

LITTLE EXPLORERS **LET'S GO** →

AIRPORT

AEROPLANE



MORE THAN
30 FLAPS!

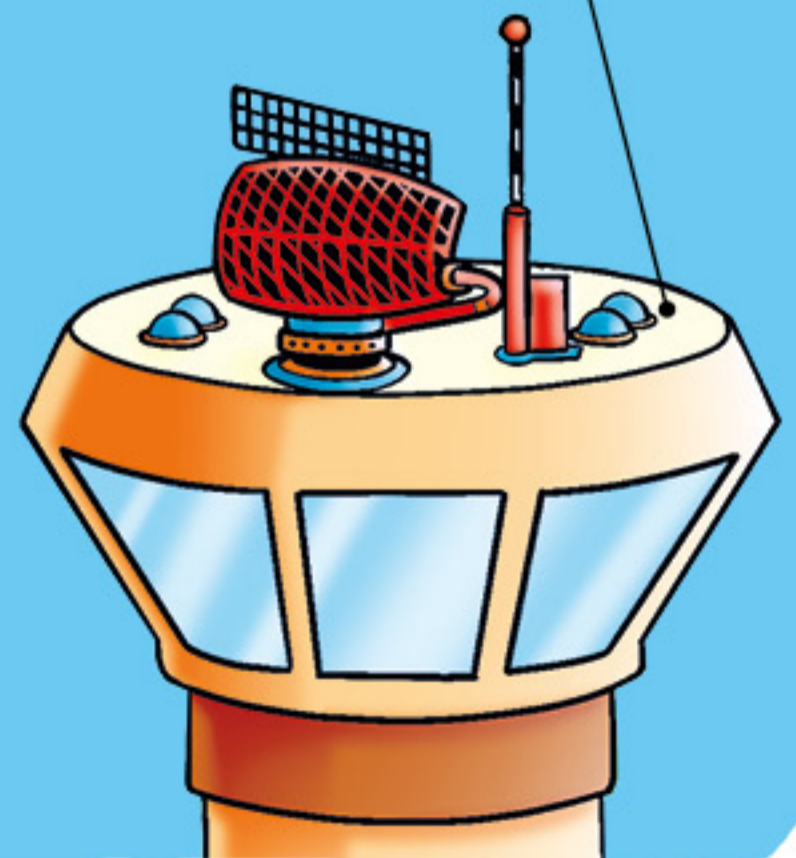
CABIN
CREW



X-RAY
MACHINE



AIR TRAFFIC CONTROL



LIFT THE FLAPS
TO EXPLORE
AN AIRPORT
INSIDE AND OUT!

PASSENGER



AT THE AIRPORT

Welcome to the airport! It's busy all day and night with hundreds of flights and thousands of passengers jetting off to places all over the world. The airport staff work very hard to make everyone's journey as smooth and safe as possible.

Staying the night

If a passenger has an early morning flight or is arriving late in the evening, they can stay in a hotel right next to the airport.

HOTEL

Taking the shuttle

This airport needs two separate buildings, called terminals, to manage its many flights. A shuttle carries passengers between the terminals on a track above the ground.

Fuelling up

A tanker delivers fuel to the plane from the depot. Some planes fly many times a day, so they need to refuel after each journey.

Aircraft everywhere!

Aircraft come in all shapes and sizes, from jumbo jets that carry hundreds of passengers to small two-person planes for short flights. There's even helicopters here, too!

Cargo plane

This huge aircraft has no passengers. Instead, it carries parcels for delivery around the world.

Tanker

Hangar

Shuttle 3, cleared take-off, runway 1.

Air traffic control

Air traffic controllers in the tower talk to pilots over the radio and tell them when their planes can take off and land.

Parcels

Plane spotters

This must be the 12:30 arrival from Chicago.

AT THE AIRPORT

Welcome to the airport! It's busy here all day and night with hundreds of flights and thousands of passengers passing through. The people who work here help get everyone to places all over the world.

Staying the night

If a passenger has an early flight or is arriving late at night, they can stay in a hotel right next to the airport. Shuttle buses can take passengers door to door.

Taking the shuttle

This airport has so many flights it needs two separate buildings, called terminals, to deal with them all. A shuttle carries passengers between the terminals on a track above the ground.

Fuelling up

A tanker delivers fuel to the plane from the depot. Some planes may fly more than once in a day, so they need to refuel after each landing.

Aircraft stands

There are planes of all shapes and sizes, from jets that can carry hundreds of passengers to small two-person planes for short flights, and helicopters too.

Cargo plane

This huge aircraft does not have any passengers. Instead, it carries parcels for delivery around the world.

Shuttle 3, cleared take-off, runway 1.

Air-traffic control

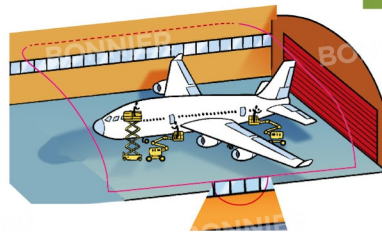
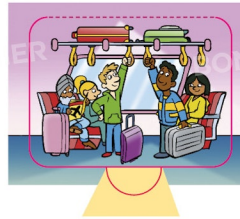
Air-traffic controllers in the tower talk to pilots over the radio and tell them when their planes can take off and land.

Hangar

Parcels

Plane spotters

This must be the 12:30 arrival from Chicago.



These aircraft fans have come to watch planes take off and land. They are watching a 'Jumbo Jet' taking off.

Where's the driver?
Don't worry. This train
doesn't need one. The
shuttle goes back and forth
along the same line and is
controlled by a computer.

A hangar is where safety
checks and repairs happen.
This plane is getting a shiny coat
of paint and will look like new
when it's finished. What colour
do you think it should be?

CHECKING IN

Passengers arrive at the airport a few hours before their flights. The first thing they do is go to the check-in desk to hand over their luggage and collect a boarding pass.

Display board

The display board tells you where to go to check in, the time of the flight, where it's going to, the airport code and the flight code number.

Check-In Desk

Passengers make sure they have their ticket and passport ready to show at the desk.

Self check-in kiosk

Passengers with little luggage, can skip the queue and use a Self Check-In machine. The machine asks you some safety questions, then lets you print out your own boarding pass.

Passport

A passport is a small book that tells people who you are. You need show your passport to travel between different countries. A border officer will stamp your passport to show you are allowed into a country.

Luggage conveyor

At the check-in desk the passenger's luggage is weighed, then a label is attached to it so that the staff who handle the bags know which plane it needs to be loaded on to.

Boarding Pass

At the check-in desk, the airline staff ask some safety questions, check each passenger's passport, weigh their luggage and print out a boarding pass which the passengers need to show to get on a plane.

Smartphone app

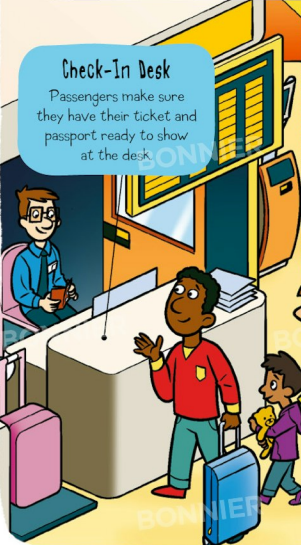
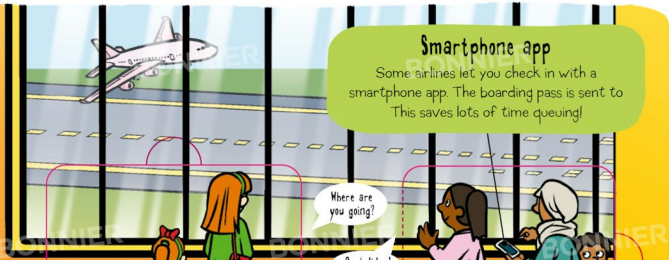
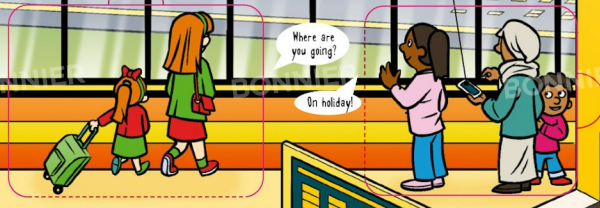
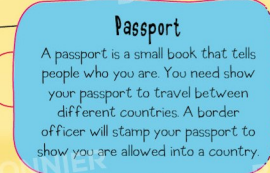
Some airlines let you check in with a smartphone app. The boarding pass is sent to This saves lots of time queuing!

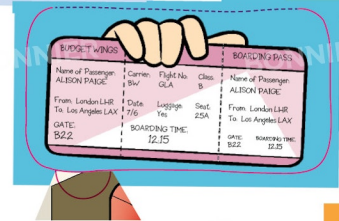
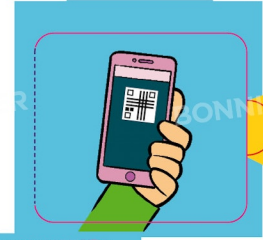
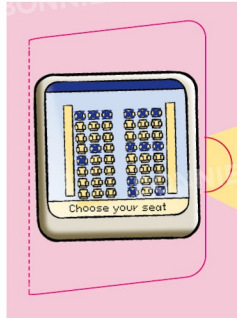
Am I too late? My train was delayed!

Where are you going?

On holiday!

Does Teddy need a passport too?





This pattern of small squares is a QR code. It holds information on the passenger and flight. It can be read by scanning machines and used to open electronic gates.

This little girl is going on a beach holiday. She's packed clothes, swimwear, sunglasses, sun cream and flip-flops. You can also see a storybook, a toothbrush, and her favourite toy, because toys like holidays too!

The boarding pass shows the passenger's name, the flight code, where they are travelling to and their seat number on the plane. The boarding time is when the passenger needs to arrive at the plane's gate.

To check-in, you need to scan your passport and confirm your flight. You can even choose your seat on the plane. Where will you sit. Window, middle or aisle?

Baggage handlers use machines that scan a code on the luggage label. This tells them where to send each bag. The luggage is taken aboard a trailer and towed to the aeroplane for loading.

Each passport has a special number, and photo, plus the owner's name, birthday, where they were born and how many years the passport can be used for.

SECURITY CONTROL

Passengers and their carry-on luggage are scanned by machines and security staff. For all passengers' safety, there are rules about what you can carry on a plane.

Security officers

The security officers ask passengers to place their coats, bags, phones, laptops and any other metal objects in trays to pass through an X-ray machine.

I think that's everything.

Sniffer dog

Dogs have an amazing sense of smell! Special dogs are trained to sniff out chemicals that are not allowed on planes.

Can you let the dog smell your bag?

Of course!

X-ray machine

Carry-on luggage

Passengers can take one small bag on the plane with them. You might want to carry a book to read or a tablet to play games on.

Departures

Once passengers have passed the security checks, they can enter the departure lounge where there are lots of shops and a food court.

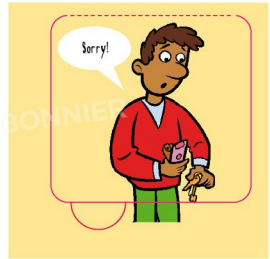
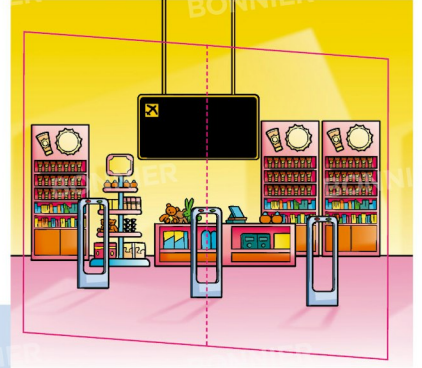
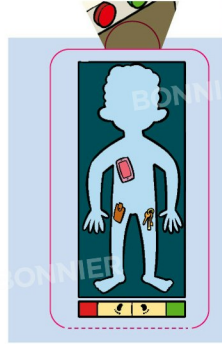
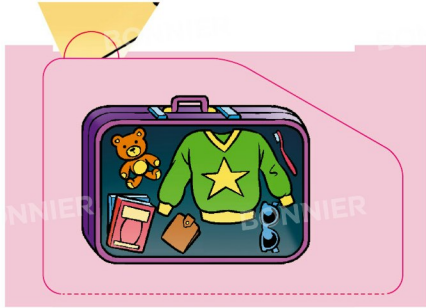
Come through the scanner, please!

Full body scanner

Inside the full-body scanner, the passenger has to raise their arms and stand still. The scanner automatically scans a person from head to toe.

BEEP!

What set off the alarm?



In the departure lounge there are shops and restaurants. You can have a bite to eat before you board the plane.

Don't forget to check the time of your flight on the display board – you don't want to miss take-off!

Oops! This passenger forgot to take his car keys from his pocket. Luckily it was caught by the security guards scanner.

The full-body scanner will detect any metal objects left in a pocket, a belt buckle or even studs on shoes. If the passenger is carrying any metal items, the machine will beep.

Bags pass through an X-ray machine to let security workers see inside. All carry-on luggage, metal and electronic objects have to go through. This X-ray show a wallet, a jumper, some books, a tooth brush, sunglasses and a bear. Have a safe journey, teddy!

Security officer will also check what liquids a passenger is carrying. If a passenger has any liquids, gels, creams or pastes they need to be placed in a clear plastic bag to be checked.

SAFETY CHECKS

All aircraft have regular safety checks. This plane has been moved into a hangar so panels can be removed and expert technicians can look for any parts that need to be repaired or replaced.

What's your number?

Every plane has its own number which records its owner and what country it is from.

Inspection Crane

Start your engine!

Jet engines move an aeroplane forwards at great speed, much faster than vehicles that travel on the ground.

In the hangar

The aircraft maintenance hangar is a large covered area where planes can be stored, checked and repaired under bright lights.

Cockpit

The cockpit is at the front of the aircraft, where the pilots sit and control the plane in flight.

Technician

This technician knows how all the parts in the aeroplane's engine work. He checks that all the blades are in good condition and replaces any worn parts.

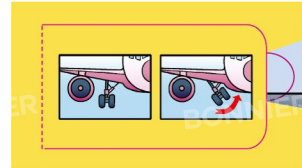
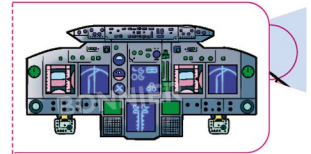
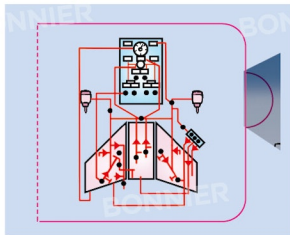
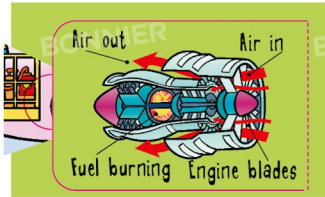
Supervisor

The supervisor is in charge of all the checks and repairs. She makes sure all the inspections are completed and the plane passes all of its tests so it can start flying again.

How are the wheels looking?

Landing gear

The plane has many sets of wheels connected by parts called shock absorbers, which make landings less bumpy. A large aeroplane, like a jumbo jet, will have 18 wheels!



In the cockpit, there are a lot of flight instruments that a pilot needs to understand. A computer autopilot takes control for most of the flight whilst the pilot checks the route and weather ahead.

Aeroplane wheels fold up inside the plane when it takes off, then come down again when the plane is ready to.

Inside the engine are spinning blades. They push the air into a chamber where fuel is burned and hot gases are released. The gases are pushed out the back of the engine and that lifts the plane's wing.

The technician carries detailed plans of the aeroplane on a tablet.

ON THE TARMAC

The plane is almost ready for take-off. The last safety checks are being made and the food and drink is coming aboard. Luggage is being packed in the hold as the passengers arrive on a bus.

Aircraft marshaller

Aircraft marshallers use brightly coloured paddles or wands to direct pilots from the ground. They tell the pilot to turn the plane left or right, or to start the engine, slow down or stop.

Clean and tidy

The aeroplane is given a quick clean between flights ready for the arrival of new passengers.

Measuring the wind

A windsock picks up the wind when it is blowing. It can tell you the direction and the speed of the wind.

Ready for any weather

Planes take off all year round in different kinds of weather. This snow plough is ready to clear the runway of snow and ice during winter.

Ready for take-off

The pilot and co-pilot are first on the plane, they check the flight plan and all the details of the flight before the crew gets on and then the passengers board. Sitting in the cockpit, the pilot and co-pilot take turns controlling the plane.

Apron bus

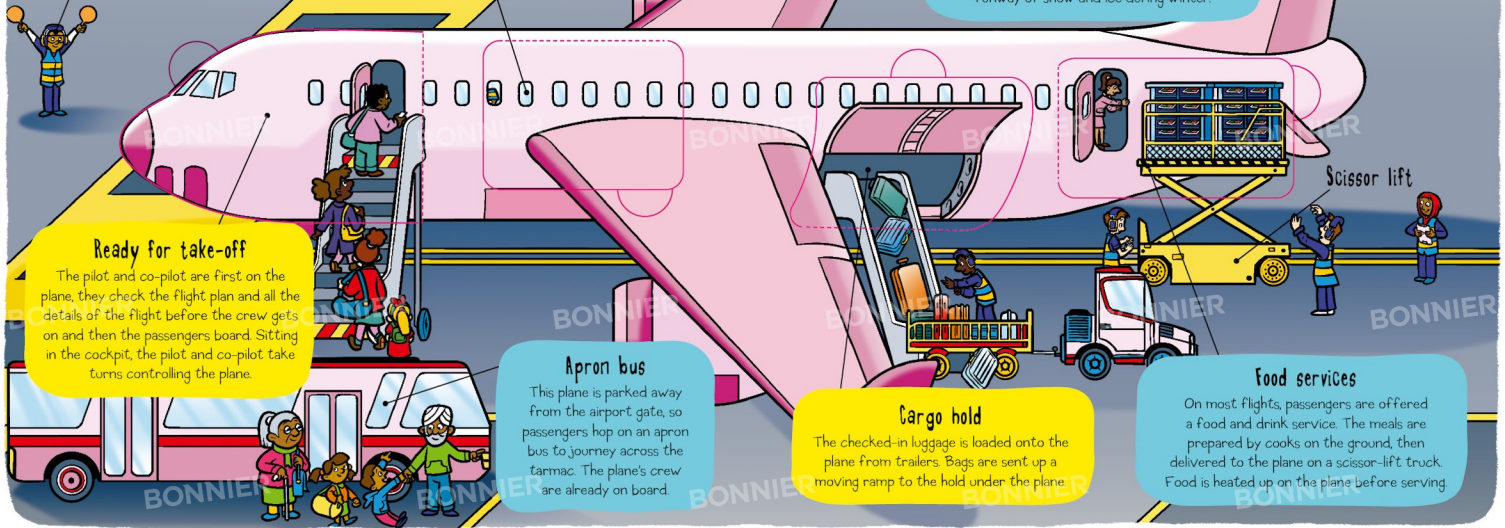
This plane is parked away from the airport gate, so passengers hop on an apron bus to journey across the tarmac. The plane's crew are already on board.

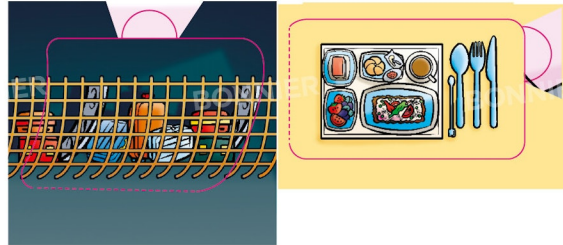
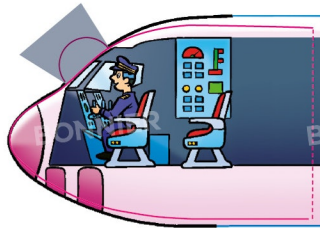
Cargo hold

The checked-in luggage is loaded onto the plane from trailers. Bags are sent up a moving ramp to the hold under the plane.

Food services

On most flights, passengers are offered a food and drink service. The meals are prepared by cooks on the ground, then delivered to the plane on a scissor-lift truck. Food is heated up on the plane before serving.





At lower levels, wind can cause the a plane to sway back and forth and if the wind is too strong pilots will choose not to land or take-off.

In icy weather, snow ploughs push snow off the runway. A type of sand called grit is spread to stop the runway freezing and becoming slippery.

Mmm, this food looks yummy! On long flights, you can have a big meal like this one at dinner time.

The luggage is stowed tightly in place and wrapped in netting so the bags don't slide around during the flight.

Cleaning staff pick up lost property and rubbish left behind from earlier flights. Then they scrub the tray tables, food service areas and toilets. It's hard work!

Before take-off the pilots check the flight controls are set and working correctly. Then they give a report to air-traffic control. Before take-off, they run through a list of final safety checks.

AIR TRAFFIC CONTROL

The tall tower at the centre of the airport is where the air traffic controllers work. They give instructions to pilots arriving and leaving the airport.

Radar

A radar dish keeps track of where planes are near the airport. This information is sent to the air traffic control tower's computers.

Air traffic controllers

Air traffic controllers have really important jobs. They use the radar and radio to track planes leaving and arriving. They also direct pilots and choose a safe path for them through the sky.

Monitoring the sky

On the screen, a controller can see the code number of each flight and their position near the airport.

Antennae

An antennae on the roof of the control tower receives radio signals carrying important messages from pilots in the air and on the ground.

Stack

When lots of planes arrive at once, they join a queue called a stack. In a stack the pilot flies the plane in a wide circle around the airport until they are told it's their turn to land.

Requesting landing

The airport radar has spotted a plane approaching the airport. The pilot calls air traffic control and requests instructions for landing.

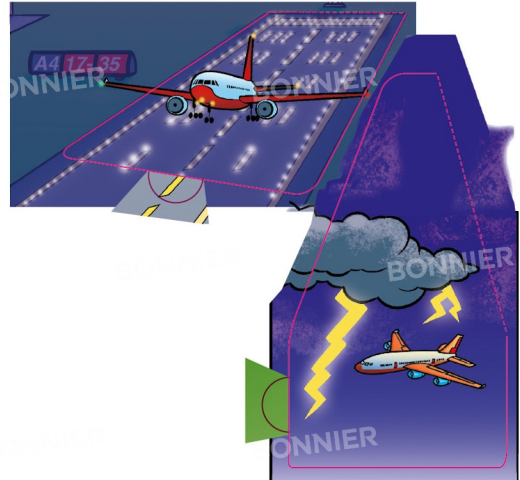
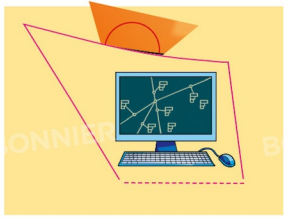
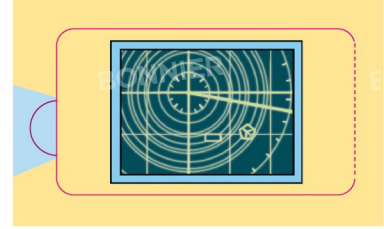
Lighting the way

Runways are lined with rows of lights and lit-up signs that come on after dark and during foggy weather. Approach lights begin before the runway as a guide to pilots.

What's the weather like?

Airports have their very own weather stations to measure the conditions at the airport. Weather stations record the temperature, wind speed and direction, all to help planes land safely.

Flight W1-110 from Munich requesting to land. Over.



The controller sees the plane and its flight code on a monitor screen and calls the pilot back to give her permission to land and the number of the runway she should use.

At night, pilots turn on flashing lights on the planes tail lights on the planes also have bright lights at the front for landing

To keep their passengers safe, pilots may need to change their flight plan to dodge storms or any extreme weather.

Talk about multi-tasking! Air traffic controllers look at all lots of different monitors at once.

The screen shows things such as how high a plane is and how fast it's going.

ABOARD THE PLANE

Everyone is on board: the passengers, the crew and the pilots. Now it's time to watch the safety demonstration, then get settled in and ready before taking off. Enjoy the flight!

Can I help?

The cabin crew look after the comfort and safety of the passengers. They serve everyone's meals and help with any problems. They are also trained to handle emergencies.

Mind your head

Passengers put their carry-on luggage in overhead lockers. It must be shut away safely for take-off and landing but during the flight you can get things out.

Controls

Above the seats are a set of controls for each passenger. You can turn on the cold air, switch on a reading light or call for help from a member of the cabin crew.

Toilet

The toilets are in use. Wait for the red light to turn green. That means they're free.

What's happening here?

Life jackets

If the plane needs to make an emergency landing on water, passengers will be asked to put on life jackets. These are usually stored under the seats.

Inflight entertainment

On some planes, a screen can be found on the back of the seats. You can watch films, play games and even track the plane's journey! What would you like to see?

Safety first!

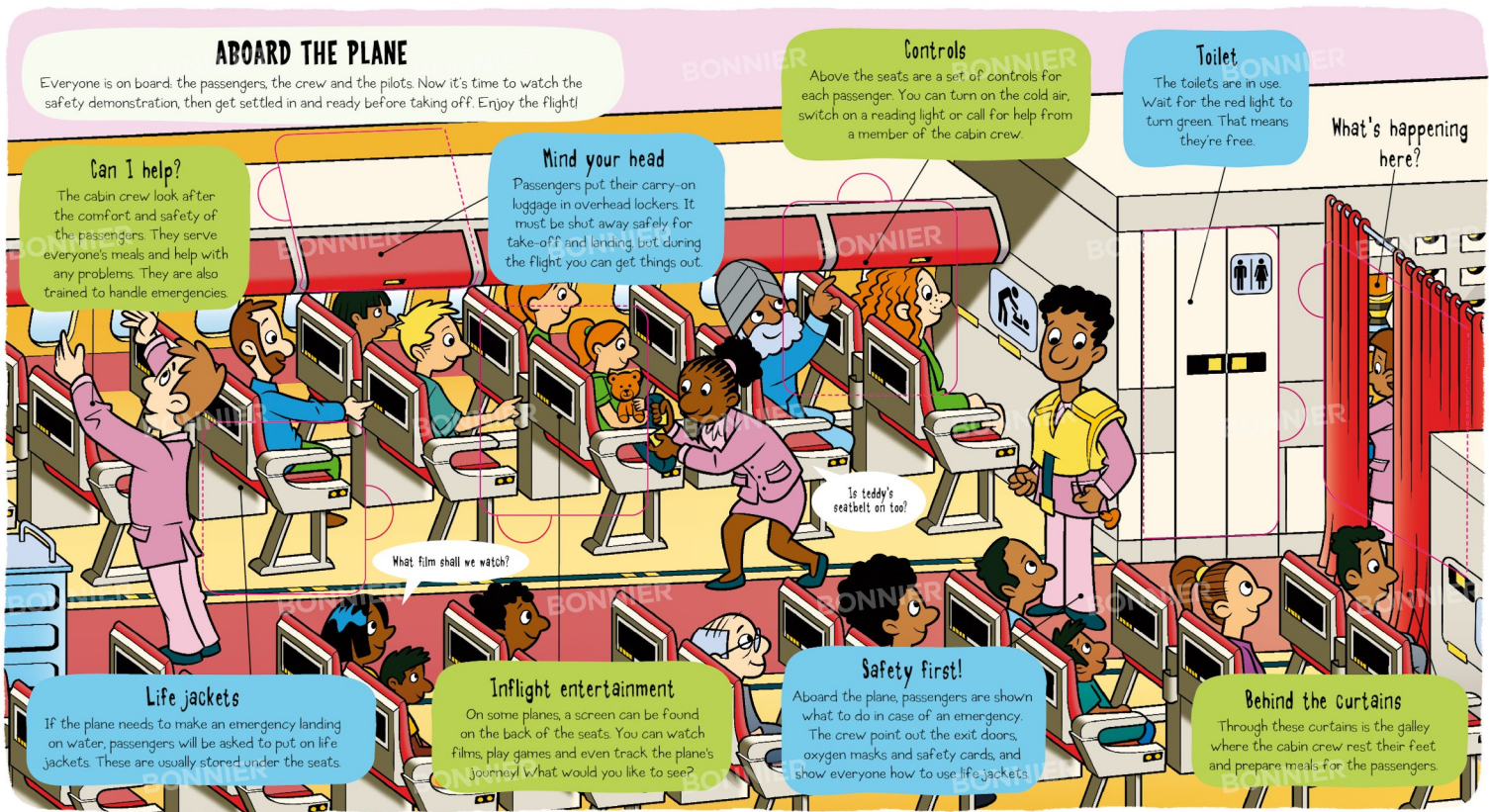
Aboard the plane, passengers are shown what to do in case of an emergency. The crew point out the exit doors, oxygen masks and safety cards, and show everyone how to use life jackets.

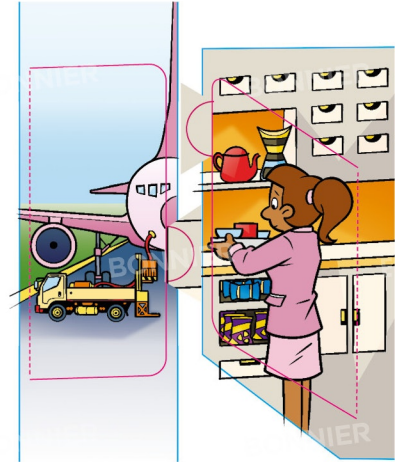
Behind the curtains

Through these curtains is the galley where the cabin crew rest their feet and prepare meals for the passengers.

What film shall we watch?

Is teddy's seatbelt on too?





In the galley there are ovens for heating food, plus tea and coffee-machines and storage space for cold snacks.

The waste from the toilet doesn't fall out of the bottom of the plane. It is stored in tanks which are emptied into a toilet service truck when the plane arrives at an airport.

This passenger pressed the help button to ask for a glass of water.

The plane can be tracked on the passenger's screen - sometimes there are even cameras which let you see what the pilots see!

Be careful when opening an overhead locker. Something could fall out and land on someone! Luckily, the cabin crew have their own lockers and first-aid kits.

Life jackets help you float on water. They fill up with air when you pull a cord. The jackets also have whistle so you can call for help, and a flashing light.

BAGGAGE RECLAIM

The plane has landed safe and sound and the passengers arrive at a different airport. Their bags are taken off the plane separately and delivered to the baggage reclaim room for collection.

Carousel

The bags are unloaded from the plane and placed on a moving surface called a carousel. It travels in a loop so passengers can collect their bags as they pass by.



Passport Control

Before you can enter a new country, you need to show your passport. The passport officer scans it to check that you look like you are actually you!



Lost luggage

Something missing? If all your bags didn't turn up on the carousel, ask at the lost luggage desk. They can help you find your bags.



Oversize baggage

Large luggage is collected from a separate room. What do you think was packed in these bags?



Customs

After collecting their luggage, passengers pass through an area called customs. Where customs officers make sure no banned items are brought into the country.



Welcome home!

These people are here to greet passengers arriving off the plane. Some are holding signs to find the people they are taking to their next destination.



Do you remember the jobs these people do?

Look back through the book to see if you can find them.



Baggage Handler



Security officer



Technician



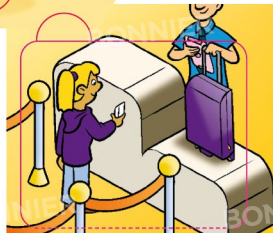
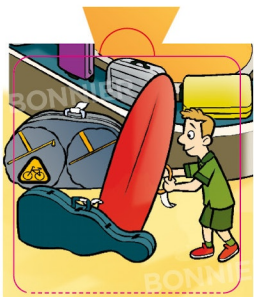
Supervisor



Air traffic controller



Cabin Crew



This passenger's bag
has been found. What
a relief! Now she can
leave the airport.

Most pets have to
travel in the cargo
hold with other pets
and are reunited with
their owners by the
airline staff the end
of their flight.

Some travellers who have
been on sporting trips taking
their own bicycle
and surfboard with them.
The double bass belongs
to a touring musician.