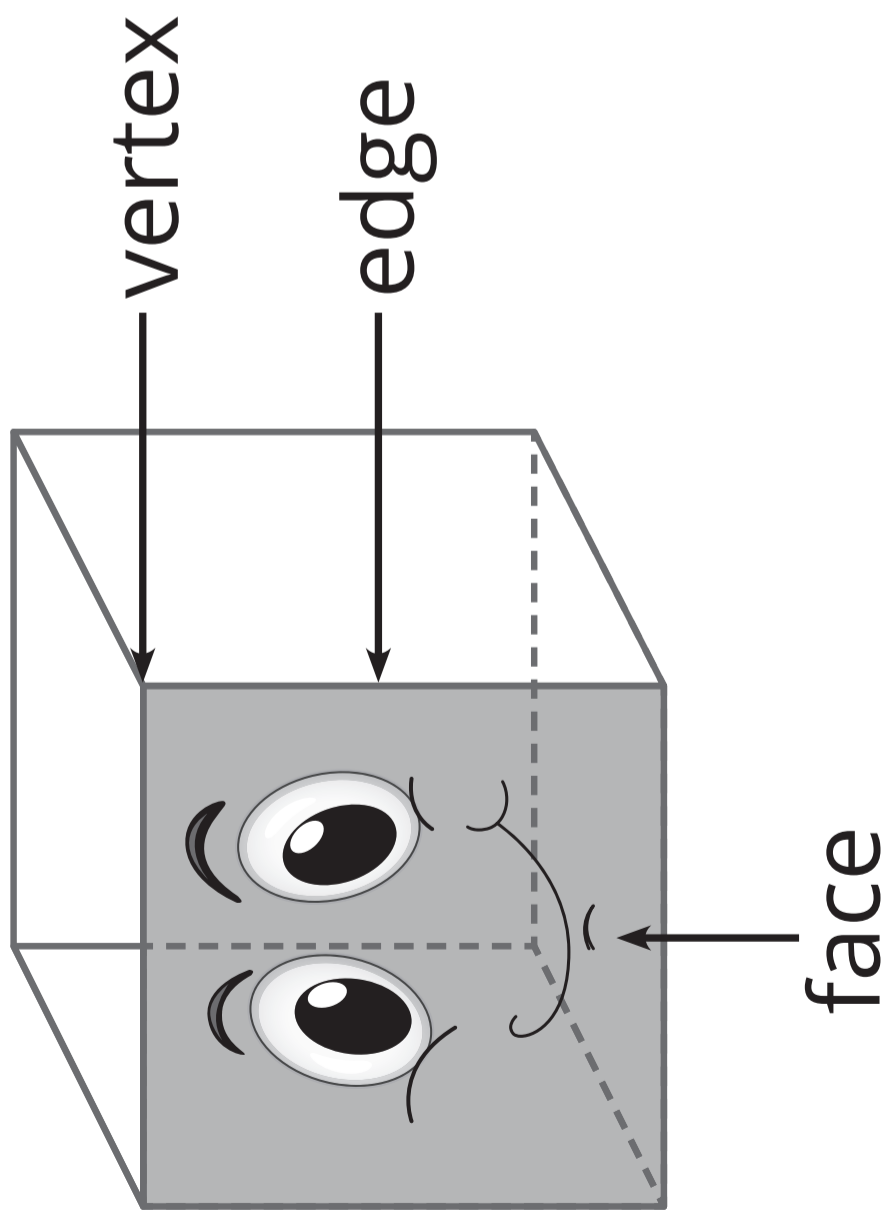
Some 3-D objects



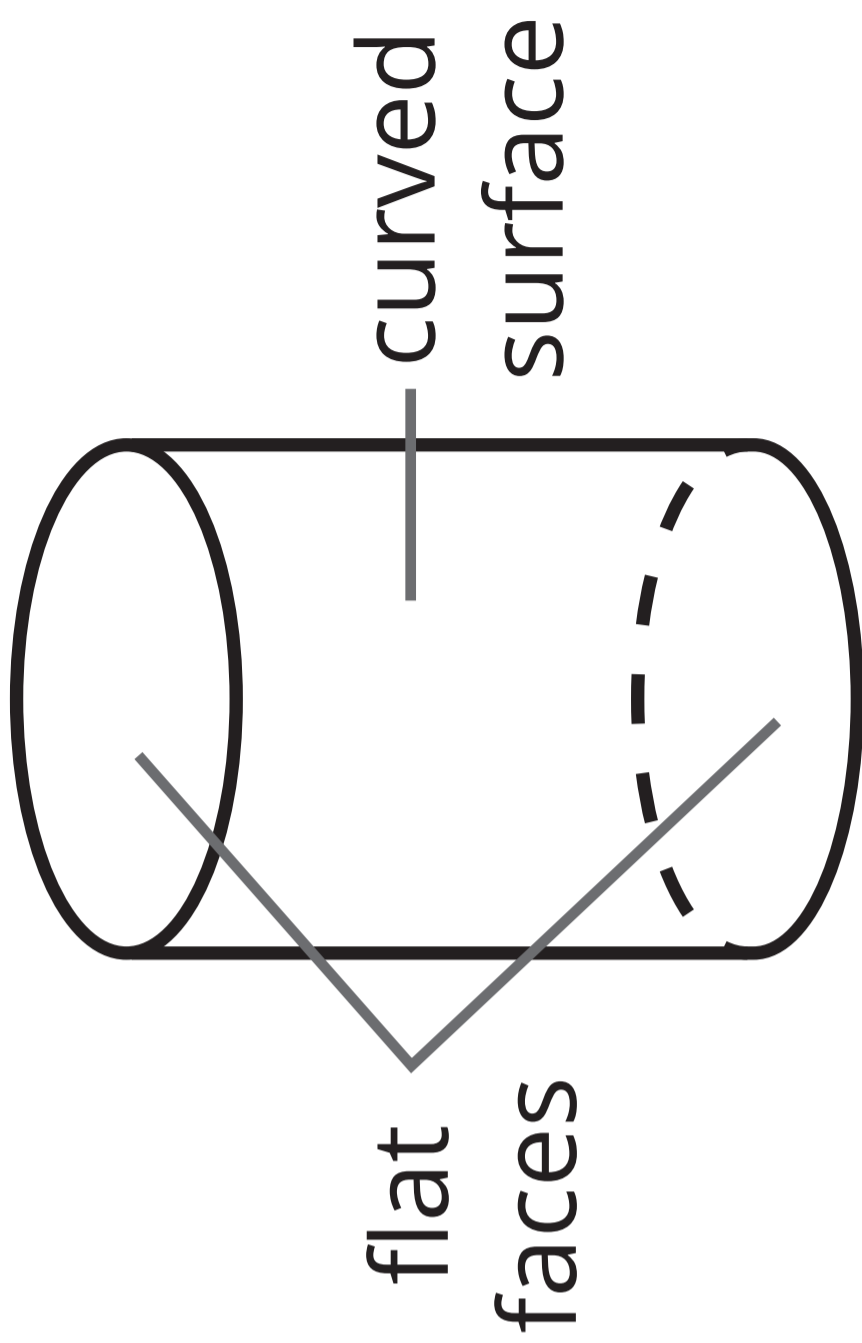
Faces, vertices and edges

The faces of 3-D objects can be flat or curved

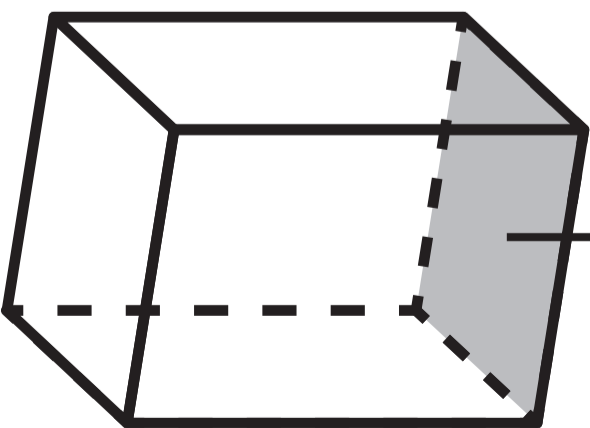
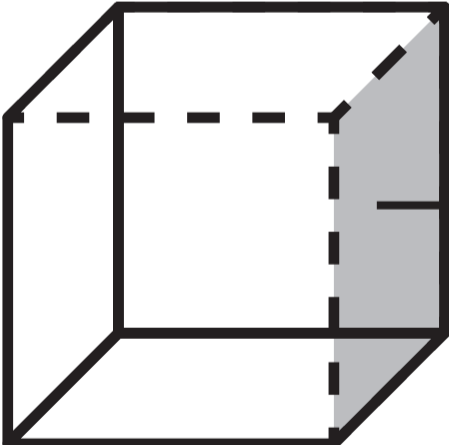
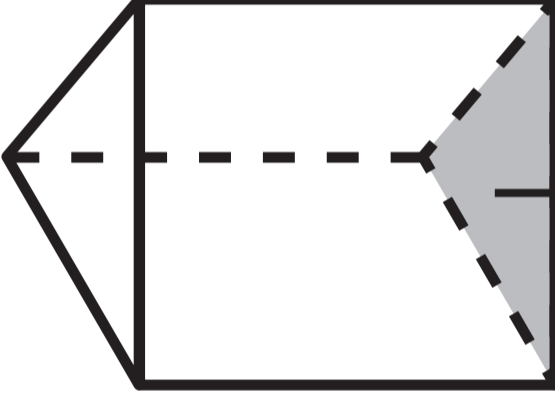
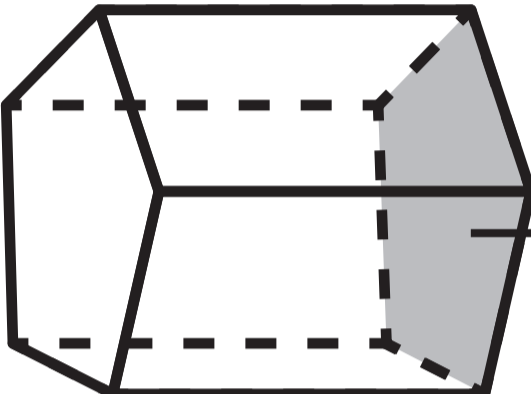
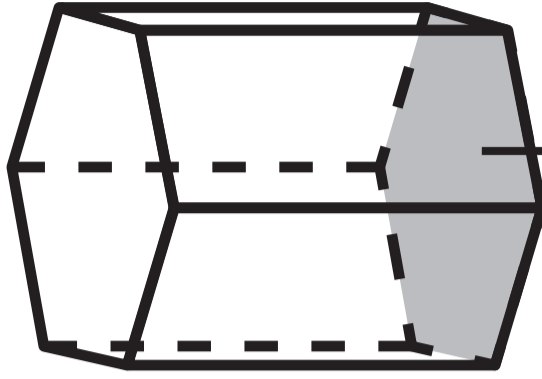
All six faces in this prism are flat:



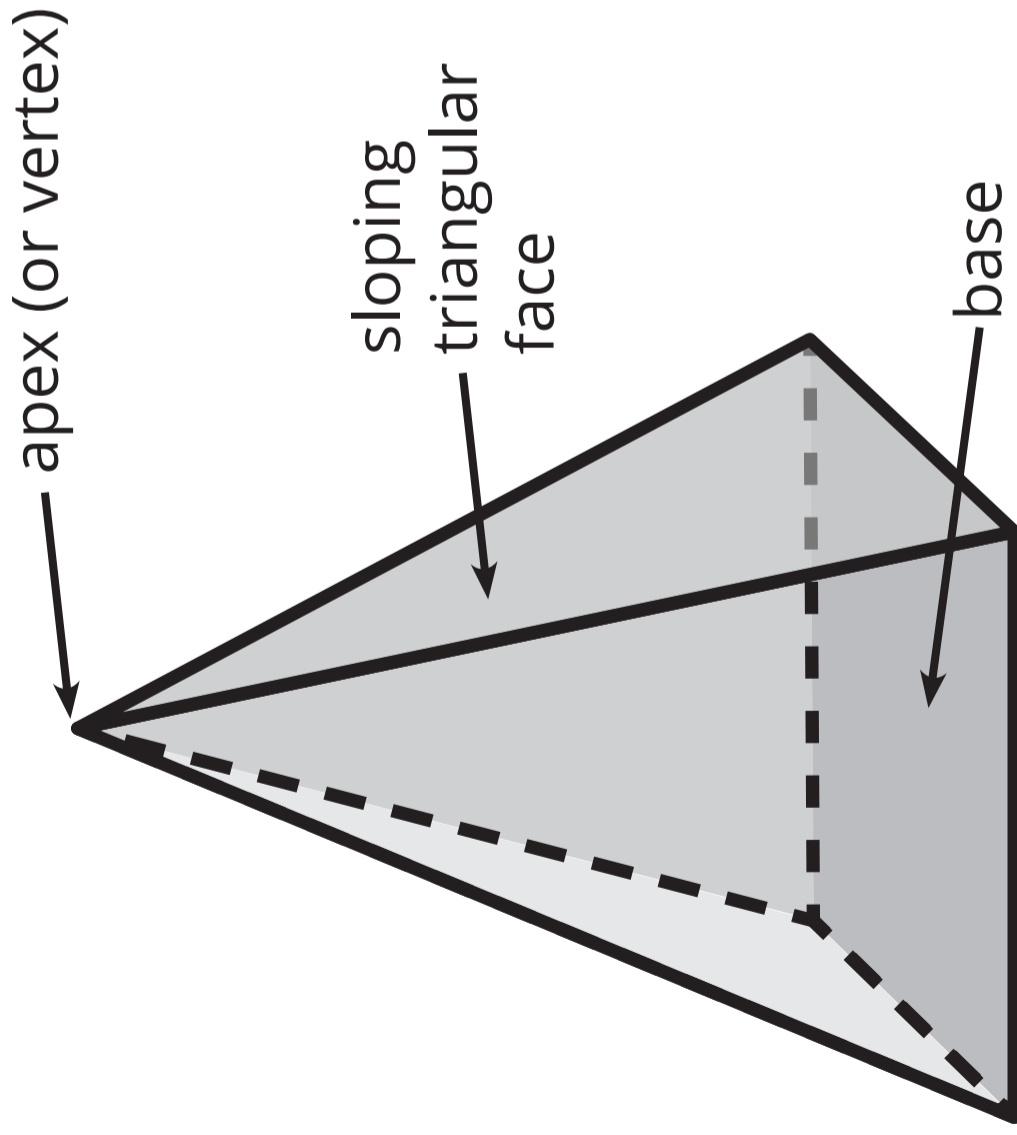
A closed cylinder has two flat faces and one curved surface:



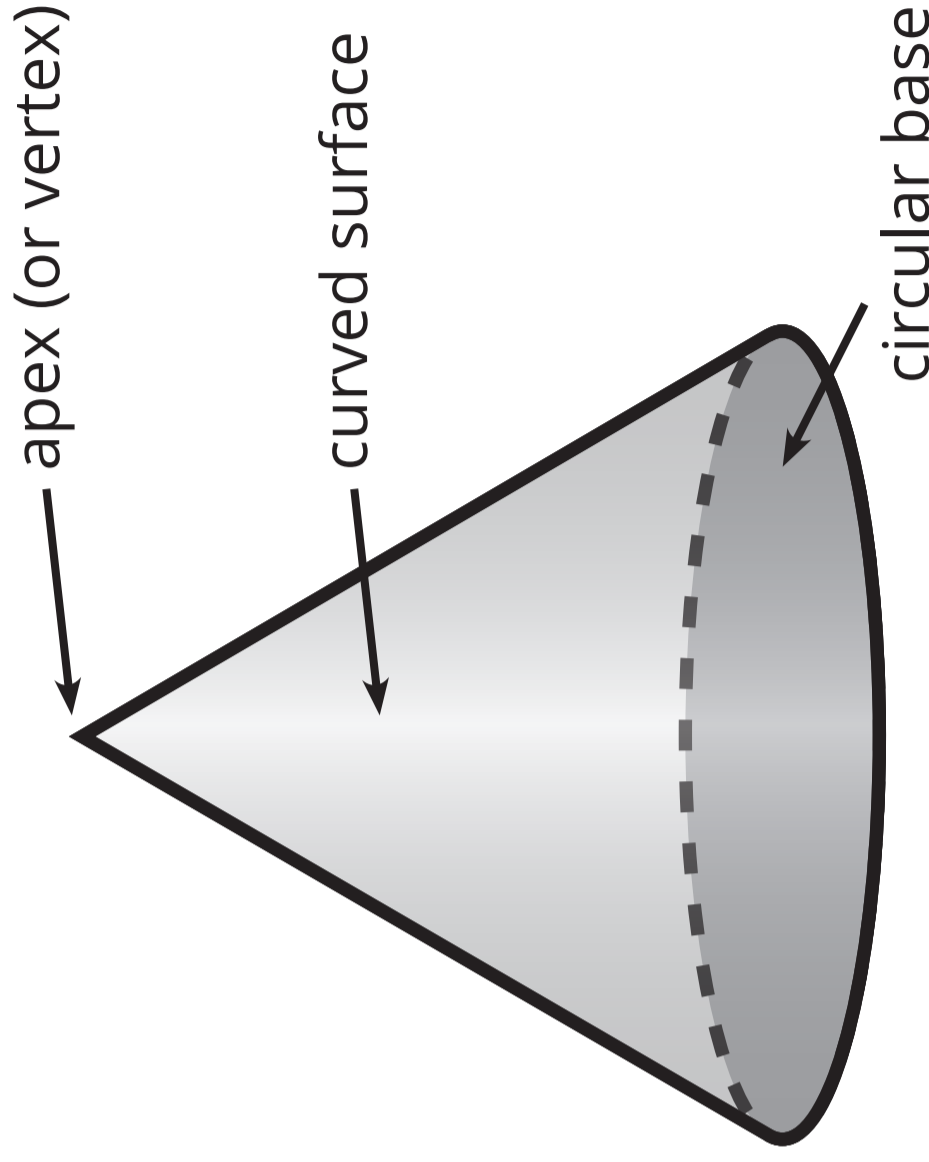
Prisms (boxes) are named according to the shape of the base

 <p>The base is a rectangle</p>		 <p>The base is a square</p>		 <p>The base is a triangle</p>		 <p>The base is a pentagon</p>		 <p>The base is a hexagon</p>	
<p>Rectangular prism</p>	<p>Cube</p>	<p>Triangular prism</p>	<p>Pentagonal prism</p>	<p>Hexagonal prism</p>					

Pyramids and cones



A pyramid is a 3-D object with a base and sloping triangular faces. Pyramids are named according to the shape of the base.



A cone is a 3-D object with a circular base and a curved surface that comes to a point at the apex (or vertex)