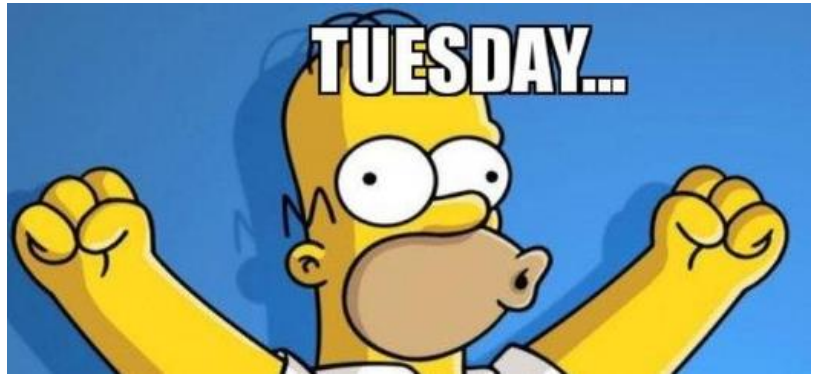


Tuesday 7th July 2020

Good morning everybody and welcome to another Tuesday!

REMINDER Any reading challenges or reading books that you have that belong to school need to be returned as soon as possible. They can be dropped at the school office. Many thanks.

Ok let's get on with the show!



Task 1 Maths - Magic Squares

Today I'm testing your logical thinking. Magic squares are a fun problem solving activity where the total (sum) of each row, column and diagonal are the same. (See example below.)

Have a go at all three sections - Draw the diagram in you book and try and work out the missing numbers. Section C is trickier as it includes negative numbers.

TARGET To solve number puzzles involving addition and subtraction.

In a magic square the sum of each row, column and diagonal is the same.

21	10	17
12	16	20
15	22	11

Example

Row $15 + 22 + 11 = 48$
Column $10 + 16 + 22 = 48$
Diagonal $11 + 16 + 21 = 48$

Copy and complete the following magic squares.

A

1	3		5
		8	
			13

2			14
	10	9	17

3		3	
		15	
	27		5

4	22	21	14
			27

5			18
		22	
26	6		

B

1		17		3
	11		9	
		10	13	
	16		2	15

2	9			7
	6	15	1	12
		10		
			11	2

3	21		16	
	8	15	13	
			6	17
		9	19	

4	6	19		5
			11	
		12		10
	18		4	17

C

1	2		4
		1	
	-2		

2	0	3	-6
	4		

3	-2		
		-3	-7
			-4

4			-1
			4
		2	-3

5	-7		
		-2	
		-10	3

Task 2 - English. Reading Comprehension

Amelia Earhart - The first woman to fly solo across the Atlantic Ocean - Find out more about this pioneering woman and her interesting life.

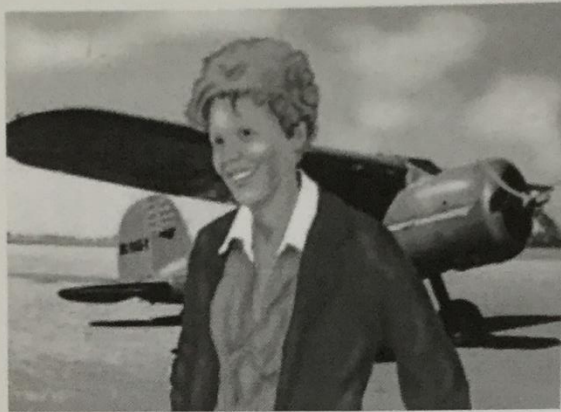
Read the following passage and then answer the questions that follow - remember to use full sentences when you answer. ☺

QUEEN OF THE AIR

*Amelia Earhart: first woman
to fly solo across the Atlantic.*

Born - 24 July 1897

Disappeared - 2 July 1937



Amelia Earhart, an American, experienced her first close encounter with an aeroplane at the Iowa State Fair. She was ten years old and described it as: '... a thing of rusty wire and wood and not at all interesting.'

Almost ten years later, while at a stunt-flying exhibition, an airborne pilot spotted Amelia and a friend, standing away from the rest of the crowd. He swooped down towards them, possibly hoping to make them run, but Amelia stood her ground. Later in life, she said: 'I did not understand it at the time, but I believe that little red airplane [aeroplane] said something to me as it swished by.'

On 28 December 1920, pilot Frank Hawks took her up in an aeroplane for the first time. 'By the time I had got two or three hundred feet off the ground, I knew I had to fly.'

As a child, Amelia stayed with her grandmother during school term. In spite of her grandmother's disapproval - common in those days - Amelia spent much of her time outdoors, climbing trees, riding imaginary horses and hunting. Later, in high school, she was described as:

A.E. - the girl in brown who walks alone.

On 3 January 1921, she took her first flying lesson. She worked hard for six months and saved enough money to buy her first, small aircraft: a two-seater biplane painted bright yellow, which she called *The Canary*.

A few years later, she was invited to join two other pilots to fly across the Atlantic. They left Newfoundland and landed in Wales 21 hours later. She became an international celebrity.

Then a new secret project presented itself - the opportunity to fly the same route completely single-handed. The news soon got out and on 20 May, 1932, she took off for Paris, but icy conditions and strong winds forced her to land in a farmer's field in Londonderry, Ireland. At a time when even a car was a novelty, one can only imagine how excited the local people must have felt to see her land her plane.

Approaching her 40th birthday, she decided to be the first woman to fly round the world. By 29 June 1937, with her navigator, Fred Noonan, she reached New Guinea, having completed 22,000 of the 29,000 mile journey. A few days later, running into cloud and heavy rain, and with broken and irregular radio guidance from a ship in the area, her last message was: 'We must be on you, but we cannot see you. Fuel is running low. Been unable to reach you by radio. We are flying at 1,000 feet. We are running north and south.' Nothing more was heard from her.

Now use evidence from the text to answer the following questions.

1. What, in the introduction to the text, suggests that we don't know precisely when Amelia Earhart died.

2. Amelia wasn't impressed when she first had a close-up view of an aeroplane. How do we know?

3. What experience, described by Amelia, tells you that, even as a child, she was brave and not easily scared?

4. Why might her grandmother have disapproved of Amelia spending so much of her time outdoors?

5. How do we know Amelia had trouble making friends at school?

6. What phrase tells you that her second Atlantic crossing was done on her own?

7. Why would the local people in Ireland be so excited about Amelia landing there?

8. What made flying so difficult on the last leg of the round-the-world flight?

Task 3 Topic - Hydroelectricity.

Hydroelectricity means using the power of water to create an electricity source. Much of North America is powered by hydroelectric power. Hydroelectricity is a really important way of creating power as it is renewable form of energy - this means we are not burning fuels that pollute the earth. Look at the following website to find out more. Write down 3 things that you find out.

<https://www.funkidslive.com/learn/energy-sources/hydroelectric-power-energy-source-fact-file/#> Now read through the information and answer the questions that follow.

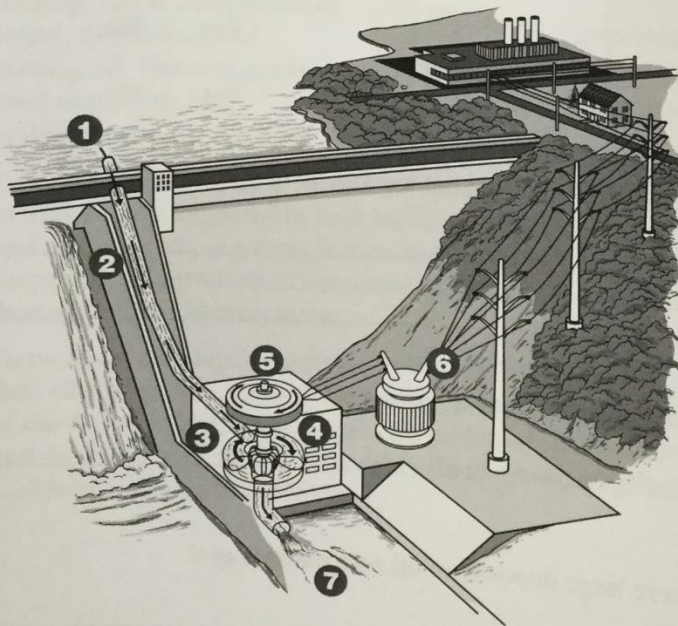
Hydroelectricity

The rivers of North America provide an important resource. Water from rivers can be used to generate electricity. This form of energy is called *hydroelectricity*. Hydroelectricity is a renewable resource and is relatively inexpensive to produce. Also, unlike burning fossil fuels, hydroelectricity does not cause pollution.

In order to use water to make electricity, people must construct a dam on a river. A single river may have hundreds of dams along its length. Unfortunately, that can have some negative effects on the environment. Damming a river makes it impossible for migrating fish such as salmon to swim up the river to lay their eggs. It also makes the water warmer, which is not good for plants and animals that are adapted to colder temperatures. In addition, dams cause a build-up of mud and silt, which can clog a river.

About 15% of the world's electricity comes from hydroelectricity. Rivers in the Canadian Shield provide a great deal of hydroelectricity in Quebec and Ontario. The United States has over 2000 hydroelectric plants. Of these, the Grand Coulee Dam on the Columbia River in Washington produces the most electricity.

Hydroelectricity uses the power of flowing water to create electricity. Here's how it works:



1. Water from behind the dam falls through the floodgates.
2. The water gathers speed as it flows down through a tunnel called a *penstock*.
3. The water hits the blades of a machine called a *turbine*, causing the turbine to spin quickly.
4. The turbine is attached to a shaft. As the turbine spins, so does the shaft.
5. The shaft spins magnets in the generator. This makes electricity in the wire coils that surround the magnets.
6. The electricity is carried away to homes and buildings by the transmission wires.
7. The water flows out of the dam and down the river.

Hydroelectricity

- A.** Number the steps for making hydroelectricity in order from 1 to 7.
Use the diagram on page 74 to help you.

- _____ The water hits the blades of the turbine, making the turbine spin.
- _____ The water flows out of the dam and down the river.
- _____ Electricity is carried away by the transmission wires.
- _____ The shaft spins magnets in the generator to make electricity.
- _____ Water comes through the floodgates.
- _____ The shaft spins.
- _____ The water flows down through the penstock.

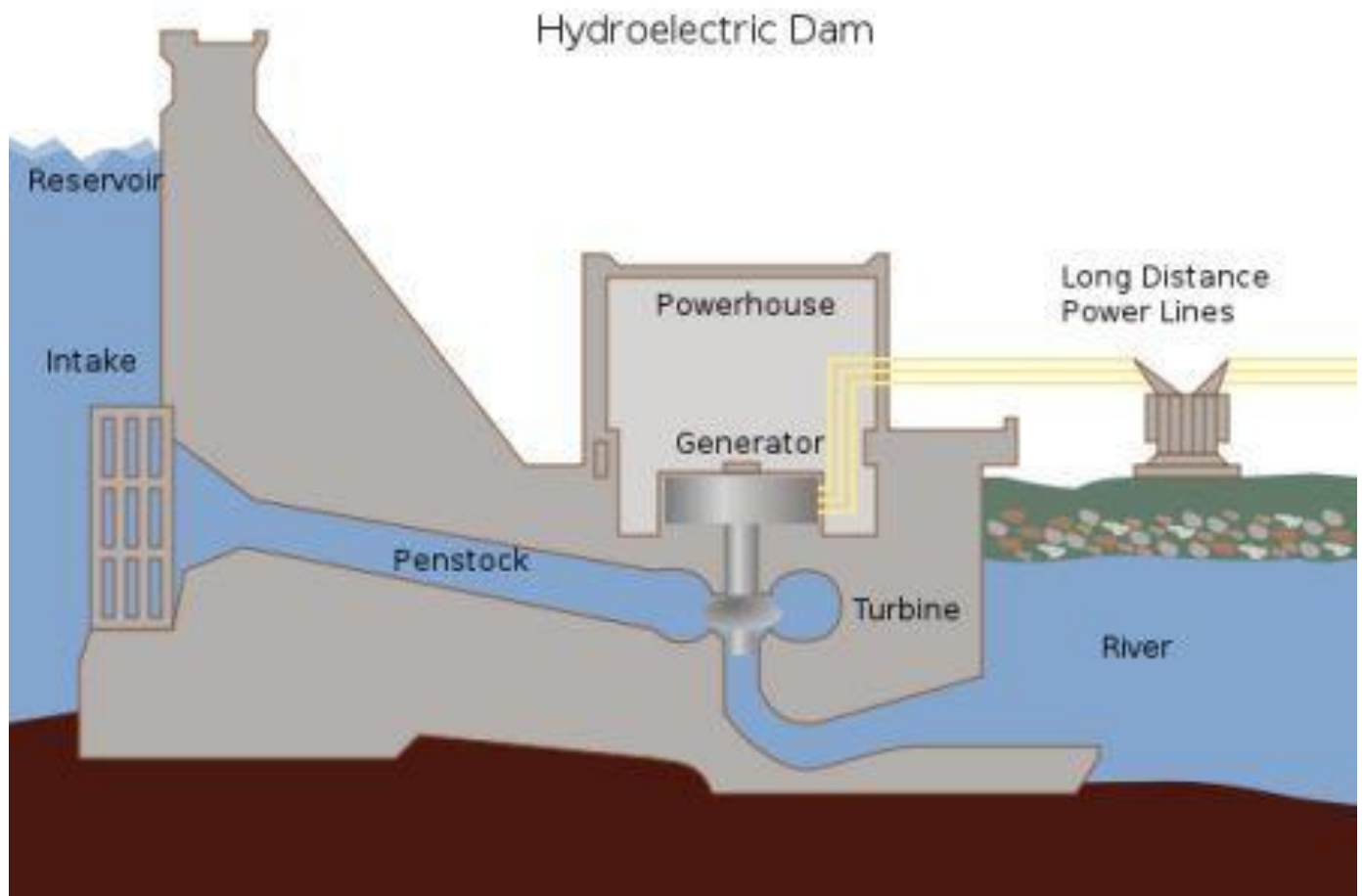
- B.** What are three environmental problems that are caused by dams?

1. _____
2. _____
3. _____

- C.** What are three advantages of using hydroelectricity?

1. _____
2. _____
3. _____

Now - Draw and label the diagram of the hydroelectric dam.



Have a great day.

Mr Thompson