Name:	
Date: _	Period:

Ship Wrecks

Marine Science

Review: Ship Wrecks

RMS Titanic:

- White Star highly publicized the Titanic's maiden voyage and went as far as to call the ship "unsinkable"
- The promotion campaign attracted many prominent British and American society
- On April 10, 1912 the R.M.S. Titanic departed Southampton, England and after two stops (France & Ireland) the Titanic began its transatlantic crossing with 2,216 passengers
- During the day, the Titanic's radiotelegraph operator received iceberg warnings and informed Captain Smith
- Captain Smith altered the ship's course, but didn't receive any updated iceberg warnings due to private messages being sent
- At 11:40 pm Fredrick Fleet called out... "Iceberg, right ahead!"
- Evasive action was taken in an attempt to avoid the collision
- The iceberg struck the ship on the right side damaging the hull
- Initially, only five compartments were flooded, but soon after water flowed over the top of bulkheads causing two additional compartments to flood
- On April 15, 1912, just under three hours after hitting the iceberg the hull snaps in half and sinks
- At 4:10 am the Carpathia picks up the first lifeboat
- Sinking Statistics:
 - Total Passangers: 2229Surviving Passangers: 713
 - Total Crew: 913Surviving Crew: 215
- For 73 years the Titanic will remain lost on the bottom of the Atlantic Ocean until...

Finding the Titanic:

- September 1, 1985 a US-French expedition located the Titanic
- 350 miles southeast of Newfoundland and 2.2 miles deep on the seafloor
- Dr. Robert Ballard led the expedition with the help of French Oceanographer Jean-Louis Michel
- Robert Ballard used a variety of tools and technology to help discover and explore the Titanic:
 - Argo unmanned deep-towed undersea sonar and video camera sled
 - Alvin manned deep ocean research submersible
 - Jason a remote operated vehicle
- The video from Argo, Alvin, and Jason help provide important information about the sinking
- The holes created by the iceberg were not large enough to have caused the ship to sink in under three hours
- The rivets holding the over lapping steel plates of the hull "popped" causing water to enter at every joint
- A study found that the rivets were incorrectly made and under cold temperature caused the heads to "pop"
- What was learned form the sinking:
 - Ocean liners must carry sufficient lifeboats to accommodate all passengers
 - Bulkheads must be watertight
 - · Development of an iceberg monitoring systems
 - Movement of sea lanes father south in the winter months

Review: Ship Wrecks

Costa Concordia:

- The Costa Concordia is one of ten brands owned and operated by the Carnival Corporation
- Vessel Statistics:
 - Length: 952 feet Beam: 116 feet Draft: 27 feet
 - Propellers: 2 Top Speed: 23 knots
 - Cost: \$570 million Entered Service: 2006
 - Amenities: 1,500 cabins, 5 restaurants, 13 bars, 3 pools, jogging track, spa and theater
 - Passangers: 3,206 Crew: 1,023
- The Costa Concordia sank on January 13, 2012 under the command of Captain Schettino
- At 9:45 pm local time, the Costa Concordia collides with a reef off the shore of the island Giglio, Italy
- At 10:44 pm, the ship comes to a final rest at a 70° angle partially capsized and in 20 meters of water
- At 10:48 the order was given to evacuate the ship
- The evacuation took over six hours and still all passengers were not evacuated
- In the end 32 people died as a result of negligence
- Captain Schettino later testified that he steered too close to the shore to "impress the passengers" Instead, he struck a reef, tearing a 160-foot gash in the port hull
- Captain Schettino was found guilty of manslaughter, causing a shipwreck and abandoning the ship on the western coast before all the passengers had been evacuated safely

RMS Lusitania:

- The Lusitania was a British ocean liner that was launched by the Cunard Line in 1906
- Vessel Statistics:
 - Length: 787 feet Beam: 87 feet Draft: 34 feet
 - Propellers: 4 Top Speed: 26 knots
 - Staterooms: 2198
- Before the war the Lusitania was used to ferry goods and people between the United States and England
- · Very popular because of her speed and luxurious accommodations
- After World War I began in 1914, ocean voyages became extremely dangerous
- Each side hoped to blockade the other and prevent war materials from getting through
- German U-boats stalked British waters looking to sink enemy ships
- The Lusitania was thought as unsinkable because of her speed capabilities
- On May 1, 1915 she left with the intent of delivering supplies to England, in spite of threats by Germany
- On May 7, 1915, Captain William Thomas Turner slowed down due to fog and traveled in a predictable line
- 14 miles off the coast of Ireland a German U-boat spotted and targeted the Lusitania
- At 1:40 pm a torpedo struck the starboard side of the Lusitania
- There was a large second explosion that seemed to come from the bottom of the ship
- The ship lost power and steering and tilted to the right side at an angle of 25°
- Although there were enough life boats for all the passengers and crew there were problems:
 - The list of the ship didn't allow for the lifeboats to be launched
 - The starboard-side boats were swung out so far and passengers had to jump to the lifeboats
 - Some were damaged from the torpedo
- Sinking Statistics:
 - Total Passangers: 1959
 - Surviving Passangers: 761
- The sinking of the Lusitania contributed in the American involvement into WWI