## 010 Game engine

2D Nodes

**TileMapLayer** 

A node that uses 2D tiles

to build a grid-based map.

RayCast2D

A ray in 2D space, used to find the first

CollisionObject2D it intersects.

Area2D

A region of 2D space that detects other

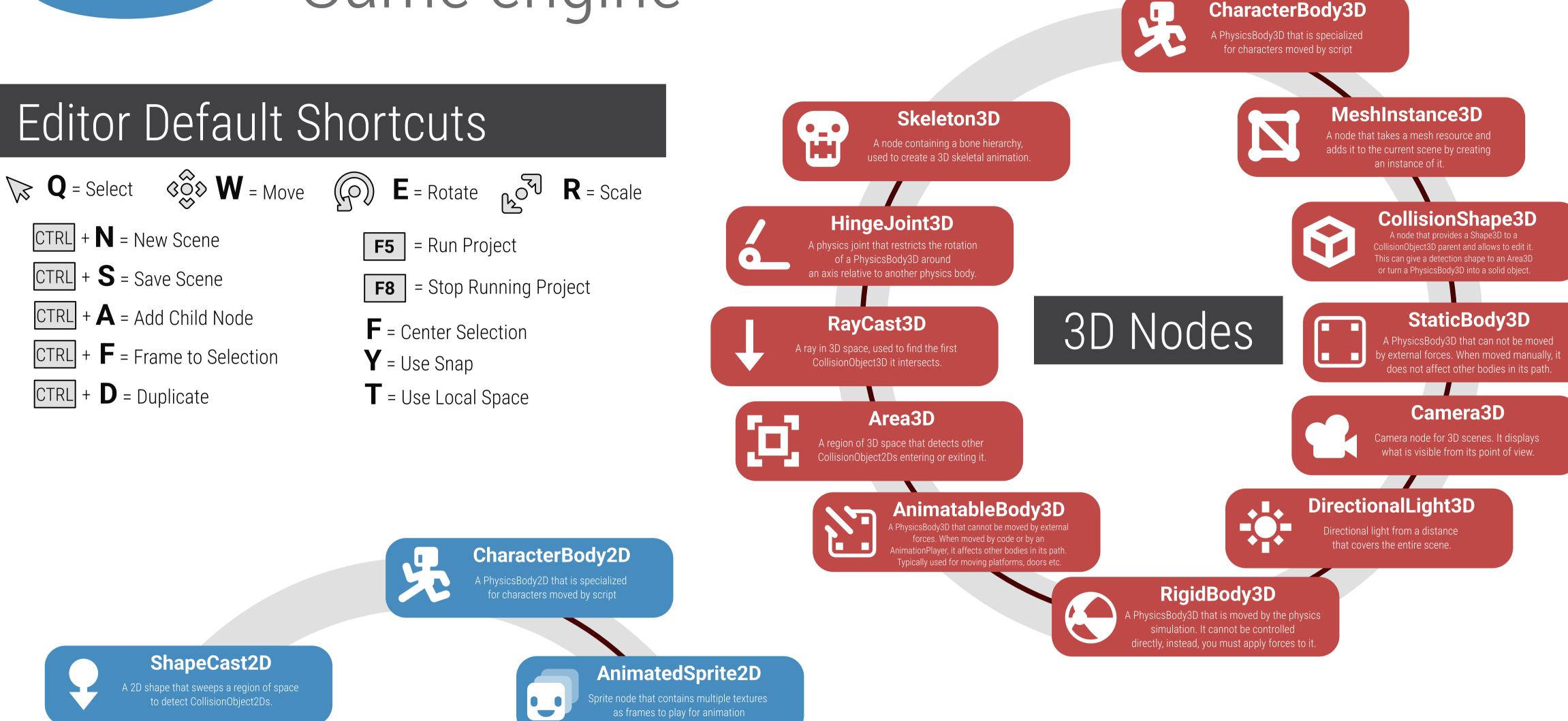
sionObject2Ds entering or exiting it.

AnimatableBody2D

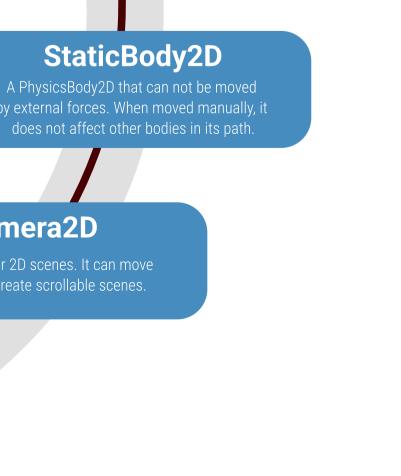
## GODOT CHEAT SHEET / LEARN WITH A POSTER

Version 1.8 (March 2025)

This poster was created by T. Thormählen for educational purposes (MIT license) The information was copied mostly from the Godot Engine 4.3 documentation (MIT license) The data presented here has been selected for a typical beginner's tutorial. It is not intended to be complete.



## Important Control / General Nodes



CollisionShape2D

CollisionObject2D parent and allows to edit it.
This can give a detection shape to an Area2D or turn a PhysicsBody2D into a solid object.

StaticBody2D

Camera2D

nd zoom to create scrollable scenes.













## GDScript

```
# Everything after "#" is a comment.
# A file is a class!
# (optional) icon to show in the editor dialogs:
@icon("res://path/to/optional/icon.svg")
# (optional) class definition:
class_name MyClass
# Inheritance:
extends BaseClass
# Member variables.
var a = 5
var s = "Hello"
var arr = [1, 2, 3]
var dict = {"key": "value", 2: 3}
var other_dict = {key = "value", other_key = 2}
var typed_var: int
var inferred_type := "String"
# Constants.
const ANSWER = 42
const THE_NAME = "Charly"
 enum {UNIT_NEUTRAL, UNIT_ENEMY, UNIT_ALLY}
enum Named {THING_1, THING_2, ANOTHER_THING = -1}
# Built-in vector types.
var v2 = Vector2(1, 2)
var v3 = Vector3(1, 2, 3)
# Functions.
func some_function(param1, param2, param3):
   const local_const = 5
    if param1 < local_const:</pre>
        print(param1)
    elif param2 > 5:
        print(param2)
    else:
        print("Fail!")
    for i in range(20):
        print(i)
    while param2 != 0:
        param2 -= 1
    match param3:
             print("param3 is 3!")
             print("param3 is not 3!")
    var local_var = param1 + 3
    return local_var
# Functions override functions with the same name
# on the base/super class.
# If you still want to call them, use "super":
func something(p1, p2):
    super(p1, p2)
# It's also possible to call another function in the super class:
func other_something(p1, p2):
    super.something(p1, p2)
# Inner class
class Something:
    var a = 10
# Constructor
func _init():
    print("Constructed!")
    var lv = Something.new()
    print(lv.a)
```