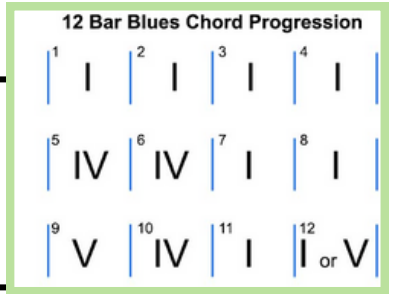
Structure 1

Intro	• Short for introduction and is at the start of a song • The length can vary
Verse	• Usually comes after the introduction • Contains lyrics and tells the story • When a verse repeats, the melody will usually be very similar but with different lyrics
Chorus	• A section that is repeated throughout a song • The role of the chorus is to represent the song's overall message
Pre-Chorus	• Usually comes between a verse and chorus • Designed to build tension that is released when the chorus starts
Bridge	• Designed to create contrast to the rest of the song • The entire mood changes
Middle 8	• A section that is 8 bars long and happens in the middle of a song • Breaks up the verse-chorus structure and introduces new material

Structure 2

Riser	• A short musical sound effects designed to help transition to a different section • Often uses while noise with an automated HPF (high pass filter) to create a sweeping effect • A riser can also be a section that builds tension in electronic music. They often contain something that rises in pitch or volume over a repeated pattern.
Drop	• After a riser, the tension is released. This is most commonly referred to as a drop. • A drop is usually found in electronic music and is the most intense part of the song containing the most instrumentation and the main hook.
Breakdown	• This is a type of bridge section that will usually come towards the end of a song • They are most common in heavy rock and metal
Refrain	• A refrain is when lyrics are repeated between verses. • Similar to a chorus, but the main difference is that a refrain is shorter and does not have the same change in instrumentation or mood that a chorus would. • Most common in folk music
Coda	• A section at the end of a piece of music that brings the music to a close • Similar to an outro as it is at the end, however a code but bring the music to a close, whereas an outro could be a fade or sudden stop. • Most common in classical music
Outro	• This is how a song ends. Not all songs will have a dedicated outro sections

Form

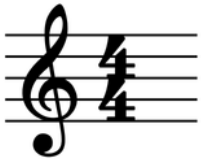


12 Bar	• Follows a chord sequence of 12 bars in length • First used in early Blues music then used in 1950s Rock n Roll
Through Composed	• Every section is different from the previous • Does not follow a traditional song structure and no chorus or verse can be idenfitied
Strophic (AAA)	• Opposite approach to through composed • Each section uses the same harmony and melody as the last • The lyrics change each time the sequence is repeate
Binary (AB)	• Just two distinct sections • Often relatively long sections
Ternary (ABA)	• Three sections, where A is different to B • You will hear a return on the A section after the B • When the A section returns, it will often be shorter and have some musical elements altered.
Arch (ABCBA)	• Three different sections - A, B and C • After these sections, section B and A return in reverse order. • This leads the song back to how it started
Rondo (ABACA)	• Starts with ternary style form, then developed with an entirely new section • The form then returns to the A section to close

Rhythm

Time Signatures

A time signature tells us how many beats are in each bar of music.



The top number tells us the number of beats per bar.

The bottom number tells us the note value at which a beat is counted.

- Simple time signatures - this is where beats can be divided equally into 2.
  e.g. 2/4, 3/4, 4/4

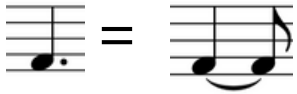
- Compound time signatures - this is where beats can be divided equally into 3
  e.g. 6/8, 9/8, 12/8.

Note Values

	Semi-quaver	1/4
	Quaver	1/2
	Crotchet	1
	Minim	2
	Semibreve	4

Dotted Note Values and Rhythms

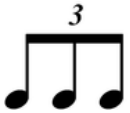
When a note is dotted, it means that the note now has the duration of itself plus half its value



Dotted rhythms can add interest and tension and release to rhythmic or melodic lines. It can create an upbeat into the following note.

Triplets

Triplets are a way of playing note durations in 3 equal parts



Syncopation

- Syncopation is when notes are accented (emphasised) that would usually not be accented.
- This is often on the off-beats (in between the beats)
- Syncopation can also be created by emphasising beats 2 + 4 instead of 1 + 3

Tempo

- How fast or slow the music is.
- Measured in BPM (beats per minute).
- The tempo can change making the music slower or faster.

Scales

Major Scales

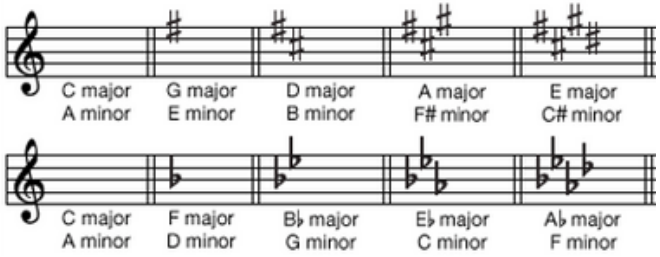
- Major scales and keys sound happier or brighter
- We can use this sequence to create any major scale from any starting note

Tone, Tone, Semitone, Tone, Tone, Tone, Semitone
(T, T, S, T, T, T, S)

- A semitone is 1 half step (e.g. C to C# or E to F)
- A tone is 1 whole step, or 2 half steps (e.g. C to D or E to F#)

Key Signatures

- Key signatures tell us what notes are in the scale.
- They will either have flats (♭) or sharps (**#**)
- The easiest key to remember is C major, which has no sharps or flats



Minor Scales

- Major scales and keys sound sadder and darker
- Every major key has a **relative minor.** To find the relative minor, you go **down 3 semitones** from the starting note of the key. (e.g C major goes to A minor)
- The sequence for a **natural minor scale** is as follows:

Tone, Semitone, Tone, Tone, Semitone, Tone, Tone
(T, S, T, T, S, T, T)

- To convert a natural minor to a **harmonic minor scale**, you raise the 7th note by a semitone

(T, S, T, T, S, T+S, S)

Pentatonic Scales

- A pentatonic scale only contains 5 notes.
- It is most commonly heard in Rock and Folk music
- A **major pentatonic** contains the **1st, 2nd, 3rd, 5th and 6th** notes of the major scale.
- We can also use the sequence below:

Tone, Tone, Tone+Semitone, Tone, Tone+Semitone
(T, T, T+S, T, T+S)

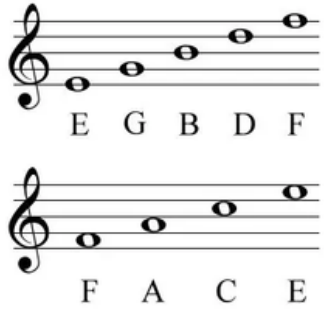
- A **minor pentatonic** contains the **1st, 3rd, 4th, 5th and 7th** notes of the natural minor scale
- We can also use the sequence below:

Tone+Semitone, Tone, Tone, Tone+Semitone, Tone
(T+S, T, T, T+S,T)

Melody

The Treble Clef

- The treble clef helps us to read which note is which on a stave for a higher pitch instrument.
- To remember the notes on the **lines** we use the phrase **E**very **G**ood **B**oy **D**eserves **F**ootball
- To remember the notes in the **spaces** we use the phrase **face in the space**



Melodic Devices

- **Retrograde -** when a previously heard melodic line appears again but is written backwards.
- **Inversion -** when a melody is flipped upside down to create a new melodic line

Melodic Form

Sequences -

- Sequences are a specific way of developing and structuring a melody
- A real sequence will repeat the melody as an exact transposition, meaning the rhythms and intervals between the notes will stay exactly the same.

Repetition -

- Repetition is used frequently when creating melodies and allows a listener to become familiar with a melody very quickly.
- This could be repeating:
  - a note pith or note duration
  - a short melodic phrase
  - a rhythmic idea

Arch Form -

- Arch form describes the shape (pitch) of the overall melody.
- This form will resemble the shape of an arch.
- It will be mostly stepwise (notes near to each other) and gradually rise and fall.
- You can also have inverted arch form, where the melody falls and then rises.

Harmony

Harmony

- Harmony refers to the chords used in a piece of music
- Harmony describes the relationship between the notes of a chord

Major Chords

- We can create a major chord using the major scale - take the **1st, 3rd and 5th** note from the major scale **(+4 semitones, +3 semitones)**

Minor Chords

- We can create a minor chord using the minor scale - take the **1st, 3rd and 5th** note from the major scale **(+3 semitones, +4 semitones)**

Diminished Chords

- The 3rd and 5th of a major chord are flattened by a semitone. **(+3 semitones, +3 semitones)**
- Diminished chords sound very unstable, even more so than a minor chord.

Extended Chords

Extended chords have 4 notes and are called 7ths.

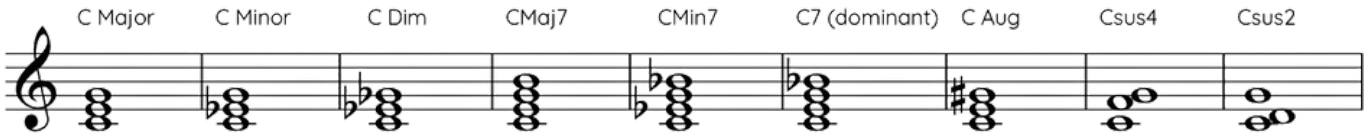
- **Major 7th -** Major 3rd, Perfect 5th, Major 7th above the 1st note. **(+4 semitones + 3 semitones + 4 semitones)**
- **Minor 7th -** Minor 3rd, Perfect 5th, Minor 7th above the 1st note. **(3 semitones + 4 semitones + 3 semitones)**
- **Dominant 7th -** Major 3rd, Perfect 5th, Minor 7th above the 1st note. **(4 semitones + 3 semitones + 3 semitones)**

Augmented Chords

- The last note of a major triad (5th) is raised by a semitone. **(+4 semitones, +4 semitones)**
- Augmented chords are known as chromatic chords as they do not fit into the given key.

Suspended Chords

- When the major or minor 3rd is replaced with a perfect fourth or a major second. It gives an open sound to the chord.
- Suspended 4th (Sus4) - 3rd is replaced by perfect fourth. Intervals: perf 4th and perf 5th above the 1st note. **(+5 semitones, +2 semitones)**
- Suspended 2nd (Sus2) - 3rd is replaced by major second. Intervals: maj 2nd and perf 5th above the 1st note. (**+2 semitones, +5 semitones)**



Instrumentation

Acoustic Instruments

- **Strings -** e.g. Violin, Cello. Played with a bow (arco) or plucked (pizzicato). Also includes Acoustic Guitar and Harp.

- **Percussion -** Instruments that are played by being struck or shaken.
  - Unpitched percussion includes bongos, congas, drum kit (kick, snare, hi-hat).
  - Pitched, with sounding notes, includes timpani, marimba, vibraphone.

- **Keyboards -** Keyboard instruments that do not require further amplification. e.g. acoustic piano, electric piano, organ (organs/electric pianos have in-built speakers)

- **Brass -** e.g. Trumpet, Trombone, Tuba

- **Woodwind -** e.g. flute, clarinet, saxophone.

- **Vocals -** Split into lead vocals (main vocal part) and backing vocals (additional voice parts often providing harmony).

Electric Instruments

- **Electric Guitar -** Need to be plugged into an amplifier. Magnetic coils (pick ups) create an electrical signal to send to amplifiers. Solid body prevented feedback found in earlier hollow-body models.

- **Bass Guitar -** Need to be plugged into an amplifier. Magnetic coils (pick ups) create an electrical signal to send to amplifiers.

- **Synthesiser -** Keyboard instrument that generates sounds via electronic oscillators. Often requires amplification.

- **Sampler -** Instrument that plays back pre-recorded sounds. The earliest Samplers used tape before becoming digital.

- **Drum Machine -** Uses either samples or synthesis to create drum sounds. Triggered by pads or a sequencer.

- **Turntables -** Used for playing vinyl records. DJs use them to play whole tracks or isolate beats or riffs.

- **CDJ -** Work in a similar way to turntables but play CDs rather than vinyls.

- **Mixer -** DJs use them to mix between turntables. Include volume faders and EQ controls

- **DJ Software -** Replicate turntables and mixer playing digital audio files.

1950s - Rock 'n' Roll

Key Musical Features

Instrumentation	• Double Bass/ Electric Bass • Acoustic Piano • Electric Guitar • Vocals • Acoustic Drums
Structure	• Verse, Chorus, Instrumental • 12 bar form
Time Signature	• 4/4
Tempo	• Fast: 160-180 BPM
Harmony	• Major Key • Primary chords and Dominant 7ths
Melody	• Guitar riffs • Repeated short phrases in vocals
Rhythm	• Syncopation • Swung drum rhythm • Dotted Rhythms • Walking bassline

Development of Tech - Instruments

Electric Guitar-

- Played a major role in the development of Rock & Roll during the 1950s.
- First solid-body electric guitar was made in 1956, the Stratocaster.

- Hollow Body guitars had high levels of feedback when played loudly.
- A solid body solved this problem.
- Loud guitars now started distorting which led to 1960s Rock music.

Electric Bass Guitar -

- Gradually replaced upright double basses.
- Used the same solid-body technology of the electric guitars
- Required special amplifiers with good low-end sound.

Development of Tech - Recording

2-Track Tape Recording - During the 1950s, tape machines only had 1 to 2 tracks available. Limitations included:

- Mono: recordings were mixed in mono and had no panning.
- Microphones: Only used a small number of microphones, some instruments would sound distant as a result.
- Live Recording: Most instruments were recorded live in one take.
- Artefacts: Unwanted sounds caused by the tape machine
- Distortion: Created when an audio signal is too loud
- Noise: Unwanted sound called tape hiss

1960s - Rock

Key Musical Features

Instrumentation	• Electric Bass • Distorted Electric Guitar • Vocals • Acoustic Drums
Structure	• Intro, Verse, Pre-chorus, Chorus, Bridge, Solo.
Time Signature	• 4/4
Tempo	• Varied tempo depending on song
Harmony	• Major Key/Minor Key • Increased use of minor chords
Melody	• Major/Minor Pentatonic Scales • Guitar Riffs
Rhythm	• Syncopation

Development of Tech - Instruments

Analogue Synthesis

- During the 1960s early types of hardware synthesisers became available.
- The Moog Synthesiser enabled musicians to create sounds using waveforms and play melodies using a keyboard.
- During the recording process synthesisers were often used to enhance the texture by playing chords or adding extra melodic lines.

Development of Tech -Recording

4-8 Track Tape Recording

During the 1960s, tape machines developed to have either 4 or 8 tracks available allowing for the following to happen:

- Overdubbing: Recording instruments separately over previous recordings
- Multiple microphones: close mic techniques meaning better capture
- Reduction mixing: bouncing down multiple tracks to a single track to create more tracks
- Stereo recording: Left, Centre and Right panning to separate instruments

Quality improved but these were still present:

- Artefacts, Distortion, Noise

Development of Tech - Effects

During the 1960s, guitar pedals and other hardware effects started to be used. These effects were added during the recording process rather than added afterwards.

- Reverb: Plate, Spring, Room.
- Delay: tape delay.
- Dynamics: Compression.
- Pedals: Distortion and Wah.

1960s Folk & Soul

Folk - Key Musical Features

Instrumentation	• Acoustic Instruments • Vocal harmonies • Piano • Acoustic Guitar • Violin • Percussion instruments
Structure	• Verse-Chorus • Strophic form
Time Signature	• 4/4, 6/8
Tempo	• Varied tempo depending on song
Harmony	• Major Key/Minor Key
Melody	• Major/Minor scale • Pentatonic Scales • Guitar Riffs • Verse repeating melody
Rhythm	• Rhythmic Repetition

Development of Technology

- Both Soul and Folk were impacted by the technology developments of the 1960s, particularly the expansion to 4 & 8 track recorders.
- See 1960s Rock Knowledge Organiser for details.

Soul - Key Musical Features

Instrumentation	• Electric Bass • Clean Electric Guitar • Vocals • Acoustic Drums • Electric Piano • Horns • Strings
Structure	• Intro, Verse, Pre-chorus, Chorus, Bridge, Solo
Time Signature	• 4/4
Tempo	• Relatively fast: 110-130 BPM
Harmony	• Major Key/Minor Key • Extended Chords
Melody	• Piano Riffs and hooks • Bass riffs • Hooks
Rhythm	• Syncopation

1970s - Disco

Key Musical Features

Instrumentation	• Electric Bass • Clean Electric Guitar • Vocals – Male Falsetto (high) • Acoustic Drums or Drum Machine • Synthesised Strings/Horns
Structure	• Pop Song structure
Time Signature	• 4/4
Tempo	• Relatively fast around 120 BPM
Harmony	• Minor Key • 7th Chords
Melody	• Minor Pentatonic Scales • Guitar and bass melodic lines
Rhythm	• Syncopation • 4 to the floor kick drum

Development of Tech - Instruments

Drum Machines

- Early drum machines were produced, most notably the Roland CR-78.
- The sounds were generated using synthesis.
- These machines allowed users to create their own drum patterns and play them back using a step sequencer.
- You could create patterns that were not physically possible to play but also have a consistent drum pattern without timing changes.

Analogue Sampler

- The Mellotron became a popular choice for a range of musicians.
- It used cassette tape recordings of real instruments and played them back at different speeds mapped to a keyboard.
- This enabled users to play violins, flutes and even choirs.
- Analogue samplers were soon replaced with digital samplers in the 1980s.

Development of Tech -Recording

16-24 Track Tape Recording

Tape machines developed to have either 16 or 24 tracks available. Recording processes continued to develop:

- Overdubbing: Now commonplace rather than live recording at once.
- Multiple microphones: Every instrument could have a close mic.
- More tracks: no need for reduction mixing.
- Stereo recording: Modern conventional panning of instruments.
- Artefacts: Unwanted sounds caused by the tape machine are only intentional now. Much better quality tape.
- More experimentation: Could write new music whilst recording.

1970s - Reggae & Funk

Reggae - Key Musical Features

Instrumentation	• Electric Bass • Clean Electric Guitar with Delay • Vocals • Acoustic Drums • Organ
Structure	• Pop song structure
Time Signature	• 4/4, 12/8
Tempo	• Slower 80-110 BPM
Harmony	• Major Key
Melody	• Repetition • Melodic basslines
Rhythm	• Syncopation • Triplets

Development of Technology

- Both Reggae and Funk were impacted by the technology developments of the 1970s, the expansion of the tape recorder and new instruments being developed.
- See 1970s Disco Knowledge Organiser for details.

Funk- Key Musical Features

Instrumentation	• Electric Bass • Clean Electric Guitar - Wah • Vocals • Acoustic Drums • Horn Section: Saxophone, Trumpet and Trombone.
Structure	• Pop Song structure
Time Signature	• 4/4
Tempo	• 90-110 BPM
Harmony	• Minor Key
Melody	• Repetition • Guitar Riffs • Melodic basslines
Rhythm	• Syncopation • Triplets

1980s - Hip Hop

Key Musical Features

Instrumentation	• Sampled instruments: ◦ Drums, piano & bass • Drum machines • Bass synths • Rapped vocals
Structure	• Pop Song structure • Strophic
Time Signature	• 4/4
Tempo	• 80-100 BPM
Harmony	• Major/Minor Keys
Melody	• Repetition • Bass riffs
Rhythm	• Syncopation

Development of Tech - Instruments

Digital Samplers

- The Akai S950 was a hardware sampler that enabled you to store short pieces of audio on floppy disks.
- This sampler meant you could sample your own record collection and create a vast array of original samples.
- You could also retrigger them using MIDI.
- This meant you could program it using step sequencing or play live using a keyboard.

Digital Synthesis

- The Yamaha DX7 was the first digital synthesiser to be mass produced.
- It used more reliable digital oscillators to produce waveforms.
- It used FM synthesis rather than subtractive synthesis that analogue synths used.
- Also included memory to save synthesiser patches enabling instant recall of a sound at the push of a button.
- Also came with many preset sounds which became popular throughout the 1980s.

Development of Tech - Recording

Digital Tape Recording

- Tape machines began to record music digitally, improving quality:
- Better signal to noise ratio: less noise in recordings
- No artefacts: no unwanted noise or distortion added

1980s - Electronica

Key Musical Features

Instrumentation	• Drum Machine • Electric Piano • Sequenced Basslines
Structure	• Intro, build up, drop
Time Signature	• 4/4
Tempo	• Fairly fast: 120-130 BPM
Harmony	• Major Key/Minor Key
Melody	• Repeating hooks
Rhythm	• Syncopation • Repetition • 4 to the floor drum beat

Development of Tech - Recording

Portastudio

- A 4 track cassette tape recorder.
- Relatively expensive, it provided beginner and unsigned musicians to record and create their own music at home.
- As it used regular cassette tapes, it was an affordable way of recording demos at home.
- Some producers use these machines today as they provide a LoFi sound.

Development of Tech - MIDI

- MIDI became the common language used by electronic musical instruments to communicate with each other.
- It also provided a link to a computer.
- This opened up a world of possibilities when programming synthesisers and samplers.
- Atari ST computer was built with MIDI ports built in. This meant you could now have a GUI to sequence.

1990s - Dance

Key Musical Features

Instrumentation	• Vocals • Drum Machine • Synthesiser • Sampler
Structure	• Pop song structure • Risers • Long building intro
Time Signature	• 4/4
Tempo	• Fast (120-150bpm)
Harmony	• Minor
Melody	• Repetitive hooks • Diatonic
Rhythm	• Repetition • 4 to the floor drum beat

Development of Tech - Recording

Hard disk-based recording

- Digital recording moved to hard disk recording in 1990s.
- This meant that you could record and store many more files than previously possible.
- In 1996, the DAW was created and soon musicians were able to use software to record audio and use MIDI on their computers.

Development of Tech - MIDI

Keyboard Workstations

- Keyboard workstations combined the sounds of a professional keyboard with more advanced MIDI sequencing, audio and some effects processing.
- This was the start of a studio-in-a-box where one person could play in all the parts using just one keyboard.

21st Century Pop

Key Musical Features

Instrumentation	• Sampled instruments • Software instruments • Synths • Use of creative effects e.g. autotune
Structure	• Pop Song structure
Time Signature	• 4/4
Tempo	• Usually faster 120-140 BPM
Harmony	• Major/Minor Keys • Four-chord progression
Melody	• Repetition - one note repetition • Hooks
Rhythm	• Syncopation

Development of Tech -Hardware

- The use of audio plugins has led to an overly processed sound.
- Musicians started to move away from this by returning to using both analogue recording hardware and effects hardware.
- Companies have also sought to provide emulations of their hardware in software form, e.g. the TR808 is now available as a software instrument.

Development of Tech - DAW

- Technology developed rapidly and DAWs are now capable of having up to 1,000 audio tracks simultaneously alongside handling MIDI as well.
- It is now possible to experiment with virtually limitless sounds and ideas all within one single project.
- Non-destructive editing is also possible, changes can be reversed without affecting audio quality.
- DAWs also include numerous processing plugins.

Development of Tech - Effects

Audio Processing Plugins

- As DAWs became portable, the hardware effects that were added needed to become digital.
- They became plugins that include reverb, delay, modulation effects, compressors and EQs.
- They use computer algorithms to provide effects similar to the analogue hardware.
- There are also purely digital plugins such as autotune.