

APRIL IS NATIONAL FROG MONTH

FROGS

AND OTHER AMPHIBIANS

“I specifically like the Boreal toads because when they are sitting on their moss, they are a perfect visual example of camouflage”

- Erica Ferguson,

Amphibians are over 350 million years old. They have survived TWO mass extinctions, outliving the dinosaurs!

The word amphibian means two-lives. They begin their life in water with gills and tails. As they grow they develop lungs and legs which allows them to live on land.

Amphibians have smooth skin, no hair, fur, scales or feathers. They are ectotherms – their body temperature, which depends on external sources of heat, is the same temperature as their surroundings.

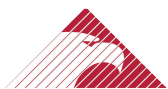
Examples of amphibians include:

Frogs
Toads
Salamanders



“My favorite thing about working with amphibians is that they live in beautiful places, which means when I am surveying for them - I get to go to beautiful places!”

- Kayleigh Mullen, Wildlife Biologist at Hogle Zoo



MOUNTAIN AMERICA CREDIT UNION



Bank Cards 101

Have you seen someone use a debit or credit card to buy something? Does that card magically create money? Nope. Here's how they work:

Debit card

These cards, also known as check cards, connect to your financial institution's account. When you use this card to pay for something, the cost of the item immediately comes out of your checking account. If you have money in your account, you can use the check card to buy things. If you try to pay for something and don't have enough funds, your card will be declined. This means the transaction won't go through and you cannot buy the item.

Credit card

This card functions like a loan. When you use a credit card, you are borrowing money from the credit card company. At the end of the month, you need to pay it back. If you don't pay it all back, you will owe extra money called interest.

Both cards require you to keep track of your spending to avoid additional fees and debt. Get in the habit of spending and budgeting your money wisely now so you will be a responsible bank card user later on.

Frog facts

Frogs have exceptional night vision and are highly sensitive to movement. Their bulging eyes, which sit high on their heads, allow them to see in almost all directions.

Frogs rely on their eyes to swallow food. They push meals down their throats by sinking their eyes down, into their skulls, which applies pressure on the roof of the mouths.

Transparent inner eyelids, known as nictitating membranes, protect their eyes when swimming underwater.

Frogs drink and breathe through their skin. They have thin, moist skin that gases can easily penetrate. Although frogs have lungs, they depend on additional oxygen absorbed through their skin, especially when swimming underwater.

Frog skin can be bumpy. Some of these bumps are mucous glands which lubricate the skin, or granular glands which produce poisons to protect them from predators.

Their eardrums are located outside their bodies, just behind their eyes. Males have larger eardrums than females.

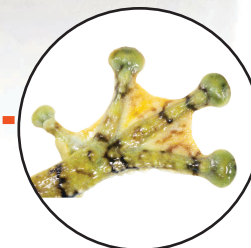
Most male frogs possess vocal sacs, flexible membrane pouches that, when filled with air, amplify calls they make to attract potential mates.

Frogs are the only amphibians without a tail. Their scientific order, Anura, means "tailless" in ancient greek.



Coloring is determined by chromatophores, pigment-containing cells that are layered in the skin. By manipulating and moving dark pigment found in certain cells, many frog species can adjust the brightness of their skin.

Webbed feet help frogs swim by pushing water away, propelling them faster through the water.



SOURCE: PBS.ORG/NATURE
IMAGES: SHUTTERSTOCK

DIFFERENCES BETWEEN FROGS AND TOADS

All toads are frogs, but not all frogs are toads



FROGS

- Smooth or slimy skin
- Skinny bodies and long legs
- Have teeth
- Lays eggs in clusters
- A group of frogs is called an army

TOADS

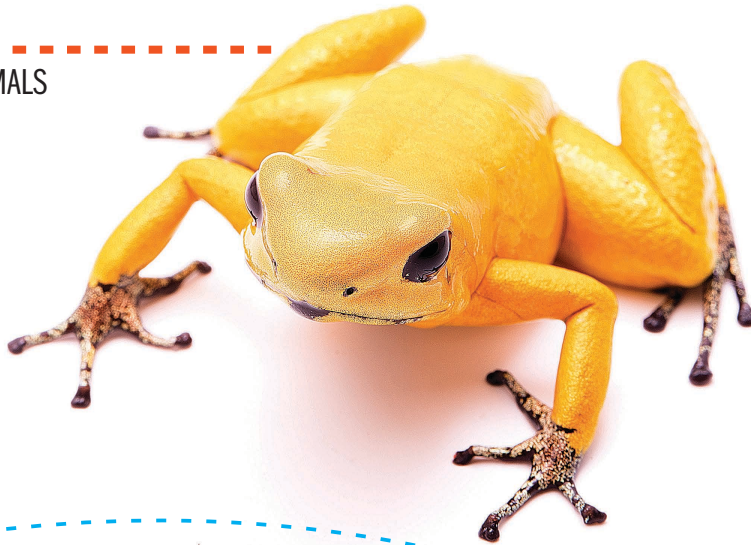
- Warty, dry skin
- Fat bodies and short legs
- No teeth
- Lays eggs in long strands
- A group of toads is called a knot



SOURCE: HOGLE ZOO

THE GOLDEN POISON FROG (PHYLLOBATES TERRIBILIS) IS ONE OF THE MOST TOXIC ANIMALS ON EARTH. ONE TWO INCH SPECIMEN CAN

KILL TEN GROWN MEN



FROGS CAN LAY AS MANY AS

4,000 EGGS

IN A FROG SPAWN

MANY SPECIES OF FROGS CAN JUMP MORE THAN

20 TIMES THEIR BODY LENGTH



THERE ARE OVER **4,000**

KNOWN SPECIES OF FROG LIVING ON EVERY CONTINENT EXCEPT ANTARCTICA.



A FROG COMPLETELY SHEDS ITS SKIN ABOUT

ONCE A WEEK.

AFTER IT PULLS OFF THE OLD, DEAD SKIN, THE FROG USUALLY EATS IT.

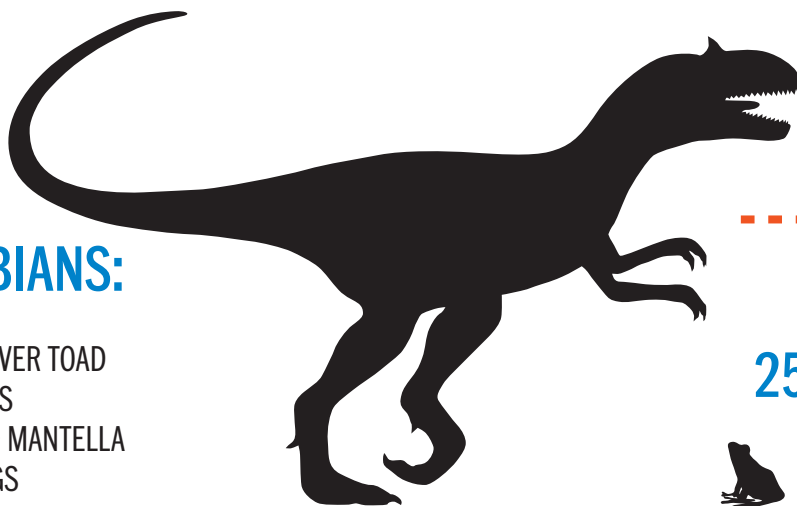


THE SMALLEST FROG IS LESS THAN **0.3 INCHES** BIG.

UTAH'S HOGLE ZOO HAS

FIVE AMPHIBIANS:

- AXOLOTL
- COLORADO RIVER TOAD
- BOREAL TOADS
- BLUE-LEGGED MANTELLA
- TOMATO FROGS



THE WEST AFRICAN GOLIATH FROG CAN GROW TO

15 INCHES BIG. AND WEIGH AS MUCH AS **7 POUNDS.**

SCIENTIST BELIEVE THE EARLIEST KNOWN FROGS DATE BACK

250 MILLION YEARS WHEN DINOSAURS WERE STILL ROAMING THE EARTH.

TOADS CAN NAVIGATE BY THE STARS AND THEIR SENSE OF SMELL TO MOVE FROM A POND TO ANOTHER WATER BODY.

CHECK IT OUT



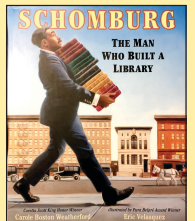
The City Library

THE SALT LAKE CITY PUBLIC LIBRARY SYSTEM

This month the librarians at The City Library have chosen books with the theme "books about libraries."

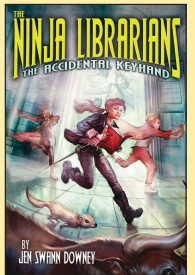
"Schomburg: The Man Who Built a Library,"

by Carole Boston Weatherford. Arturo Schomburg's passion was collecting books, letters, music, and art from Africa. When Schomburg's collection became so big it began to overflow his house he turned to the New York Public Library, where he created and curated a collection that was the cornerstone of a new Negro Division.



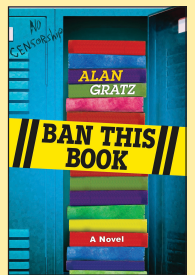
"Ninja Librarians: The Accidental Keyhand,"

by Jen Swann Downey. When Dorrie and her brother Marcus chase Moe-an unusually foul-tempered mongoose-into the janitor's closet of their local library, they make an astonishing discovery: the headquarters of a secret society of ninja librarians.



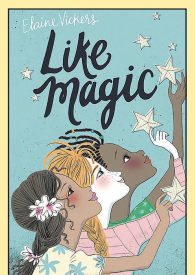
"Ban This Book,"

by Alan Gratz. You're Never Too Young to Fight Censorship! Fourth grader Amy Anne fights back when her favorite book is taken off the shelves of her school library.



"Like Magic,"

by Elaine Vickers. For three ten-year-old girls, their once simple worlds are starting to feel too big. When the girls each find a mysterious treasure box in their library and begin to fill the box with their own precious things, they start to feel less alone.



"Story Thieves,"

by James Riley. Life is boring when you live in the real world, instead of starring in your own book series. Owen knows that better than anyone.

But everything changes the day Owen sees the impossible happen—his classmate Bethany climb out of a book in the library.



AMPHIBIAN FILL-INS

All of the animals pictured here are amphibians (am-FIB-ee-unz). That means they lead a double life – first as water animals and later as land dwellers. Fill in one word from each of their names (the word in all CAPITAL LETTERS) in the rows at left. Use the number of spaces and letter clues to help you.

BULLFROG
ROUGH skinned newt
SPOTTED salamander
RED salamander

When these amphibians hatched from eggs in the water, they looked nothing like their parents. As they grew, they developed lungs and legs for life on land. Write the letters from the green boxes on their numbered lines below to find out what this transformation is called.

8 10 1 2 8 4 6 5 9 4 3 7 3

AMERICAN toad
LEOPARD frog
STRAWBERRY poison frog
TIGER salamander
red-eyed TREEFROG
SPADEFoot toad



Hey Readers, we hope you had a great March with National Reading Month and Dr. Seuss' birthday. Are you ready to continue your reading habits through April? Here's a few tips for creating a new habit and making it stick. First, set a reminder. It might be a good idea to write down the things you do every day, without fail, like brushing your teeth or eating breakfast. Those actions can serve as a reminder. For example, after you eat breakfast you could read. Maybe you set a book out where you'd like to read as a reminder. Tell your friends about it so they can help remind you and even join in the challenge! Second, chose a habit that's easy to start like reading for a few minutes. In the beginning, performance doesn't matter. Make it a habit that is so easy you can't say "no" to. You can slowly build upon this habit as the behavior becomes consistent. Third and lastly, celebrate! We want to continue to do things that make us feel good. As you develop a reading habit you'll also develop a love of reading and discovering new worlds and interesting characters. Reading also helps your brain develop and you'll find your performance in other subjects will improve as well. So give yourself some credit and enjoy each success.

AMPHIBIAN FIBBERS

B E A R	These two bears want to plan an April Fools' joke on their friends by pretending to be amphibians. Turn them into a toad and a newt by changing just one letter in each step. (The clues will help you).	B E A R
A male pig _____		Something a heart does _____
Sound a lion makes _____		Greatest _____
Another word for street _____		A bird's home _____
T O A D		N E W T

SOURCE: National Wildlife Federation



ASTRONOMY DAY
APRIL 21, 2018



Artist's idea of a black hole, with gas and dust swirling rapidly around it before being pulled in by its powerful gravitational field. You can't really see the black hole itself.

NASA

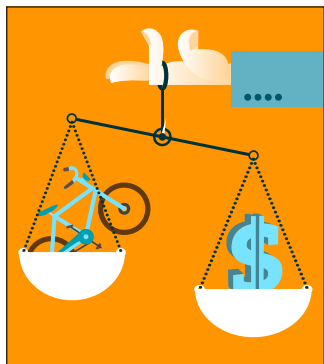
Black holes are not really holes at all. They are the opposite of empty! Black holes have the most matter stuffed into the least space of any objects in the universe. Because they are so compact, they have very strong gravity.

Here on Earth, gravity is what makes things fall down, rather than just float away, when you let go of them. Gravity is what you are measuring when you step on a scale to weigh yourself. Your weight is the amount of force that Earth's gravity exerts on

you. The more matter your body contains, the more you weigh. Likewise, the more matter an object has, the stronger its gravity.

The gravity of a black hole is so strong that not even light can escape. Even if a bright star is shining right next to a black hole, you cannot see the black hole. Instead of reflecting the light as other objects do, the black hole just swallows the starlight forever. Any matter that gets too close to a black hole gets swallowed up as well.

BLACK HOLES CONT. ON PAGE 2



Would you rather ... ?

- ◆ Play video games or earn money for a trip?
- ◆ Buy many little things often or save for something bigger?
- ◆ Buy a big house or buy a house with money left to buy other things, too?
- ◆ Owe someone money or have money in a savings account?
- ◆ Buy a new bike or buy a toy and some candy?
- ◆ Go to a movie or the city carnival?
- ◆ Spend money weekly on ice cream or save to buy a snow cone maker this summer?

There are many ways to spend and save money. Your interests and needs will help you make these decisions. However, once you spend your money, it is gone. So, spend money on things that make you feel satisfied. Just like playing “Would you rather,” some questions can be answered quickly. Others will require more thought. When it comes to spending, think about what you really want before you pull out your wallet. In the end, you’ll spend money on the things that are truly important to you.

BLACK HOLES CONT.

There are at least two kinds of black holes

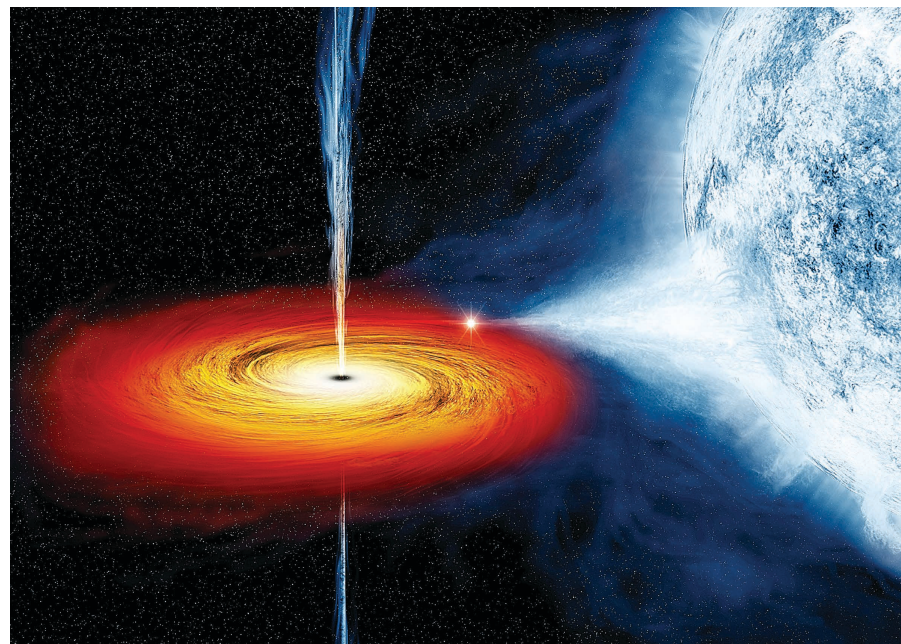
One kind is called a stellar-mass black hole. You can think of it as a “one-big-star” black hole. This type of black hole forms when a big star burns up all its fuel and explodes (called a supernova). Then what’s left collapses into a super-compact object—a black hole. Stars must contain quite a bit more matter than our sun for this to happen. So our sun, and most stars, will never become black holes.

Stellar-mass black holes are only a few tens of kilometers across — maybe

A BLACK HOLE WITH ALL THE MASS OF EARTH WOULD BE ABOUT THE SIZE OF A FINGERNAIL!

about 40 miles. Just imagine. Our sun is so huge that about one million Earths would fit inside it. A star with enough matter to become a black hole contains maybe 10 times as much matter as the sun. Now imagine a star with that much matter, shrinking into a space no farther across than the distance you can drive a car in less than one hour!

Another kind of black hole is called a supermassive black hole. You can think of this type as a “million-big-star” black hole, because it contains as much matter as one million to 100 million suns! Astronomers think that supermassive black holes are lurking at the centers of galaxies, including our own Milky Way



NASA

An artist’s visualization of a stellar-mass black hole being fed by a companion star.

galaxy. They don’t know yet how these humongous black holes are formed.

Learning more about black holes

Scientists really want to learn more about black holes and other strange and massive objects in the universe.

One space mission that is helping them do just that is a space telescope called XMM-Newton. It was launched into Earth orbit in 1999 by NASA and the European Space Agency. It observes the universe in high-energy x-rays, a type of light that we can’t see with our eyes. Matter, such as gas and dust particles, near black holes puts out X-rays



D. DUCROS AND THE EUROPEAN SPACE AGENCY

Artist’s idea of XMM-Newton Space Telescope.

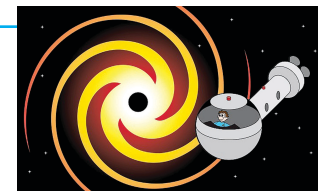
as it swirls around at light speed just before the black hole swallows it up. By observing these x-rays, XMM can help scientists understand the black hole.

FILL IN THE BLANKS

Think of a word to fit each item below, then fill in the spaces in the story to the right,

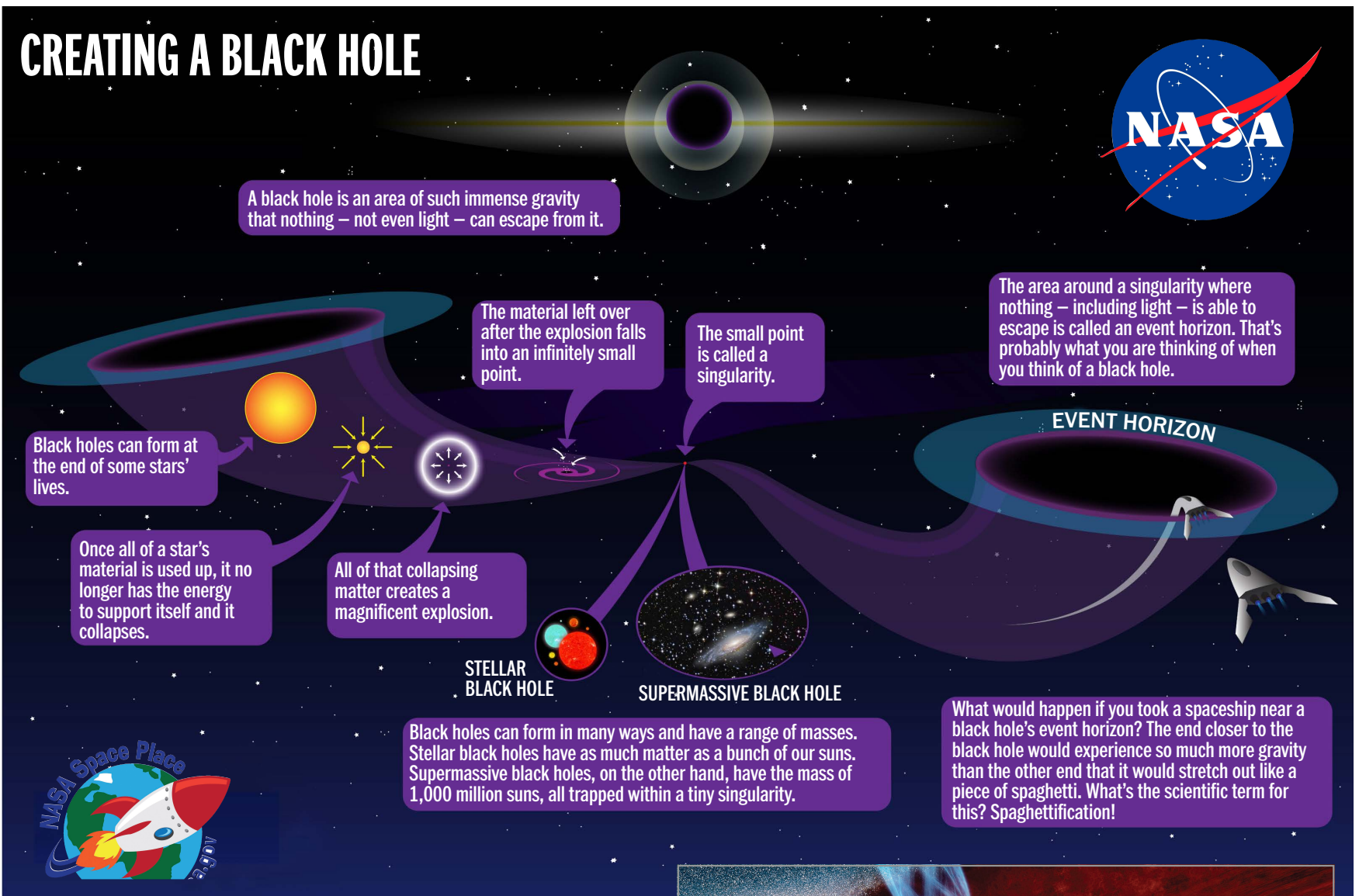
1. Adjective _____
2. Verb ending in “ed” _____
3. Noun _____
4. Verb _____
5. Adverb _____
6. Adjective _____
7. Plural noun _____
8. Adjective _____
9. Food _____

Black Hole Travels



I built a spaceship, and I am going to take it to a black hole. The journey will be long and 1. I am going to need to be careful not to get 2 into its 3, or else I will never be able to 4. My goal is to 5 orbit around the outside of it. When I look outside my spaceship’s 6 window toward it, I will see absolute darkness. In that area, nothing can escape, not even 7! If I get any closer, the gravity would be so 8 that I would be stretched out into a piece of 9!

CREATING A BLACK HOLE



Black holes form at the end of some stars' lives. The energy that held the star together disappears and it collapses in on itself, producing a magnificent explosion.

Here's where things get crazy. All of that material left over from the explosion, many times the mass of our sun, falls into an infinitely small point — smaller than the tip of a pin! Some black holes trap more and more material as their mass increases.

The point where all that mass is trapped is called a singularity. It may be infinitely small, but its influence is enormous.

Imagine a circle with a singularity in the middle. The gravity on the inside of the circle is so strong that nothing can escape—it sucks in everything, even light. That's why it's black!

This circle is known as the event horizon. An event horizon is probably what you are thinking of when you think of a black hole.

Try as you may, you would be hard-pressed to find anything weirder or cooler than a black hole.



In this illustration, the supermassive black hole at the center is surrounded by matter flowing onto the black hole in what is termed an accretion disk. This disk forms as the dust and gas in the galaxy falls onto the hole, attracted by its gravity.

Also shown is an outflowing jet of energetic particles, believed to be powered by the black hole's spin. The regions near black holes contain compact sources of high-energy X-ray radiation. This high-energy X-radiation lights up the disk, which reflects it, making the disk a source of X-rays. The reflected light enables astronomers to see how fast matter is swirling in the inner region of the disk, and ultimately to measure the black hole's spin rate.

Quiz

1. A black hole is similar to a _____ cleaner, cleaning up debris left behind in outer space.
2. A black hole uses _____ to pull things towards it.
3. When a large star runs out of _____ it can no longer support its heavy weight.
4. The pressure from the star's massive layers of _____ press down forcing the star to get smaller and smaller.
5. Eventually the star will get smaller than an _____.
6. If you make something smaller by squishing it, its gravity becomes _____.
7. If a star is squished into the size of an atom its _____ becomes very powerful.
8. A _____ hole's gravity becomes so powerful that anything, including light, that gets too close gets pulled in.
9. The middle of a black hole is called a _____.
10. "Singularity" is a big word that means _____-up star.
11. When you get too close to the singularity you will begin to _____ into it.
12. When you begin to fall toward it you will know that you have passed the _____ horizon.
13. If you are at the outer event horizon you can still _____ a black hole.
14. As soon as you pass the _____ horizon, you will not be able to get yourself out of a black hole.
15. You can float around in outer space but if you get too close to a black hole you will be _____ with no way out.

KIDSKNOWIT NETWORK

gravity

fuel

hydrogen

fall

vacuum

pulled in

atom

outer event

singularity

inner event

gravity

escape

stronger

squashed

black

Read Today
POWERED BY
Deseret News



SHUTTERSTOCK

Hey, Readers! The weather is slowly getting warmer, the sun is staying up later, the tulips are starting to sprout; all signs that spring has sprung! What are some of the things you love about spring? Is it spring break? Playing in the rain? Playing soccer? Or is it just a sign that summer is nearly here? Well, we have a fun idea for spring reading. How about a spring word search? In your reading this month find out how many of the 20 words listed below you can find in what you read every day. Send us a message on Facebook at www.facebook.com/readtoday/ when you finish and we'll send you something fun! Good Luck!

- | | |
|----------|-----------|
| Spring | Tulip |
| Seeds | Butterfly |
| Bunny | Puddle |
| Umbrella | Sunshine |
| Easter | Bugs |
| Bird | Green |
| Mud | Flowers |
| April | Bees |
| Rain | Rainbow |

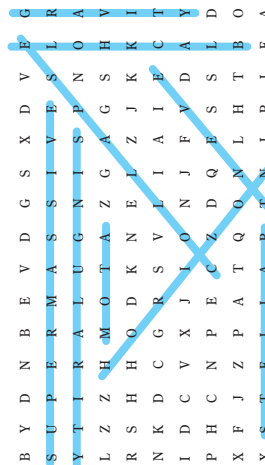
word search

ATOM
BLACK HOLE
COLLAPSE

EVENT
GRAVITY
HORIZON

SINGULARITY
STELLAR
SUPERMASSIVE

B	Y	D	N	B	E	V	D	G	S	X	D	V	E	G
S	U	P	E	R	M	A	S	S	I	V	E	S	L	R
Y	T	I	R	A	L	U	G	N	I	S	P	N	O	A
L	Z	Z	H	M	O	T	A	Z	G	A	G	S	H	V
R	S	H	H	O	D	K	N	E	L	Z	J	K	K	I
N	K	D	C	G	R	S	V	L	I	A	I	E	C	T
I	D	C	V	X	J	I	O	N	J	F	V	D	A	Y
P	H	C	N	P	E	C	Z	D	Q	E	S	S	L	D
X	F	J	Z	P	A	T	Q	O	N	L	H	T	B	O
X	S	T	E	L	L	A	R	T	N	I	P	I	E	A



1. vacuum 2. gravity 3. fuel 4. hydrogen 5. singularity 6. stronger 7. gravity 8. black 9. singularity 10. squashed 11. fall 12. outer event horizon 13. escape 14. inner event horizon 15. pulled in

QUIZ ANSWERS:

Deseret News

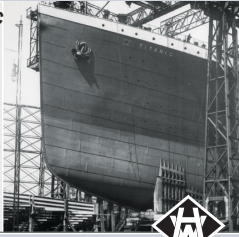
CONNECT 1 2 3

Your Family • Community • World

TIMELINE

■ **1907:** *White Star Line* plans new Olympic-class liner – largest and most luxurious ships afloat – to rival Cunard ships

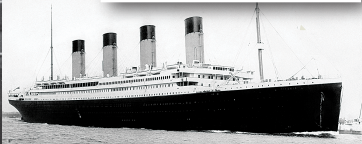
■ **March 31, 1909:** *Titanic* keel laid at *Harland & Wolff* shipyard in Belfast, months after that of sister ship, *Olympic*. 46,000-ton ship is largest moving object ever built and, fully equipped, costs around \$7.5 million – \$400 million at today's values.



■ **May 31, 1911:** *Titanic* launched – 10 months of fitting out begin.

■ **April 2, 1912:** *Titanic* sails for Southampton after six hours of sea trials in Irish Sea.

■ **April 10, 1912:** *Titanic* sets sail from Southampton via Cherbourg and Queenstown (now Cobh) en route to New York. **Captain Edward J. Smith**, 62, is set to retire after commanding maiden voyage of “practically unsinkable” ship.



■ **April 14:** *Marconi* wireless room receives multiple reports of large quantities of ice ahead.

■ **April 14, 11:40 p.m.:** Lookout reports “Iceberg right ahead!” First Officer turns rudder hard left and throws engines into reverse but huge mass of ship does not allow time to avoid iceberg gashing starboard bow.

■ **April 15, 12:05 a.m.:** Captain Smith orders evacuation. Radio operators transmit **CQD** – Come Quick Danger – distress call, followed by new signal, **SOS** – Save Our Souls.

■ **12:25 a.m.:** Order given to load lifeboats with women and children first. Cunard ship *RMS Carpathia* heads to rescue.

■ **12:45 a.m.:** Distress rockets fired.

■ **2:05 a.m.:** Last lifeboat leaves – nearly 1,500 people left on board.

■ **02:20 a.m.:** *Titanic* sinks.

■ **04:10 a.m.:** *Carpathia* picks up first survivors. **Of more than 2,200 people on board *Titanic*, only 711 survive.**



History

TITANIC



Titanic disaster

April 15, 1912 - Deseret News

Halifax, N.S., April 15 (1912) — The Canadian government marine agency here at 4:15 p.m. received a wireless dispatch that the *Titanic* is sinking. The message came via the cable ship *Mina* off Cape Race. It is said the steamers towing the *Titanic* were endeavoring to get her into shoal water near Cape Race to beach her.

Wireless dispatches up to noon today showed that the passengers of the *White Star* liner *Titanic*, which struck an iceberg off the Newfoundland coast last night, were being transferred aboard the steamer *Carpathia*, a Cunarder.

Already, 20 boatloads had been transferred and allowing 40 to 60 persons as the capacity of each lifeboat, some 800 to 1,200 passengers have been transferred.

Latest reports indicate that the transfer is being carried on safely. The sea is smooth and the weather calm. It is possible that all passengers of the *Titanic* are safe. While badly damaged, the *Titanic* still is afloat and is reported to be making her way toward Halifax under her own steam.

The *Titanic* is the largest steamer ever built. She is 882 feet long and has 46,328 tons' displacement. She was launched last May and this was her maiden trip...

SEE TITANIC PAGE 4

TITANIC FACTS:

THE SHIP

- ◆ White Star Line, the company that built the Titanic, was owned by J.P. Morgan, an American tycoon.
- ◆ It cost \$7.5 million to build the RMS Titanic.
- ◆ RMS stands for Royal Mail Steamer.
- ◆ It took 3,000 men two years to build the Titanic.
- ◆ Price of a single first-class ticket was \$4,700. (\$50,000 in today's economy.)
- ◆ Only three of the four funnels (smoke stacks) were operational. The fourth funnel was for looks.
- ◆ As the Titanic was leaving the port, the suction it caused actually snapped the ropes of a nearby docked ship.

THE ICEBERG

- ◆ There were six ice warnings received by Titanic on the day of the collision. They were all ignored by the wireless operator who was preoccupied with transmitting passenger messages.
- ◆ The iceberg that the Titanic struck was not a very big one. It did not even come up as high as the bridge of the ship.

COLLISION/DAMAGE

- ◆ The Titanic was traveling 22.5 knots while cruising through iceberg laden waters. Just 0.5 knots from her maximum speed capability.
- ◆ Titanic's first officer had ordered the engines reversed which had, ironically, sealed the Titanic's doom. Like all ships, the Titanic turned more quickly the greater her forward motion. Had the Titanic proceeded ahead and turned, it is most likely that she would have avoided hitting the iceberg altogether.
- ◆ Though the damage in the hull was 220 to 245 feet long, the most recent evidence shows that there was only a 12-square-foot opening (the size of a refrigerator) in the hull, allowing water inside the ship.

SURVIVORS/CASUALTIES

- ◆ A total of 1,503 people died, including passengers and crew.
- ◆ Only 711 people survived.
- ◆ 962 lifeboat seats were required by law.
- ◆ 1,178 lifeboat seats were carried aboard.

- ◆ 2,208 lifeboat seats were needed.
- ◆ One of the first lifeboats to leave the Titanic carried only 28 people; it could have held 64 people.

- ◆ There were 472 lifeboat seats not used.
- ◆ There were enough life jackets for all 2,208 people, and most everyone was wearing one.

- ◆ 300 bodies were pulled from the sea the next morning. They were found floating in their life jackets. Many other bodies were not found because they had drifted off.

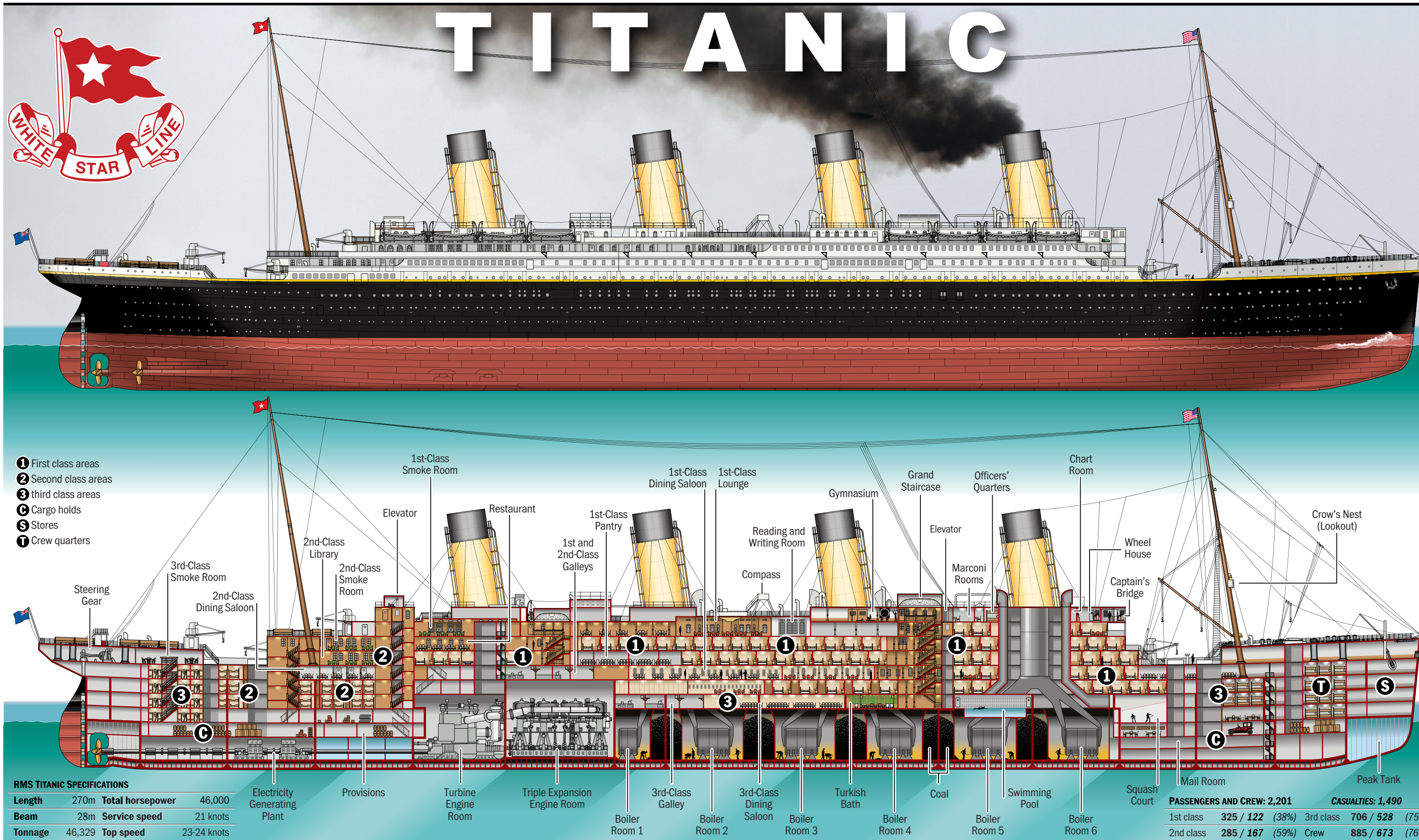
- ◆ Very few people actually went down with the ship. Most died and drifted away in their life jackets.

- ◆ The temperature of the Atlantic at the time of sinking was 31 degrees. This was the biggest cause of death among the passengers.

- ◆ There were many dogs aboard the Titanic. Two survived.

- ◆ Orders from the captain were that women and children were to board the lifeboats first. One man, Daniel Buckley, disguised himself as a woman to get aboard a lifeboat.

- ◆ Charles Joughin was the only person to survive the ice-cold Atlantic water.
- ◆ Only one child from first class died, while 49 children from steerage died.



RMS TITANIC SPECIFICATIONS

Length	270m	Total horsepower	46,000
Beam	28m	Service speed	21 knots
Tonnage	46,329	Top speed	23-24 knots

PASSENGERS AND CREW: 2,201 **CASUALTIES: 1,490**

1st class	325 / 122 (38%)	3rd class	706 / 528 (75%)
2nd class	285 / 167 (59%)	Crew	885 / 673 (76%)

SOURCE: Official Titanic Enquiry, National Maritime Museum, Titanic Historical Society

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TITANIC

THE FINAL MOMENTS

- ◆ Passengers rode the stationary bicycles in the gymnasium to pass time before the ship sank!
- ◆ The band played music up to the last few minutes before the ship went under. None survived.
- ◆ As the ship was sinking, the stern rose out of the water, and broke into two pieces between the third and fourth funnels.

TITANIC TODAY

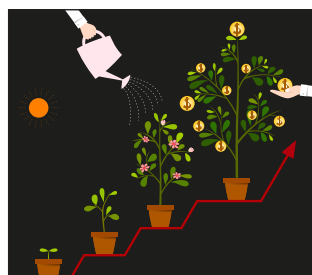
- ◆ The Titanic lies 12,600 feet (more than 2.33 miles) at the bottom of the Atlantic Ocean.
- ◆ The two pieces of the Titanic lies 1,970 feet apart from one another on the ocean floor.
- ◆ Because the front section of the Titanic went down nose first, the bow is buried 60 feet below the ocean floor. The huge gash is also buried. (Recent technology has allowed visual access to the damaged area of the hull.)
- ◆ The Titanic was rediscovered on July 14, 1986, 74 years after it sank.
- ◆ Since the death of Millvina Dean, on May 31, 2009, there are no longer any living survivors of the Titanic tragedy. Millvina Dean was just 9 weeks old at the time of the Titanic's sinking.

SOURCES: Discovery Channel, A&E, National Geographic

"A number of us who enjoyed the crisp air were promenading about the deck. [First Officer Murdoch] was on the bridge when the first cry from the lookout came that there was an iceberg ahead. It may have been 30 feet high when I saw it. It was possibly 200 yards away and dead ahead. [First Officer Murdoch] shouted some orders... A number of us promenaders rushed to the bow of the ship. When we saw he could not fail to hit it, we rushed to the stern. Then came a crash, and the passengers [who saw it] were panic-stricken."

— George Brayton, First-class passenger





Blooming flowers, blooming dollars

It's exciting to see the world wake up from winter and blossom into something beautiful each spring. Just as it takes time for plants and trees to bloom, your money can be the same way.

If you have a savings account, your money will earn interest. Interest is paid by your credit union or bank for keeping your money with them. This option earns a small amount of interest.

Term deposit or certificate of deposit accounts act like savings accounts but offer higher interest rates. This is because you wait a certain period of time (the term) before taking your money out. Most terms last from six months to five years. It's like planting a seed and waiting for it to bloom.

With these fixed-rate accounts, you are planting money knowing it will blossom into more money. Some term deposit or CD accounts can be started with as little as \$5. These accounts may also give you the ability to continue adding money throughout the term. A youth term deposit from Mountain America Credit Union is one example. If you want your money to bloom, check with your parents for help with opening your term deposit account.



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Newspaper activities

READING BETWEEN THE LINES

According to the National Museums Northern Ireland website, J. Bruce Ismay, chairman and managing director of the White Star Line, was vilified for being a coward and escaping the sinking ship while fellow passengers drowned. However, Ismay did help with loading and lowering several lifeboats. Although Ismay was exonerated by the British inquiry for his actions, he never recovered from the stigma of Titanic. Usually there is more than one side to a story. Look for an article in the *Deseret News* that can be viewed from multiple perspectives. Read the article and write down the main facts. Then look for areas that may be viewed from another perspective. Write down your thoughts. Be sure to use specific statements from the article to support your ideas. Share your thoughts with your classmates.

YOUR OPINION

Write a short op-ed piece about Titanic. Why are we still fascinated with this story today? What lessons were learned from this disaster?

FIRST PERSON

Many oral histories from passengers have been published. Write a letter or journal entry from the perspective of a Titanic passenger, keeping in mind the class divisions that existed onboard.

THE TITANIC'S NEWSPAPER

The Titanic seemed to have everything onboard, including its own newspaper. The *Atlantic Daily Bulletin* was printed every day onboard the Titanic. The newspaper included news, advertisements, stock prices, horse-racing results, society gossip and the day's menu. Look through the *Deseret News*. Choose a story from today's paper for inspiration. Write a story for the Titanic's newspaper.

TITANIC FROM PAGE 1

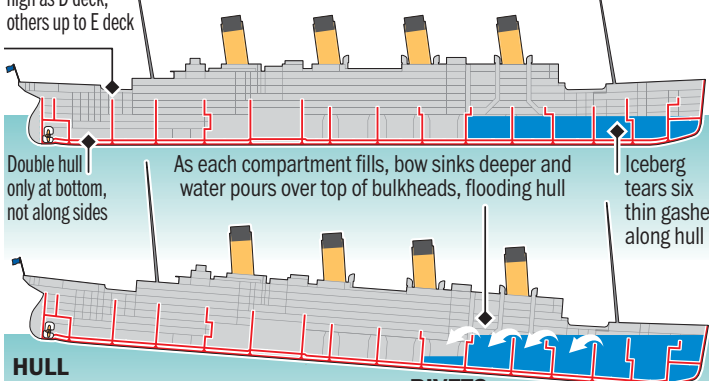
This too-rosy *Deseret News* report of the Titanic disaster reflected the still-slow flow of information around the world. The story was followed over the next few days by a more clear account of the sinking of the ship and the heavy loss of lives. Out of the confusion ultimately came the facts: A total of 1,503 people died, including passengers and crew and the complete loss of the "unsinkable" White Star liner. It went down in just over two hours while the *Carpathia* frantically went about the rescue of 711 survivors. The Titanic's lifeboats were woefully inadequate and took on mostly women and children.

HOW TITANIC WAS LOST

DESIGN

Bulkheads at bow and stern run as high as D deck, others up to E deck

Titanic designed to float with up to four "watertight" compartments breached, but collision with iceberg causes six compartments to flood



HULL

Fatigue tests on recovered hull plates reveal steel contained high levels of sulphur, making it brittle at low temperatures and liable to fracture rather than deform. Steel quality met industry standard of 1912, when concept of brittle fracture was unknown

RIVETS

Stronger, steel rivets used on central hull, iron rivets on stern and bow. Some critics say pressure to build Titanic and Olympic at same time created shortage of top quality iron. Iron rivets recovered contain slag, potentially reducing ability to withstand pressure. Manufacturers dispute claim

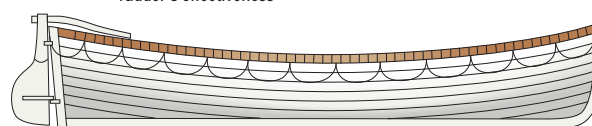


RUDDER

Some argue small size of rudder made ship less manoeuvrable. Others say triple screw engine configuration, which allowed only two of three propellers to go into reverse, may have reduced rudder's effectiveness

HUMAN ERROR

Includes failure to reduce speed despite ice warnings. Lookout had no binoculars, hampering ability to spot ice



LIFEBOATS

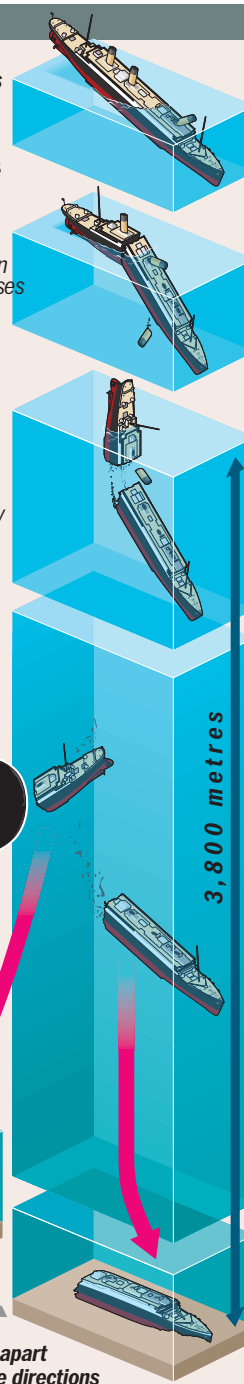
Titanic carried 16, plus four collapsible boats, exceeding legal minimum of time but still only enough for 52% of people on board

Final minutes

2:10: Stern lifts 45 degrees out of water

2:18: Stress on hull causes ship to break apart, bow section sinks

2:20: Stern rises vertically before slipping below surface



Sources: Official Titanic Enquiry, National Maritime Museum, Titanic Historical Society
 Pictures: Getty Images, Associated Press, Mosaic by Hanumant Singh, Woods Hole Oceanographic Institution, Copyright IFE / WHOI, 2004
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