Serious Game Design Doc

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iKids: ***Slices in Time***

Executive Summary

The Players	The audience who will be players of this game is intended to be High School students between the ages of 15 and 19. This game is not based on skill of joystick control or 1st person shooter skills, but instead is based on the ability of the student to explore, discover, and solve scientific problems through the use of math, physics, biology, chemistry and in some cases basic intuition. The context of these problems are situated in the past, and *The Audience* specifically surround historically significant scientists and explorers. Each character encountered by the player will share not only the context of their environment, but also the scientific logic prevalent at that time.
The Need	The majority of science education encountered by students today is out of context and not situated in real day problem solving. There is also most often a lack of historical information tied to the development of principles of science and the tie to discovery that is still present today. There is a need to generate more excitement into scientific discovery, and the goal of this game is to couch the process of exploration and experimentation into the gameplay of *iKids: Slices in Time*.
The Content	The subject matter embedded within the game is to be contextualized through vivid illustrations of the historical culture, costumes, current scientific equipment, & encounters with the famous scientists of the time. The content will also be situated in the specific problem that each scientist was encountering at a specific pivotal point in time just prior to an inspiration that leads them to a famous conclusion. It is also when the iKids arrive, and in their small way to influence its realization. Samples of the specific tapestry of discovery that our iKids would navigate follow: o Samos Greece - 310 BC- Aristarchus: Believed that earth revolved around the sun o Greece in 385AD-Socrates & Plato: Philosophy of Science o Alexandria Egypt-127AD.- Claudius Ptolemy: circles moving within other circles to explain planet motion o Venice Italy - 1490-Leonardo DaVinci: artistic perspective on medicine, mechanics o Bologna Italy -1493-Nicolaus Copernicus: Rotation of the Earth & Revolution around the Sun o Prague, Germany -1600-Johannes Kepler & Tycho Brahe: accurate mathematical formula for planets and motion o Pisa, Italy- 1610-Galilei Galileo: Telescope & Pendulum Motion and Force upon a Body o Cambridge, UK- 1662-Isaac Newton: Gravity o Philadelphia, PA -1749-Benjamin Franklin: Electrical Theory (Lightning Rod) o Derby England - 1800-Lord Cavendish: gravitational measurement of lab objects o Cambridge, UK - 1875-John Couch Adams : Neptune supposition o Brussels Belgium -1929-Albert Einstein: Plank's Constant for Photon Path o Paris France - 1905-Mme. Marie Curie: Polonium and Radium

The Game	This game is envisioned as a single or multi-player game that could be part of a science curriculum in a High School, or played individually or in a group wishing to explore and discover the intriguing connections of scientific discovery. It will not be the type of game that a player can lightly breeze through without giving it thought and consideration. It is also a game where outside game historical information is also applicable to problem-solving within the game. However, it is also the type of game where players can guess at solutions with no consequence other than being redirected to supportive resources or comment by the NPC's in the game. As a matter of fact, the resources and devices available to each player are extensive, and vary depending upon the type of science needed at any particular moment, be it math calculation, physics principles, or specialized instruments. The primary distinction regarding the player is that they are playing to be engaged with the content and not playing just for "fun", e.g. a Serious Player playing a Serious Game.
Game Opening	The game begins in regular D&D style by selecting the character the player wishes to be during gameplay. The characters available are 4 iKid roles that vary in their specific abilities in Math, Physics, Astronomy, and Earth Science. The genders, race, and physical characteristics are all interchangeable, but whatever is selected by the player will be compensated by the game to complete a team of iKids who are able to meaningfully provide input into any scientific problem. The initial MAP is the iKid's Lounge Area in their HQ where a player, when initially spawned there, will gain clues to the usefulness of the tools and specialized environments there in the HQ. It will also allow introductions into the other character's personalities and talents as well.
Gameplay Sample	After the iKids receive a notice on their "History Scanner" that Galilei Galileo needs conceptual help, the iKIDS first gather the tools necessary (by going to the appropriate resource area for each character), and they put the appropriate tools into his or her backpacks and they head to their transportation device where they must enter the name of the City and Country, plus the latitude and longitude, to arrive at the appropriate time in history. The iKIDS are transported in, of course a very neat fashion to Italy, and specifically just outside of Galileo s Lab. Once they are acclimated to their new environment they walk through the doorway into Galileo's Lab. Galileo at first is shocked to see them, but they quickly explain that they are here to help him solve his dilemma regarding gravity. When Galileo asks what gravity was, one of our NPCs steps in and uses the language that Galileo would understand. They also ask Galileo to explain what he is trying to do. Galileo explains that he has noticed that even though things fall off of his shelf with different weights, they always seem to hit the floor at the same time. He would like to do an experiment where he can see if this is actually true, i.e. that this new word we used "gravity" pulls on each object the same. At this point our Physics NPC can look at one of the resources he brought and look up "WHEN THINGS DROP". S/he comes across the formula for calculating the speed of a falling object that has distance, & mass times a constant. The Math NPC then says ohh that's easy and says all we need is a known height of something and drop two different mass objects. Galileo says that he knows the perfect place for this the Leaning Tower of Pisa. One of the other NPC's says "It's made of PIZZA?" and Galileo, after laughter stops, says

	it's a town and you are in it now! There is also time while Galileo gathers the objects he wants to "drop" for the PC to look around Leonardo's lab and play with tools and objects there. This will inform the iKids of the current scientific understandings of the early 17th century. They all then go outside into an authentic virtual reconstruction of an early 17th Century Pisa, Italy and walk to the tower of Pisa. Along the way, Galelio might also offer them food as they may need to up their "health meters" at that point One of our NPC's asks why it is leaning and Galileo explains that they did not test the ground adequately under the structure because they thought it was stone. Galileo could also quip that he "told them so, but they would not listen to him". Our PC asks how tall it is, and Galileo says that he does not know that. At that point our PC says don't worry, that's what we are here for, and then looks in his backpack for two things … a pedometer and a sextant, which are labled "HOW FAR DO I WALK" and "WHAT IS THE ANGLE".The MathNPC mentions she has the formula for determining height and shows it to everyone. Our PC walks to the base of the tower and sets the PEDOMETER to his STRIDE distance, and walks back to the group. S/he then asks the Math NPC to enter the result displayed on the PEDOMETER into the correct location in the formula. Then our PC takes the SEXTANT and sights up the top of the tower and reads the angle which is given to the Math NPC. Everyone gathers around the formula, and the player or one of the other PC s enters the angle and then clicks on *calculate*, which gives us the height of the tower. The player now takes a picture of the tower and the data is now displayed over the tower with distance and height, which is shown to Galileo, who is amazed.
"Take-Aways"	It is envisioned that during gameplay the player(s) will search the web or other resources for more details concerning the problems posed within the game. By working with NPCs representing actual scientists who "declair" their own positions on specific topics of science, it is hoped that the player will gain a sense of what it is like to have a particular "idea" of one's own world and begin to understand how much a social point-of-view can sway the thinking of a scientist. It may also help the player to gain confidence in his or her own ideas of science such that they pursue their own journey to expand their knowledge of the universe and how it all works. Following game play, it is hoped that the player will be able to describe the critical scientific break-throughs they have just participated in, and be able to put them into a rough chronological order and interdependency.

Instructional Design Report

Audience/Player Demographic

The audience who will be players of this game is intended to be High School students between the ages of 15 and 19. They are not required to be expert gamers but should have some familiarity with standard videogame conventions. They are

Overall Goal Description for Game/Simulation

The majority of science education encountered by students today is out of context and not situated in real day problem solving. There is also most often a lack of historical information tied to the development of principles of science and the tie to discovery that is still present today. There is a need to generate more excitement into scientific discovery, and the goal of this game is to couch the process of exploration and experimentation into the gameplay of *iKids: Slices in Time*.

Specific Content embedded within the Game/Simulation

The subject matter embedded within the game is to be contextualized through vivid illustrations of the historical culture, costumes, current scientific equipment, & encounters with the famous scientists of the time. The content will also be situated in the specific problem that each scientist was encountering at a specific pivotal point in time just prior to an inspiration that leads them to a famous conclusion. It is also when the iKids arrive, and in their small way to influence its realization. Samples of the specific tapestry of discovery that our iKids would navigate follow:

- Samos Greece - 310 BC- Aristarchus: Believed that earth revolved around the sun
- Greece in 385AD-Socrates & Plato: Philosophy of Science
- Alexandria Egypt-127AD.- Claudius Ptolemy: circles moving within other circles to explain planet motion
- Venice Italy - 1490-Leonardo DaVinci: artistic perspective on medicine, mechanics
- Bologna Italy -1493-Nicolaus Copernicus: Rotation of the Earth & Revolution around the Sun
- Prague, Germany -1600-Johannes Kepler & Tycho Brahe: accurate mathematical formula for planets and motion
- Pisa, Italy- 1610-Galilei Galileo: Telescope & Pendulum Motion and Force upon a Body
- Cambridge, UK- 1662-Isaac Newton: Gravity
- Philadelphia, PA -1749-Benjamin Franklin: Electrical Theory (Lightning Rod)
- Derby England - 1800-Lord Cavendish: gravitational measurement of lab objects
- Cambridge, UK - 1875-John Couch Adams : Neptune supposition
- Brussels Belgium -1929-Albert Einstein: Plank's Constant for Photon Path
- Paris France - 1905-Mme. Marie Curie: Polonium and Radium

Learning Objective/Affordance Matrix:

Learning Objectives	Interactions	Affordances	Char/Objects/ Environment
• Demonstrate ability to calculate trigonometry functions	• Select appropriate Trigonometry calculation to determine height of object • Pace-off distance on the ground from object • Use Sextant to "sight-in" correct angle • Use PDA to find correct formula for missing variables • Input the "found" distance from object • Input the "found" angle from Sextant (base to top) • Execute calculation to determine height of object	• Ability to hold and display Sextant and PDA • Ability to see distance during pacing maneuver that displays number • A working Sextant that displays angle • A working PDA that can: • Search Keywords • Display options • Allows inputting numbers by player • Calculates results and displays results • Save results in Player Journal	• UI indicator for Distance • Sextant w/ Display • PDA w/ Display • Environment w/ Object • Environment w/ enough Pacing Area
• Demonstrate ability to design an Air Foil for a specific material and size that actually flies	• Find and select an appropriate material • Calculate an appropriate wing-span to support the weight • Determine the force needed to propel that object • Construct a prototype of that object scaled appropriately • Demonstrate successful flight with that prototype	• Availability of materials that would be appropriate to construct an Air Foil prototype • A working PDA that can: • Search Keywords • Display options • Allows inputting numbers by player • Calculates results and displays results • Save results in Player Journal •	• Material that may be realistically folded and held by a Player and/or NPC • Material that can be manipulated to demonstrate changes of Air Foil • PDA w/ Display • An environment with adequate space, distance, and elevation to test a prototype Air Foil •
• Demonstrate ability to couple the historical events with appropriate scientists	• Recall the name of the scientist and enter the appropriate date into a device •	• A working PDA that can: • Search Keywords • Display options • Allows inputting numbers by player •	• PDA w/ Display •
• Demonstrate ability to couple the attire and architecture of the past	• Identify and select the appropriate costume to match the appropriate date • Identify appropriate architecture in the past	• A wide selection of wardrobe • Appropriate labeling of costume items • Ability to search and find specific architecture in the locations of the past •	• Models of a wide variety of costumes that can fit multiple sizes of avatars. • Authentic models of historical places • PDA w/ Display • PDA w/ simulated GPS capability

Design Team Report

SCRIPTS of SCENES/REGIONS

SCENE 1 a,b,c = iKids HQ		
INFO ELEMENTS	**INTERACTIONS**	**STORY/DESCRIPTION**
o Explanations of who the NPC's are and their general attitude and personality o Objects that are picked up will probably have labels and might even have displays that describe their function	o Conversations with the other iKid NPC's o Objects around the HQ that may be picked up and examined	The Incredible Kids (aka i-KIDS) are hanging out in their special lab-lounge and our PC is spawned in the Lounge area of the iKids HeadQuarters. The PC has the opportunity to go up to other members in the Lounge and converse. The other iKids respond to the PC as if they are already well known and part of the group. They may make indications that the PC may wish to check out "changes" in the Resource Room, the Control Room and in general "just explore".
o DATE o LOCATION (and maybe in a Google Earth fashion) o IMAGE/AUDIO of LEONARDO as he mutters to himself about the concept he is wrestling with o PRINCIPAL ANALYZER gives readout of key concepts of math, physics, and tools they need to take with them to assist.	o Manipulation of the HISTORY SCANNER o Comments to each other through NPC dialog	A signal is broadcast to them from their HISTORY SCANNER. They run over to this to find out where the need is this time to "help history" continue on its projected path. This time the signal is coming from the 16th century and specifically from Leonardo DaVinci's Lab in Italy. The scanner has picked up a "Concentration Center" where Leonardo is working on a concept of FLIGHT, but seems to be having problems. THIS IS THE TIME FOR THE iKIDS TO BEAM THEMSELVES THERE TO HELP.

INFO ELEMENTS	INTERACTIONS	STORY/DESCRIPTION
o RESOURCE CENTERS are in special containers that may be neat to open, and then all of the tools are their and labeled so they must find the correct one o Indicator lights on the resources may glow when appropriate one is selected	o Our PC must go to each resource center in their lab to gather the materials and then distribute them to each of the other NPCs o	The iKIDS first must gather the tools mentioned, and the appropriate character puts the appropriate tool into their backpacks and they head to their transportation device.
SCENE 2 a,b, = Leonardo's Lab		
o Costumes of each of our iKIDS automatically change period. o Decore is early 16th Century Milan, Italy	o PC must locate and begin interaction with LEONARDO	The iKIDS are transported in, of course a very neat fashion to Italy, and specifically just outside of Leonardo's Lab. Once they are acclimated to their new environment they walk through the doorway into Leonardo's Lab.
o Content is embedded in the surrounding lab with different tools and inventions, plus in the spoken dialog between everyone	o Communication with each other and Leonardo	Leonardo at first is shocked to see them, but they quickly explain that they are here to help him solve his dilemma regarding flight. When Leonardo asks we know about flight, one of our NPCs steps in and instead asks Leonardo to explain what he is trying to do to understand flight.
o Encountering the problem stated by Leonardo o Experiencing the results of the test in his lab	o It's possible here that one of our PCs makes a paper airplane from some parchment on a table and tosses it as a demonstration.	Leonardo explains that he has noticed that birds glide up when they pass over warm air, but swoop lower when passing over colder air. So he concludes that the shape of the bird's wing has less to do with flight than the temperature of the air.

INFO ELEMENTS	INTERACTIONS	STORY/DESCRIPTION
o FORMULA o VARIABLES o Defining a CONTEXT for INQUIRY that matches the problem o BLENDING MATH and PHYSIC to solve a problem	o Looking at resources o Turning pages o Pointing at critical elements through cursor roll-overs where key elements highlight	At this point our Physics NPC can look at one of the resources he brought and look up "WHEN THINGS FLY". S/he comes across the diagram that describes an AIR FOIL and LIFT. Leonardo then interjects that he needs to understand what we mean by "AIR FOIL" and "LIFT", which is responded to by our Earth Science iKid drawing the cross section of a bird's wing that has a curved top and a flat bottom. Then our Physics iKid explains that air travels faster under the wing than over the wing which creates a LIFT. Our player iKid then throws the paper plane with Leonardo jumping for joy at seeing it fly. He also wants to toss it a couple of times.
o What Leonardo invented including some flying machines o The state of science at that time period o What did people eat back then	o Unlimited objects to create and interact with o Consume period food	There is also time while Leonardo plays for the PC to look around Leonardo's lab and play with tools and objects there. Leonardo might also offer them food and they may need to up their "health meters" at that point

Details within each Scene and/or Region:

iKids HQ

Story or Description of Action or Game Play

In State#1 the game play is primarily exploration of the environment and things there.

- Each of the other iKids (4 counting themselves) in the Lounge Area
- Objects in the Resources Area
- Buttons and Controls of the History Scanner and any other instrumentation to assist in finding the latitude and longitude of cities and countries of the world in the Control Area
- Food in the Kitchen
- Appliances in the Kitchen
- The Toilet and Bath area

In States #2 and higher, the same tools will be available to explore more deeply in relation to solving current problems (as if they beamed back to discover an answer to a problem in the past) or that they want to know more of the capabilities of tools and resources available to them.

Corresponding Player Interactions

As players approach and click on other iKids, the corresponding NPC will reply with an appropriate comment that may be innocuous or guiding for their exploration. A player may pickup any object that displays a specific ICON, and a flashing display will indicate that more interaction is possible (such as a calculator, or GPS device). Items that they wish to take with them will have a special ICON that allows for acquisition and will show up in an INVENTORY of items. Some items will cause a TRIGGER of video actions or displays.

Information Elements that are made available to the player within the game environment. (UI, coaching, NPC Actions, Audio, Text)

- There is a persistent UI that shows Health Status in terms of Blood Pressure, Hunger, Hydration, Need for Sleep/Rest.
- Clicking on another iKid NPC will provide coaching feedback for what is being done or what needs to be done
- NPC's will come up to the player and confront them if the player is responding inappropriately, or needs to address another task.
- Other iKids will respond with a specific character voice audibly. A mode will also be available for non-hearing players that provides subtitles for audible speech.
- When a reply is necessary by the player, or if they need to ask a question, a selection of 3 text phrases will appear for the player to select. In this manner a dialog may be established with an NPC.

Details within each Scene and/or Region:

Leonardo's Lab and Atrium

Story or Description of Action or Game Play

In State#1 of game play there is primarily exploration of the environment and things there.

- Each of the other iKids (4 counting themselves) in the Atrium Area in period attire
- Objects in the Atrium Area such as pictures on the wall and windows onto the street
- The door to the street is locked
- There are sounds coming from Leonardo's Laboratory which are loudest while standing in front of a particular door that will allow opening

In States #2 and higher, the door is open into Leonardo's Lab, and there is freedom of movement in and out of the Lab into the Atrium. In State #2:

- Leonardo is heard mumbling to himself as he works with his back to the iKid's location
- There are counters and tables strune with parchment, and models fill spaces along walk areas and smaller ones on tables.
- These areas and things may be explored and manipulated prior to Leonardo knowing that the iKids have arrived.
- Within a given time, or if an iKid draws his attention, Leonardo turns around and comments on his new arrivals. [this fosters a state-change]

In state #3:

- Leonardo rises and walks over to them and queries why they are here
- The iKids respond according to their "Prime Directive" not to alter the "time-space continuum" and select an appropriate excuse that allows for them to have a scientific dialog with Leonardo.
- They inquire about his problem
- He explains what he is trying to explore
- The iKids find appropriate science to apply to his problem
- There is a task to demonstrate this solution that requires either fabrication, calculation, demonstration, or conversation.
- Leonardo is overjoyed about this new insight, and the iKids job is done for this slice in time.
- They beam themselves back to HQ [this fosters a state-change]

Corresponding Player Interactions

As players approach and click on other iKids, or the current Historical NPC, the corresponding character will reply with an appropriate comment that may be innocuous or guiding for their exploration. A player may pickup any object that displays a specific ICON, and a flashing display will indicate that more interaction is possible (such as a calculator, or GPS device). Items that they wish to take with them will have a special ICON that allows for acquisition and will show up

in an INVENTORY of items. Some items will cause a TRIGGER of video actions or displays. They are not allowed to carry things back to HQ in their inventory and may leave only items constructed or written of materials that were in the past originally. They may leave behind their writings, diagrams, and formulas for the historical NPC.

Information Elements that are made available to the player within the game environment. (UI, coaching, NPC Actions, Audio, Text)

- There is a persistent UI that shows Health Status in terms of Blood Pressure, Hunger, Hydration, Need for Sleep/Rest.
- Clicking on another NPC will provide feedback for what is being done or what needs to be done, or in the case of the historical NPC, what they are trying to do.
- NPC's will come up to the player and confront them if the player is responding inappropriately, or needs to address another task.
- Other NPCs will respond with a specific character voice audibly. A mode will also be available for non-hearing players that provides subtitles for audible speech.
- When a reply is necessary by the player, or if they need to ask a question, a selection of 3 text phrases will appear for the player to select. In this manner a dialog may be established with an NPC.

EVENTS by SCENE/REGIONS

Specifics within each Scene and/or Region:

ALL SCENES AND REGIONS

Full text of any UI Information

1. **HEALTH METER:**
   BP -- #/#,
   HR -- #/min,
   Satisfied -- Hungry,
   Hydrated -- Thirsty,
   Energized -- Sleepy.
2. **INVENTORY** [only visible when requested]:
   iKid ITEMS: [graphic + name]
   iKid INFO: [diagrams, formulas, textual comments, maps]
   CURRENT MISSION: [graphic + name]
   CURRENT MISSION: [diagrams, formulas, textual comments, maps]
3. **CURRENT COORDINATES** : latitude and longitude
4. **CURRENT TIME**: year, day, 24hr time

Events in first level of iKids HQ:

Event 1: iKids HQ Player greets other iKids and explores other regions such as the Kitchen, Sleep Area, Resource rooms, Control Room, and the Lounge regions.

Event 2: iKids analyze what the scientific problem is that the Concentration Scanner is identifying in the Control Region. Major UI appearing here that allows for this analysis.

Event 3: the iKids gather the materials needed that are appropriate for both the time-frame they are headed to, as well as to take the appropriate tools to solve the scientific problem in the Resources Region. Major functionality and coaching tools to assist in device and wardrobe selection.

Event 4: the iKids jump to the next level via their transporter system (undefined to date).

Full text of any Spoken Audio

Contact 1st iKid [HQ –St 1]	Hey there [Player Selection of iKid], How about checking out the Resource Area over there to make sure things are ready to go.
Contact 2nd iKid [HQ –St 1]	I'm a little bit on a deadline here, so how about I talk with you in about 5 minutes?
Contact 1st iKid [HQ –St2]	You'll have to tell us about your trip later when we have more time, because there seems to be a concentration center growing on the Scanner. How about going into the Control Room and checking it out.
Contact 3rd iKid [HQ –St 2]	The Concentration Scanner is over here, and I think we should both check it out. According to the date indicator we are looking at December of 1490, and the location appears to be Venice Italy. I was just checking on our Historical Database and this concentration could be coming from Leonardo daVinci's Lab. Although it could also be Copernicus, but this seems to be further south.
2rd iKid [HQ –St 2]	Hi, sorry I put you off in the Resource Area, but it looks now as if we have some concentration building!
1st iKid [HQ –St 3]	Hey Guys, good to be all together again now that [Player Selection of iKid] is back. What's going on with our concentration pulse here iKid#3?
3rd iKid [HQ –St 3]	As I was just explaining to [Player Selection of iKid] here, it looks as if Leonardo daVinci is having some missunderstanding of some physics principles. I have not seen anything come up yet on the display that quantifies it.
	--- this represents about 1/3 of all dialog that would be directly spoken at this level and does not incude the text seen by the player for what they would ask.

Rough Sketches or Descriptions of any key UI Graphics

iKids HQ

This could be similar to the Concentration Scanner that allows for the iKids to enter a date, to look at what they have in inventory (in this case a Balcony Key), and to receive text information about the historical Scientist or Inventor above. In this image we are looking into Leonardo's Lab.

CURRENT COORDINATES UI
CURRENT TIME UI

When the iKids leave their HQ, the UI graphic of the Current Time and Current Coordinates are envisioned to be minimal and always floating at the top of the screen in some unifying physical-like display.

HEALTH METER UI

When the iKids leave their HQ, a UI of a human body appears that flashes positive or negative conditions on the body for:

Blood Pressure [right arm] **Hydration** [full body BLUE]
Heart Beat [heart pulsates] **Energized** [radiant color (gold) eminates from body when energized]
Hunger [stomach flashes]

Rough Sketches or Descriptions of any key Objects

iKids HQ chairs in lounge

.5 modern chairs in sunken lounge area of HQ Map

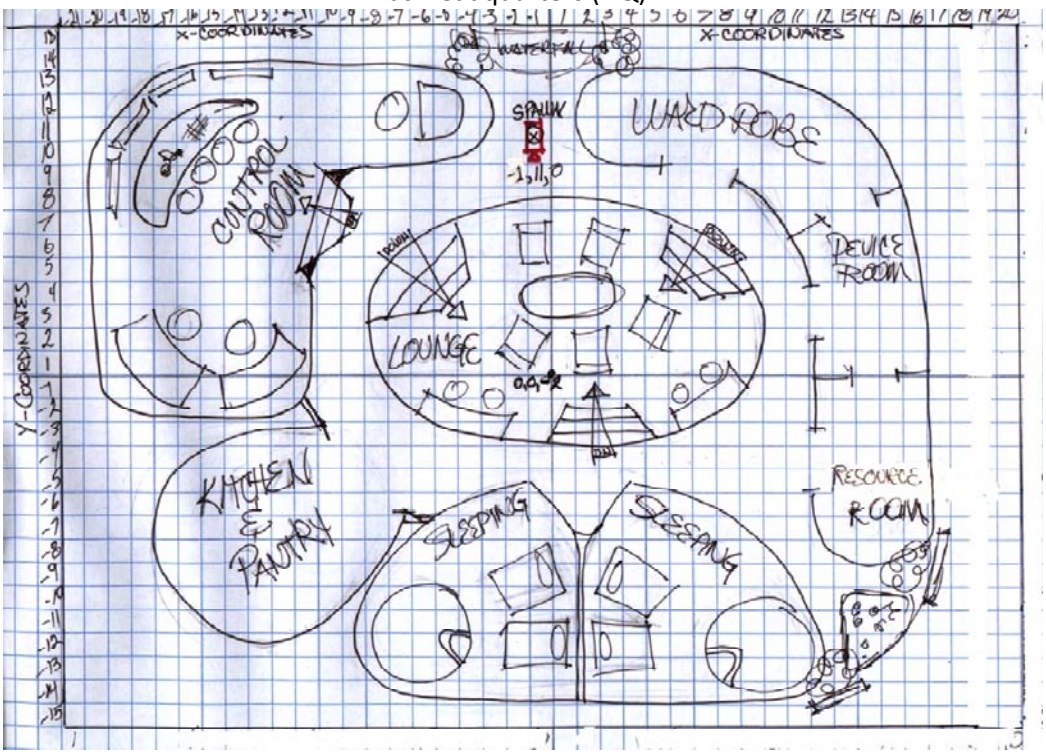
iKids HQ Sleep – Shower-Head

One set of Shower and Toilet in each HQ sleeping

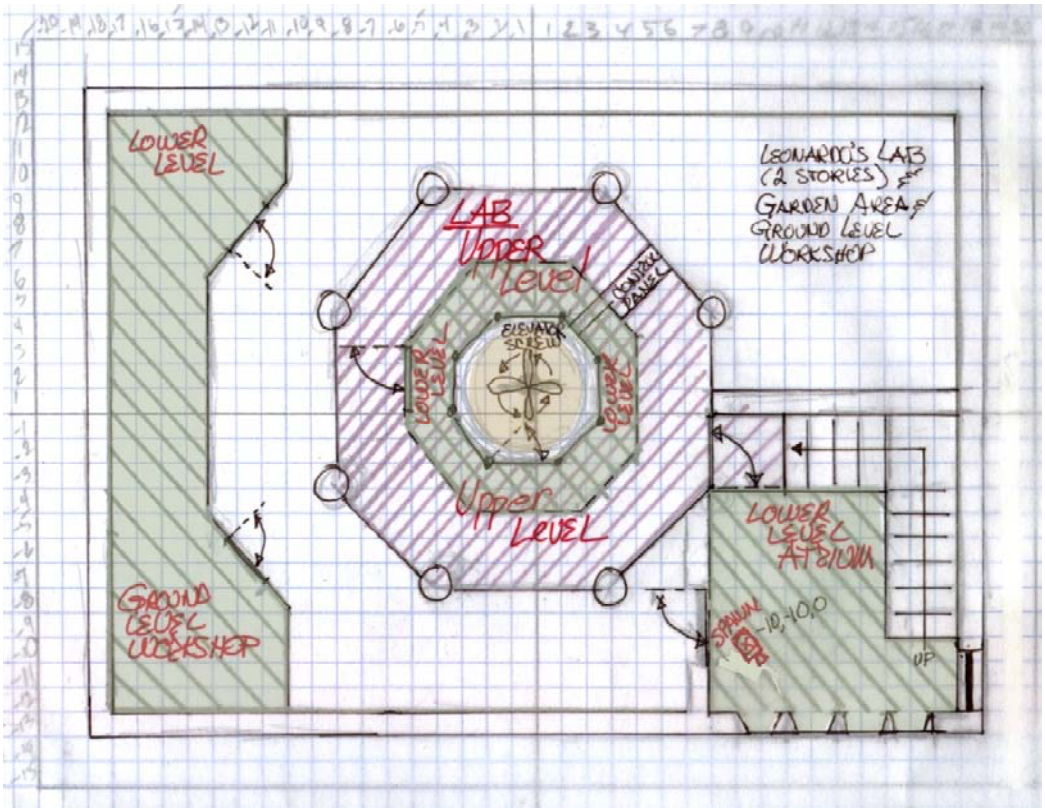
This is barely a start for all of the objects available at this HQ state 1 level. There would be almost 50 objects in the resources area 25 objects with controls in the Control Room, and 30 in each of the other room areas.

Rough Maps of each Scene and/or Region

iKids Headquarters (HQ)



Leonardo's Lab



Art Team Report

Visual Examples of each:

Characters:

Max	
Krystal	

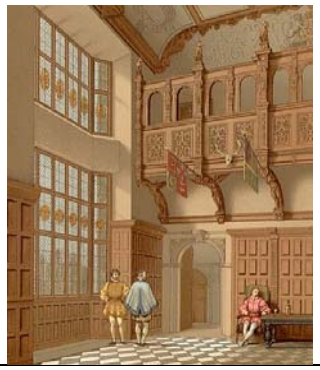
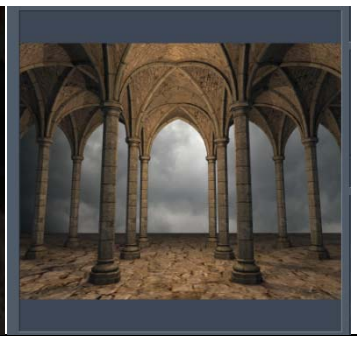
Chip	toth_spaceranger.max by tothPRODUCTS KEYWORDS: character male space cowboy model full body squad police CATEGORIES: 3D Models > Characters > Man 3D Models > Characters > Humanoid Types > Sci-Fi This is a detailed character with a meshsmooth, so you can make it as h
Angie	maur_sh1.max.zip by iw43d KEYWORDS: character human female scifi fantasy sexy realistic hires mau CATEGORIES: 3D Models > Characters > Humanoid Types > Sci-Fi Animated walk cycle. The character is skinned and animated for 3d Stud persists in 3D Studio Max, but not the skinning.

NPC or Object:

Leonardo	
16th century Costume	
iKids Costume in HQ	
	Etc…

Scene or Region:

iKids LOUNGE	
iKids CONTROL RM	
iKids BATHROOM	

Leonardo's ATRIUM	
Leonardo's LAB	

Audio Examples of each:

Characters:

Character Name:	Audio Clip of Character Speech
Character Name:	Audio Clip of Character Speech
Etc…	Etc…

NPC or Object:

NPC or Object Name:	Audio Clip of NPC or Object Speech/SFX
NPC or Object Name:	Audio Clip of NPC or Object Speech/SFX
Etc…	Etc…

Music:

Scene & Event Name:	Audio Clip
Scene & Event Name:	Audio Clip
Etc…	Etc…

Engineering Report

Compilation of all programmable elements

SCENE	SCENE CODE	REGION	REGION CODE	CHARACTER	HAR CODE	AR APPE	NPC NAME	PC CODE	PC APPEA	OBJECT NAME	JECT CODE	JECT APP	UI NAME	JI CODE	JI APPEAR	AUDIO CODE	DIO APPEA	MAP SPAWN
Leonardo Lab	LLB	ATRIUM	ATR				LEONARDO	LEO	NO									
iKids HQ	IKHQ	CONTROL RM	CNT	PLAYER	PLY	YES												
iKids HQ	IKHQ	CONTROL RM	CNT										CURRENT TIME	CT	YES			
iKids HQ	IKHQ	CONTROL RM	CNT										HEALTH METER	HM	YES			
iKids HQ	IKHQ	CONTROL RM	CNT										CRNT. COORD	CC	YES			
iKids HQ	IKHQ	CONTROL RM	CNT				MAX	MAX	YES									
iKids HQ	IKHQ	CONTROL RM	CNT				KRYSTAL	KRY	YES									
iKids HQ	IKHQ	CONTROL RM	CNT				CHIP	CIP	YES									-7, 12 , 2
iKids HQ	IKHQ	CONTROL RM	CNT				ANGIE	ANG	YES									
iKids HQ	IKHQ	DEVICE RM	DEV	PLAYER	PLY	YES												
iKids HQ	IKHQ	DEVICE RM	DEV										CURRENT TIME	CT	YES			
iKids HQ	IKHQ	DEVICE RM	DEV										HEALTH METER	HM	YES			
iKids HQ	IKHQ	DEVICE RM	DEV										CRNT. COORD	CC	YES			
iKids HQ	IKHQ	DEVICE RM	DEV				MAX	MAX	YES									
iKids HQ	IKHQ	DEVICE RM	DEV				KRYSTAL	KRY	YES									15, 2, 0
iKids HQ	IKHQ	DEVICE RM	DEV				CHIP	CIP	YES									
iKids HQ	IKHQ	DEVICE RM	DEV				ANGIE	ANG	YES									
Leonardo Lab	LLB	GARDEN NE	GNE				LEONARDO	LEO	NO									
Leonardo Lab	LLB	GARDEN NW	GNW				LEONARDO	LEO	NO									
Leonardo Lab	LLB	GARDEN S	GS				LEONARDO	LEO	YES									
iKids HQ	IKHQ	KITCHEN	KIT	PLAYER	PLY	YES												
iKids HQ	IKHQ	KITCHEN	KIT										CURRENT TIME	CT	YES			
iKids HQ	IKHQ	KITCHEN	KIT										HEALTH METER	HM	YES			
iKids HQ	IKHQ	KITCHEN	KIT										CRNT. COORD	CC	YES			
iKids HQ	IKHQ	KITCHEN	KIT				MAX	MAX	YES									
iKids HQ	IKHQ	KITCHEN	KIT				KRYSTAL	KRY	YES									
iKids HQ	IKHQ	KITCHEN	KIT				CHIP	CIP	YES									
iKids HQ	IKHQ	KITCHEN	KIT				ANGIE	ANG	YES									
iKids HQ	IKHQ	LOUNGE	LNG	PLAYER	PLY	YES												
iKids HQ	IKHQ	LOUNGE	LNG							CHAIR A	CHA	YES						-1, 6, -2
iKids HQ	IKHQ	LOUNGE	LNG							CHAIR B	CHB	YES						3, 6, -2
iKids HQ	IKHQ	LOUNGE	LNG							CHAIR C	CHC	YES						5, 3, -2
iKids HQ	IKHQ	LOUNGE	LNG							CHAIR D	CHD	YES						2, 1, -2
iKids HQ	IKHQ	LOUNGE	LNG							CHAIR E	CHE	YES						-2, 2, -2
iKids HQ	IKHQ	LOUNGE	LNG							STOOL A	STA	YES						-6, -2, -2
iKids HQ	IKHQ	LOUNGE	LNG							STOOL B	STB	YES						-3, -2, -2
iKids HQ	IKHQ	LOUNGE	LNG							STOOL C	STC	YES						6, -1, -2
iKids HQ	IKHQ	LOUNGE	LNG							STOOL D	STD	YES						7, 0, -2
iKids HQ	IKHQ	LOUNGE	LNG							DESK A	DKA	YES						-4, -2, -2
iKids HQ	IKHQ	LOUNGE	LNG							DESK B	DKB	YES						7, -2, -2
iKids HQ	IKHQ	LOUNGE	LNG							COFFEE TBL	CFT	YES						1, 4, -2
iKids HQ	IKHQ	LOUNGE	LNG										CURRENT TIME	CT	YES			
iKids HQ	IKHQ	LOUNGE	LNG										HEALTH METER	HM	YES			
iKids HQ	IKHQ	LOUNGE	LNG										CRNT. COORD	CC	YES			
iKids HQ	IKHQ	LOUNGE	LNG				MAX	MAX	YES									-2, 2, -2
iKids HQ	IKHQ	LOUNGE	LNG				KRYSTAL	KRY	YES									
iKids HQ	IKHQ	LOUNGE	LNG				CHIP	CIP	YES									
iKids HQ	IKHQ	LOUNGE	LNG				ANGIE	ANG	YES									3, 6, -2
Leonardo Lab	LLB	LOWNEUTRAL	LNTR				LEONARDO	LEO	NO									
iKids HQ	IKHQ	NEUTRAL	NTR	PLAYER	PLY	YES							CURRENT TIME	CT	YES			-1, 11, 0
iKids HQ	IKHQ	NEUTRAL	NTR										CURRENT TIME	CT	YES			
iKids HQ	IKHQ	NEUTRAL	NTR										HEALTH METER	HM	YES			
iKids HQ	IKHQ	NEUTRAL	NTR										CRNT. COORD	CC	YES			
iKids HQ	IKHQ	NEUTRAL	NTR				MAX	MAX	YES									
iKids HQ	IKHQ	NEUTRAL	NTR				KRYSTAL	KRY	YES									
iKids HQ	IKHQ	NEUTRAL	NTR				CHIP	CIP	YES									
iKids HQ	IKHQ	NEUTRAL	NTR				ANGIE	ANG	YES									
iKids HQ	IKHQ	RESOURCE RM	RES	PLAYER	PLY	YES												
iKids HQ	IKHQ	RESOURCE RM	RES										CURRENT TIME	CT	YES			
iKids HQ	IKHQ	RESOURCE RM	RES										HEALTH METER	HM	YES			
iKids HQ	IKHQ	RESOURCE RM	RES										CRNT. COORD	CC	YES			
iKids HQ	IKHQ	RESOURCE RM	RES				MAX	MAX	YES									
iKids HQ	IKHQ	RESOURCE RM	RES				KRYSTAL	KRY	YES									
iKids HQ	IKHQ	RESOURCE RM	RES				CHIP	CIP	YES									
iKids HQ	IKHQ	RESOURCE RM	RES				ANGIE	ANG	YES									
iKids HQ	IKHQ	SLEEP BOY	SLB	PLAYER	PLY	YES												
iKids HQ	IKHQ	SLEEP BOY	SLB										CURRENT TIME	CT	YES			
iKids HQ	IKHQ	SLEEP BOY	SLB										HEALTH METER	HM	YES			
iKids HQ	IKHQ	SLEEP BOY	SLB										CRNT. COORD	CC	YES			
iKids HQ	IKHQ	SLEEP BOY	SLB				MAX	MAX	YES									
iKids HQ	IKHQ	SLEEP BOY	SLB				KRYSTAL	KRY	NO									
iKids HQ	IKHQ	SLEEP BOY	SLB				CHIP	CIP	YES									
iKids HQ	IKHQ	SLEEP BOY	SLB				ANGIE	ANG	NO									
iKids HQ	IKHQ	SLEEP GIRL	SLG	PLAYER	PLY	YES												
iKids HQ	IKHQ	SLEEP GIRL	SLG										CURRENT TIME	CT	YES			
iKids HQ	IKHQ	SLEEP GIRL	SLG										HEALTH METER	HM	YES			
iKids HQ	IKHQ	SLEEP GIRL	SLG										CRNT. COORD	CC	YES			
iKids HQ	IKHQ	SLEEP GIRL	SLG				MAX	MAX	NO									
iKids HQ	IKHQ	SLEEP GIRL	SLG				KRYSTAL	KRY	YES									
iKids HQ	IKHQ	SLEEP GIRL	SLG				CHIP	CIP	NO									
iKids HQ	IKHQ	SLEEP GIRL	SLG				ANGIE	ANG	YES									
iKids HQ	IKHQ	WARDROBE	WRB	PLAYER	PLY	YES												
iKids HQ	IKHQ	WARDROBE	WRB										CURRENT TIME	CT	YES			
iKids HQ	IKHQ	WARDROBE	WRB										HEALTH METER	HM	YES			
iKids HQ	IKHQ	WARDROBE	WRB										CRNT. COORD	CC	YES			
iKids HQ	IKHQ	WARDROBE	WRB				MAX	MAX	YES									
iKids HQ	IKHQ	WARDROBE	WRB				KRYSTAL	KRY	YES									
iKids HQ	IKHQ	WARDROBE	WRB				CHIP	CIP	YES									
iKids HQ	IKHQ	WARDROBE	WRB				ANGIE	ANG	YES									
Leonardo Lab	LLB	WKSHP HI NW	WKHNW				LEONARDO	LEO	NO									
Leonardo Lab	LLB	WKSHP HI SW	WKHSW				LEONARDO	LEO	YES									-6, -4, 8
Leonardo Lab	LLB	WKSHP LOW N	WKLN				LEONARDO	LEO	NO									
Leonardo Lab	LLB	WKSHP LOW S	WKLS				LEONARDO	LEO	NO									

Description of SPECIAL FUNCTIONALITY programming:

Motion Capture

1. Max: walking, sitting, turning left, turning right, reaching, bending reach, throwing
2. Chip: walking, sitting, turning left, turning right, reaching, bending reach, throwing
3. Krystal: walking, sitting, turning left, turning right, reaching, bending reach, throwing
4. Angie: walking, sitting, turning left, turning right, reaching, bending reach, throwing
5. Leonardo: walking, sitting, turning left, turning right, reaching, bending reach, throwing

UI

History Scanner (multiple controls for interactions from player) (database searching)

PDA for iKids use for calculations, and GPS

NPC/Objects

Glide Path of Paper Airplane at Leonardo's Lab

AI

Physics Engine that keeps all objects affected by normal gravity

Tactile Engine that varies with density of objects (e.g. nurf ball vs. cannonball)

Boolean table that controls state change functionality

Team Member Reflections

Member #1 Name and Role

How do you describe a Serious Game now, and what potential do you think they have?

Write here

What was most difficult about this class?

Write here

What was most enjoyable?

Write here

What is your "take-away" from this class?

Write here

Member #2 Name and Role

How do you describe a Serious Game now, and what potential do you think they have?

Write here

What was most difficult about this class?

Write here

What was most enjoyable?

Write here

What is your "take-away" from this class?

Write here

Continue the above format for all members of your group