Technicians work in the labs to help process the core samples retrieved during the expedition.

Technicians help scientists collect, prepare, and analyze samples, and record data.

The photographer takes pictures of people, equipment, events, and samples.

The imaging specialist is responsible for taking and organizing images of the samples.

Engineers design, build, and maintain all of the equipment needed during the expedition.

There are many different kinds of engineers on board, such as electrical, mechanical and marine.

Teachers sail on the JR to help communicate all the cool things scientists are studying.

Teachers work with scientists, engineers and technicians to learn all about the expedition.
The ship’s doctor can handle many medical issues from seasickness to heart attack.

The doctor can use digital images to collaborate with doctors on shore to determine treatments.

Scientists on the JR study the rocks and sediments, water, environment, and life in the deep sea.

Research scientists, post docs, and grad students make up the science party on an expedition.

The captain is responsible for the vessel and for the safety of everyone onboard.

The captain oversees the dynamic positioning (DP) system, which keeps the ship in place on location.

The driller controls the drawworks, the machine that raises and lowers the drill string.

The driller oversees the crew that works on the rig floor to make sure everything is done right.
Core Lab
Cores are measured, photographed, and analyzed on the instruments in the core lab.

Fun Fact: Places
Core comes up 24 hours a day, so lab technicians work quickly to curate and process samples.

Chemistry Lab
There are 14 instruments in the chem lab that are used to prepare and measure samples.

Fun Fact: Places
Solids, liquids, and gases are analyzed to determine the chemical properties of the core samples.

Rig Floor
The rig floor is where the drill crew works, connecting each stand of pipe to make up the drill string.

Fun Fact: Places
There is a lot of heavy equipment that moves quickly, so the crew has to be careful. The rig floor is where the deck is first processed once it comes onboard.

Catwalk
Scientists and technicians gather on the catwalk when they hear the call, "Core on deck!

Fun Fact: Places
The catwalk is where the equipment that moves drill core works, connects.
Engine Room

Seven EMD 16-cylinder diesel engines produce the electricity needed to run the ship.

Fun Fact:
Fresh water, used on board for washing, cooking, and drinking, is made in the engine room.

Hospital

The hospital is equipped with an X-ray machine for diagnosing broken bones at sea.

Fun Fact:
The hospital is equipped with defibrillators and other lifesaving machines you might find in an emergency room.

Bridge

The captain and his officers navigate the ship from the bridge, which has a good view of the surrounding traffic and the weather.

Fun Fact:
The bridge has equipment to monitor the vessel, the surrounding traffic, and the weather.

Moon Pool

The moon pool is a hole right through the middle of the ship, through which the drill string passes.

Fun Fact:
The moon pool is 7 meters (22 feet) wide so that big things like re-entry cones fit through it.
**Drawworks**

The rig can suspend up to 9,150 meters (30,020 feet) of drill pipe. That's almost 6 miles!

**Fun Fact:** Drilling

The drawworks are used to raise and lower the drill string, piece by piece, to and from the seafloor.

**Derrick**

The derrick stands 58 meters (190 feet) above the water line. That's almost 20 stories tall!

**Fun Fact:** Drilling

The derrick needs to be tall enough so that long stands of drill pipe can be held upright.

**Re-entry Cone**

Re-entry cones are one way to make it possible to return to the same hole for more operations.

**Fun Fact:** Drilling

Re-entry cones are painted in patterns that make it easier for them to be seen on the video screen.

**Drill Bit**

There are different bits for drilling in different types of substances, like sediment or hard rock.

**Fun Fact:** Drilling

The bits are usually made of steel, with cones on the end that have knobs made of harder materials.
Sediment can contain microscopic fossils of plankton that can be used to date samples.

Fun Fact: Drilling

Scientists study the physical, geological, chemical and biological composition of sediment.

Fun Fact: Drilling

These long, skinny instruments are lowered into the empty borehole using a long cable. Measurements are taken to provide more information about the formations below the seafloor.

Fun Fact: Drilling

Drill Pipe

The JR can drill in 75 to 8230 meters of water, with a maximum drill string length of 9100 m.

Fun Fact: Drilling

Each stand of pipe is about 28 meters long (93 feet) and weighs as much as a large draft horse. The JR can drill in 75 to 8230 meters of water.

Fun Fact: Drilling

Hard Rock

Hard rock cores are drilled with an RCB bit (rotary core barrel), which cuts around the central core. Hard rock cores usually consist of basalt, gabbro and peridotite. Hard rock cores are drilled to a depth of 9100 m.

Fun Fact: Drilling

Hard Rock

Hard rock cores usually consist of basalt, gabbro and peridotite, but composition can vary. Hard rock cores are drilled with an RCB bit (rotary core barrel), which cuts around the central core.
Most staterooms have bunk beds so two people can share the room.

Scientists and crew members share a room with someone on the opposite 12-hour shift.

The galley crew prepares and serves 4 meals every day so everyone gets a chance to eat.

Delicious dishes from many different countries make up the menu on the JR.

There are more than 1000 movies in our collection of DVDs and Laser Discs.

Often, groups of people will choose a movie to watch together and make it a movie night!

The lounge is a great place to unwind and read a book, watch TV, or play a game.

We have an ever-changing library of paperback books for people to read onboard.
Steel Beach isn’t really a beach; it’s the highest deck on the ship, so it gets a lot of sunshine.

Steel Beach is a great place to watch the sunset, or the sunrise if you’re up early enough.

The JR carries all the food needed to feed 120 people for 60 days on each expedition.

More than 12,000 pounds of meat, 15,000 eggs, and 400 gallons of milk are used on each expedition.

With lots of different machines, the gym is a great place to get a workout after your shift.

There are treadmills, exercise bikes, a rowing machine, an elliptical machine and weights.

The soft-serve ice cream machine is available 24 hours a day!

Most of the time it’s filled with vanilla ice cream, but sometimes they switch it to chocolate.

Fun Fact: Recreation
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JOIDES Resolution Playing Cards

These cards depict images from the JOIDES Resolution drill ship, and can be used in a variety of different ways. There are four groups of cards: People, Places, Drilling, and Recreation, and each group has eight pairs of images. In addition, there is one card without a match. Students use the cards to play any of the following games, or make up one of their own.

**Memory/Concentration**
Set out any number of pairs, facedown and mixed up, on a desktop. One player turns over two cards. If the images match, he or she collects the pair and takes another turn. If they don’t match, the cards are turned back over in the same spot, and the turn moves to the next player. The player with the most pairs at the end of the game wins.

**Go Fish**
Remove the single, non-matching card, then shuffle the deck and deal out 5 cards to each player. The first player asks any other player for the match to a card he holds in his or her hand. If that player has that card, it is given to the asking player, who sets aside the match and takes another turn. If that player doesn’t have that card, he or she says, “Go Fish,” and the asking player takes a card from the stack of remaining cards and the turn moves to the next player. The player with the most pairs at the end of the game wins.

**Old Maid**
Shuffle the deck and deal out 5 cards to each player. Players hold up their cards in a fan in front of them with the backs facing out. The first player chooses a single card from the hand of any other player. If it matches a card that he/she has in his/her hand, the match is set aside. Play continues until all matches have been made. The player left with the single “Bubba” card loses.

**Directions for assembly:**
Print out a set of card backs on the back of each page of card images. If you have access to a copier or printer that can duplex, this is easy and can be done automatically. If not, you can print out all of the card images first, then run them through the printer a second time to print out the card backs. Alternatively, you can print out all images, then cut them out and glue them together, back to back, to create double-sided cards. Thie single, “Bubba” card will have to be printed separately; printing two copies of this page back to back will result in two, double-sided copies of the card. Printing on card stock or laminating cards will help them last longer.