

TERM 4 – Week 4
25th- 29th October

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FRIDAY

MATHS

Extension Activities: These are activities children can do when they have finished their set activities for the day. Study Ladder, Get Epic

FOLD THE WORDS UNDER
SO YOU CAN'T SEE THEM

LCWC 2	LCWC 1	
		<i>Artificial intelligence</i>
		<i>reasoning</i>
		<i>capability</i>
		<i>knowledge</i>
		<i>routine</i>
		<i>deduction</i>
		<i>simulation</i>
		<u><i>assistant</i></u>
		<u><i>prediction</i></u>
		<i>analyse</i>
		<u><i>personalise</i></u>
		<i>sentient</i>
<i>Bonus</i>		
		<i>cognitive</i>
		<i>heuristic</i>

COLOURFUL WORDS

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

Write about a digital assistant (Google home, Alexa, Siri etc)

using as many list words as you can

Meanings

1. assistant _____

2. prediction _____

3. personalise _____

READ THROUGH ALL OF THIS AND CORRECT THE MISTAKES.

INTRODUCTION - spelling

A robot is a mashine that does task with out the help of a person. Many people think of robot as mashines that look and act like people. Most robots, though, do not look like people. Robots do only what a person has build them to do.



HOW ROBOTS WORK - missing words

Most robots are computer-controlled devices many parts. An industrial robot, example, is armlike machine that can turn at several joints. It has a handlike part to grasp hold things. Motors move the parts.

Some robots be “taught” to do a job. For example, a person might guide industrial robot through the movements needed to do something. Sensors on the robot send signals the movements to the computer. The computer stores the pattern of movements. Later the computer can retrieve the pattern and the robot what to do.



USES – punctuation and capitals for the start of sentences

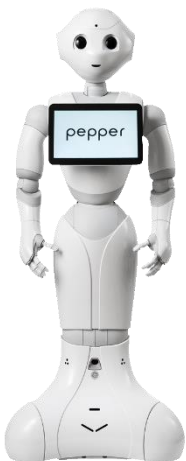
most industrial robots are used in factories some robots load move and unload materials others are used on assembly lines to help build things such as cars and appliances



robots are especially useful because they can do things that could be dangerous for people for example they can be sent deep underwater or into space robots can also handle dangerous materials such as radioactive waste or harmful chemicals they can even dispose of bombs or do spy work for the military

HISTORY - Capitals letters

writings from ancient greece and china tell of toys called automatons, which were like robots. they were set in motion by steam, air, water, or falling weights. in the late 1700s and early 1800s complex automatons could play music or write with a pen on paper. during this time people also built machines to help do certain kinds of work. modern robots only came about after computers were invented. with computers, people could program robots to do tasks on their own.



ROBOTS IN SCIENCE FICTION - Everything

Robots often appear in science fiction, or stories set in the future or in another world. Robot in science-fiction books television shows, and movies can often think, listen, talk, and walk easily on two legs. Science-fiction robots that look exactly like humans are known as androids although real robots are becoming more complex, they still not like these imagined robots.

Put these inventions in order of what you think has changed the world the most to the least. Explain your decision.

Television	Car	Internet	Fridge
Electricity	Gun	Radio	Video games
	Aircraft	Mobile phone	

	invention	Reason it is the most world changing.
1		
		why is it less world changing than the one above it?
2		
3		
4		
5		
6		
7		
8		
9		
10		

6		
7		
8		
9		
10		
11		
12		

The Wright Brothers

Who Were the Wright Brothers?

Wilbur and Orville Wright were famous inventors and **aviators** who grew up in Ohio, USA. Wilbur was quiet and serious while Orville was curious and confident. On 17th December 1903, the brothers built and flew the first aeroplane powered by an engine; they are famous for this invention.

What Was Their Early Life Like?

Their father was a **bishop**: he encouraged them to read lots of books and think carefully about the world. Instead of going to university, Orville spent several summers learning the printing trade and even persuaded Wilbur to open a printing shop with him. The brothers developed a reputation in the local area for the quality **printing presses** that they designed, built and sold. In 1892, the Wright brothers opened their own bicycle sales and repair shop. The bicycle shop was successful; they used their profits to research flying machines and to sketch original designs.

Were the Wright Brothers the First People to Fly?

Before the Wright Brothers, many others had explored the possibility of flight. A Greek myth describes a tale of a boy, Icarus, who flew too close to the sun. Leonardo Da Vinci, a famous artist, designed different machines in the 1700s but his inventions were never built. The Wright brothers studied the work of more recent and successful inventors, including Otto Lilienthal, who designed and flew the first **glider**. He studied the way that birds flew and built gliders with similar wings that could carry him in flight. Otto was a major source of inspiration to the Wright brothers; they used his work on gliders to design an aeroplane powered by an engine.

What Was the First Aeroplane Like?

Wilbur and Orville experimented with many different designs to make an aeroplane fly for a sustained period. They realised that the design of the wings was crucial to get the plane off the ground. They built wings with different lengths, shapes and tip designs and created a wind tunnel to test their experiments. By 1903, they had designed and built an aeroplane with wings, propellers and an engine; it also had a rudder so that the pilot could steer. On 17th December 1903, the aeroplane flew for 12 seconds: its first flight was witnessed by five **spectators**.



What Happened after the First Flight?

After their first success, the brothers continued to develop and build aeroplanes. By 1905, they had built an aeroplane that could maintain flight for 39 minutes; it could even perform manoeuvres such as flying in circles. Wilbur and Orville became more successful while other people struggled to keep up with their designs. The brothers created aeroplanes for the US army that could fly for at least one hour with a pilot and a passenger. Years later, they opened a flight school in Ohio where pilots were trained. Modern designs of aeroplane wings are remarkably similar to their early sketches.

Glossary

aviator	A person who flies an aircraft.
bishop	A senior member of the church.
glider	A light aircraft that flies without an engine.
printing press	A machine for printing text or pictures.
spectators	People who watch a show, game or event.



Questions

1. Tick **two** words that are used to describe Orville Wright.

- ☐ curious
- ☐ quiet
- ☐ serious
- ☐ confident

2. Draw **four** lines and complete the sentence.

In 1892, the
brothers opened...

After the first flight, ...

They realised that
the design of...

By 1905, they had
built an aeroplane...

the brothers carried
on building aeroplanes.

the wings
was important.

their own bicycle
repair shop.

that could fly for
39 minutes.

3. What invention are the Wright brothers famous for?

4. Find and copy one phrase which shows that Otto Lilienthal was important to the brothers.

5. Why do you think the Wright brothers' first flight was watched by spectators?

6. Explain how you think that the Wright brothers' father influenced them.

7. Predict how flying machines might change in the future.

8. Why do you think that the Wright brothers succeeded where other people failed?

All About Mars

Within our Solar System, Mars is the fourth planet from the Sun, after _____.

It is often referred to as the _____ because _____ on the surface of the planet makes it appear red.

When the _____ of Mars brings it close to Earth, Mars can be clearly seen shining in the night _____.

In some ways, Mars is similar to planet Earth. A day on Mars is almost the same _____ as a day on Earth. Mars has _____, clouds and weather, just as we do on this planet. One major difference is _____, as the Mars average is around -80 degrees Celsius.

Some scientists believe that there may be or may have been life on Mars. This is most likely to be in the form of tiny _____.

Since 1960, many _____ have been sent to Mars to collect _____. Some have been successful. From these spacecraft, we have been able to learn a lot about what _____ are like on Mars.

In 2017, _____ was discovered there. This is very important news because, as far as we know, all forms of life need water to _____. This makes the _____ of finding _____ on Mars much more likely.

Word Bank

temperature	Earth	ice	information	survive
life	Red Planet	spacecraft	sky	length
seasons	conditions	iron oxide	orbit	microbes
possibility				

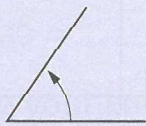
Extension



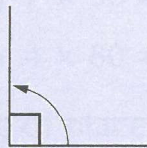
Explore this resource using amazing augmented reality! Simply scan this code with any device running iOS 12 or later. For further information, please visit our FAQ page at www.twinkl.co.uk/help/twinkl-apps.

Remember! There are five ways of classifying angles.

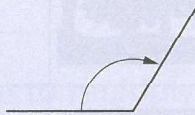
Acute:
less than 90°



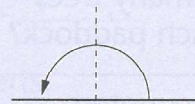
Right:
 $= 90^\circ$



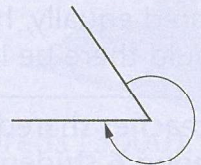
Obtuse:
greater than 90° but less than 180°



Straight:
 $= 180^\circ$

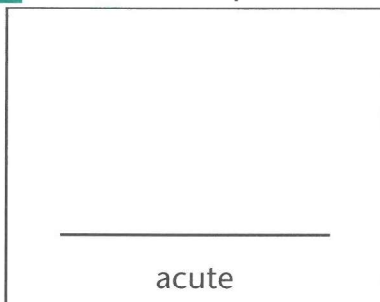


Reflex:
greater than 180° but less than 360°

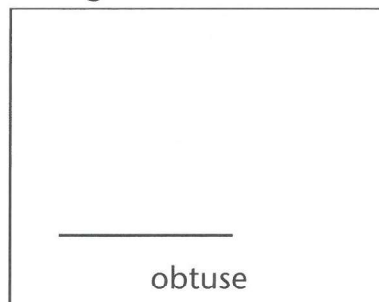


8 Use the arm provided to sketch angles to match each label.

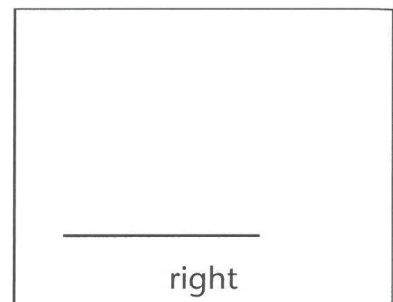
a



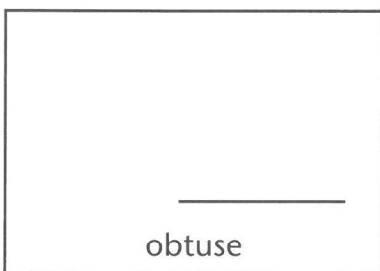
b



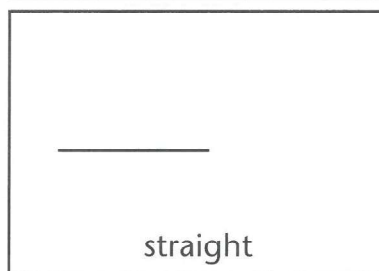
c



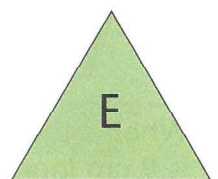
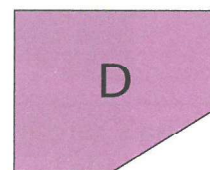
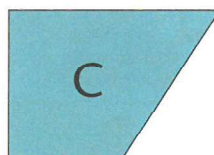
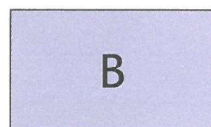
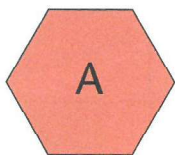
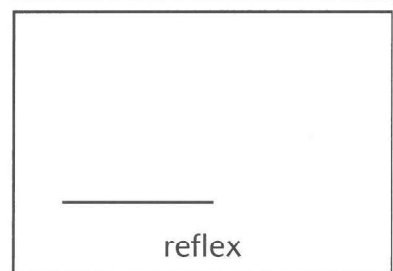
d



e



f



9 Identify which shape is being described.

a I have four right angles.

b I have one obtuse angle, one acute angle and two right angles.

c I have three acute angles.

d I have three right angles and two obtuse angles.

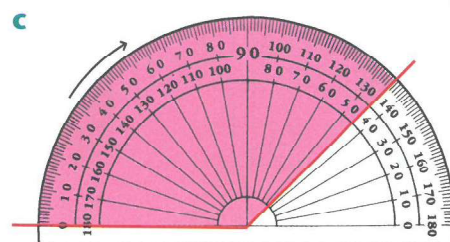
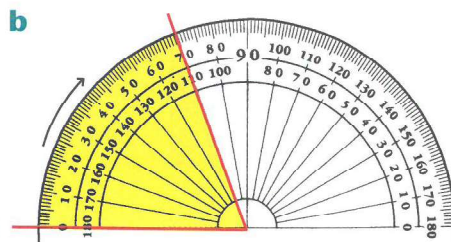
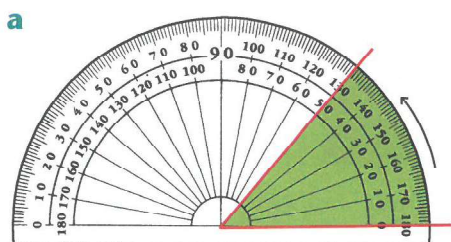
e I have six obtuse angles.

10 Find two acute angles and two obtuse angles in your classroom and list them below.

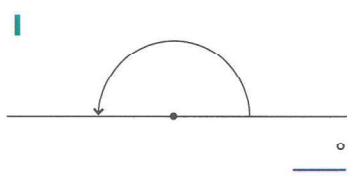
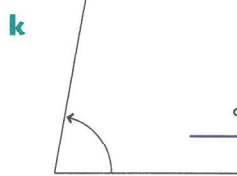
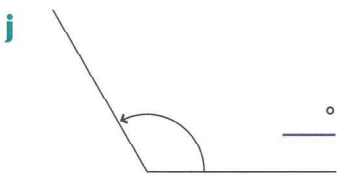
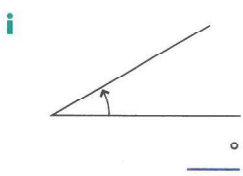
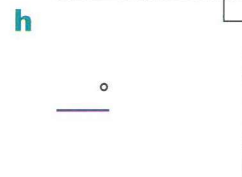
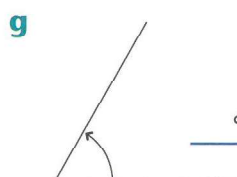
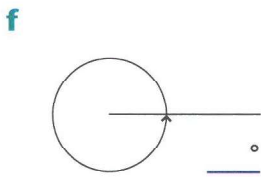
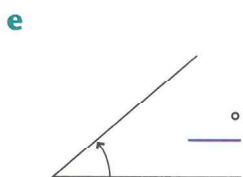
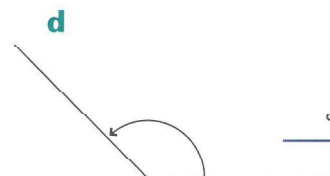
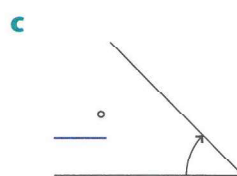
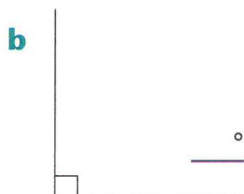
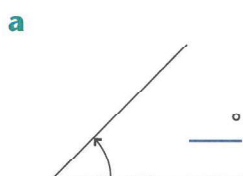
Acute

Obtuse

8 Name each angle and then write its size in degrees. Remember that protractors can be read from both ends.



9 Use a protractor to measure and name each angle.



10 Use the starting lines below to draw the angles.

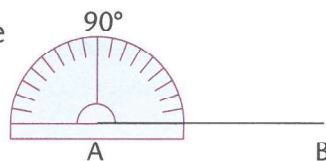
a An acute angle of 30°

b A right angle

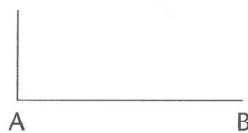
c An obtuse angle of 110°

12 Follow the instructions to draw a rectangle.

a Place a protractor exactly on the line AB, with the centre point exactly on the end of the line where A is.



b Put a pencil dot at 90° then draw a perpendicular line from A to the dot.



c Repeat exactly for the B end of the line.

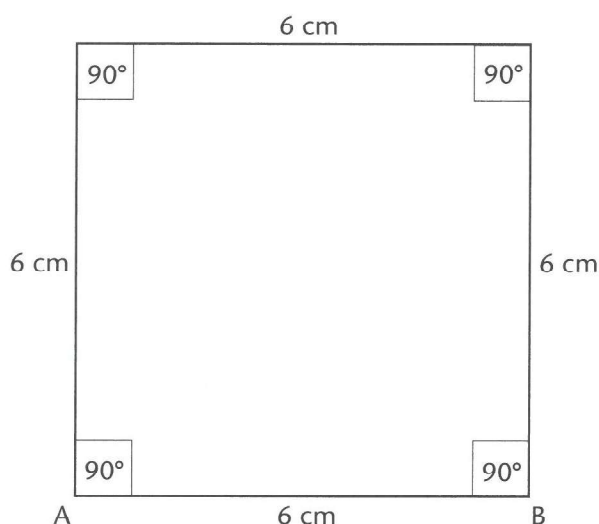


d Measure 4 cm on each vertical line you have drawn and put a dot.

e Connect the dots by drawing perpendicular lines.



13 Now construct a congruent copy of the square below by following the same procedure as above. All the angles and sides are given on the shape.



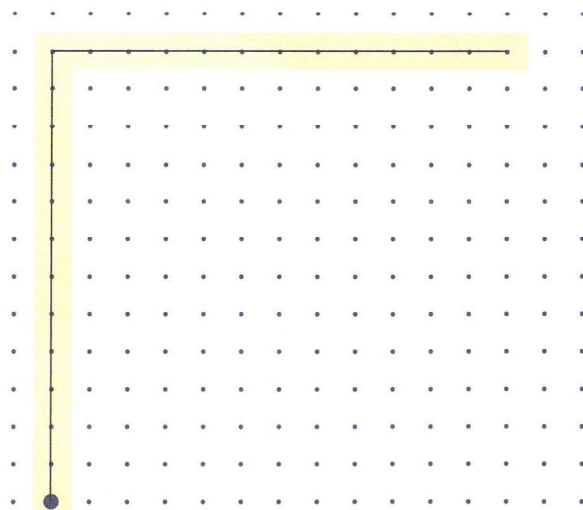
14 Play the robot game on the 5-mm grid paper.

Rules: Forward FD Right RT Left LT

Start at the dot then follow the instructions.

Note: **a** and **b** have been done for you and turns are always made from the direction you are coming from.

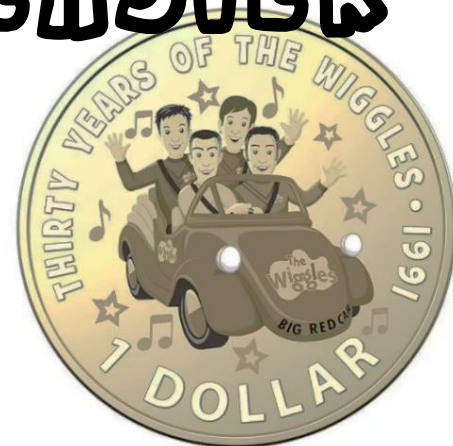
- | | |
|---------------------------------|---------------------------------|
| a FD 60 mm | e LT 90° FD 20 mm |
| b RT 90° FD 60 mm | f LT 90° FD 30 mm |
| c RT 90° FD 20 mm | g RT 90° FD 20 mm |
| d RT 90° FD 30 mm | h RT 90° FD 60 mm |





Student Name: _____

Grade: _____ Date: _____



1. The Royal Australian Mint has created a "WIGGLES \$2 Coin Collection", to celebrate 30 years as entertainers together. There are 6 coins in each set. If Jayson has already collected a third of a set, how many **MORE** coins does he need to complete his set?



2. It is now 6 years since pop singer Adele released a new album. How many **MONTHS** are there in 6 years?

3. Adele's new album is titled "30". Write that number down in Roman numerals.

4. Four keen, brave people recently boarded a space vehicle and headed into space for an exciting 11-minute journey. For how many **SECONDS** were they actually "astronauts" of sorts, counting the entire time of their trip?



5. One pizza company has released a "Vegemite Pizza". Out of 100 people, how many do **YOU** think would LIKE that Vegemite pizza? What **FRACTION** of 100 is that, in simplest terms?

6. This dressed-up dog, along with his lemonade, now has 10½ million followers on social media. Write that number down in figures.



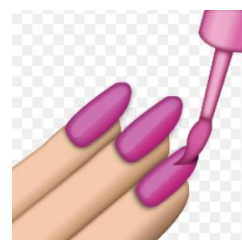
7. Mila, Jess and Zoe shared an apple. Mila had $\frac{1}{2}$ of the apple, and Jess had $\frac{1}{4}$. How much of the apple did Zoe get?

8. One popular daily newspaper costs \$2.20 per day, Mondays to Fridays, and \$3.50 on Saturdays and Sundays. Find the total cost of buying that newspaper every day for a full week.



9. The Lost Dogs Home is facing a **HUGE** increase in demand, due mainly to lockdown. In August 2021, 416 animals were re-homed, compared to 92 animals in August, 2019. Find the **DIFFERENCE** between those two numbers.

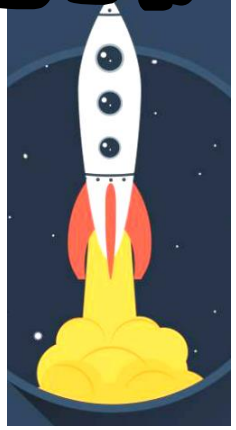
10. Open-ended Question: If it takes a nail salon the same amount of time, in minutes, to paint a single fingernail or toenail, how long **MIGHT** it take them to paint all of Jeanette's fingernails **AND** toenails?





Student Name: _____

Grade: _____ Date: _____



1. Four "astronauts" were recently launched into space for a time of 11 minutes for the entire trip. Their space vehicle soared to 106 kilometres above earth's sea level. Find their **AVERAGE** speed, in kilometres per minute, for the **ENTIRE** trip (**up AND back**). Round off your answer to 2 decimal places.



2. In episode 1 of "The Dog House" on TV, one couple took 2 small dogs, while two other people chose one dog each. If it took clients $1\frac{1}{2}$ hours, start to finish, to choose each of these dogs, how long did it take altogether for the decisions to be made?

3. A new facemask designed for children is rectangular in shape. It is 14.2 centimetres long x 9.2 centimetres wide. Find the perimeter and area of one such mask.

FEATURES:

- ✓ 14.20(L) x 9.20(W) cm
- ✓ 3-Ply
- ✓ Soft ear loops



4. Australian mangoes are selling at the moment at 2 for \$5. At that price, what would be the total cost of buying $2\frac{1}{2}$ dozen mangoes to be shared at a picnic?

5. In the supermarket carpark, there were 84 supermarket trolleys awaiting collection. The collector had loaded $\frac{3}{4}$ of those trolleys onto his trailer by 9:30 am in the morning. How many more of the trolleys did he still have to collect?



6. At 4:30 pm, the minute hand on an analogue clock was pointing directly at the "6". After some minutes, the minute hand had moved clockwise through an angle of 270° . At what number on the clockface was that minute hand now pointing?

7. Aussie long-distance swimmer Chloe McCardel has just won a world record, having swum the English Channel for her 44th time. Write the number 44 in Roman numerals.



8. One car insurance company is offering a 15% discount during October. Luke's dad usually pays \$870 per year to insure his car. What will he pay if he takes up this 15% offer?

9. **OPEN-ENDED QUESTION:** A square has a perimeter of 80.4 cm. A few of these squares are put side by side to make a rectangle. What **MAY** be the **perimeter** and **area** of this newly-formed rectangle? (*Think carefully about this!*)