

### Section 1.1

## STAVES AND CLEFS

### Elements of music

The fundamental elements of music are **pitch** (the highness/lowness of the notes), **duration** (how long the notes last), **timbre** (overall type of sound such as trumpet versus clarinet), and **dynamics/loudness**. Some authors add **frequency** (the speed of the physical vibration making the sound) and **texture** (see 5.1 Texture in Music).

### Staff

A **staff** (plural: **staves**) uses five parallel lines to notate (write down) the pitch aspect of music. Higher-pitched notes are written higher on the staff.

### Note names

Staff lines are numbered **1 to 5**, starting from the **bottom** line. **Note names** from low to high are the letters A, B, C, D, E, F, G, then repeating A, B, C...

### Clef Treble clef

A **clef** indicates which note names go on which lines (and spaces between the lines) on the staff. Clefs are written at the start of the staff. **Treble clef** designates the **second** line from the bottom as **G**. The lines in treble clef represent the pitches E, G, B, D, and F. The spaces are F, A, C, and E.

staff → treble clef → line 5

G, so... D E F G A B C D E F G → line 1

Every Good Boy Does Fine F-A-C-E spells face

lines: E G B D F spaces: D F A C E G

### Bass clef

**Bass clef** designates the **fourth** line from the bottom as **F**. The lines in bass clef represent the pitches G, B, D, F, and A. The spaces are A, C, E, and G.

staff → bass clef →

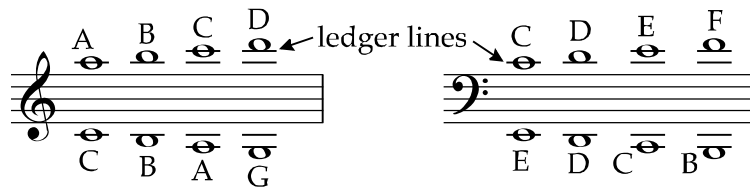
F, so... F G A B C D E F G A B

Good Boys Do Fine Always All Cars Eat Gas All Cows Eat Grass

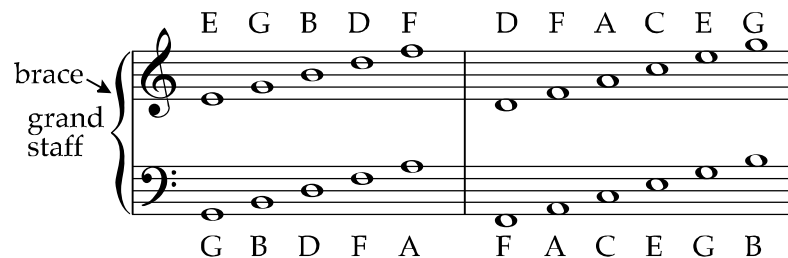
lines: G B D F A spaces: F A C E G B

**Ledger lines**

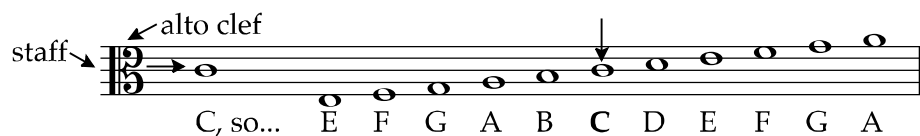
**Ledger lines** are small lines that extend the staff higher and lower. They can be used with any clef. Ledger lines belong to a single note; they never connect to ledger lines for surrounding notes.

**Grand staff**

A **grand staff** is a treble clef staff and bass clef staff connected with a **brace**. Piano music uses a grand staff, along with instruments such as harp and marimba. Sometimes vocal (choir) music is also notated using a grand staff.

**C clefs**  
**Alto clef**

All **C clefs** indicate where C is on the staff. **Alto clef** is a C clef centered on the **third line** from the bottom, designating it as C. Parts for the viola (a string instrument in the violin family) almost always use alto clef.

**Tenor Clef**

**Tenor clef** is a C clef centered on the **fourth line** from the bottom, designating it as C. Bassoon and trombone music occasionally uses tenor clef, although both instruments more commonly read bass clef.

