# Computer Graphics
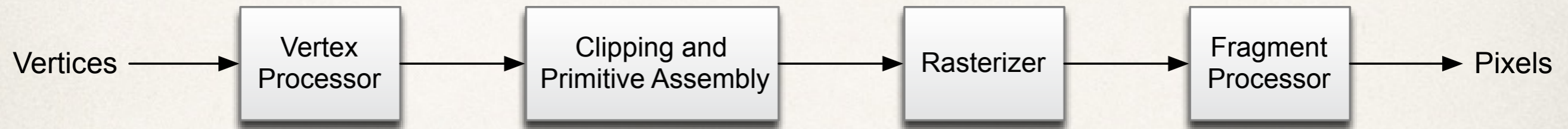
Graphics pipeline

16 September 2016

# The graphics pipeline

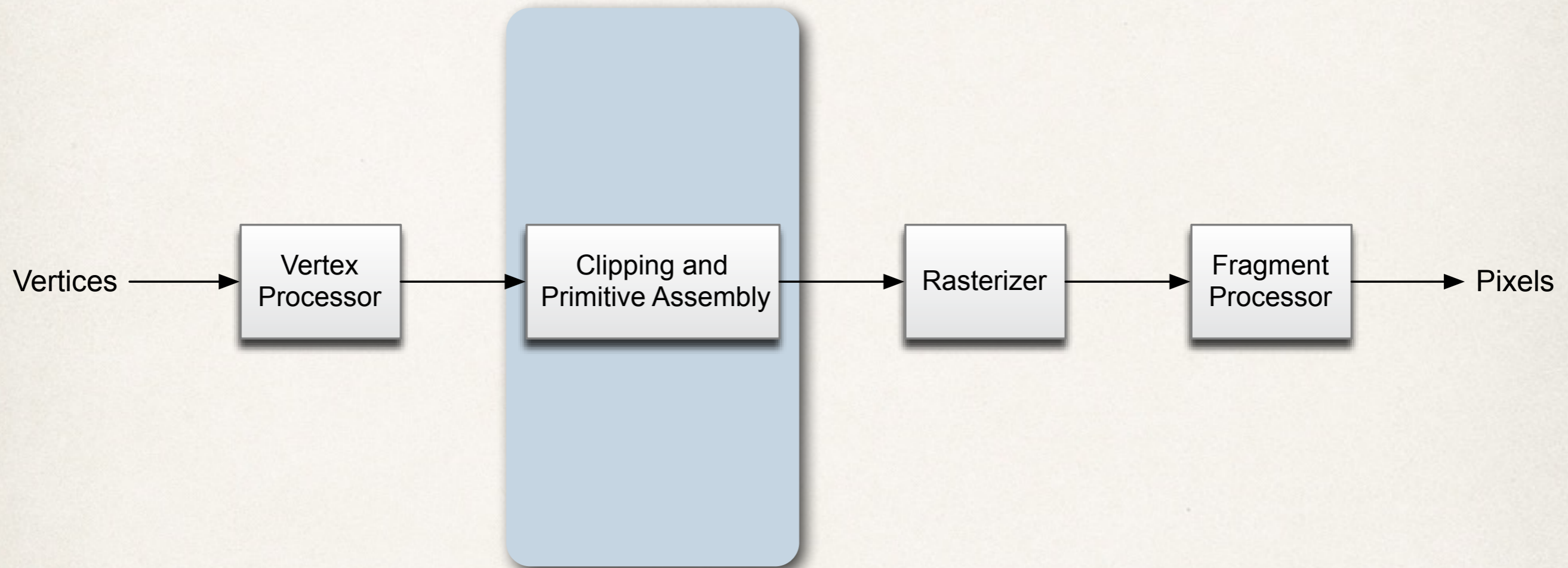Vertices $\longrightarrow$ **Vertex Processor** $\longrightarrow$ **Clipping and Primitive Assembly** $\longrightarrow$ **Rasterizer** $\longrightarrow$ **Fragment Processor** $\longrightarrow$ Pixels

# The graphics pipeline

Vertices → **Vertex Processor** → **Clipping and Primitive Assembly** → **Rasterizer** → **Fragment Processor** → Pixels
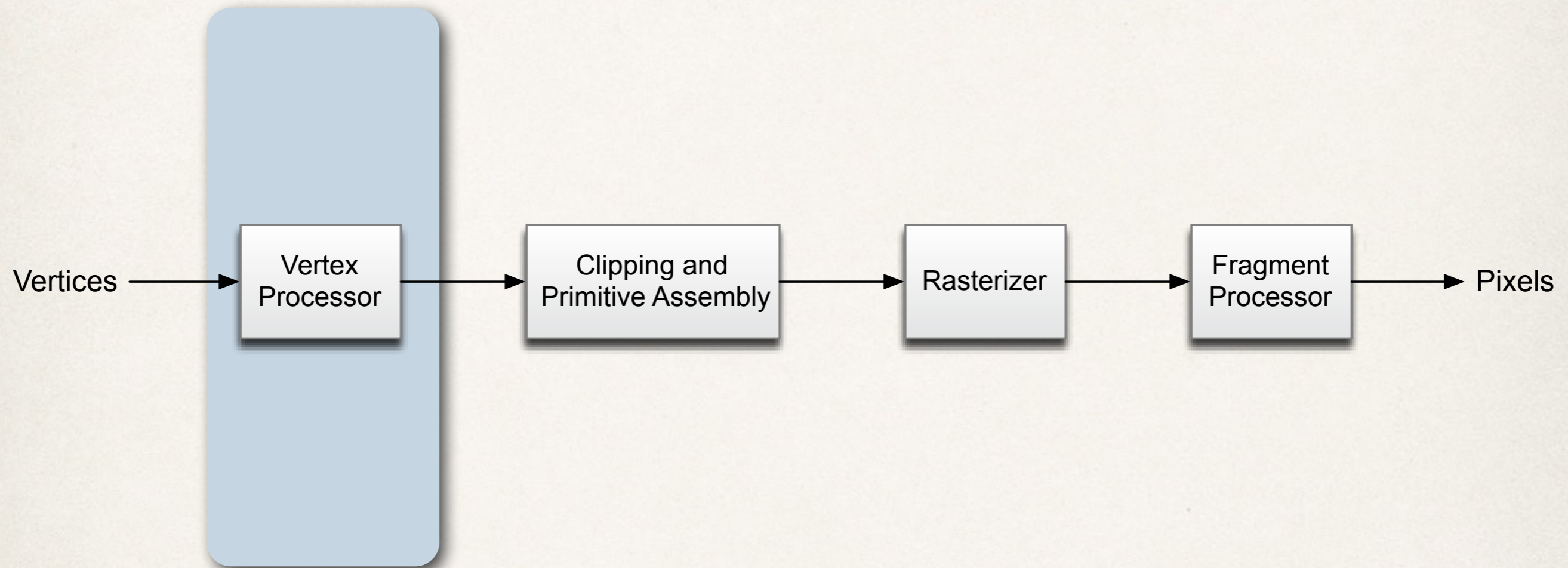
Transform vertices from synthetic "world space" to screen space

# The graphics pipeline

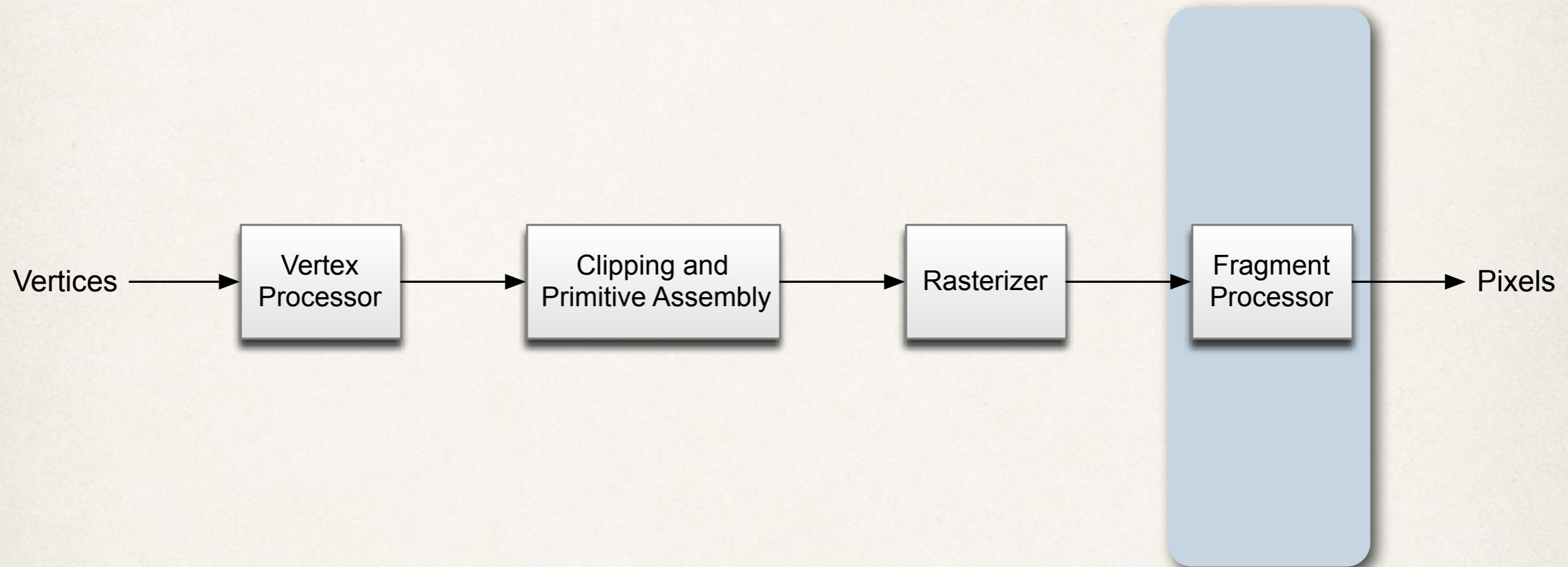Vertices → **Vertex Processor** → **Clipping and Primitive Assembly** → **Rasterizer** → **Fragment Processor** → Pixels

Assemble the graphics primitives from the vertices and crop based on what can be seen

# The graphics pipeline

Vertices → Vertex Processor → Clipping and Primitive Assembly → Rasterizer → Fragment Processor → Pixels
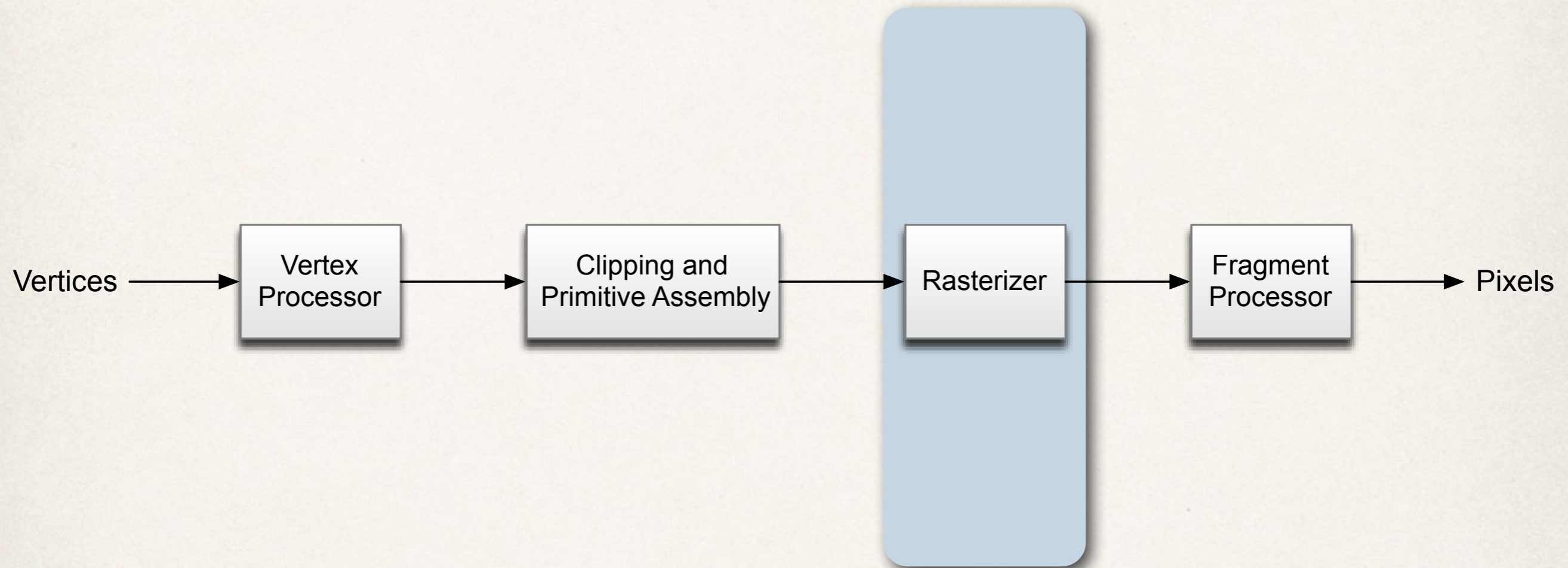
Transform the primitives to fragments ("pixels to be")

# The graphics pipeline

Vertices → **Vertex Processor** → **Clipping and Primitive Assembly** → **Rasterizer** → **Fragment Processor** → Pixels

Use the fragment information to determine the color of each pixel to be displayed