Unity
"Parenting"

By John

This is what your hierarchy probably looks like

What about complicated, large scenes?
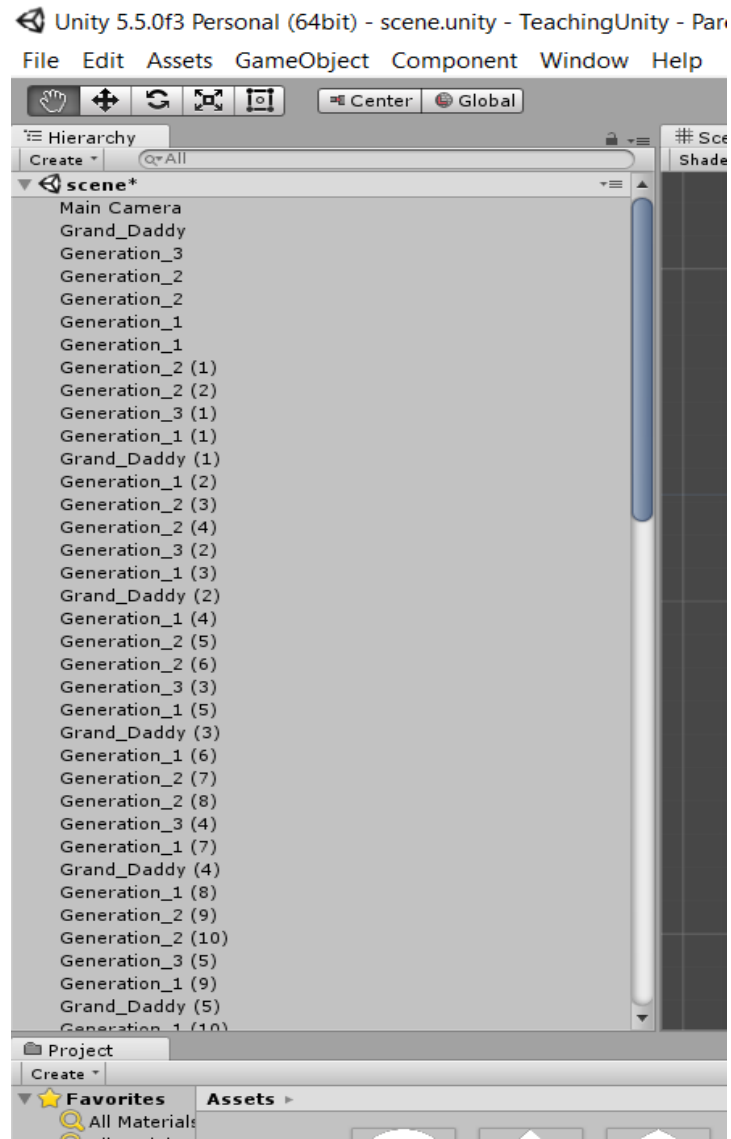
Unit's solution? Parenting!

Unity 5.5.0f3 Personal (64bit) - scene.unity

File   Edit   Assets   GameObject   Compone

≡ Hierarchy

Create ▾   Q▾All

▼ scene
        Main Camera
    ▶ Grand_Daddy

- Notice the little grey triangle
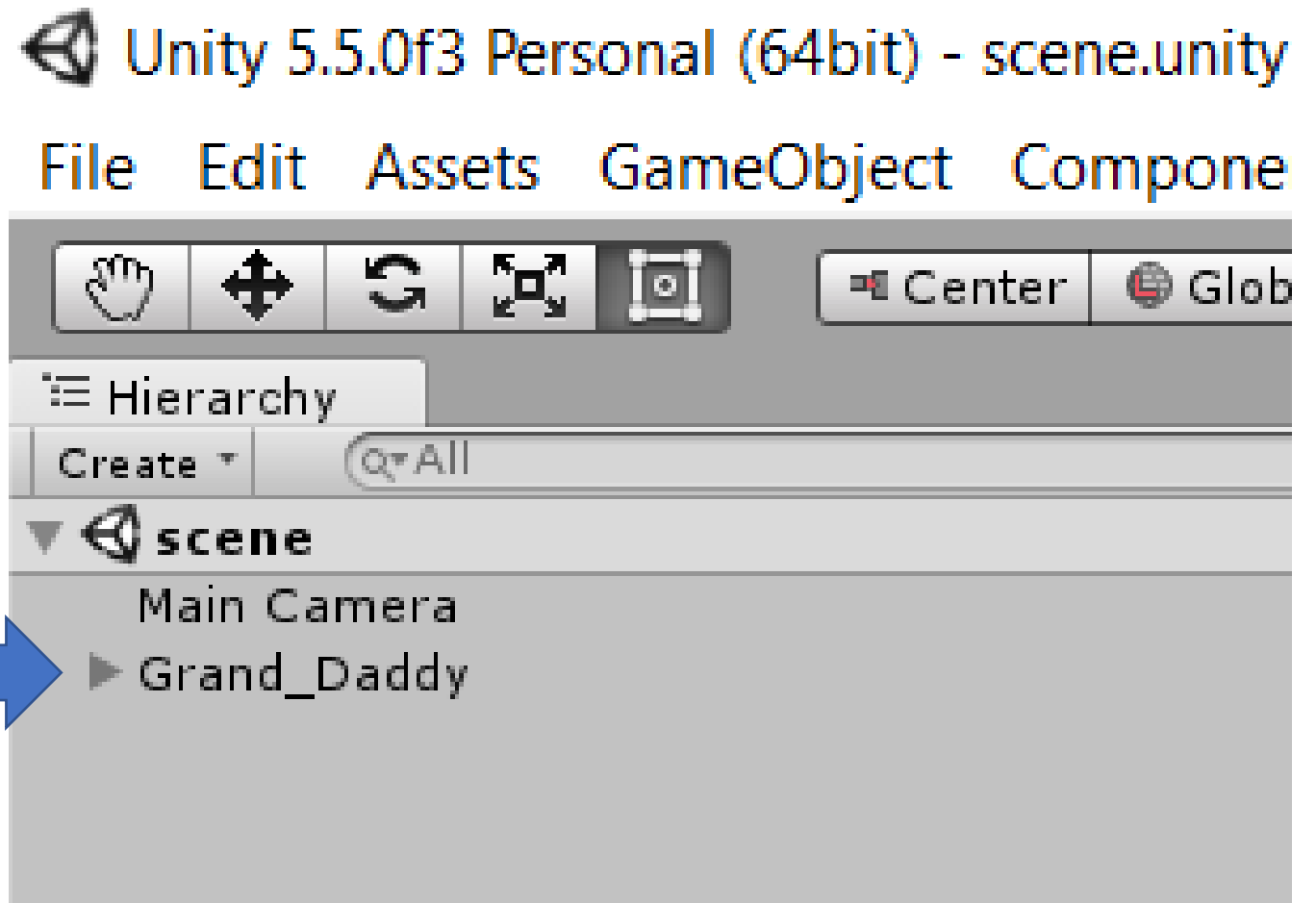
Game-Objects have a "parent/child" relationship

- Technically, every Game-Object is a child of the "scene" Object, which is what you save when you press ctrl-S.

Again, notice the little

grey triangle.
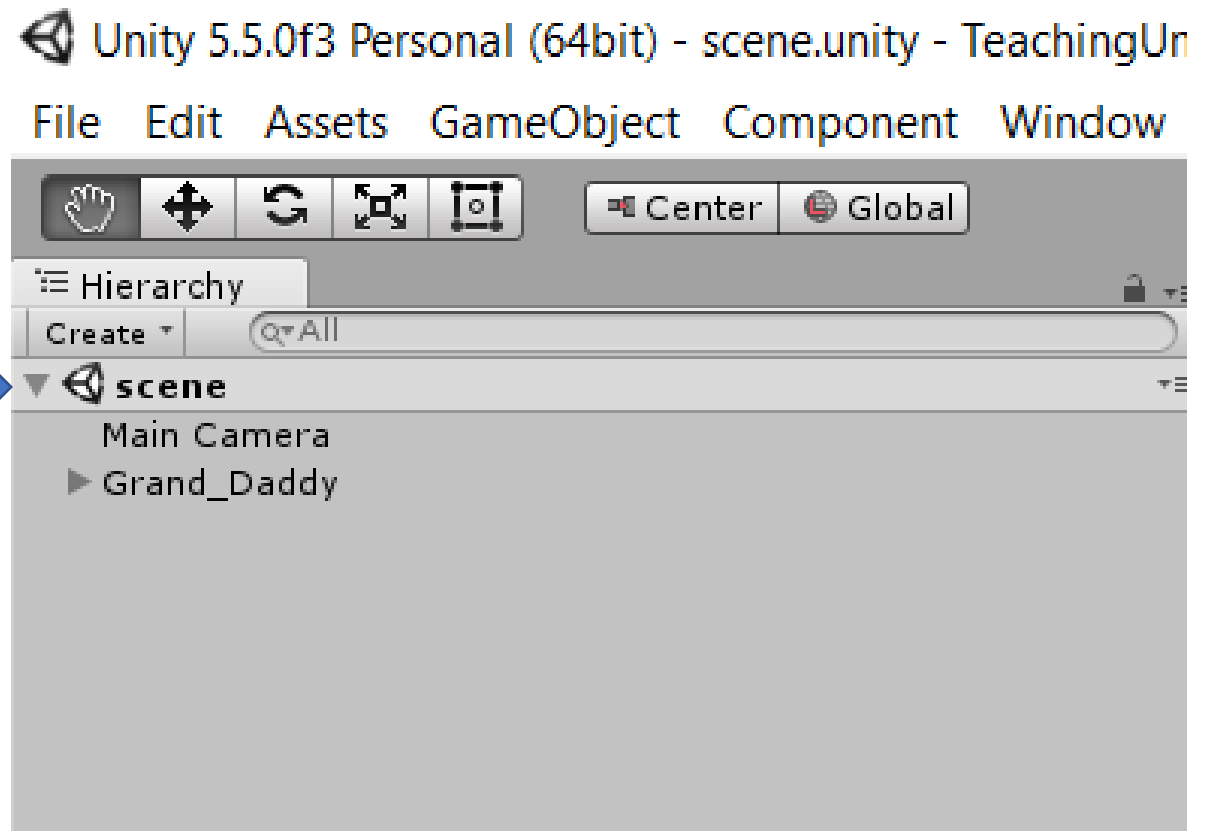
Every Game objects "transform" component (position, rotation, and scale) is now relative to the parent.

- Because of this, every game object has a "world position", and a "local position".

With the parent selected . . .
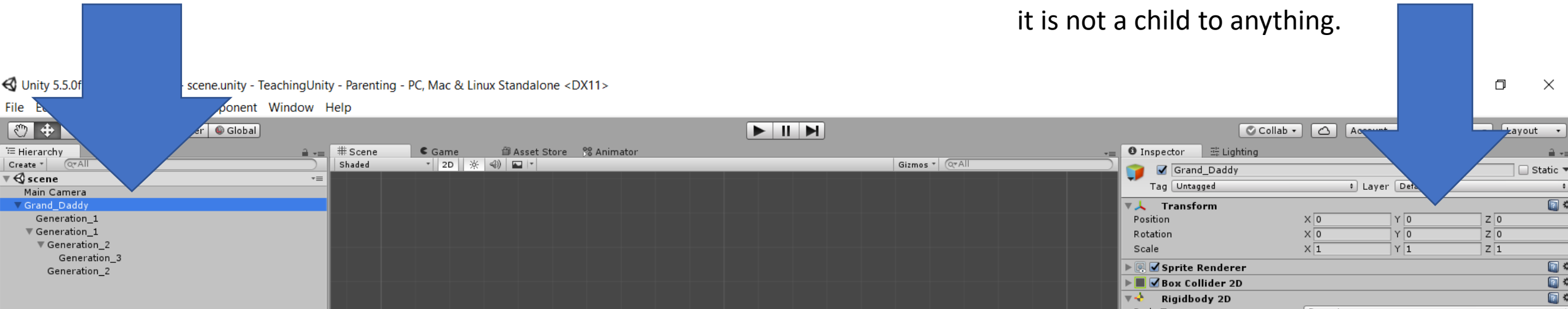
-The parent's "world position" is (0,0,0).
-The parent has no local position, because it is not a child to anything.

With the child selected . . .

-The parent's "world position" is (-2 ,-2 ,0).
-The child's "local position" is (-2, -2, 0).

What happens if we move the parent object?

- If we move the parent object, the child's transform will follow. However, in the inspector, it will look the same. This is because the inspector shows the local position. If the Game Object does not have a local position, then it shows the World Position.

With the parent selected . . .

The parent's "world position" is (10,0,0).
The parent has no local position, because it is not a child to anything.

Unity 5.5.0f — scene.unity - TeachingUnity - Parenting - PC, Mac & Linux Standalone <DX11>

File Edit ponent Window Help

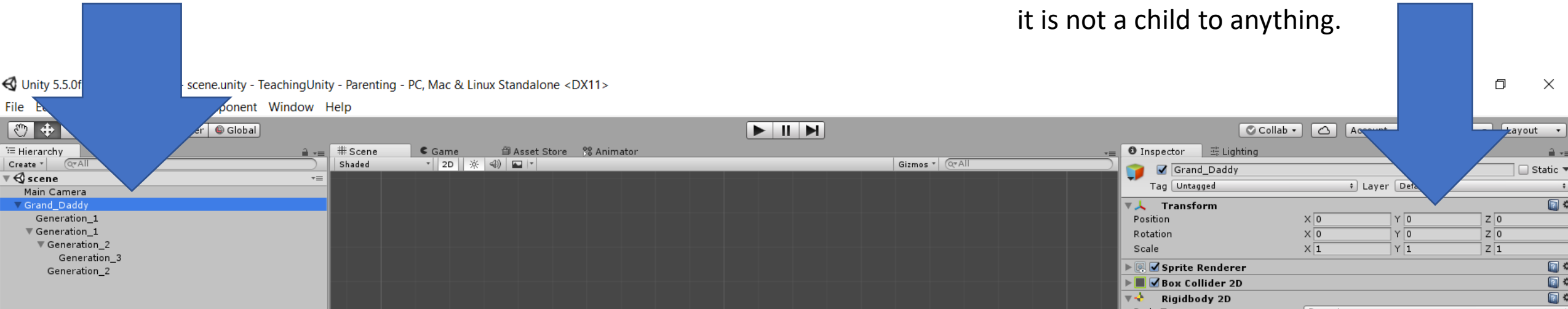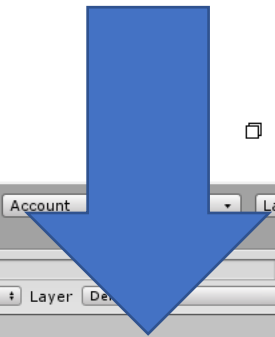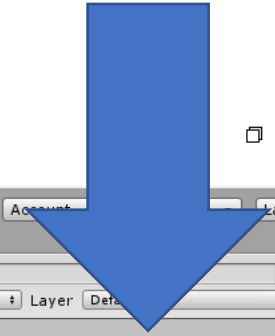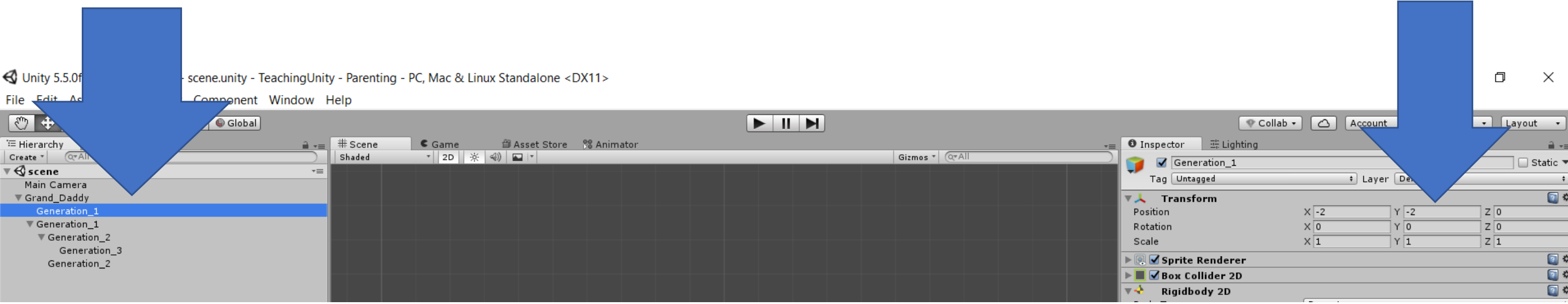Global   Collab ▾   Account   Layout ▾

☰ Hierarchy   # Scene   ⚲ Game   ⛁ Asset Store   ⚙ Animator   ⓘ Inspector   ⚙ Lighting
Create ▾   Q All   Shaded ▾ 2D ☀ ◀) ▣ ▾   Gizmos ▾ Q All   ☑ Grand_Daddy   ☐ Static ▾
▼ scene   Tag Untagged   ♦ Layer De
  Main Camera   ▼ Transform
  ▼ Grand_Daddy   Position   X 0   Y 0   Z 0
     Generation_1   Rotation   X 0   Y 0   Z 0
     ▼ Generation_1   Scale   X 1   Y 1   Z 1
        ▼ Generation_2   ▶ ☑ Sprite Renderer
           Generation_3   ▶ ☑ Box Collider 2D
        Generation_2   ▼ ✦ Rigidbody 2D

The parent's "world position" is (8,-2,0).
The child's "local position" is still (-2, -2, 0).

With the child selected . . .

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File Edit As   Component Window Help

Global   Collab ▾   Account   ▾ Layout ▾

☰ Hierarchy   # Scene   ⚲ Game   ⛁ Asset Store   ⚙ Animator   ⓘ Inspector   ⚙ Lighting
Create ▾   Q All   Shaded ▾ 2D ☀ ◀) ▣ ▾   Gizmos ▾ Q All   ☑ Generation_1   ☐ Static ▾
▼ scene   Tag Untagged   ♦ Layer De
  Main Camera   ▼ Transform
  ▼ Grand_Daddy   Position   X -2   Y -2   Z 0
     Generation_1   Rotation   X 0   Y 0   Z 0
     ▼ Generation_1   Scale   X 1   Y 1   Z 1
        ▼ Generation_2   ▶ ☑ Sprite Renderer
           Generation_3   ▶ ☑ Box Collider 2D
        Generation_2   ▼ ✦ Rigidbody 2D

Think of it like a box.

- You can store things in a box.
- You can move a box, which will move the things.
- You can rotate a box, which will rotate the things.
- However, if you move the things, the box will not rotate
- If you rotate the things, the box will not rotate.

TLDR;

- Parenting is for organizing the Hierarchy.
- Changing the parent's transform changes the child's transform
- Change the child's transform DOES NOT change the parent's transform.