Using Android smartphone
- Beginner level -

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Beginner

Required prior knowledge

No prior knowledge is required.
This course is designed for absolute beginners.

Description

- Key components of Android device

- Android terminology and operation

- Basic knowledge of communication and internet technology

- Use of 10 popular apps on smartphones

Sections

1) First introduction

2) Using home screen

3) Using Clock as first app

4) Subscriptions and communication capabilities

5) Phone, Messages and Contacts app

6) Installing new apps
   with Weather&Radar app as an example

Sections

7) Send and receive emails with MS Outlook app

8) Make chats and video calls with WhatsApp app

9) Taking, searching and viewing photos
with Camera and Photos app

10) Browsing the internet with Chrome app

11) Smartphone personalization

12) Secure access to smartphone

Section 1
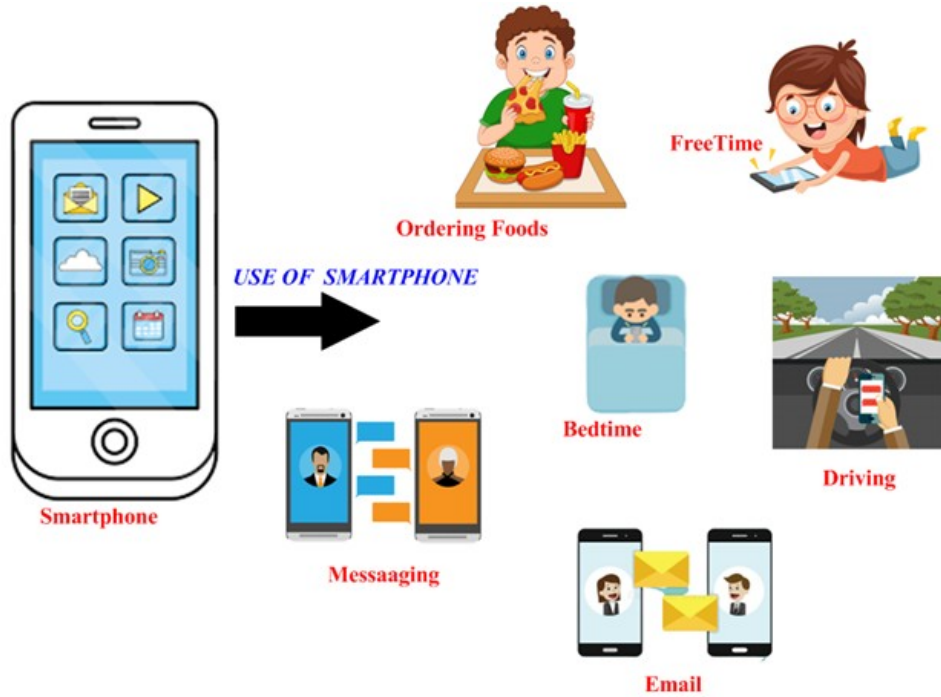# First introduction

What is a smartphone?

- Small, one-handed, wireless device

- Combines capabilities of phone/gsm, camera and computer (browse Internet, send e-mail, watch video, etc)

- Mainly operated via touch screen

Exercises
* What are the differences between a smartphone and other devices, such as cell phone, tablet (iPad) and PC (iMac)?

When is a smartphone useful?

Where can you get help online?

The following websites provide help in dutch if you have digital questions:

- *https://www.mediawijs.be/nl/digihelper*
  https://www.mediawijs.be/nl/digiwatte
  https://www.digihandig.nl/lespakket

- *https://www.seniorweb.nl/*

What smartphone types are there?

Android   iPhone   Windows   Blackberry
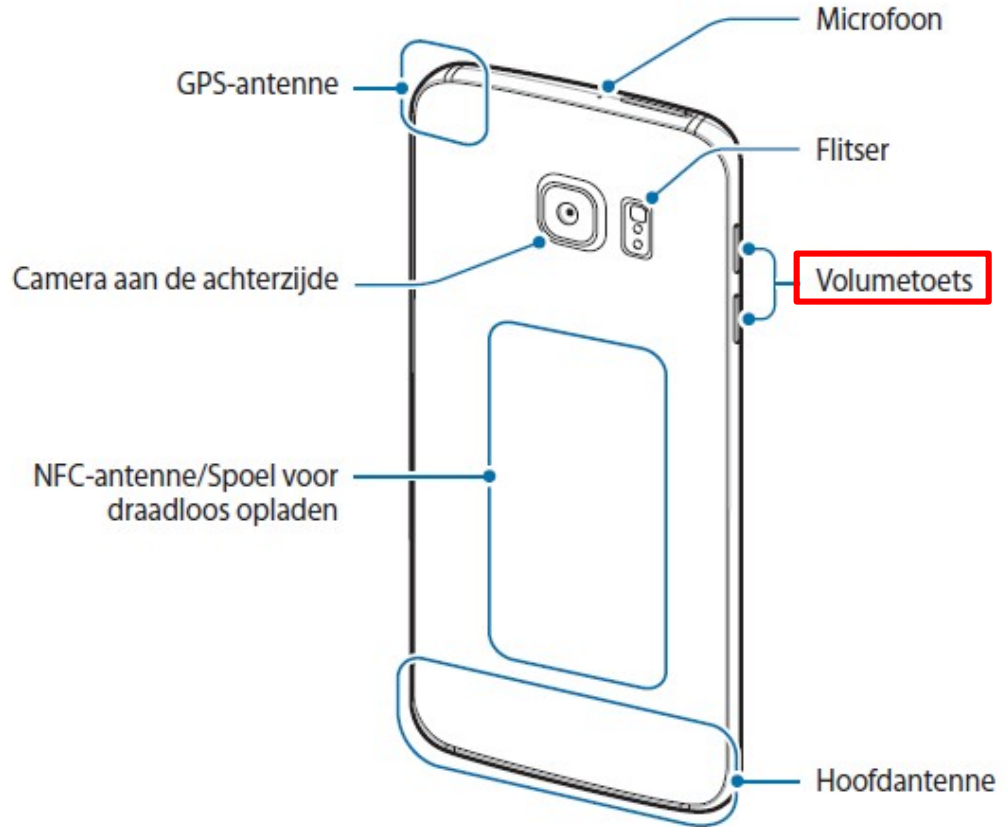
What smartphone types are there?

iPhone (iOS operating system)	Android phone (Android operating system)
Only iPhone from Apple	Samsung Galaxy, LG, Google Pixel, Motorola, OnePlus, etc
Only look and feel of Apple	Very customizable
App Store	(Google) Play Store

(*) Smartphone market share:
currently about 7 billion smartphones in use, of which about 70% Android, 30% iPhone,
<1% other (Windows Mobile, Blackberry, etc)

What does an Android phone look like?

SIM-kaartlade

Luidspreker

LED-indicator

Camera aan de voorzijde

Nabijheids-/lichtsensor

Aanraakscherm

Aan/uit-toets

Edge screen

Edge screen

Starttoets (sensor voor vingerafdrukherkenning)

Toets Recent

Terugtoets

Headsetaansluiting

Microfoon

Luidspreker

Multifunctionele aansluiting

Microfoon

GPS-antenne

Flitser

Camera aan de achterzijde

Volumetoets

NFC-antenne/Spoel voor draadloos opladen

Hoofdantenne

- Screen and Buttons -

How to turn on Android smartphone?

- **Turning** smartphone **on** (Power On),
  by pressing lower side button for a longer time

- **Login Screen** appears,
  where you have to identify yourself for device and SIM

- **Home Screen** appears,
  after which smartphone can be used

- **Black Screen** (Sleep Screen) appears,
  automatically after being idle for a while,
  or after briefly pressing the bottom side button
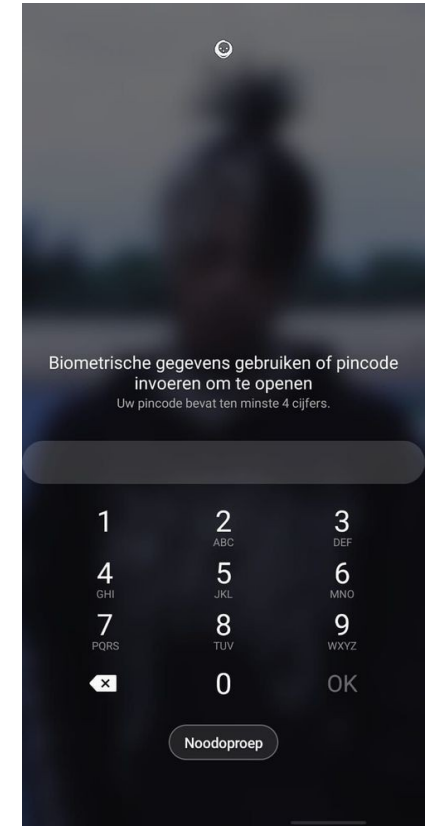
How to turn off Android smartphone?

- **Activate** again on black screen,
  by double tapping the screen (customizable)

- **Lock Screen** appears,
  where you have to identify yourself (customizable).

- **Home Screen** appears,
  after which smartphone can be used

- **Turn off** smartphone completely (Power Off),
  by pressing and holding the lower side button
  and then selecting "Power Off

Exercises
* Turn your smartphone off completely and then back on completely
* Unlock your screen and then lock the screen again

Extra info

<u>Videos with more explanation</u>

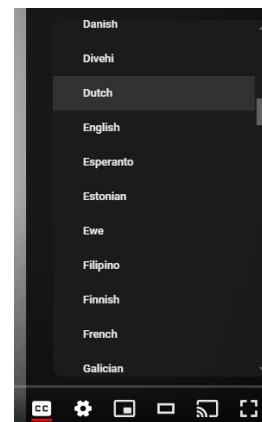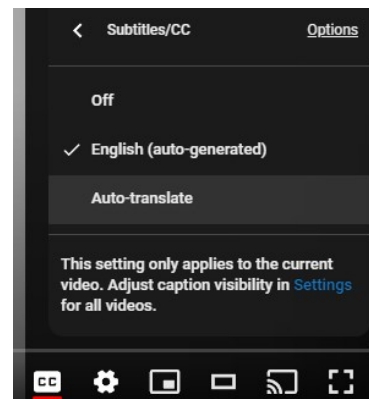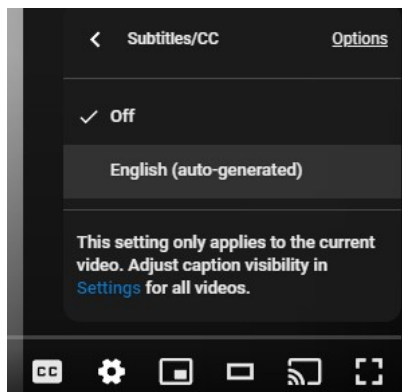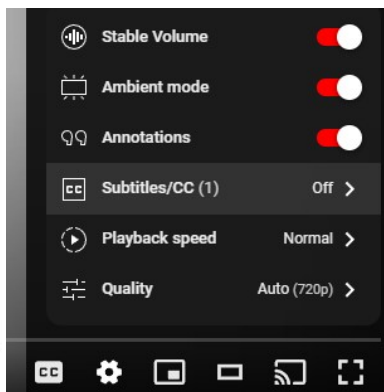* Dag van Digitale Inclusie 2023

https://www.youtube.com/watch?v=FqZRD_gKk_o

... this is an Dutch spoken Youtube video, but you can turn on English subtitles:

click on "Wheel" icon, open "Subtitles" and choose "English";

then click "cc" icon, to turn on subtitles;

to play slower, click "Wheel" icon, open "Playback speed" and choose "0.75x"

Extra info

<u>Videos with more explanation</u>
for Dutch spoken Youtube video's, you can turn on English subtitles
* De digitale kloof:
  is er voldoende aandacht voor mensen die buiten de boot vallen?
  https://www.youtube.com/watch?v=O4GwRIBco0k

* Dit kanaal biedt digitale antwoorden op de meest prangende vragen...
  https://www.youtube.com/watch?v=OrkCGDvkGjc

* Android versus iOS | Welk besturingssysteem past het beste bij jou?
  https://www.youtube.com/watch?v=cMD-V0FqMC0

* Mobile Internet Basics: What is a Smartphone?
  https://www.youtube.com/watch?v=vfYgYGkD5uc

Section 2
Using home screen

What do you see on home screen?

- Central content of home screen is customizable, and can contain 3 types of screen parts:

  - **Apps**: icons for installed programs that you can start, use and stop, e.g. Phone, Messages

  - **Shortcuts**: icons for pointing to apps

  - **Widgets**: visual blocks on the screen that provide information, e.g. hour indicators

- Content and operation of home screen is customizable; home screen content often differs slightly between device types and Android versions; in this presentation Android 14 is used

How do you use the home screen?

- Operation is done by finger movements on the screen,
  e.g. **click** briefly to **launch/open app** or choose something

- **Navigation bar** at bottom contains 3 buttons:
  Recents (Show open apps),
  Home (Go to home screen),
  Back (Go to previous screen)

- **Notification bar** at the top you can open further:
  Swipe from top to bottom to show
  overview of Status, Settings and Notifications
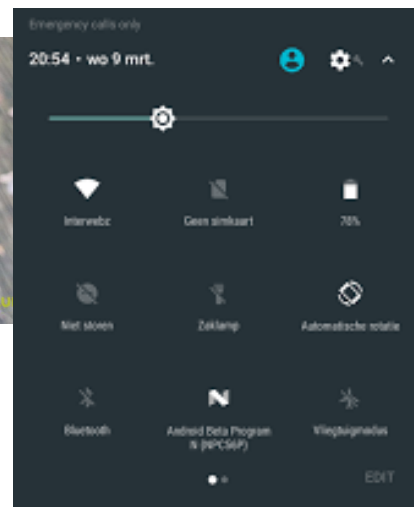
- Swipe app to top of Recents screen
  to **stop/close open app**
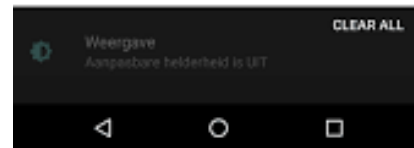
How do you use the home screen?

- Swipe left or right on the home screen to see the different tabs (tab sheets) of home screen

- Notifications on open Notification bar can be opened by clicking on them and can be deleted by swiping left/right

- **Local App Store** contains overview of all the **apps installed** on your smartphone and can be accessed easily:
Swipe from the very bottom to the top
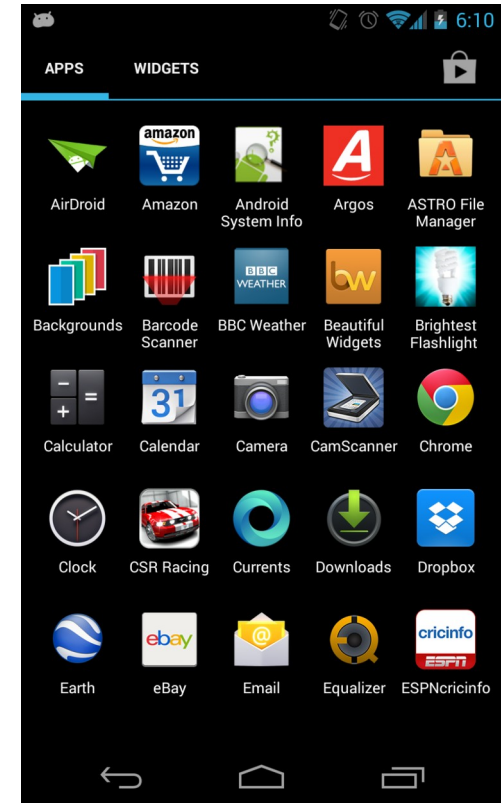
How do you use the home screen?

- Apps can also be grouped on the screen into maps (folders):
  hold your finger on an app then drag it on top of another app; enter
  a name for a folder by tapping the folder and then the text at the bottom

- The smartphone can be **turned off or locked** not only by pressing side
  button, but also by on-off icon at the bottom of notification bar

Exercises
* Launch an app on the first tab and then an app on the last tab
* Navigate back to first app and launch app not present on home screen

Extra info

<u>Videos with more explanation</u>

for Dutch spoken Youtube video's, you can turn on English subtitles

* Welkom in je smartphone

  https://www.youtube.com/watch?v=IkLFH3Ojwog

* De Statusbalk en Meldingen (Android 13)

  https://www.youtube.com/watch?v=9tceVW9reIQ

* Navigatie met Drie knoppen (Android 13)

  https://www.youtube.com/watch?v=JtRPFDvUhNI

* Navigatie met Gebaren (Android 13)

  https://www.youtube.com/watch?v=lD_7CjfXCSs

* Het Dock en het App overzicht (Android 13)

  https://www.youtube.com/watch?v=zXyFV4KXtdE

Section 3

Using Clock as first app

How to place shortcut on home screen?

- Place a shortcut for Clock app on home screen:
  open Local App Store and find Clock app (installed by default);
  click on Clock **icon**, press and hold and move
  upward to place shortcut on home screen;
  this finger gesture is called **drag**ging

- Open **Clock** app and at bottom choose "Alarm Clock" tab

- Try to set, change and delete alarm times;
  Learn to reset an alarm that goes off

- Position of icon on start screen can be changed

  by dragging the icon to a new location

Wake up

Alarm

Wake up

Add label

7:00 AM

Mon, Tue, Wed, Thu, Fri

Pause alarm

Default (Fresh dawn)

Vibrate

Google Assistant Routine

Delete

Other

8:30 AM

How to place shortcut on home screen?

- To later remove the shortcut on a home screen:
  open home screen with shortcut to Clock;
  drag shortcut up so that 1 or 2 "Delete" boxes appear at the top
  that you can move to:

  "X" icon to delete shortcut only, and "Trash" icon to also delete app

Exercises
* Place new shortcut for Clock on 2nd tab of home screen
* Start Clock and set alarm in 2 min
* Wait 2 min and stop alarm
* Change alarm to time over 1 min,
  and create new alarm for 9h00 on all weekdays
* Delete alarm from about 1 min
* Remove shortcut for Clock app on 2nd tab of home screen

How to navigate between open apps?

- Open multiple apps (e.g., Clock, Phone, Contacts)

- Use Navigation Bar to navigate between apps;
  2 taps on Back button allows you to quickly move back and forth between the two last opened apps

- Use Recents button on Navigation Bar to close (1 or all) apps

Exercises
* Place new shortcut for Phone app on 3rd tab of home screen
* Start Clock, Phone and Contacts app successively
* Navigate back to started Phone app and then back to Contacts
* Navigate to started Clock app
* Remove shortcut for Phone app on 3rd tab from home screen

Extra info

<u>Videos with more explanation</u>

for Dutch spoken Youtube video's, you can turn on English subtitles

* Snelkoppelingen en Mappen (Android 13)
  https://www.youtube.com/watch?v=XJblGpmOy60

* How To Create App Shortcut On Home Screen Of Android Phone
  https://www.youtube.com/watch?v=8pUL4PWaAbQ

Section 4

Subscriptions and communication capabilities

What mobile subscriptions are there?

Examples:

Easy Internet
+ Telenet TV iconic

- 150 GB om te surfen aan 100 Mbps ⓘ
- 93 tv-zenders via TV-box en app (Telenet TV iconic) ⓘ
- Veilig internet thuis ⓘ
- Optie vaste telefoonlijn voor €26,97 €13,49 ⓘ

All-Internet
+ Telenet TV iconic

- **Onbeperkt** surfen aan 300 Mbps ⓘ
- 93 tv-zenders via TV-box en app (Telenet TV iconic) ⓘ
- Veilig internet thuis ⓘ
- Optie vaste telefoonlijn voor €26,97 €13,49 ⓘ

Mega Fiber + Mobile + TV

Geniet van supersnelle download- en uploadsnelheden, gecombineerd met een naadloze en betrouwbare connectie, voor een onafgebroken online productiviteit en high-definition streaming

Internet-ervaring

Onbeperkt internet

Downloadsnelheid tot 500 Mbps

Uploadsnelheid tot 500 Mbps

Mobiele ervaring

12 GB data aan 5G snelheid tot 200 Mbps

Onbeperkt bellen en sms'n in België + EU-Zone

TV-ervaring

Meer dan 80 tv-zenders

Pickx-app op al je toestellen

Tot 7 dagen TV Replay en opnemen

1 cent per MB

1 cent per sms

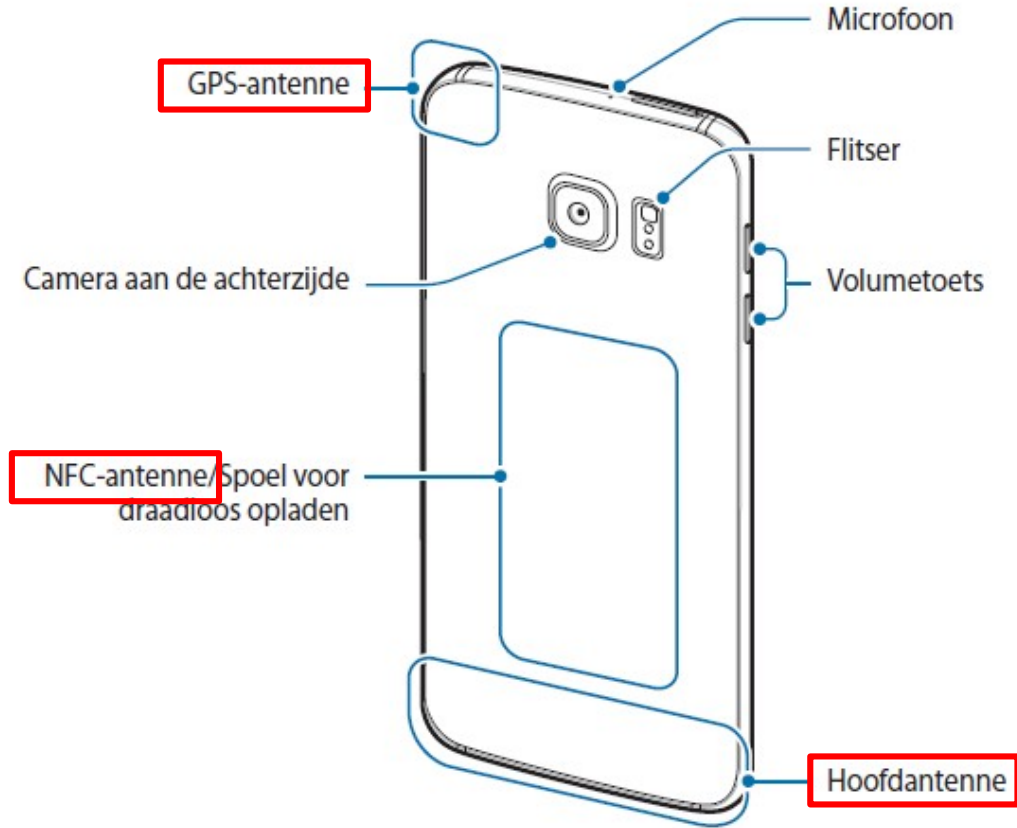**8 cent** per minuut

De goedkoopste herlaadkaart-tarieven van België.

What mobile subscriptions are there?

- You can only make calls and use the Internet on your smartphone,
  if you pay a mobile subscription

- Moreover, you need to put a SIM card in your smartphone;
  with this card you link your phone number to your smartphone,
  and thus your subscription

- Types of mobile subscriptions:
  either pay for use, or pay monthly fixed amount (amount depending on
  desired usage limits)

- **SIM card**:
  chip with PIN, which can store all kinds of personal data,
  e.g. your phone number, contacts, provider, etc;
  this chip is also linked to your mobile subscription

What does an Android phone look like?

SIM-kaartlade
LED-indicator
Nabijheids-/lichtsensor
Aanraakscherm
Edge screen
Toets Recent
Headsetaansluiting
Microfoon

Luidspreker
Camera aan de voorzijde
Aan/uit-toets
Edge screen
Starttoets (sensor voor vingerafdrukherkenning)
Terugtoets
Luidspreker
Multifunctionele aansluiting

GPS-antenne
Camera aan de achterzijde
NFC-antenne/Spoel voor draadloos opladen

Microfoon
Flitser
Volumetoets
Hoofdantenne

- Communication -

What communication options are there?

What communication options are there?

- Via **Telephone/GSM** (Mobile Network) network:
  wireless access to public phone network (to make calls, text messages);
  always included in a mobile subscription

- Via **Wifi**:
  wireless access to the Internet via local router;
  usually included in a subscription pack for home
  (with TV, landline phone, and Internet access together)

- Via Mobile **Data network** (Mobile Data):
  wireless access to the Internet (generations 3G < 4G-LTE < 4G < 5G);
  is usually limited (or not included at all) in your subscription

What communication options are there?

- *How and why limit the use of Wifi?*
  Via Settings > "Wifi" you can turn it off completely for security reasons.

- *How and why limit use of Data network?*
  for example, you consume on average 80 to 90 MB per hour with normal
  use of Facebook (and WhatsApp consumes much more);
  some apps also consume data when you are not actively using them
  (because they run in the background), e.g. email and notification app;
  In Settings > "Mobile Data" you can turn them off completely,
  but you can also limit data usage per app
  via Settings > "Network and Internet" > "Data saving"

- *Abroad, "Roaming" is used to make connections,*
  and costs in non-EU countries can add up very quickly (e.g. several euros per MB);
  It is therefore best to disable roaming for data services
  via Settings > "Network and Internet" > "Mobile Network" > ... > Roaming
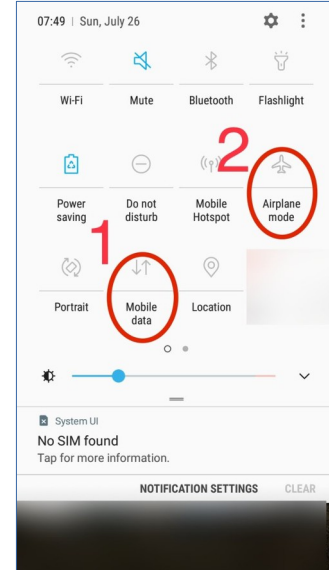
What subscription do you have?

Exercises
* Check which subscription you have and with which provider
* What is your phone number?
* How much time can you call per month?
* How many text messages can you send per month maximum?
* How much data volume can you send/receive per month?
* What are the additional costs if you were to go over the usage limits?

Extra info

<u>Videos with more explanation</u>

for Dutch spoken Youtube video's, you can turn on English subtitles

* Surfen op het internet
  https://www.youtube.com/watch?v=pBuKpQhkFyM

* Hoe kan je besparen op je gsm-abonnement?
  https://www.youtube.com/watch?v=tnrzue2GUZM

* Verbindingen beheren (Android 13)
  https://www.youtube.com/watch?v=pO1krdj-mNY

* How To Tell If Your Cell Phone is using Data or WiFi (Mobile Phone)
  https://www.youtube.com/watch?v=O8VRx4xCW1w

* 5 Reasons To Use Airplane Mode When You're Not Flying!
  https://www.youtube.com/watch?v=v1yuyhEYHh4

Section 5

Phone, Messages and Contacts app

How to phone and text?

- These apps are installed by default on an Android phone:

    - **Messages** app is mainly used to send or read SMS (Short Message Service) messages;
      in addition to SMS messages, it also allows you to send MMS (Multimedia Messaging Service) and RCS (Rich Communication Service) messages

    - **Phone** is used to make and answer phone calls

    - **Contacts** app is used to store phone numbers and email addresses of individuals and then use them in the other apps

What does an Android phone look like?

SIM-kaartlade

Luidspreker

LED-indicator

Camera aan de voorzijde

Nabijheids-/lichtsensor

Aanraakscherm

Aan/uit-toets

Edge screen

Edge screen

Starttoets (sensor voor vingerafdrukherkenning)

Toets Recent

Terugtoets

Headsetaansluiting

Luidspreker

Microfoon

Multifunctionele aansluiting

Microfoon

GPS-antenne

Flitser

Camera aan de achterzijde

Volumetoets

NFC-antenne/Spoel voor draadloos opladen

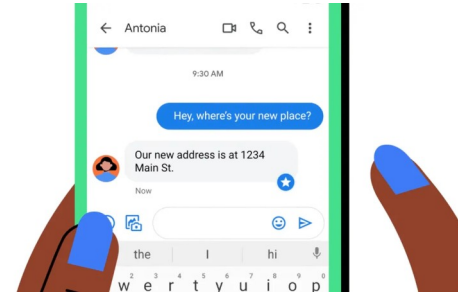Hoofdantenne

- Camera and Sound -
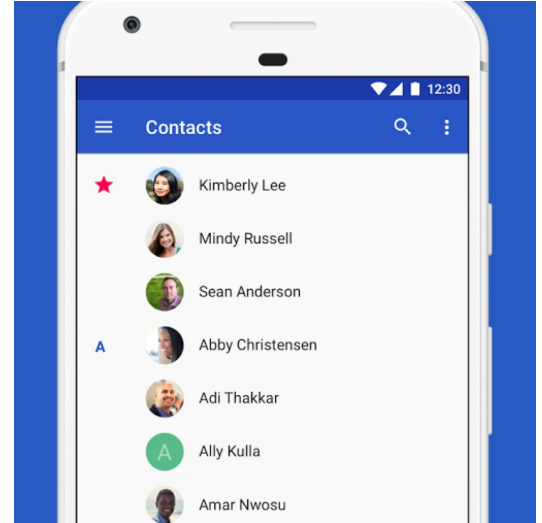
How to phone and text?

- Messages and Phone app are the only apps on your smartphone that use phone network; thus, they are provided in every subscription

- *MMS and RCS message exchange is used by almost no one;
  with MMS you can send small files (<200KB) and with RCS large files along with your message,
  but mostly messenger apps like WhatsApp are chosen in this case*

- *RCS messages use the data network and therefore are not always provided with subscription;
  RCS messages can be completely disabled on your smartphone via "Settings" in Messages app*

- All other apps on your smartphone use only the data network (e.g. WhatsApp) or make no network at all (e.g. Clock app)

How to manage telephone contacts?

- Contacts app will save all your entered contacts stored on your smartphone (or SIM card)

- Learn to add contact information through this app, change, delete and search;
  sometimes it is convenient to also to the favorites

- It is best to provide a backup (backup copy) of all this contact information so as not to lose it
  in case of loss or breakdown of smartphone;
  we'll see how later

Exercises
* Put your own phone number in the Contacts app
* Create your own phone number as a favorite contact

How to phone and text?

- Learn to make phone calls through the Phone app by using of keyboard input or Contacts to dial telnr.

- Learn to use top 2 side buttons to increase or decrease volume, and "Speaker" button on screen to turn speaker on and off

- Learn to send and receive text messages via the Messages app by using Contacts app to choose destination

- You can provide a backup if you don't want to lose your text messages in case of smartphone loss or malfunction; we'll see how to do this later

Extra info

Videos with more explanation

for Dutch spoken Youtube video's, you can turn on English subtitles

* Contacten beheren (Android 13)
  https://www.youtube.com/watch?v=xJgSG9tINFQ

* Telefoongesprekken (Android 13)
  https://www.youtube.com/watch?v=D5SD-tNdONA

* SMS Berichten (Android 13)
  https://www.youtube.com/watch?v=RivD1yEzieo

* Android toetsenbord 2
  https://www.youtube.com/watch?v=oJ0EhapFBqk

* Android klembord: Kopiëren knippen en plakken
  https://www.youtube.com/watch?v=X2_IR1DWqWo

* Regelen van Geluid en trilling (Android 13)
  https://www.youtube.com/watch?v=DKE18CgsZuo

Section 6

Installing new apps with Weather&Radar app as example

How to install an app?

- As an example, we would like to install the **Weather&Radar app** (many other weather apps exist)

- Open the "Play Store" app

- Click in the search field at the top and type via keyboard "weather"; then click on Search button and on "Weather&Radar" result

- Click on "Install" button to download the Weather&Radar app download

- After installing click on "Open" button

- The app has now been added to the Local App Store and a shortcut has been created on home screen
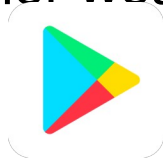
How to place widget on home screen?

- You can now launch and use the Weather&Radar app by clicking on the appropriate icon;
  enter your municipality as a favorite location

- You can also place a widget with weather information on the home screen:

  – To do this, tap in middle of home screen for a longer time, and select "Widgets".

  – From the list of available widgets, select a widget from this app by dragging it to the desired location on the home screen

Extra info

<u>Videos with more explanation</u>

for Dutch spoken Youtube video's, you can turn on English subtitles

* De Play Store (Android 13)
 https://www.youtube.com/watch?v=mN-zx_Gh-oE

* Digiwatte? Apps downloaden en installeren - met VGT
 https://www.youtube.com/watch?v=eTWO47L9S2I

* Android Play Store: App installeren en app verwijderen
 https://www.youtube.com/watch?v=A55elRE9KkU

* Weer app Android: Hoe volg je het weer op je vakantie?
 https://www.youtube.com/watch?v=mQubxQAEgIc

* Gebruik van het Menu (Android 13)
 https://www.youtube.com/watch?v=5uUGyLD4Tnc

* Widgets (Android 13)
 https://www.youtube.com/watch?v=xWARvQDBsvo

Section 7

Send and receive emails with MS Outlook app

How to install MS Outlook app?

- There are many email client apps;
  not all of these apps are installed by default.

- Most popular email apps are Gmail and MS Outlook;
  Gmail is installed by default on Android,
  but you have to install **MS Outlook** yourself.

- Install "MS Outlook" app via Play Store app;
  add an account during setup (this need
  not to be a microsoft account),
  where you need to enter the following info:
  email address, protocol (IMAP),
  email password, incoming/outgoing email
  server & port
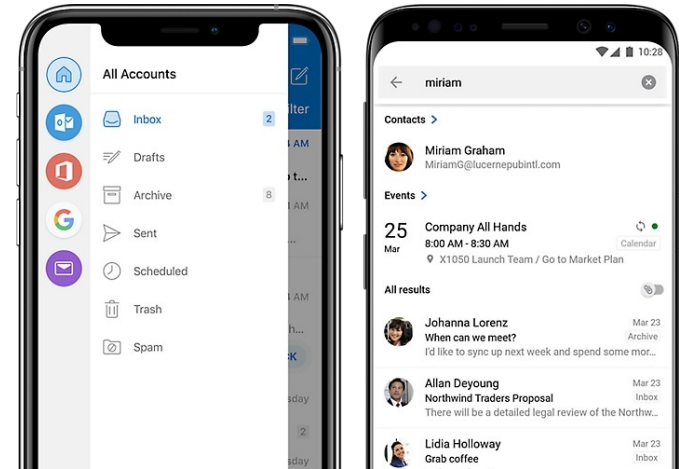
How to use MS Outlook app?

- Learn to send, receive, read, organize, and delete emails via "MS Outlook" app

- By clicking on the icon at the top left of Outlook app, you can Open the Outlook settings menu

- Because we set IMAP protocol in setup,
all your emails remain on Microsoft's Cloud server;
backup of local emails is therefore not necessary

How to learn to use your keyboard?

- Learn to insert special characters on the keyboard

- Learn to move the cursor precisely in text

- Learn to select, copy and move pieces of text
(including between different apps)
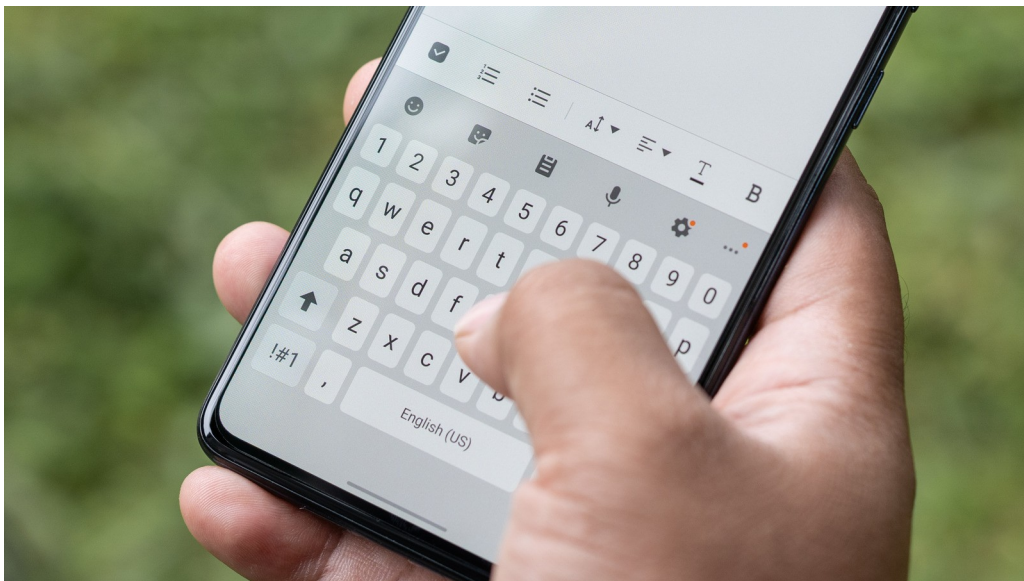
Extra info

<u>Videos with more explanation</u>

for Dutch spoken Youtube video's, you can turn on English subtitles

* Een mail met bijlage versturen
  https://www.youtube.com/watch?v=vGozqoDSlwI

* Digiwatte? E-mailen - met VGT
  https://www.youtube.com/watch?v=O8QitR7Ktjg

* De Gmail app en Emails (Android 13)
  https://www.youtube.com/watch?v=wDlyFeOhKgA

* Het Toetsenbord (Android 13)
  https://www.youtube.com/watch?v=wzO0N3JjPlU

* Use an Email Alias!
  https://www.youtube.com/watch?v=5HHdk_GP-Ew

Section 8

Make chats and video calls with WhatsApp app

How to use WhatsApp?

- There are many messenger apps;
  the most popular are WhatsApp, Facebook Messenger and Signal

- You need to install **WhatsApp** yourself;
  add an account during setup
  by entering your phone number

- Learn how to start, answer, and stop chats and video calls

- WhatsApp app can also be installed on PC and tablet;
  this may be more convenient with a large screen and keyboard

Extra info

<u>Videos with more explanation</u>

for Dutch spoken Youtube video's, you can turn on English subtitles

* Digiwatte? Chatten - met VGT
 https://www.youtube.com/watch?v=3cwbz8G1W20

* Digiwatte? Videobellen
 https://www.youtube.com/watch?v=rayvNXtI6M4

* Whatsapp Videobellen - Online les Vief vzw
 https://www.youtube.com/watch?v=JVMd2r6NfcA

* Deze 6 WhatsApp tricks kende je waarschijnlijk nog niet!
 https://www.youtube.com/watch?v=P9OX5aOwzYQ

* WhatsAppen op je computer: zo werkt WhatsApp Web
 https://www.youtube.com/watch?v=AFsbEpof_4c

Section 9

Taking, searching & viewing photos with Camera and Photos app

How to use Camera app?

- **Camera** app is usually already installed automatically; the installed app is often an app developed by the smartphone manufacturer (sometimes the standard "stock" Camera app)

- With this app you can take pictures and record videos

- You can open the camera app by clicking on the icon of the app on the home screen, or by quickly clicking twice on the **Power** button on the side

- You can take a photo of the displayed image by clicking on the **shutter** button (icon with white circle at the bottom), or by pressing the **volume** up/down button briefly

- Above the circle button you can switch by clicking on "Photo" or "Video" text; in this course we only learn to take photos
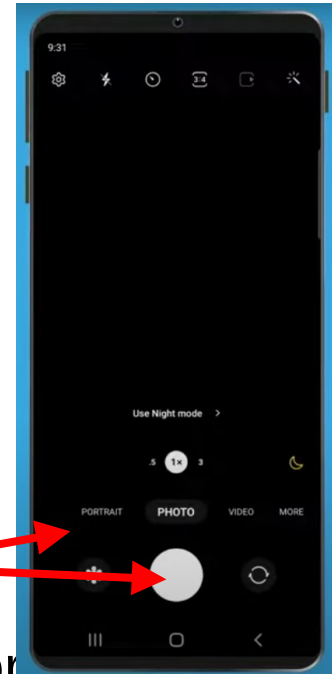
How to use Photos app?

- **Photos** app is usually already installed automatically

- The Photos app is a very powerful app that contains a lot of functionality:
  * search and automatically organize photos and videos
  * show and update photos and videos
  * accessible everywhere via your google account on the internet
  * easily share photos and videos with other people
  * easy way to free up space on your phone
  * synchronization of photos and videos on all your devices (phone, pc, etc.)

- The Photos app has built-in Artificial Intelligence (via Google Lens) to recognize and search for things in a photo; we will see later how this is possible

- It is best to create a backup of your photo and video files if you do not want to lose them in case of loss or defect of smartphone;
  we will see later how this is possible

How to view and edit photos?

- In this course we will only learn to view, edit, search and manage saved photos;
  other functionalities of the app require Cloud usage and we will see later

- When opening the Photos app, all photos on the smartphone (regardless of which folder) are shown in chronological order

- Click on a photo to open and view it;
  click on the 3 dots at the top to get more information about the photo;
  click on the edit icon to adjust the photo with tools and save it;
  click on the delete icon to delete the photo

- Multiple photos can also be selected at the same time to then perform operations on all of them

How to manage and search photos?

- To open the search screen, click on the "Search" button at the bottom; Photos app automatically indexes all photos on your smartphone without taking into account folders according to date/time, locations, people/pets (content), screenshots (content), videos and things; via the search bar you can now type this info to search for photos, e.g. "rabbit aarschot" (or "rabbit") will find all photos with a rabbit that were taken in Aarschot

- If you open a photo, you can add search terms by clicking on the 3 dots at the top right and entering a description

- You can also group photos by adding them to "Albums"; this way you can easily find all photos about a subject; the same photo can be included in multiple albums (albums only contain references to photos)

How to take a picture of your screen?

- By simultaneously pressing the on/off button and volume down button, you can take a screenshot on all Android versions on all smartphones; on Android 14+ you can also take a screenshot with a finger gesture: to do this, place 3 fingers on the screen at the same time and swipe all the way down

- Also learn to edit photos by searching for and opening a screenshot via the Photos app,
e.g. to make personal parts of the photo unreadable

Extra info

<u>Videos with more explanation</u>

for Dutch spoken Youtube video's, you can turn on English subtitles

* De Camera (Android 13)
  https://www.youtube.com/watch?v=PUfV8tBGnrk

* Google Foto's (Android 13)
  https://www.youtube.com/watch?v=wUl9zY9K2Aw

* Screenshot maken met je Android-smartphone: zo doe je dat!
  https://www.youtube.com/watch?v=cU9QAdJsUJY

* Uitleg: Schermopname maken met je Android-smartphone
  https://www.youtube.com/watch?v=_Ax3MPUhr2A

* How to Use Google Photos - Beginner's Guide
  https://www.youtube.com/watch?v=7Ew5Oej19tU

Section 10

Browsing the internet with Chrome app

What is Internet and World Wide Web?

These basic terms will be explained in following videos:

- Internet

- www (World Wide Web)

- Web sites and Web pages

- URL (Uniform Recource Locator) and HTTP(S)

- (Hyper)links

- Browser

- Search engine

Extra info

Videos with more explanation
* How Does The Internet Work? - BBC Click
   https://www.youtube.com/watch?v=eHp1l73ztB8
    How the Internet Works in 4 Minutes | Animation Video
   https://www.youtube.com/watch?v=Sfzo4xm5eX8

* What is the world wide web? - Twila Camp
   https://www.youtube.com/watch?v=J8hzJxb0rpc

* BEFORE AND AFTER THE INTERNET - How has the internet ...
   https://www.youtube.com/watch?v=brVCq_FpxlY

How to browse the internet?

- There are many web browser apps;
  the most popular are MS Edge, Firefox, Google Chrome
  (Safari on iPhone)

- Install "**Google Chrome**" from Play Store

- Learn to navigate to a known website address
  (or URL) and then use hyperlinks on web pages

- Learn to search with Google search engine,
  and navigate between browser tabs

- You should limit the number of open tabs as much as possible
  because they take up a lot of memory

How to browse the internet?

Exercises
* Start browser and go to url https://www.belgium.be/
* Click on the link "Government" at bottom in section "About Belgium"
* Click on "Settings" in the option "Municipalities" in the left menu
* Open the link "Flemish government" on a new tab
* Go to a new tab with the title "Organization of a municipal government"
* How many Flemish municipalities will there be on January 1, 2025?
* Close this tab and open the previous tab again
* Search for information about your municipality via Google search engine

Extra info

<u>Videos with more explanation</u>

for Dutch spoken Youtube video's, you can turn on English subtitles

* De browser Chrome (Android 13)
  https://www.youtube.com/watch?v=ZizJRK2iCCU

* How To Use Google Chrome! (Complete Beginners Guide)
  https://www.youtube.com/watch?v=A3LzPN5hya0

* Guy's Guides for Seniors: Beginner basics of Google Chrome...
  https://www.youtube.com/watch?v=UIxJ3aCb25k

* Tabbladen in Chrome op de smartphone
  https://www.youtube.com/watch?v=YkDRNcf3j9A

Section 11

Smartphone personalization

How to change home screen background?

- You can change all smartphone settings via the **Settings** app; however, this can also be done in other ways

- As an example, we want to change the background (Wallpaper) on the home screen (to show your favorite photo for example)

- Go to Settings > Personalize,
  click on smartphone image and choose "Home screen"

- Another way is to click in the middle of the home screen and keep it clicked;
  choose "Backgrounds" and then "Home screen"

How to change other settings?

- You can automatically rotate the orientation of a displayed photo according to the orientation of your device:
go to Settings > Display, and turn on "**Auto-rotate screen**"

- To improve readability, you can also adjust the font size and size of icons on the screen:
go to Settings > Personalization > "Display size and text",
and change "**Font size**" or "Display size";
go to Settings > Personalization > "Layout of ...",
and change the number of rows and icons per row

Extra info

<u>Videos with more explanation</u>

for Dutch spoken Youtube video's, you can turn on English subtitles

* Veranderen van de Achtergrond (Android 13)
  https://www.youtube.com/watch?v=HXoHWrVDKsw

Section 12

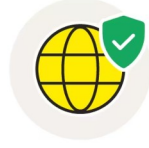# Secure access to smartphone

Why use lock screen?

6 Tips to Secure Your Mobile Devices

Use screen locks and biometrics

Update your OS and apps regularly

Use a VPN to protect your traffic

Create encrypted backups of personal information

Create strong passwords and enable 2FA

Use mobile security software for efficient security

How to best secure access?

- **ALWAYS use a lock screen** to protect access to your smartphone

- If a lock screen is used on your Android smartphone, all data is **automatically encrypted** and stored; files are then unreadable to unauthorized persons

- Set your name as "Text on the lock screen"

- in Settings > "Home and lock screen" > Lock screen; this way you indicate who the owner of the smartphone is in case of loss

How to best secure access?

- Locking with a **PIN code AND an additional fingerprint** is a good balance between level of protection and ease of use;
to do this, go to Settings > "Security & Privacy" > Device unlock

- Use a PIN code that is at least 6 long (the more the better) and has a non-obvious value;
for even better protection, you can also opt for a password;
a strong password consists of lowercase letters, uppercase letters, numbers and special characters, and is at least 11 characters long, e.g. "I.am.13.long!";
strong passwords should also be unique and should not be reused in other places or for other apps

When is a password strong?

TIME IT TAKES A HACKER TO BRUTE FORCE YOUR PASSWORD IN 2023

Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	Instantly	Instantly	Instantly
5	Instantly	Instantly	Instantly	Instantly	Instantly
6	Instantly	Instantly	Instantly	Instantly	Instantly
7	Instantly	Instantly	1 sec	2 secs	4 secs
8	Instantly	Instantly	28 secs	2 mins	5 mins
9	Instantly	3 secs	24 mins	2 hours	6 hours
10	Instantly	1 min	21 hours	5 days	2 weeks
11	Instantly	32 mins	1 month	10 months	3 years
12	1 sec	14 hours	6 years	53 years	226 years
13	5 secs	2 weeks	332 years	3k years	15k years
14	52 secs	1 year	17k years	202k years	1m years
15	9 mins	27 years	898k years	12m years	77m years
16	1 hour	713 years	46m years	779m years	5bn years
17	14 hours	18k years	2bn years	48bn years	380bn years
18	6 days	481k years	126bn years	2tn years	26tn years

> **Learn how we made this table at hivesystems.io/password**

HIVE SYSTEMS

How to best secure access?

- Using a fingerprint makes unlocking easier, faster and no one can watch, as with entering a PIN code;
  for the fingerprint, it is best to set multiple fingers,
  e.g. left and right thumb, finger of your partner

- *What if there are incorrect attempts when using a fingerprint to unlock?*
  After 5 incorrect attempts, an error message will appear and you will have to wait 1 minute
  (or 30 seconds, depending on the device) to try again;
  However, you can always unlock using a PIN code or password

- *How will the Android smartphone want to authenticate you,*
  if you have set both a PIN code and a fingerprint?
  * Your fingerprint will usually be requested (except for initial login after start)
  * If a certain amount of time (usually in hours, depending on the type of device) has passed
  * since your last unlock, you will be required to unlock using a PIN code*
  * (to completely re-verify your identity)*

Why use software security?

6 Tips to Secure Your Mobile Devices

Use screen locks and biometrics

Update your OS and apps regularly

Use a VPN to protect your traffic

Create encrypted backups of personal information

Create strong passwords and enable 2FA

Use mobile security software for efficient security

How to work safely on Android?

- It is best to perform the regularly delivered Android security updates to close security holes or fix bugs (frequency depends on manufacturer); see Settings > "Security and privacy" > "System and updates"

- Only install safe apps by only choosing verified apps from Play Store; also choose apps with many downloads and clear descriptions

- Refuse to give strange or unnecessary permissions/consents to apps, e.g. a flashlight app that asks for access to your photos

- You can also install antivirus software to avoid or remove all kinds of viruses (malware, ransomware, etc.), e.g. AVG, Bitdefender

Extra info

Videos with more explanation

for Dutch spoken Youtube video's, you can turn on English subtitles

* Schermbeveiliging: welke opties zijn er?
  https://www.youtube.com/watch?v=r7qbvKwAiRs

* De Schermvergrendeling instellen (Android 13)
  https://www.youtube.com/watch?v=7LsMfbqXkUE

Still questions?

perhaps answers to be found in follow-up presentation for intermediates