BLENDER (3D ГРАФИКАСЫМЕН) БАҒДАРЛАМАСЫМЕН ТАНЫСУ

1. Blender (3D графикасымен) бағдарламасымен танысу. Программа интерфейсі, терезелер, объектілер

2. Blender - ортасы туралы түсінік. Blendergдегі текстура, материалдар, дәл өлшемдер бойынша объектілер құру

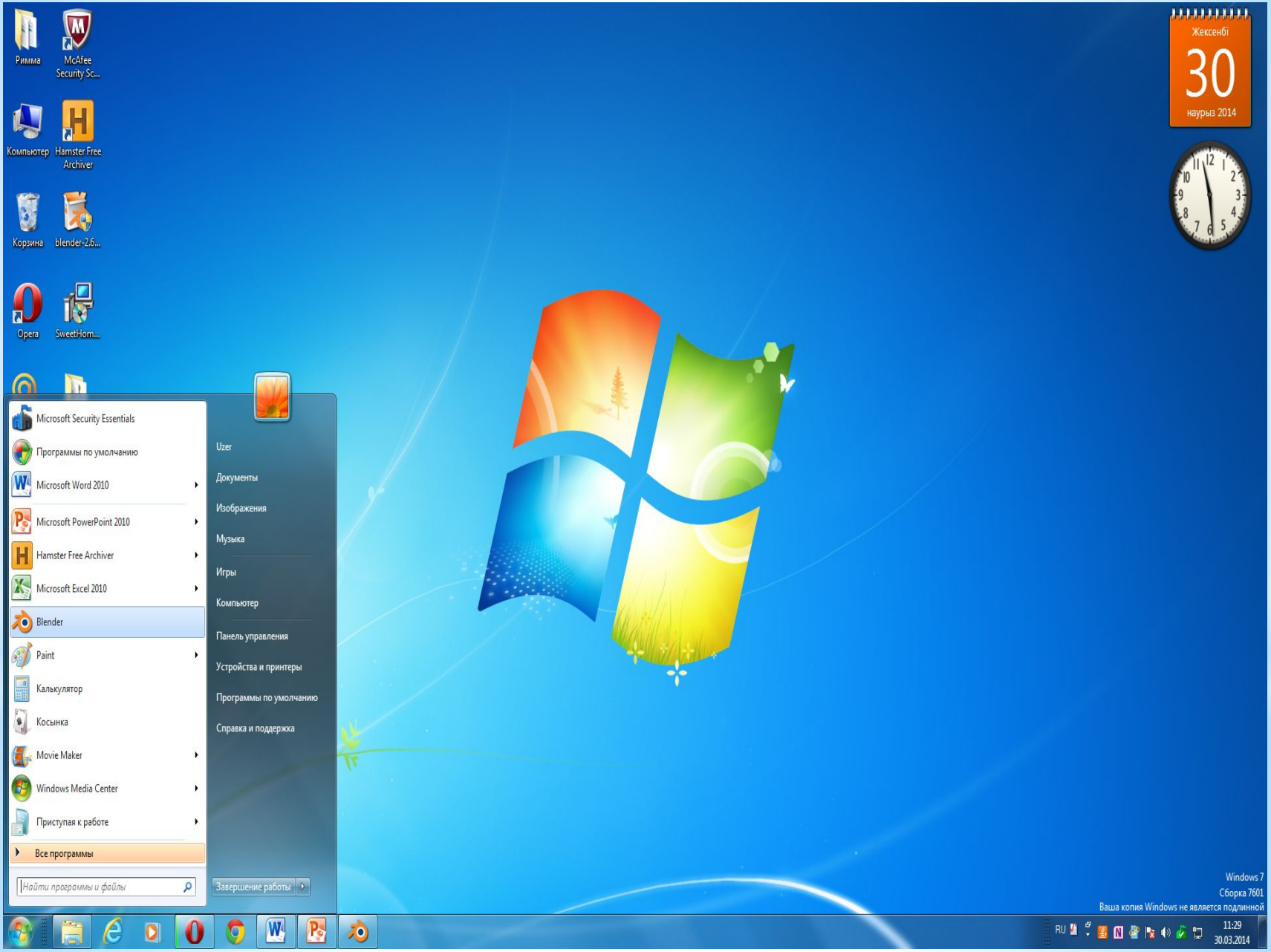
3. Blender бағдарламасында орын ауыстыру, айналдыру, масштабын өзгерту

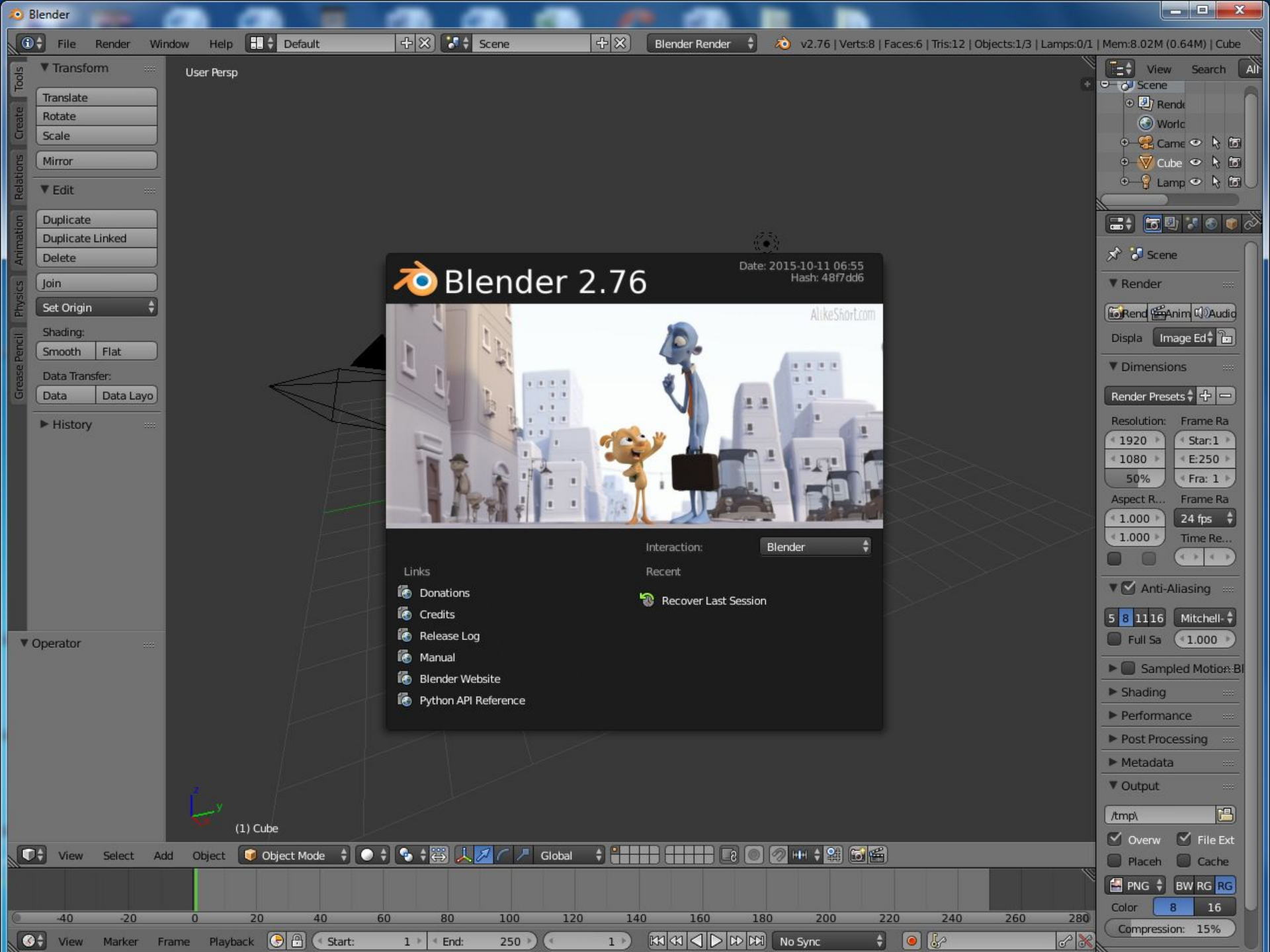
Сабақтың мақсаты: программа терезелерімен таныстыру.
Сабақтың міндеті:
а) білімділік: Blender программаның негізгі принциптерін, терезелер және объектілердің қасиеттерін меңгерту;
ә) дамытушылық: өмірден мысалдар келтіруді және программамен жұмыс жасауда компьютерді тиімді қолдануды үйрету, шығармашылық және логикалық ойлау қабілеттерін дамыту;
б) тәрбиелік: оқушының шығармашылық білігін, танымдық қабілетін, өзі тұжырым жасауға және өзінің айтқанын дәлелдеуге тәрбиелеу
Сабақтың типі: жаңа сабақ
Сабақтың түрі: дәстүрлі сабақ
Сабақтың көрнекілігі:
ДК, интерактивті тақта, Blender программасы

Сабақтың барысы:
I. Ұйымдастыру кезеңі
а) кабинетті және құрылғыларды сабаққа әзірлеу;
ә) оқушылардың сабаққа қатысын тексеру;
б) оқушылардың сабаққа дайындығын тексеру;

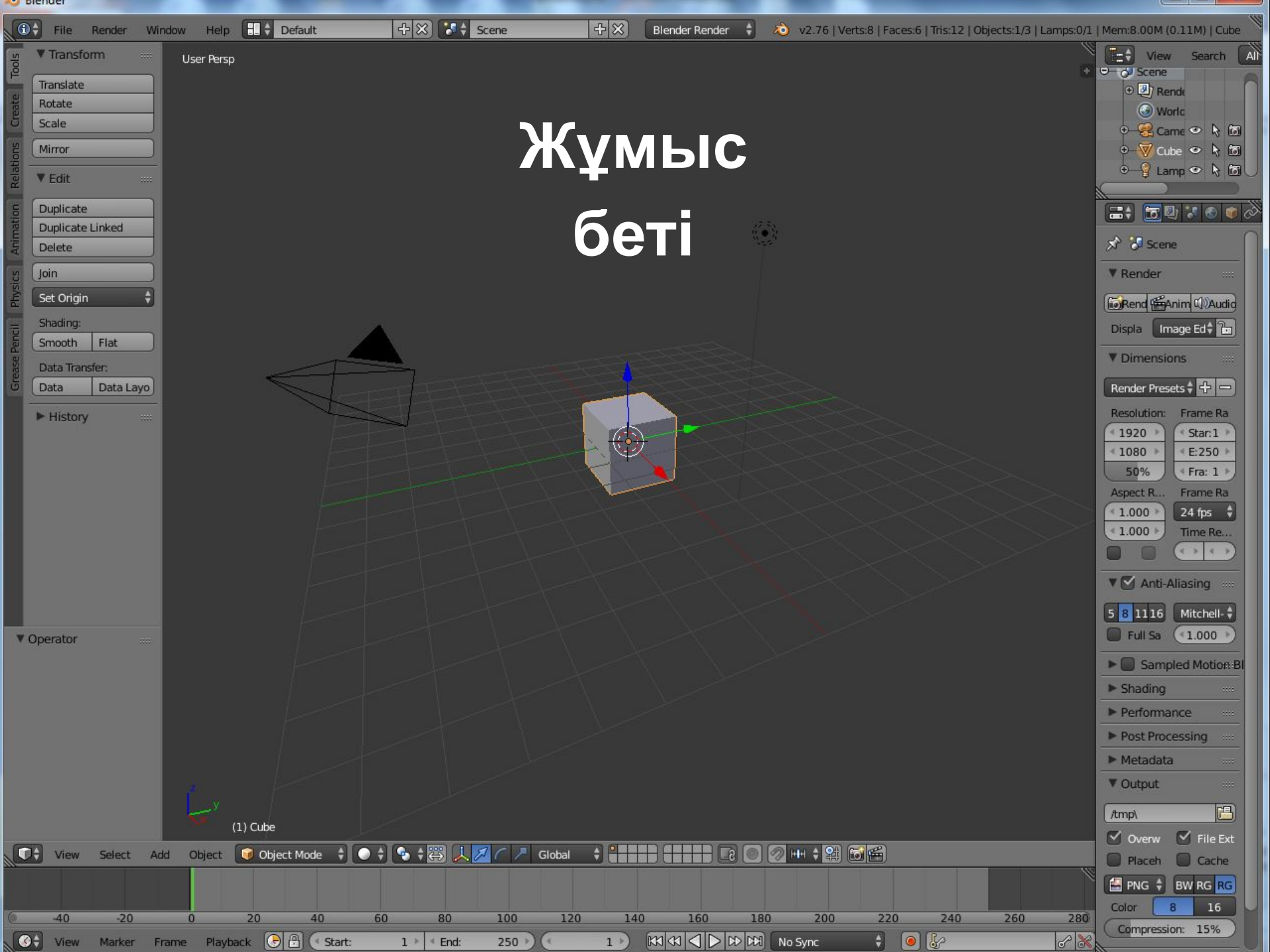
II. Оқушыларды сабақ жоспарымен және мақсатымен таныстыру.

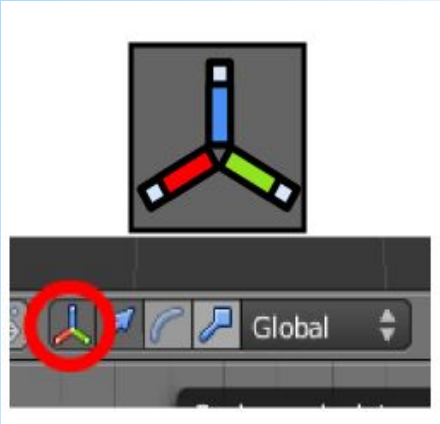
III. Жаңа сабақ.




Blender
File Render Window Help
Default
Scene
Blender Render
v2.76 | Verts:8 | Faces:6 | Tris:12 | Objects:1/3 | Lamps:0/1 | Mem:8.02M (0.64M) | Cube
Transform
Translate
Rotate
Scale
Mirror
Edit
Duplicate
Duplicate Linked
Delete
Join
Set Origin
Shading:
Smooth
Flat
Data Transfer:
Data
History
Operator
User Persp
Blender 2.76
Date: 2015-10-11 06:55
Hash: 48f7dd6
AlikeShort.com
Interaction:
Blender
Links
Donations
Credits
Release Log
Manual
Blender Website
Python API Reference
Recent
Recover Last Session
(1) Cube
View Select Add Object
Object Mode
Global
View Search
Scene
Cube
Render
Dimensions
Render Presets
Resolution:
1920
1080
50%
Frame Ra
Star:1
E:250
Fra: 1
Aspect R...
1.000
1.000
Frame Ra
24 fps
Time Re...
Anti-Aliasing
Mitchell-
Full Sa
1.000
Sampled Motion Bl
Shading
Performance
Post Processing
Metadata
Output
/tmp\
Overw
File Ext
Placeh
Cache
PNG
BW RG RG
Color 8 16
Compression: 15%
View Marker Frame Playback
Start: 1
End: 250
No Sync

Жұмыс беті

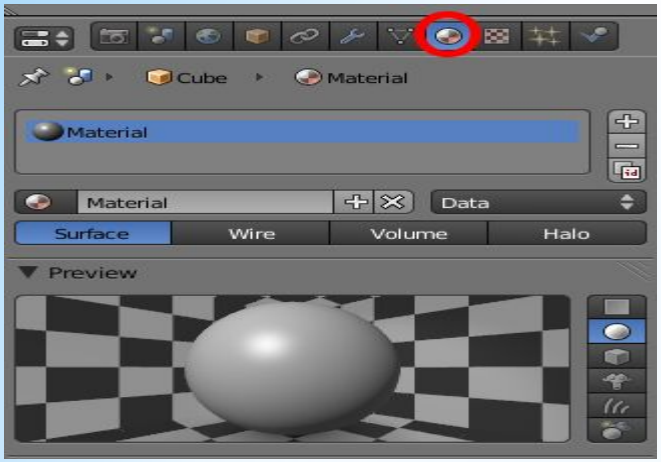

File
Render
Window
Help
Default
Scene
Blender Render
v2.76 | Verts:8 | Faces:6 | Tris:12 | Objects:1/3 | Lamps:0/1 | Mem:8.00M (0.11M) | Cube
Transform
Translate
Rotate
Scale
Mirror
Edit
Duplicate
Duplicate Linked
Delete
Join
Set Origin
Shading:
Smooth
Flat
Data Transfer:
History
Operator
User Persp
(1) Cube
View
Select
Add
Object
Object Mode
Global
View
Search
Scene
Cube
Lamp
Render
Dimensions
Render Presets
Resolution:
1920
1080
50%
Frame Ra
Star:1
E:250
Fra: 1
Aspect R...
1.000
1.000
24 fps
Anti-Aliasing
Mitchell-
Full Sa
1.000
Sampled Motion Bl
Shading
Performance
Post Processing
Metadata
Output
/tmp\
Overw
File Ext
Placeh
Cache
PNG
Color
8
16
Compression: 15%
View
Marker
Frame
Playback
Start: 1
End: 250
No Sync



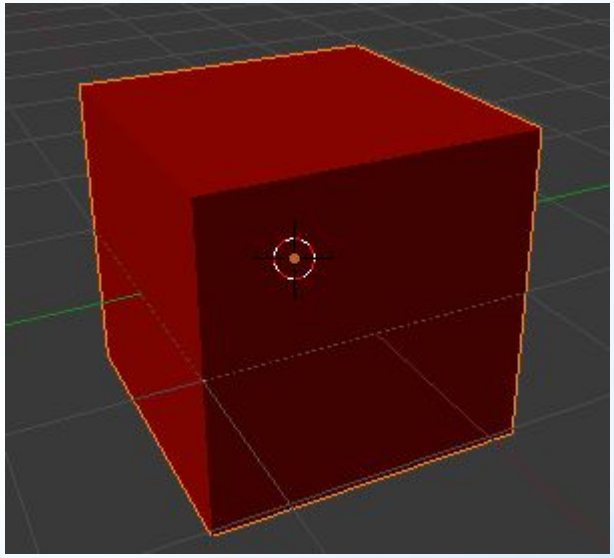
Объектерді өңдеуге мүмкіндік беретін виджет орналастыруға(перемещать), вращать(айналдыруға), масштабировать (масштабтауға)

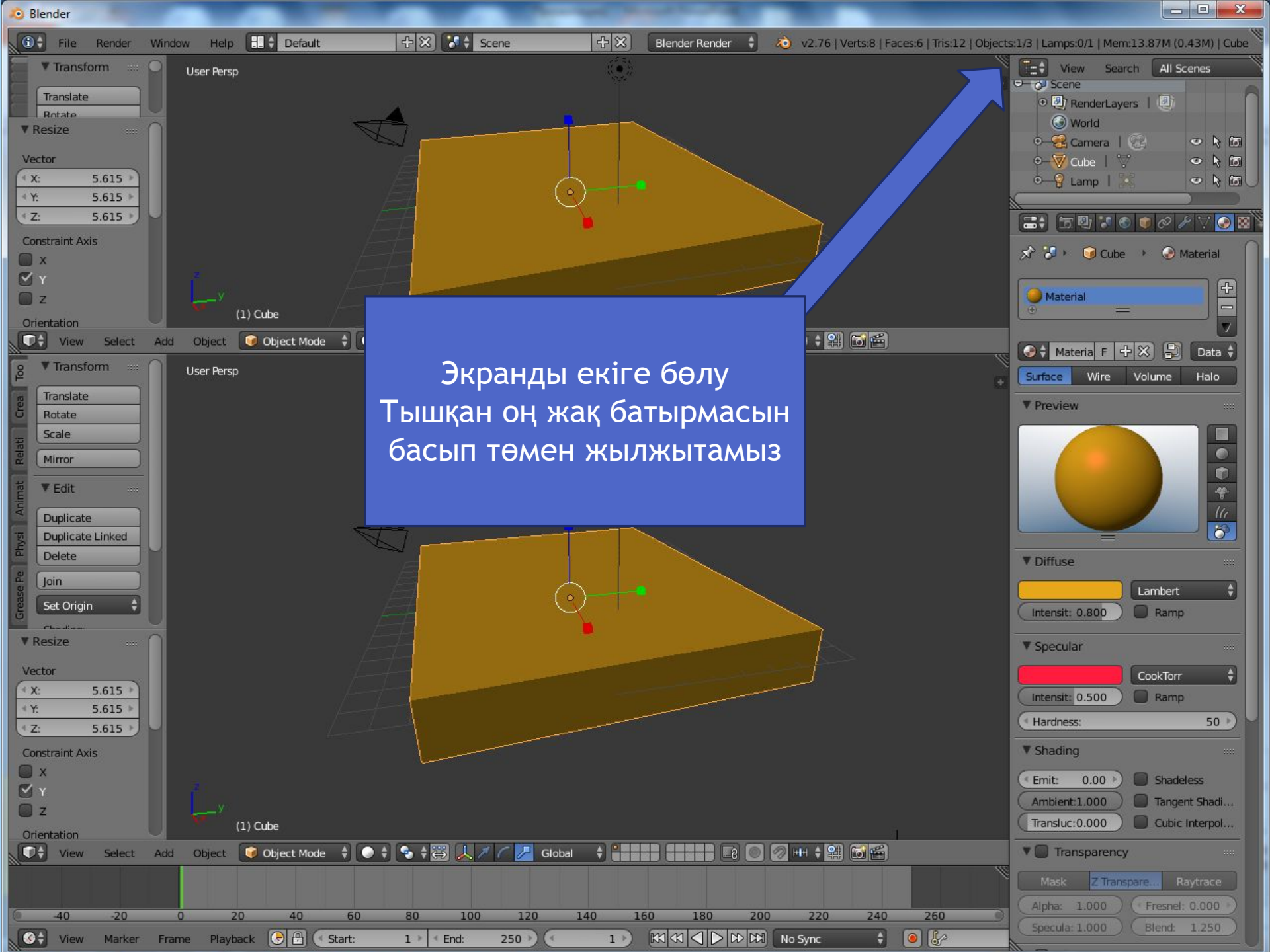
Айналдыру виджеты (виджет вращения)

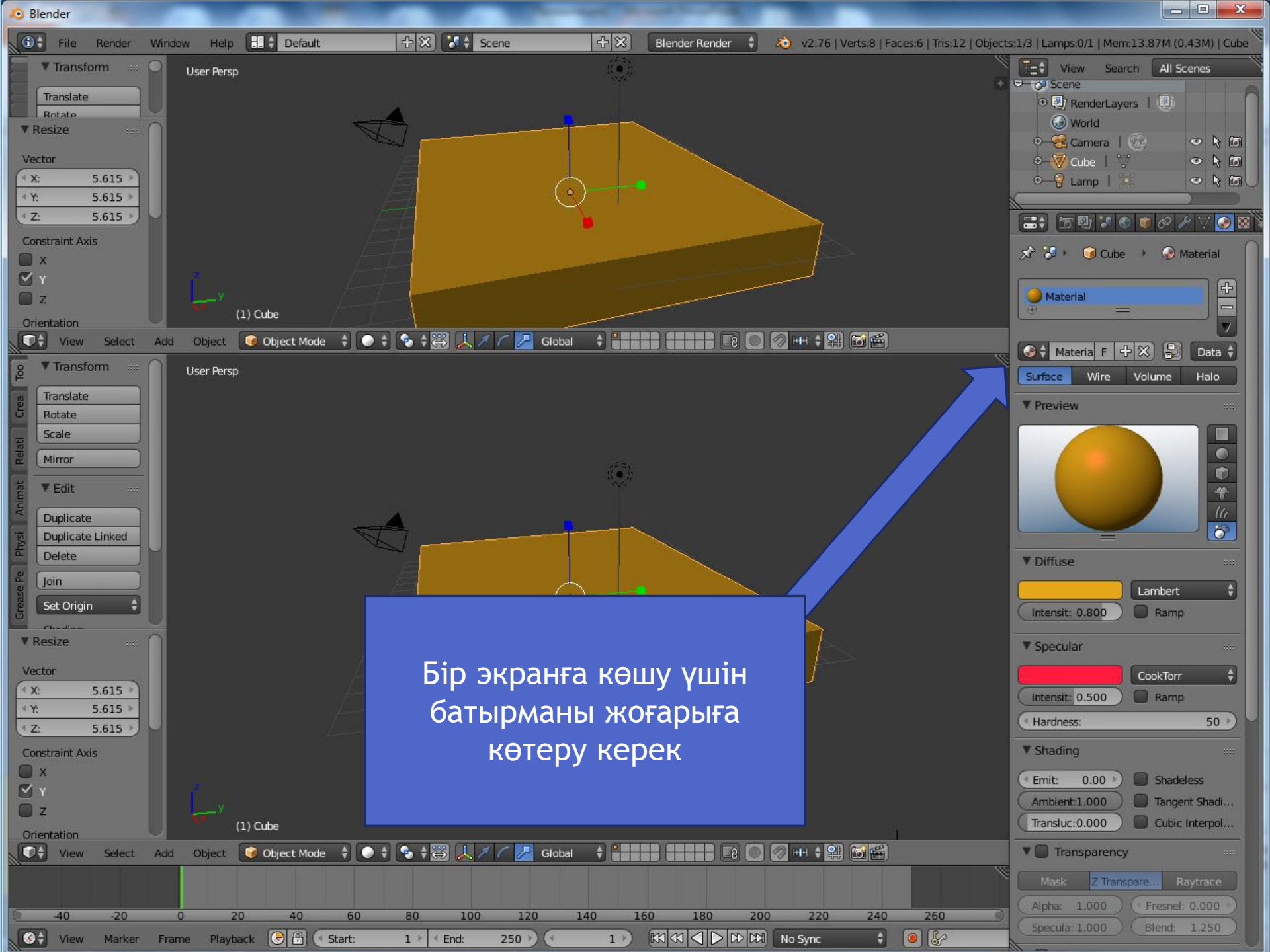
Камера
3D әлемінде бір ғана камера болсада болуы тиіс, өйткені Blender сақтауы керек. Мысалы суретке түсіру үшін пренетақтадағы функционалдық перне F12 басса жеткілікті.

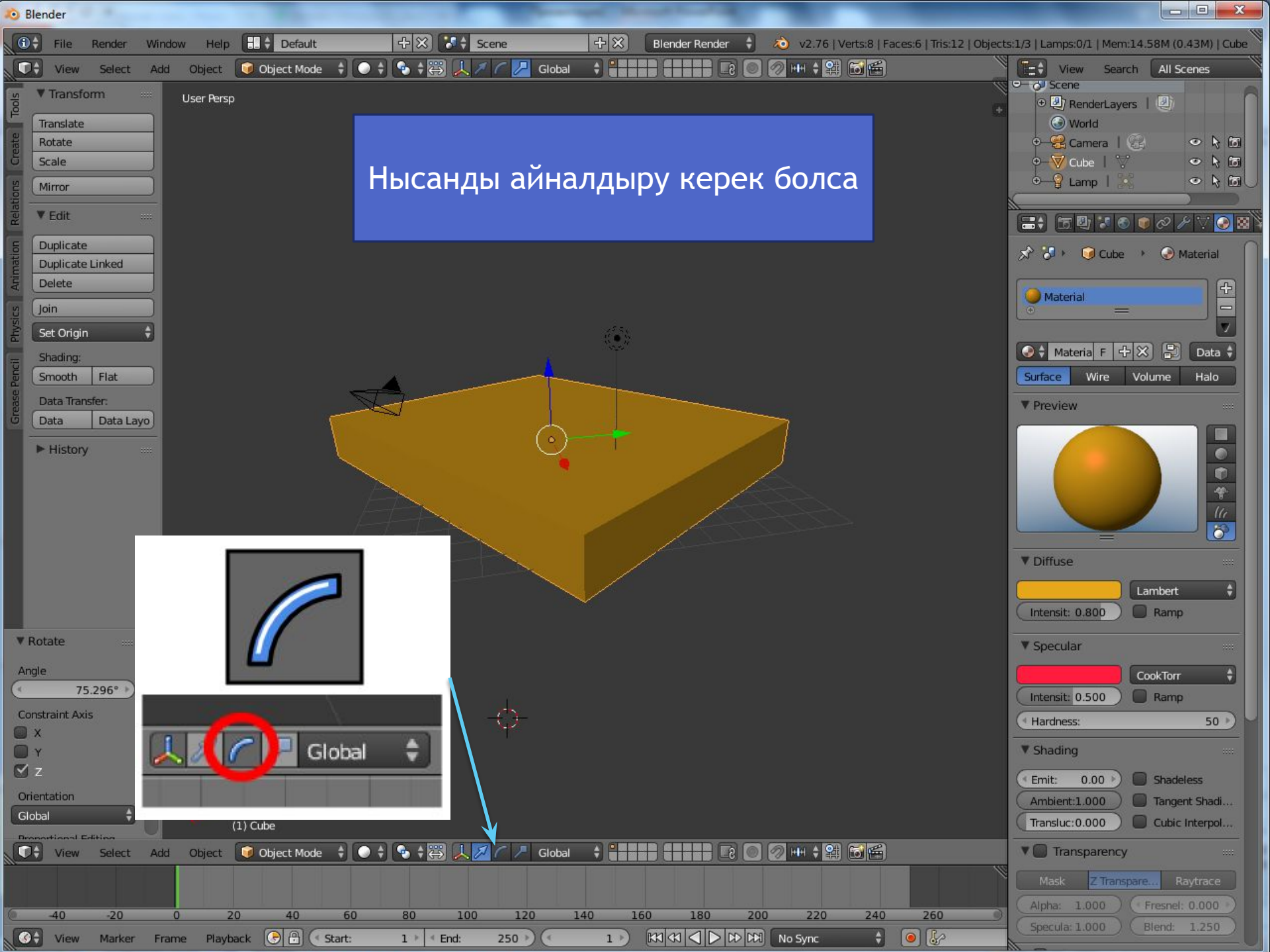

Cube
Material
Material
Material
Data
Surface
Wire
Volume
Halo
Preview

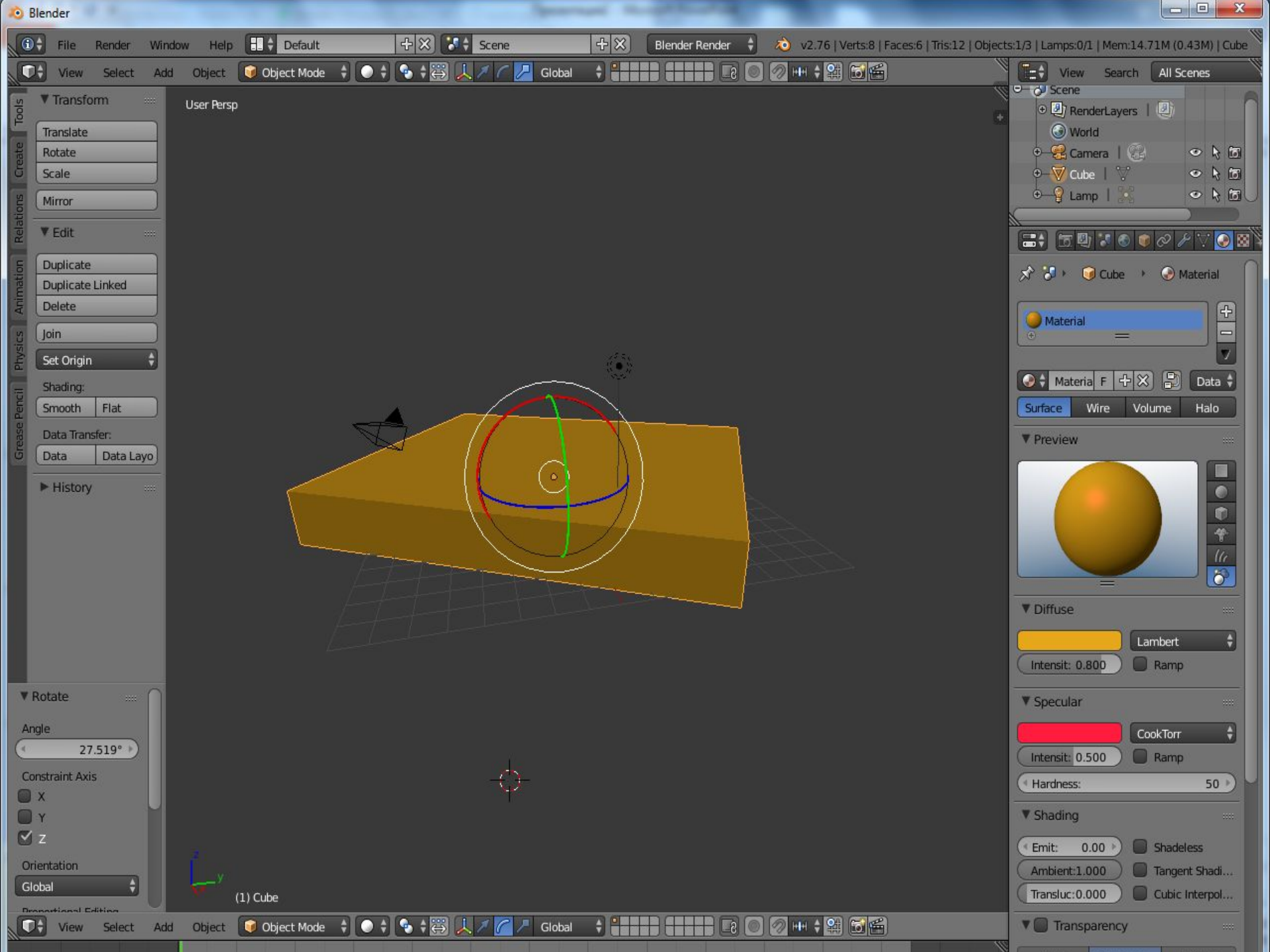
Material
Volume
RGB
HSV
Hex
R 0.800
G 0.000
B 0.000
Lambert
Intensity:0.800
Ramp

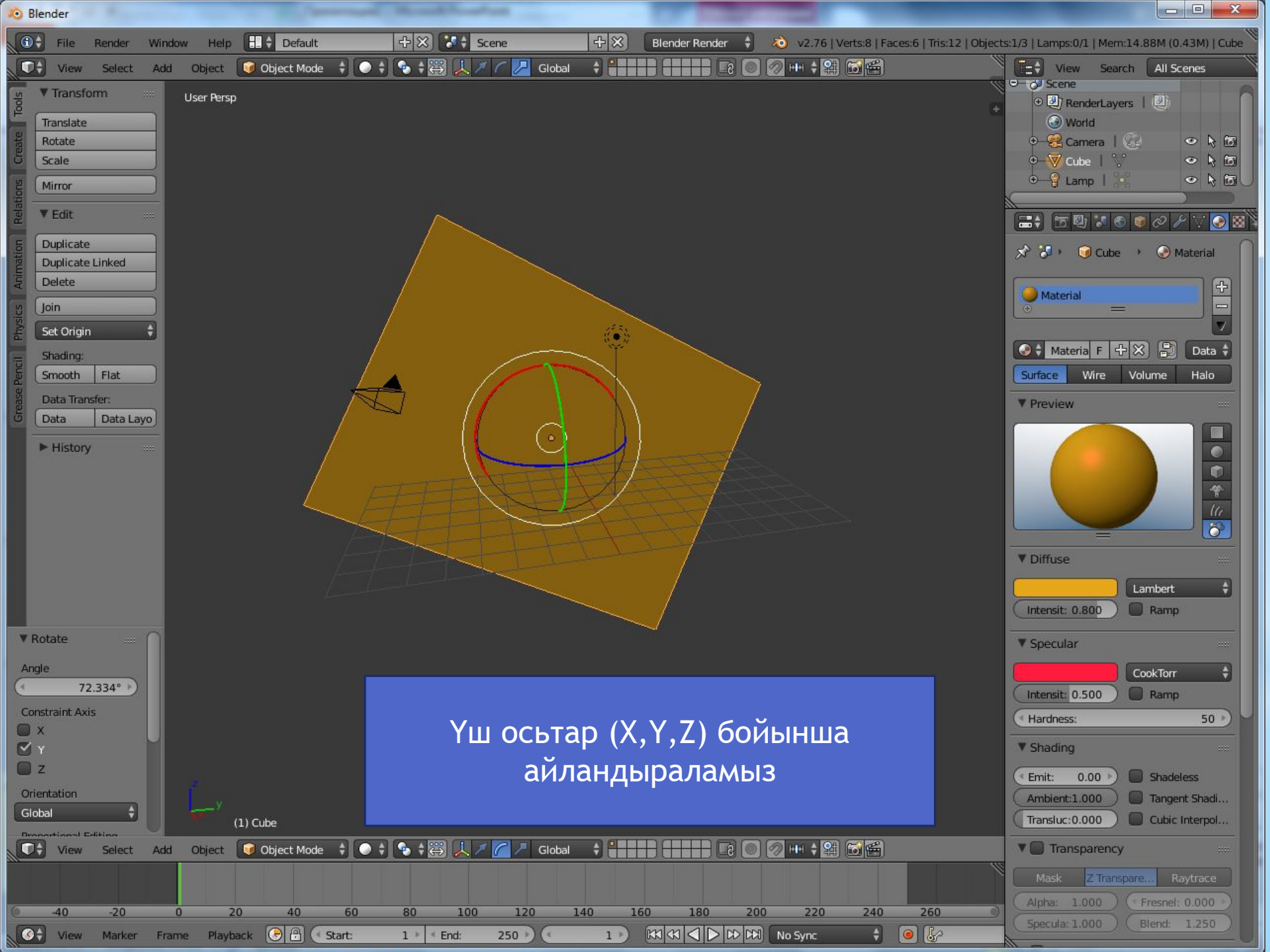



Экранды екіге бөлу
Тышқан оң жақ батырмасын
басып төмен жылжытамыз

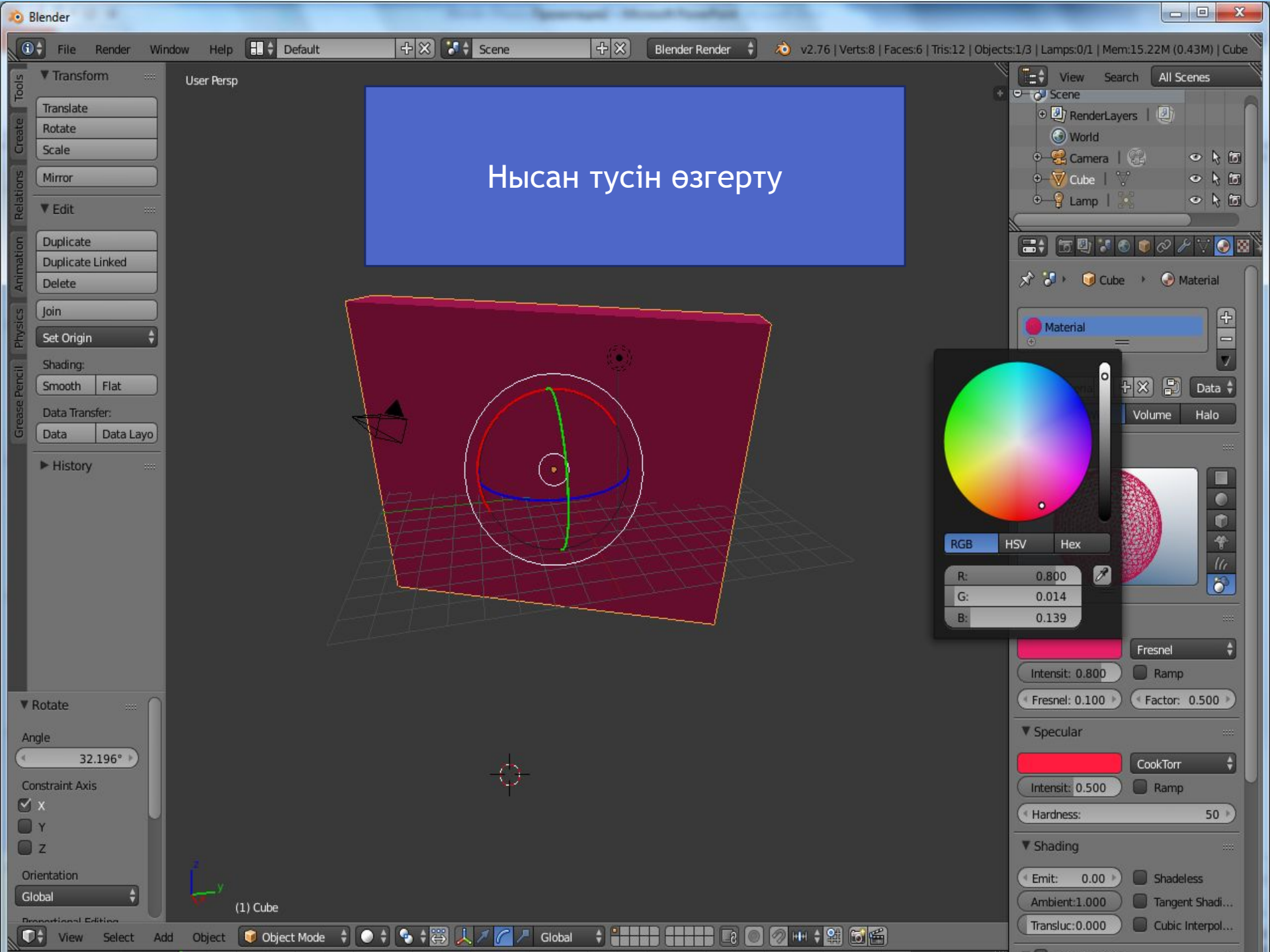

Бір экранға көшу үшін батырманы жоғарыға көтеру керек

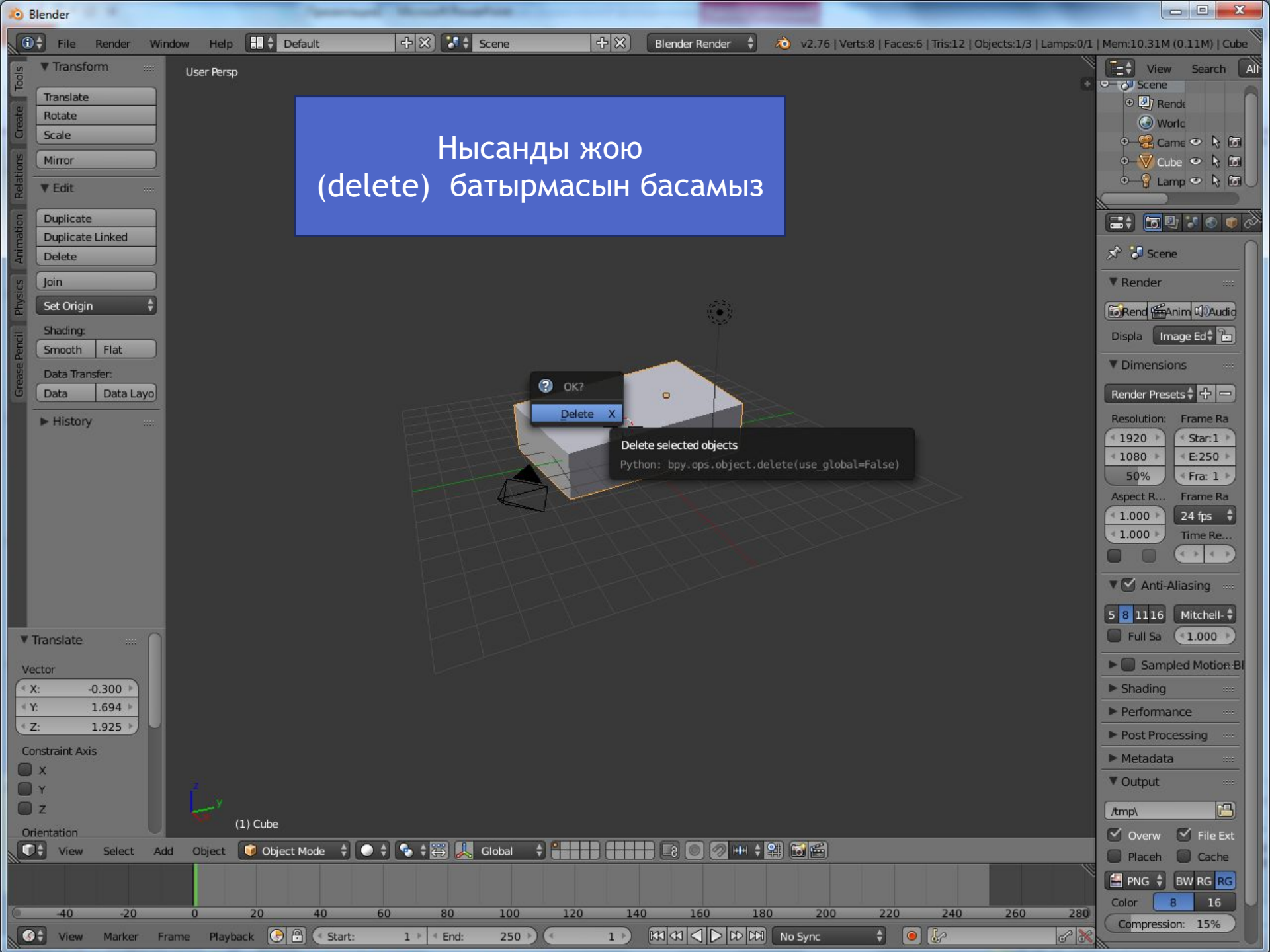

Нысанды айналдыру керек болса
Blender
File Render Window Help
Default
Scene
Blender Render
v2.76 | Verts:8 | Faces:6 | Tris:12 | Objects:1/3 | Lamps:0/1 | Mem:14.58M (0.43M) | Cube
View Select Add Object
Object Mode
Global
User Persp
Transform
Translate
Rotate
Scale
Mirror
Edit
Duplicate
Duplicate Linked
Delete
Join
Set Origin
Shading:
Smooth
Flat
Data Transfer:
Data
Data Layo
History
Rotate
Angle
75.296°
Constraint Axis
X
Y
Z
Orientation
Global
(1) Cube
View Search All Scenes
Scene
RenderLayers
World
Camera
Cube
Lamp
Material
Surface
Wire
Volume
Halo
Preview
Diffuse
Lambert
Intensit: 0.800
Ramp
Specular
CookTorr
Intensit: 0.500
Hardness: 50
Shading
Emit: 0.00
Shadeless
Ambient:1.000
Tangent Shadi...
Transluc:0.000
Cubic Interpol...
Transparency
Mask
Z Transpare...
Raytrace
Alpha: 1.000
Fresnel: 0.000
Specula: 1.000
Blend: 1.250
View Marker Frame Playback
Start: 1
End: 250
No Sync

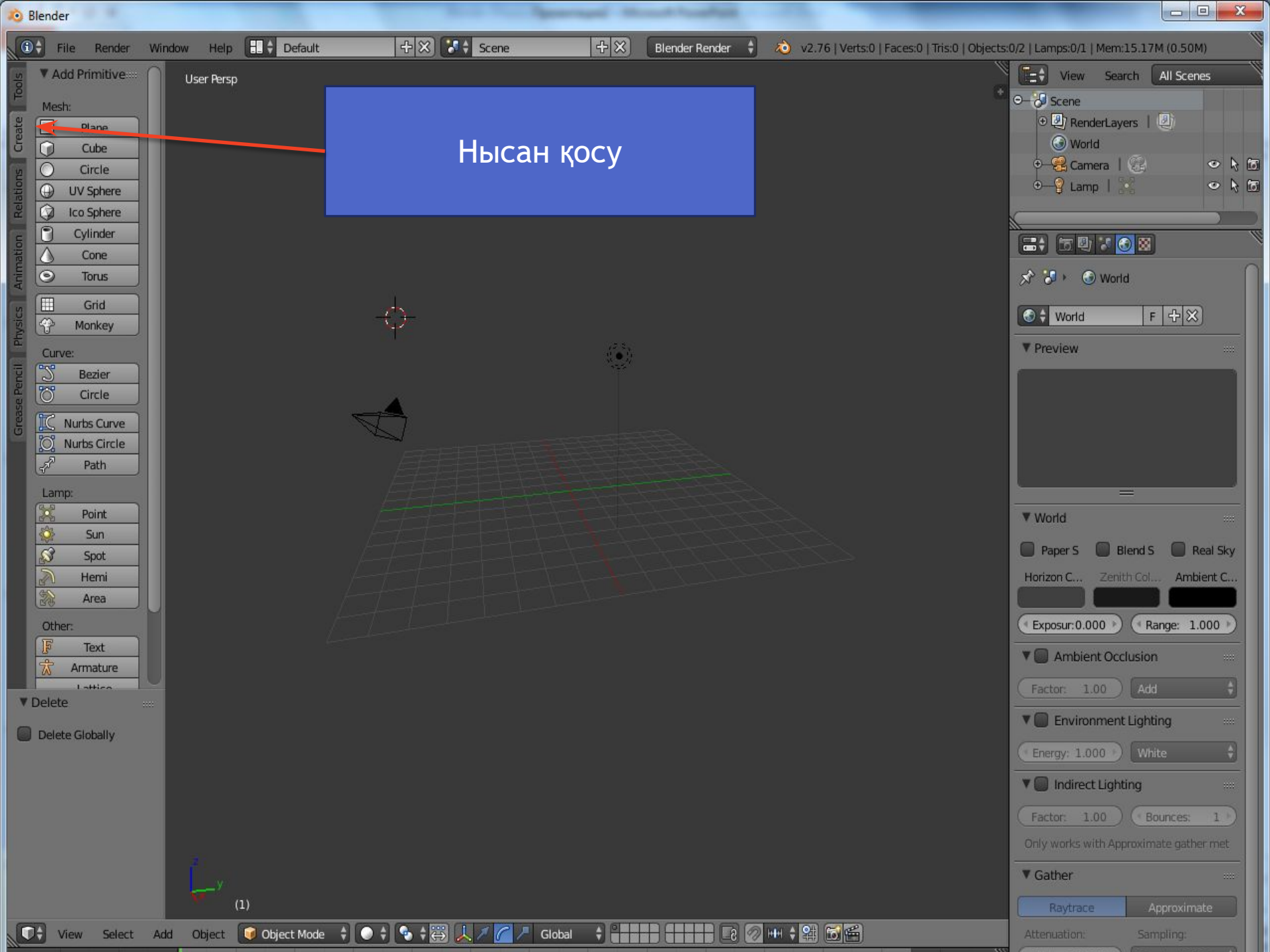

Blender
File
Render
Window
Help
Default
Scene
Blender Render
v2.76 | Verts:8 | Faces:6 | Tris:12 | Objects:1/3 | Lamps:0/1 | Mem:14.71M (0.43M) | Cube
View
Select
Add
Object
Object Mode
Global
Tools
Create
Relations
Animation
Physics
Grease Pencil
Transform
Translate
Rotate
Scale
Mirror
Edit
Duplicate
Duplicate Linked
Delete
Join
Set Origin
Shading:
Smooth
Flat
Data Transfer:
Data
Data Layo
History
User Persp
Rotate
Angle
27.519°
Constraint Axis
X
Y
Z
Orientation
Global
(1) Cube
View
Search
All Scenes
Scene
RenderLayers
World
Camera
Cube
Lamp
Cube
Material
Material
Materia
F
Data
Surface
Wire
Volume
Halo
Preview
Diffuse
Lambert
Intensit: 0.800
Ramp
Specular
CookTorr
Intensit: 0.500
Ramp
Hardness: 50
Shading
Emit: 0.00
Shadeless
Ambient:1.000
Tangent Shadi...
Transluc:0.000
Cubic Interpol...
Transparency

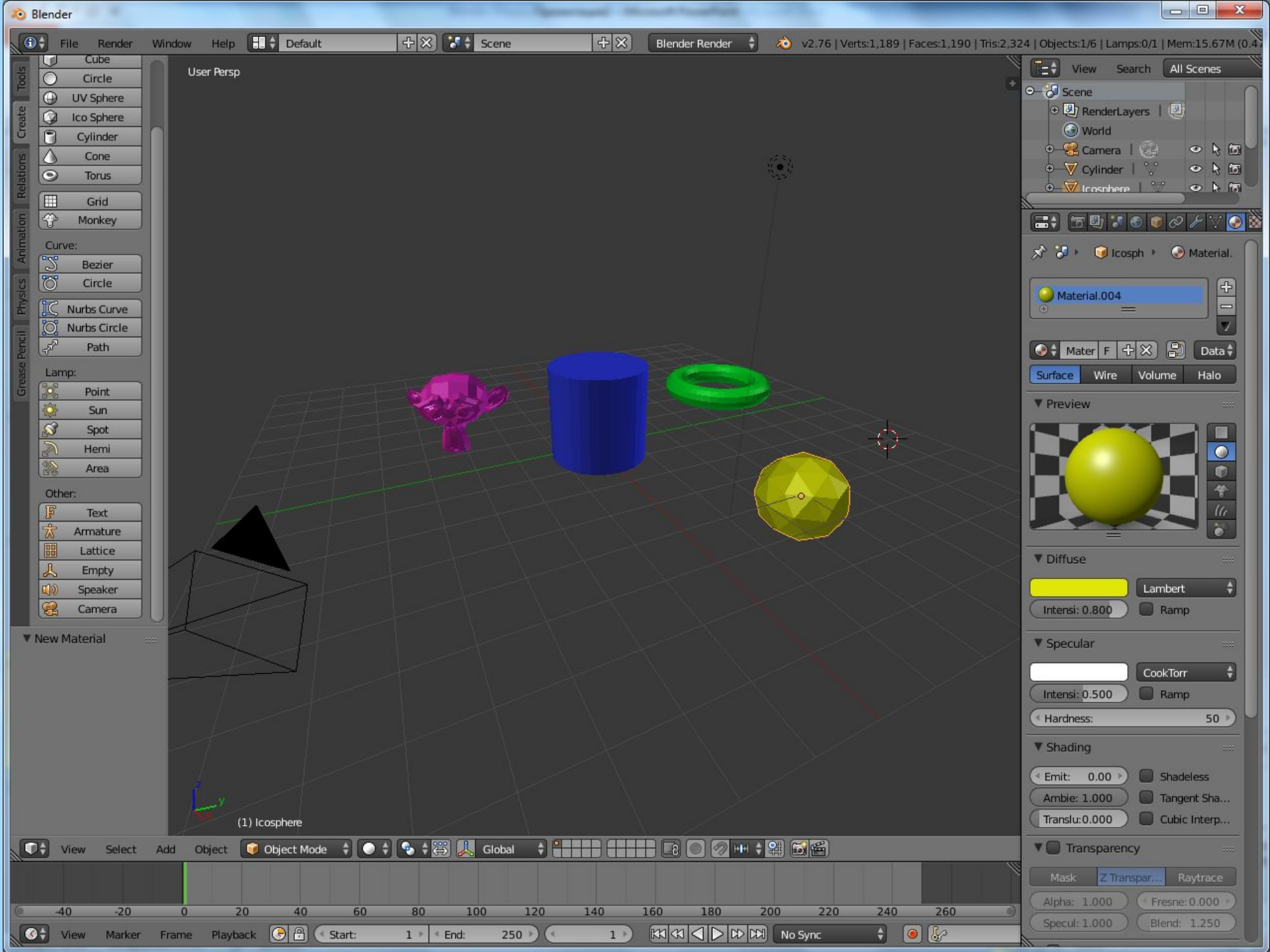

Blender
File Render Window Help
Default
Scene
Blender Render
v2.76 | Verts:8 | Faces:6 | Tris:12 | Objects:1/3 | Lamps:0/1 | Mem:14.88M (0.43M) | Cube
View Select Add Object
Object Mode
Global
View Search All Scenes
Scene
RenderLayers
World
Camera
Cube
Lamp
Transform
Translate
Rotate
Scale
Mirror
Edit
Duplicate
Duplicate Linked
Delete
Join
Set Origin
Shading:
Smooth Flat
Data Transfer:
Data Data Layo
History
Tools
Create
Relations
Animation
Physics
Grease Pencil
User Persp
Cube Material
Material
Materia F
Data
Surface Wire Volume Halo
Preview
Diffuse
Lambert
Intensit: 0.800
Ramp
Specular
CookTorr
Intensit: 0.500
Ramp
Hardness: 50
Shading
Emit: 0.00
Shadeless
Ambient:1.000
Tangent Shadi...
Transluc:0.000
Cubic Interpol...
Transparency
Mask Z Transpare... Raytrace
Alpha: 1.000
Fresnel: 0.000
Specula: 1.000
Blend: 1.250
Rotate
Angle
72.334°
Constraint Axis
X
Y
Z
Orientation
Global
(1) Cube
View Select Add Object
Object Mode
Global
-40 -20 0 20 40 60 80 100 120 140 160 180 200 220 240 260
View Marker Frame Playback
Start: 1
End: 250
1
No Sync
Үш осьтар (X,Y,Z) бойынша
айландыраламыз

Нысан тусін өзгерту




Нысанды жою
(delete) батырмасын басамыз
Blender
File Render Window Help
Default
Scene
Blender Render
v2.76 | Verts:8 | Faces:6 | Tris:12 | Objects:1/3 | Lamps:0/1 | Mem:10.31M (0.11M) | Cube
User Persp
Transform
Translate
Rotate
Scale
Mirror
Edit
Duplicate
Duplicate Linked
Delete
Join
Set Origin
Shading:
Smooth
Flat
Data Transfer:
History
OK?
Delete X
Delete selected objects
Python: bpy.ops.object.delete(use_global=False)
(1) Cube
Translate
Vector
X: -0.300
Y: 1.694
Z: 1.925
Constraint Axis
Orientation
View Select Add Object
Object Mode
Global
View Marker Frame Playback
Start: 1
End: 250
No Sync
View Search
Scene
Render
Dimensions
Render Presets
Resolution:
1920
1080
50%
Frame Ra
Star:1
E:250
Fra: 1
Aspect R...
1.000
1.000
24 fps
Time Re...
Anti-Aliasing
Mitchell-
Full Sa
1.000
Sampled Motion Bl
Shading
Performance
Post Processing
Metadata
Output
/tmp\
Overw
File Ext
Placeh
Cache
PNG
BW RG RG
Color 8 16
Compression: 15%


Нысан қосу
Blender
File
Render
Window
Help
Default
Scene
Blender Render
v2.76 | Verts:0 | Faces:0 | Tris:0 | Objects:0/2 | Lamps:0/1 | Mem:15.17M (0.50M)
Add Primitive
Mesh:
Plane
Cube
Circle
UV Sphere
Ico Sphere
Cylinder
Cone
Torus
Grid
Monkey
Curve:
Bezier
Circle
Nurbs Curve
Nurbs Circle
Path
Lamp:
Point
Sun
Spot
Hemi
Area
Other:
Text
Armature
Delete
Delete Globally
User Persp
View
Search
All Scenes
Scene
RenderLayers
World
Camera
Lamp
World
Preview
Paper S
Blend S
Real Sky
Horizon C...
Zenith Col...
Ambient C...
Exposur:0.000
Range: 1.000
Ambient Occlusion
Factor: 1.00
Add
Environment Lighting
Energy: 1.000
White
Indirect Lighting
Factor: 1.00
Bounces: 1
Only works with Approximate gather met
Gather
Raytrace
Approximate
Attenuation:
Sampling:
View
Select
Add
Object
Object Mode
Global
(1)


Blender
File
Render
Window
Help
Default
Scene
Blender Render
v2.76 | Verts:1,189 | Faces:1,190 | Tris:2,324 | Objects:1/6 | Lamps:0/1 | Mem:15.67M (0.4
Tools
Create
Relations
Animation
Physics
Grease Pencil
Cube
Circle
UV Sphere
Ico Sphere
Cylinder
Cone
Torus
Grid
Monkey
Curve:
Bezier
Circle
Nurbs Curve
Nurbs Circle
Path
Lamp:
Point
Sun
Spot
Hemi
Area
Other:
Text
Armature
Lattice
Empty
Speaker
Camera
New Material
User Persp
(1) Icosphere
View
Search
All Scenes
Scene
RenderLayers
World
Camera
Cylinder
Icosphere
Icosph
Material.
Material.004
Mater
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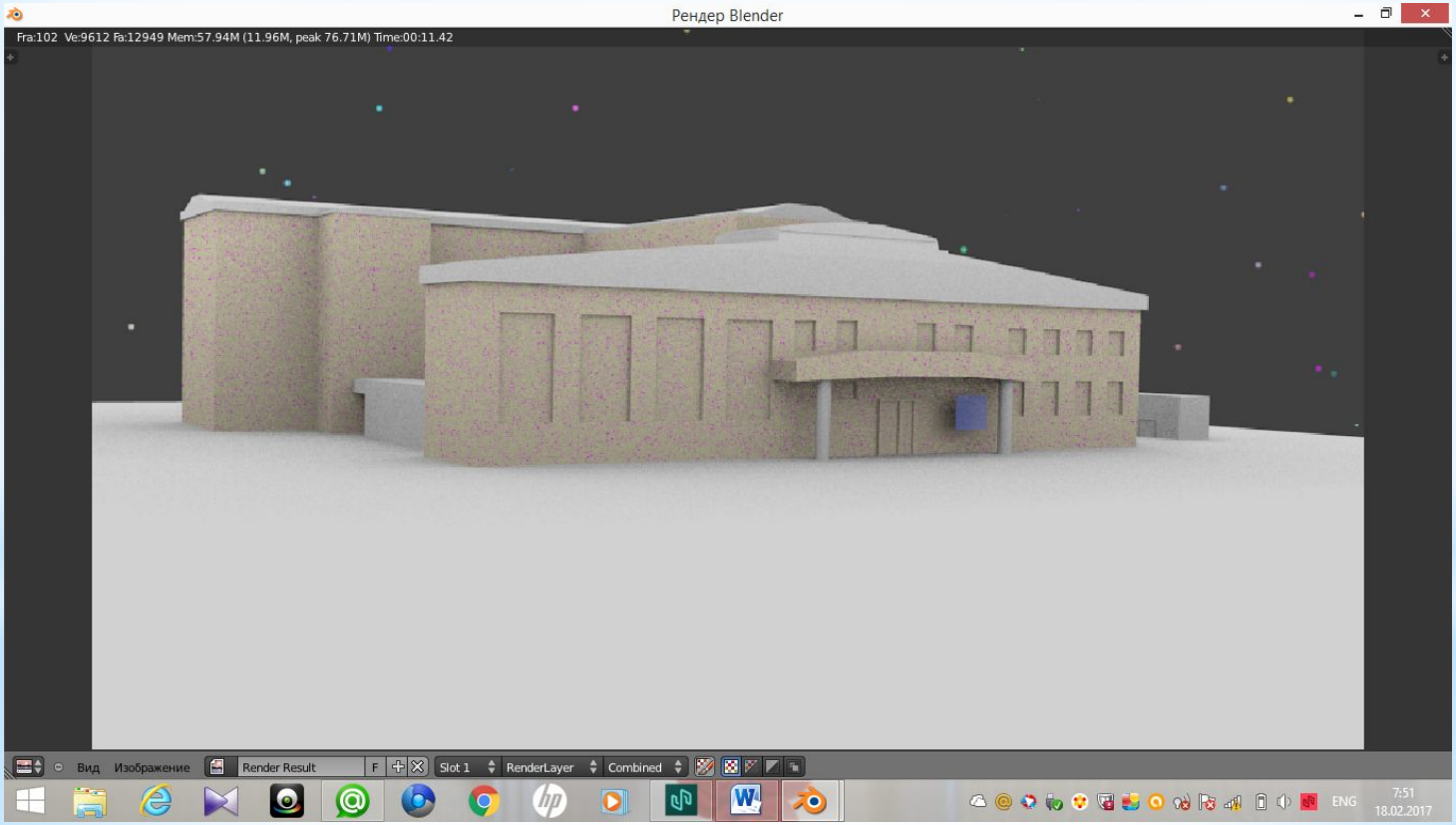
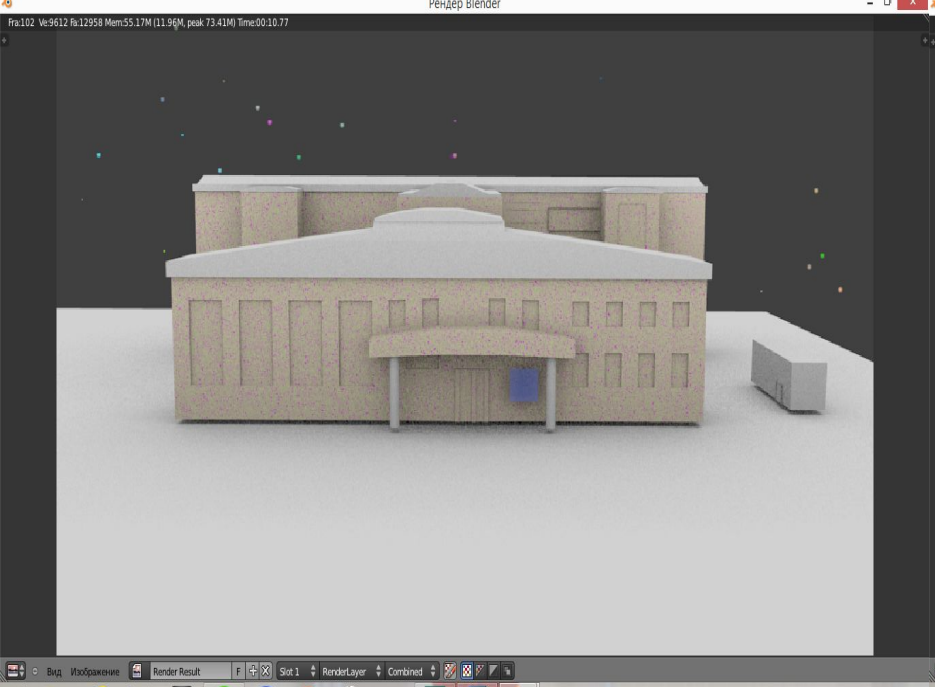
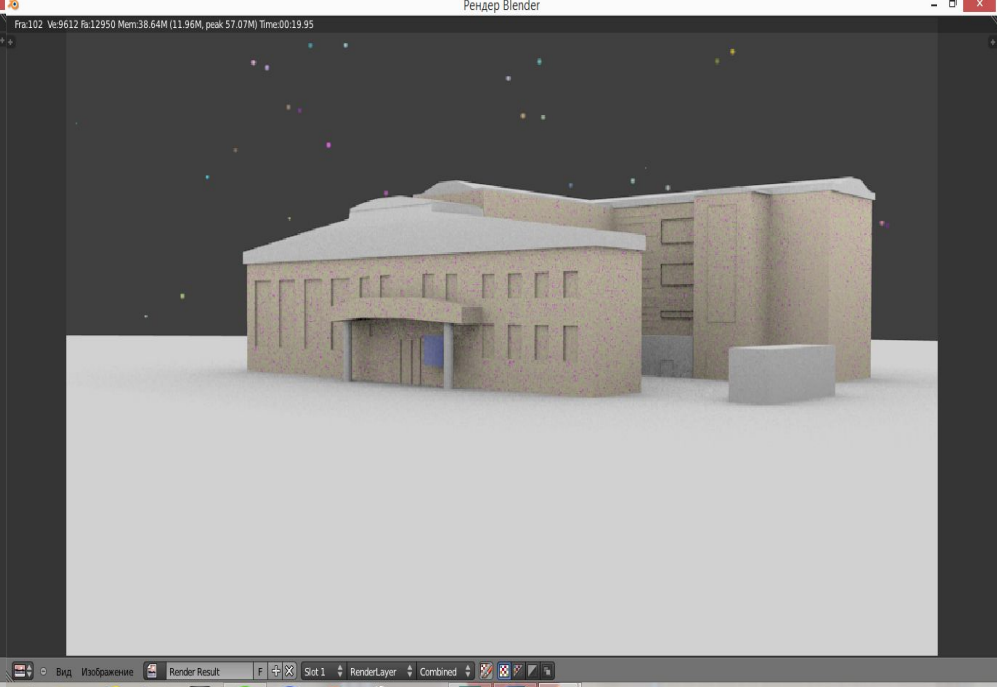
Data
Surface
Wire
Volume
Halo
Preview
Diffuse
Lambert
Intensi: 0.800
Ramp
Specular
CookTorr
Intensi: 0.500
Ramp
Hardness: 50
Shading
Emit: 0.00
Shadeless
Ambie: 1.000
Tangent Sha...
Translu: 0.000
Cubic Interp...
Transparency
Mask
Z Transpar...
Raytrace
Alpha: 1.000
Fresne: 0.000
Specul: 1.000
Blend: 1.250
View
Select
Add
Object
Object Mode
Global
-40
-20
0
20
40
60
80
100
120
140
160
180
200
220
240
260
View
Marker
Frame
Playback
Start: 1
End: 250
1
No Sync

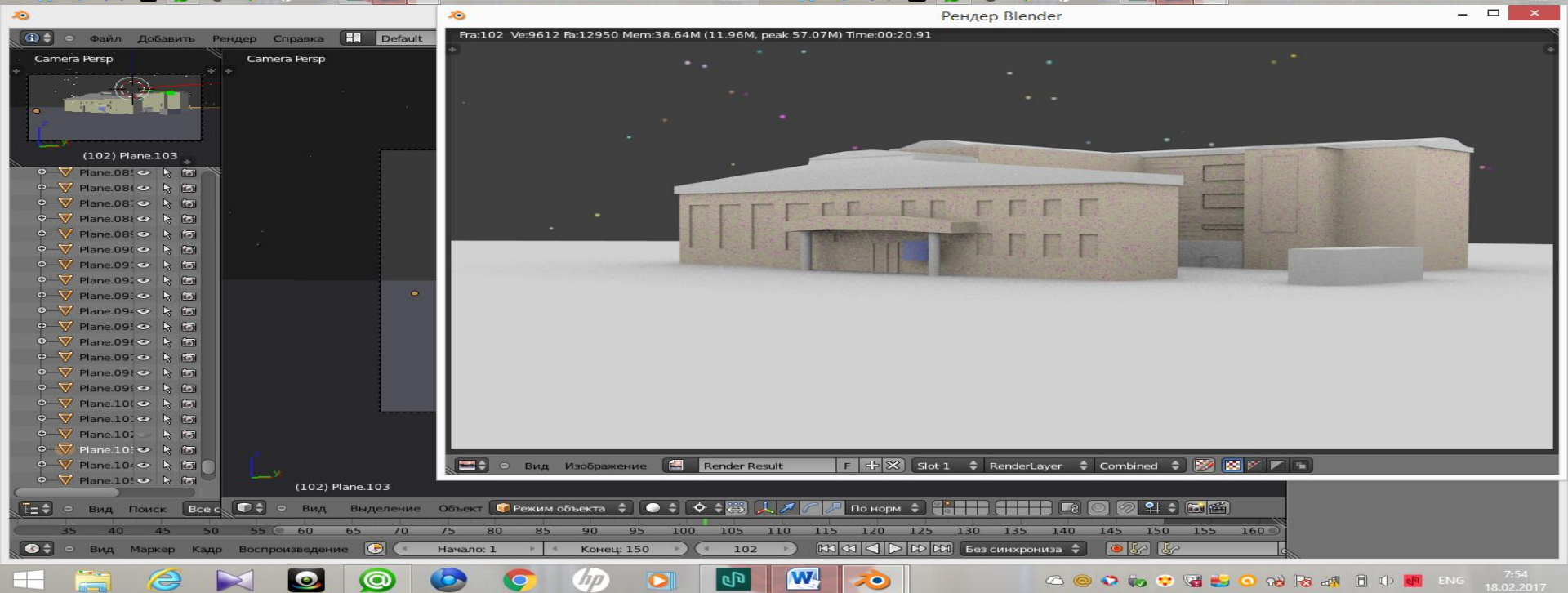
Оқушы жұмысы.

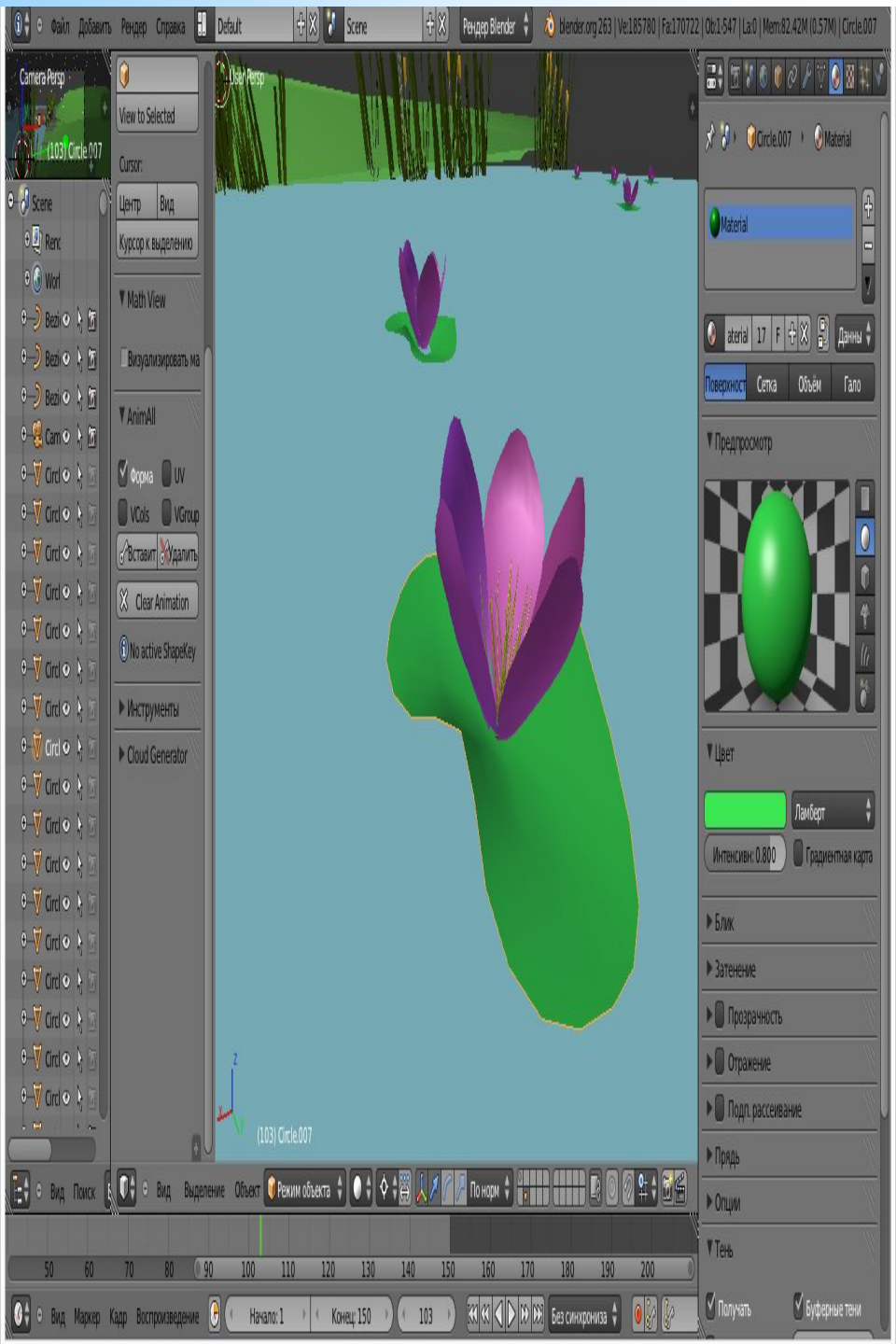
№5 Михаил Ломоносов атындағы орта мектебі

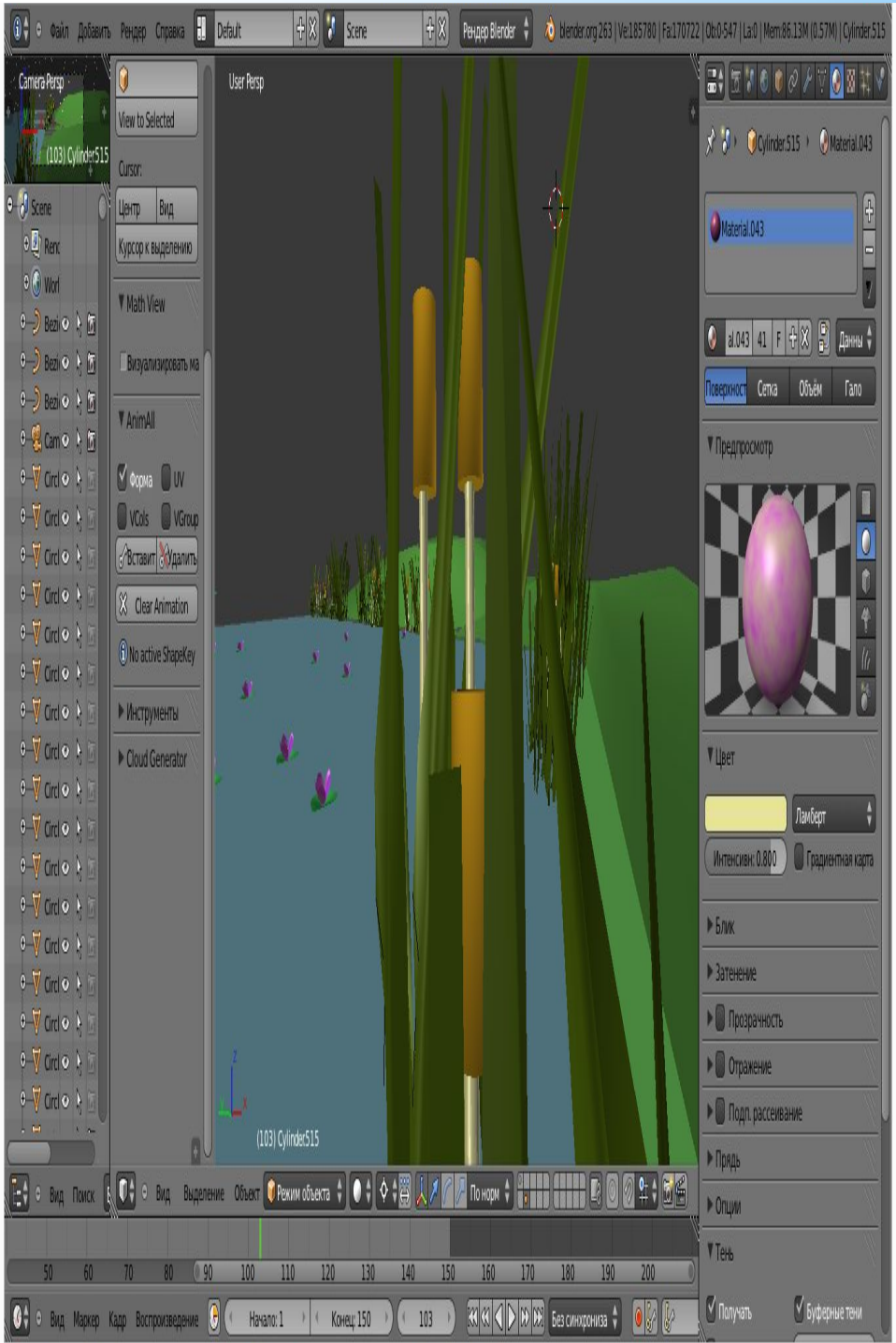



Рендер Blender
Fra:102 Ve:9612 Fa:12958 Mem:55.17M (11.96M, peak 73.41M) Time:00:10.77
Вид Изображение Render Result F Slot 1 RenderLayer Combined

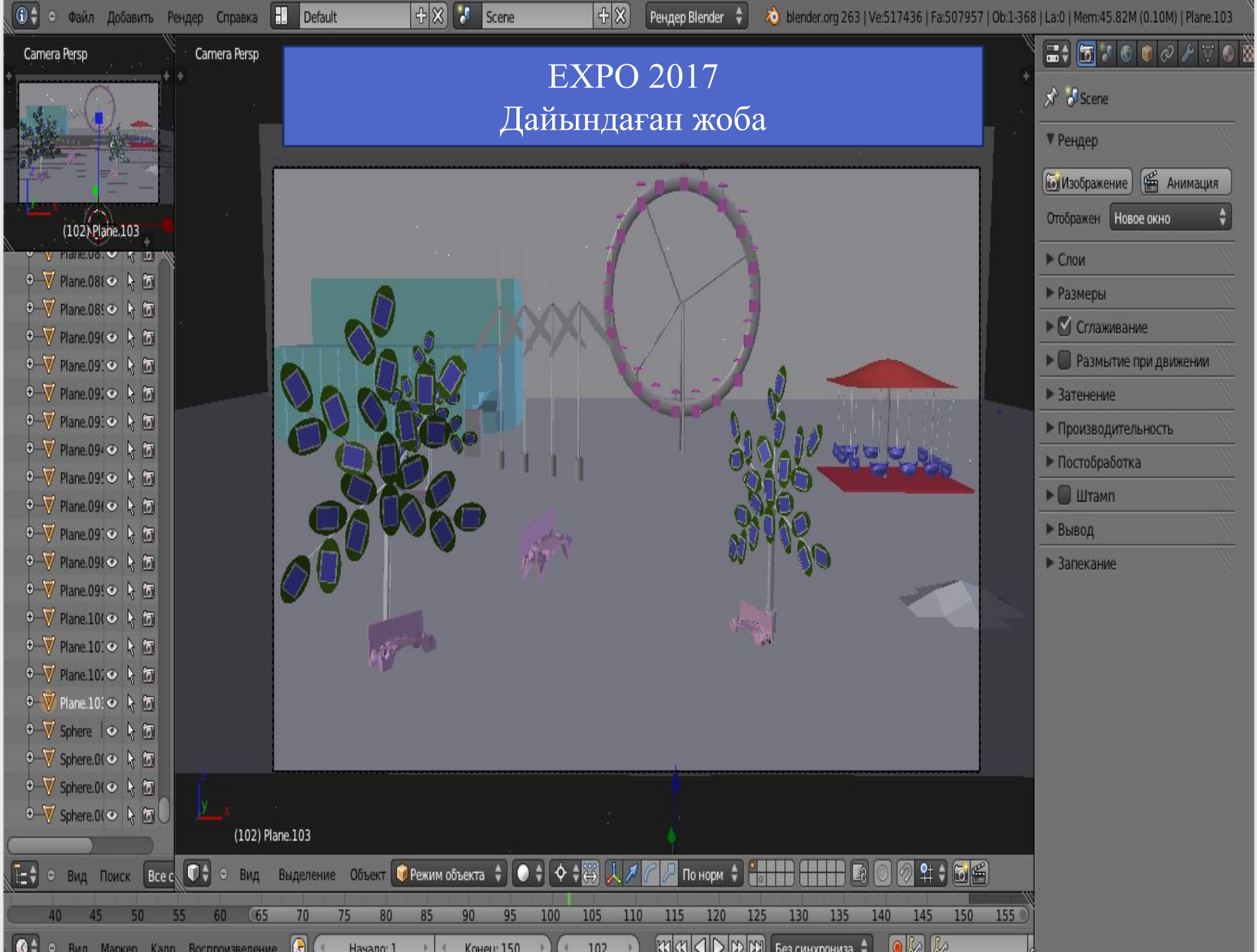

Рендер Blender
Fra:102 Ve:9612 Fa:12950 Mem:38.64M (11.96M, peak 57.07M) Time:00:19.95
Вид Изображение Render Result F Slot 1 RenderLayer Combined


Файл Добавить Рендер Справка Default
Camera Persp
Camera Persp
(102) Plane.103
Рендер Blender
Fra:102 Ve:9612 Fa:12950 Mem:38.64M (11.96M, peak 57.07M) Time:00:20.91
Вид Изображение Render Result F Slot 1 RenderLayer Combined
(102) Plane.103
Вид Поиск Все с
Вид Выделение Объект Режим объекта По норм
Вид Маркер Кадр Воспроизведение Начало: 1 Конец: 150 102 Без синхрониза
ENG 7:54 18.02.2017


Файл Добавить Рендер Справка
Default
Scene
Рендер Blender
blender.org 263 | Ve:185780 | Fa:170722 | Ob:1.547 | La:0 | Mem:82.42M (0.57M) | Circle.007
Camera Persp
(103) Circle.007
User Persp
View to Selected
Cursor:
Центр
Вид
Курсор к выделению
Math View
Визуализировать ма
AnimAll
Форма
UV
VCols
VGroup
Вставит
Удалить
Clear Animation
No active ShapeKey
Инструменты
Cloud Generator
Circle.007
Material
Данны
Поверхност
Сетка
Объём
Гало
Предпросмотр
Цвет
Ламберт
Интенсивн: 0.800
Градиентная карта
Блик
Затенение
Прозрачность
Отражение
Подп. рассеивание
Прядь
Опции
Тень
Получать
Буферные тени
Вид Поиск
Вид Выделение Объект
Режим объекта
По норм
Вид Маркер Кадр Воспроизведение
Начало: 1
Конец: 150
103
Без синхронизаз


Файл Добавить Рендер Справка
Default
Scene
Рендер Blender
blender.org 263 | Ve:185780 | Fa:170722 | Ob:0.547 | La:0 | Mem:86.13M (0.57M) | Cylinder.515
Camera Persp
(103) Cylinder.515
User Persp
View to Selected
Cursor:
Центр
Вид
Курсор к выделению
Math View
Визуализировать ма
AnimAll
Форма
UV
VCols
VGroup
Вставит
Удалить
Clear Animation
No active ShapeKey
Инструменты
Cloud Generator
Cylinder.515
Material.043
Данны
Поверхност
Сетка
Объём
Гало
Предпросмотр
Цвет
Ламберт
Интенсивн: 0.800
Градиентная карта
Блик
Затенение
Прозрачность
Отражение
Подп. рассеивание
Прядь
Опции
Тень
Получать
Буферные тени
Вид Поиск
Вид Выделение Объект
Режим объекта
По норм
Вид Маркер Кадр Воспроизведение
Начало: 1
Конец: 150
103
Без синхронизаз

EXPO 2017
Дайындаған жоба



Сіздерге аздап болсын керек ақпарат болған шығар деген сенімдемін.