**Basic Augmented Reality Activities for SHSM Programs**

***Please Note - It is the teachers responsibility to ensure that the technology and applications outlined in this resource are approved by their School Board.***

**Introduction:** Augmented Reality (AR) applications allow for students to work with manipulatives that can be hard to find, expensive, fragile, or dangerous, without needing the ‘real’ thing!

**Materials Needed:** All that is needed for these experiences to work is a mobile device. Each application accesses the camera of your device to place a virtual object in your space. The object can be manipulated by the user through pressing their screen.

**Free AR Experiences**

On this page, you will find a list of apps that only require a mobile device. Each of these are ranked out of five star rating, which is based on the amount and richness of content, user friendliness, applications for SHSM lead teachers, and app stability:

1. [EON Experience VR / EON Experience XR Classic](#_l0r9kyp2zqfg)
2. [Big Bang AR](#_k5d78gujpdbl)
3. [Civilisations AR](#_gy113dysh1jx)
4. [Google Arts and Culture](#_gl4ac0cjjmu7)
5. [JigSpaces](#_3v3s9eh7goq7)
6. [CoSpaces EDU](#_tax133mqnk8d)
7. [Mission to Mars AR](#_59a38m8e6x0r)
8. [Apollo’s Moon Shot AR](#_cevkkgcmzaar)
9. [Google Search AR (Google App)](#_h83dh6qaa8d)
10. [RAF Discovery](#_3j8enhl6gibo)
11. [Animal Safari AR](#_2vghk5qixump)
12. [Tape Measure](#_19tuv1xqg0l1)
13. [Jansen AR Car](#_g3f9rleqnkdo)

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###### **EON Experience VR / EON Experience XR Classic**

EON experience has several apps that use Virtual Reality and Augmented Reality to engage its users with content. One of the best features that SHSM leads will enjoy is that the content is organized into categories that are very similar to the SHSM program titles. Also, each individual experience is rated within the app, which can save teachers frustration if they are curating multiple items for students to use. However, the app seems to have overlap between its VR and AR content. There are times when loading can be buggy. However, EON still seems to be updating their apps regularly.

**Also, EON-XR Classic has some free content that can be used, but making an account on the application is difficult due to bugs and requires a license.**

4.5/5 Stars

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| **EON Experience VR**: EON Experience VR is a service for viewing interactive Augmented Reality and Virtual Reality applications on your mobile device. The EON Experience VR application delivers an exceptional AR/VR experience anywhere, anytime. Get the free app and become instantly immersed in a growing selection of AR and VR experiences on your mobile device. Currently, you can experience your application in three different modes: Normal, AR, and VR. Categories include:   * Edutainment * Education * Industry * Anatomy * Architecture * Biology * Energy * Entertainment * Furnishings * Geography * History * Science * Space * Transportation   Each VR and AR experience is individually rated by users. Some description information taken from the iOs store. Also available on Android devices. |
| **Relevant SHSMs**: Arts and Culture, Aviation and Aerospace, Construction, Energy, Environment, Forestry, Health and Wellness, Hospitality and Tourism, Manufacturing, Sports, Transportation |

###### **Big Bang AR**

This app offers a unique storytelling of the Big Bang. In the early moments of the app, it is immediately interactive; the viewer's hand is what “explodes” the universe, the viewer walks through the early interaction(s) of particles in the universe, and manipulates them by hand. Although only a few SHSMs may benefit from this app, the experience is so entertaining and functions so smoothly - give it a try!

4/5 Stars

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| **Big Bang AR**:  Join Tilda Swinton and CERN scientists on an epic interactive journey through the birth and evolution of the universe - in mixed reality. Go back in time 13.8 billion years and discover how space, time and the visible universe came to be.  See the universe form in the palm of your hand. Witness the formation of the very first stars, our solar system, and the planet we call home. Immerse yourself in the primordial mystery of the early universe in space and watch events unfold around you, in your own physical environment.  Learn about the microscopic building blocks that make up everything - and everyone - we know, and find out if we really are made of stars.  See the universe form as you stretch out your hand in front of your camera. Create the very first particles and atoms. Make a star explode, create a supernova and explore the nebula. See our solar system come together and hold the Earth in the palm of your hand.  Find out how we are made from stars, take a #starselfie and share it with your friends.  This app has options for subtitles.  Augmented reality experiences require battery power- please make sure your device is fully charged before playing this AR experience.  To show you where you are on Earth, Big Bang AR needs permission to access your location. The app also needs access to the camera and photo gallery on your device for the AR experience to work, and to save photos directly to your device. This data remains anonymous and will not be stored or shared externally from your device.  Big Bang AR is a collaboration between CERN and Google Arts & Culture. With special thanks to Rolf Landua, Head of Global Engagement, CERN, and production partner Nexus Studios.  Discover more about Big Bang AR  CERN <https://home.cern>, Google Arts & Culture <https://artsandculture.google.com>  Description taken from iOS store. Also available on Google Play Store. |
| **Relevant SHSMs**: Arts & Culture, Aviation/Aerospace, Environment |

###### **Civilisations AR**

This allows its users to place museum objects in their field of view to examine closely (and manipulate). Depending on the model of your phone, you can unlock advanced features. This app doesn’t score as high for two reasons: it connects with a limited amount of SHSM programs (unless you find an artifact that pertains to your SHSM specifically) and sometimes the AR objects will appear in awkward places (for example, a helmet appears on a ceiling).

4/5 Stars

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| **Civilisations AR**: Discover History's Treasures.  Putting history in your hand - the BBC's first ever Augmented Reality app 'Civilisations AR' brings art and culture direct to you from across the world.  Discover the secrets of ancient Egypt, reveal hidden layers beneath Renaissance masterpieces and learn more about the origins of these cultural treasures and the people who made them.  Treasures to be found include an ancient Egyptian mummy from the Torquay Museum, Rodin's The Kiss from the National Museum of Wales, iconic sculptures from Henry Moore and Barbara Hepworth and masterpieces by Tintoretto, Bellini and Turner.  This personal, virtual collection contains over 30 historic artefacts. It is curated by the BBC with contributions from across the UK's heritage sector and is developed in collaboration with Nexus Studios (https://nexusstudios.com)  This free AR App forms part of a major collaboration between the BBC, Nexus Studios and more than 30 museums from across the UK to mark the launch of the new landmark arts and culture series, Civilisations.  Please treat these cultural treasures with respect when enjoying and sharing this AR experience.  Features:   * Bring realistic, to-scale artefacts from History into your own home using cutting edge Augmented Reality technology. * Move, scale and rotate the collection, allowing you to become the explorer. * Use the magic Spotlight to reveal audio guides and special features. * Use the X-Ray feature to discover history's secrets hidden within - see inside a sarcophagus or what lies beneath a painting. * Rub through the layers of history with Restore, bringing lustre to a Greek Corinthian helmet or colour to a faded Roman Cockerel statuette and find out what they looked like when new. * Translate hieroglyphics from the British Museum's iconic Rosetta Stone. * Navigate the collection geographically in AR, using an AR globe or via the curated themes. * Take and share photos of the objects in your home, garden or school. |
| **Relevant SHSMs**: Arts and Culture, Hospitality and Tourism |

###### **Google Arts and Culture**

Google has recently abandoned some of its apps that educators had benefited from in the past: Google Expeditions and the Google Daydream VR. However, Google Arts and Culture is the replacement. In addition to its VR abilities, Google Arts and Culture will also generate exhibition items in Augmented Reality for students to view. There is a lot of content to browse, which can be overwhelming for the user.

4/5 Stars

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| **Google Arts and Culture**: Are you curious about what Van Gogh’s Starry Night looks like up close? Have you ever toured the ancient Maya temples or met the inspirational figures of Black history? Do you want to learn about Japan’s unique food culture or incredible Indian railways?  Google Arts & Culture puts the treasures, stories and knowledge of over 2,000 cultural institutions from 80 countries at your fingertips. From the suffragettes who fought for women’s rights, to performing arts at the Paris Opera, to NASA’s archive of stunning images, discover stories about our cultural heritage. It’s your doorway to explore the art, history, people and wonders of our world.  Highlights:  • Art Transfer – Take a photo and transform it with classic artworks  • Art Selfie – Discover portraits that look like you  • Color Palette – Find art by using the colors of your photo  • Art Projector – See how artworks look in real size  • Pocket Gallery – Wander through immersive galleries and get up close to art  • Art Camera – Explore high-definition artworks  • 360° videos – Experience culture in 360 degrees  • Virtual reality tours – Step inside world-class museums  • Street View – Tour famous sites and landmarks  • Explore by time and color – Travel through time and see the rainbow through art  • Art Recogniser – Point your device camera at artworks to learn more about them, even when offline (at select museums only)  More features:  • Exhibits – Take guided tours curated by experts  • Favorites – Save and group your favorite artworks into galleries to share with friends or students  • Nearby – Find museums and exhibitions near you  • Notifications – Subscribe to receive weekly highlights or favorite content updates  • Translate – Use the translate button to read about exhibits from around the world in your language  Permissions notice:  • Location: used to recommend cultural sites and events based on your current location  • Camera: used to recognise artworks and provide related information about them  • Contacts (Get Accounts): used to allow sign in with a Google Account, in order to store users' favourites and preferences  • Storage: used to allow artworks to be recognised and related information to be accessed while offline  Description taken from the [Google Play Store](https://play.google.com/store/apps/details?id=com.google.android.apps.cultural&hl=en_CA&gl=US). Download from the Android or iOs store. |
| **Relevant SHSMs**: Arts and Culture, Hospitality and Tourism (teacher and community partner discretion to deem what could be appropriate; for example, construction SHSMs could look at the construction of new buildings or the architecture of old buildings) |

###### **JigSpaces**

JigSpaces allows for students to not only see an object in 3D, but they will *learn* about the object in real time. For example, if you open the quadcopter Jig experience, the image will generate next to arrows that allow you to click through information. When the student is reading about how the propellers work, the 3D quadcopter movement matches the information presented on screen. When you make an account, you can make your own Jig presentations using the existing 3D models in the app’s library. You can also upload audio files and record yourself going through the Jig lesson.

The app comes in lower on the list because it is only easily available for iOS users, and the option to import your own 3D models into the program comes at a cost with the Pro version.

4/5 Stars

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| **JigSpace VR**:  We learn better in 3D, that's how we experience the world.  JigSpace is the platform to explore, create and share truly interactive, 3D knowledge for anything. When you ask "How does that work?, how do I fix that? What's that made of?" the answer is right in front of you, in beautiful, interactive 3D. Dive through dozens of Jigs, learn at your own pace, and satisfy your curiosity.  JigSpace is the easiest, and fastest way to create and deliver stunning augmented reality presentations. Whether you are working on school homework, or creating professional training material, assembly guides, and sales presentation, you can share your ideas with Jigs.  JigSpace empowers you to teach and learn about the world in a way that simply wasn't possible before.  With JigSpace you can:  - View Jigs in Augmented Reality - Bring your learning into the real world  - Browse the growing Jig Library for dozens of interactive learning experiences  - View step-by-step interactive 3D breakdowns of complex ideas, products and phenomenon  - Create your own Jigs and share them with the world using a simple link  - Use our library of 1000+ 3D objects and photorealistic materials  - Import your own 3D files  - Host multi-user remote Jig presentations  Want to use JigSpace for work?  ⁃ Product Demonstrations: Make stunning 3D presentations from your CAD files in minutes on iPad or iPhone.  ⁃ Training and Learning: Share complex 3D or technical knowledge in simple but effective step-by-step presentations.  ⁃ Prototyping and R&D: Show, don't tell. Make iterative changes to your 3D prototypes and immediately view them in-situ.  ⁃ Create demos in 5 minutes, not 5 days: Import your CAD files from tools like SolidWorks, or Shapr3D, and bring them to life with simple, powerful tools.  ⁃ Professional presentations: Host multi-user presentations with remote teams, share password-protected Jig links with clients, or simply stream from your iPad in a meeting room.  Description taken from iOS store. Also available on Google Play Store. |
| **Relevant SHSMs**: Arts & Culture, Aviation/Aerospace, Construction, Environment, Justice Emergency Services and Community Safety, Manufacturing,Transportation |

###### **CoSpaces EDU**

This allows you to create a 3D environment for your students to meet in and create VR/AR content. This app falls on this part of the list due the free version being limited in the amount of classes you can create, students that can be invited, and only 10 files can be uploaded at a time. SHSM Leads will have to be creative in how they create 3D environments given the limited resources in the free version.

Following this review, you will find an overview of CoSpaces EDU’s features. For additional information and in-depth tutorials, see [CoSpaces EDU’s YouTube Channel](https://www.youtube.com/channel/UC6VsnmaKQ9MNRpJbFsIhoGw).

4/5 Stars

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| Free Version vs. Pro Version | |
| **Free** | **Pro (increases in price based on the amount of students and/or teachers signed up) - 74.99 USD per year.** |
| * Invite up to 29 students * Create up to 2 CoSpaces * Create 1 class * Create 1 assignment * Upload up to 10 external files * Code with basic CoBlocks | * All CoSpaces Edu features and 3D objects * Invite students and teachers * Add co-teachers to your classes * Publish to the CoSpaces Edu Gallery * Remix CoSpaces from the Gallery * Code with all CoBlocks or script languages * Use the built-in Physics engine   *With the Pro Version, there is an option to purchase a Merge Cube add-on feature. See Advanced AR for more information on the Merge Cube.* |

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| How to Use CoSpaces EDU |
| Sign in or make a CoSpaces EDU account: <https://edu.cospaces.io/Auth> and ownload the CoSpaces EDU app on your mobile device. Once you have created a CoSpaces EDU account, you will be able to access the following features on your left sidebar:  Gallery  Contains environments and AR objects in the following categories: STEM & Coding, Social Sciences, Languages & Literature, Makerspace & Arts  **Note:** these are uploaded by CoSpaces users and must be pre-screened by the SHSM Lead  Classes  You can Create a Class or Join a Class  When a class is created, you can create assignments, and add students & teachers with a class code  CoSpaces - This is where you can create a 3D environment.  Click **“Create CoSpace”**  Under the Free Version, you can either create an Empty Scene in a 3D environment or 360 Image. You will then have options on the bottom left of the page to edit your CoSpace.  In an Empty Scene, click **“Environment”** - on the bottom of the screen, if you click edit, you can use a pre-existing environment like a town or a city. Select one of these.  To populate the environment with objects, you can click **“Library”** to access *some* of CoSpaces images (many are locked in the basic version).  Alternatively, you can click **“Upload”**; this will allow you to add 10 files maximum (such as images, videos, 3D models, sound). You can download 3D models from Tinkercad as a .obj file and place them in the scene. When uploaded, drag the image of the file onto the CoSpace Scene.  You can also code objects that are placed in an empty scene.  On the top left of the scene maker page, you can add a new scene to the CoSpace.  When you’ve finished making your CoSpace, you can click the share button near the top right of your web page. In the free version, you can publish your CoSpace under “unlisted”. This will bring you to a link in which you’ll hit another share button, and you’ll be given the following options: share by email/social media, QR Code, Share Code, Share link, or Embed code. When you open CoSpaces EDU on your mobile device, you will see the gallery, and when you tap the search bar, you can scan the QR code or enter the share code.  This will bring you to your CoSpace. Press the play button to open the CoSpace. When the CoSpace is open, you can press the icon on the bottom right of the screen to activate VR or AR mode.  Here is a great beginner tutorial on [creating CoSpaces](https://www.youtube.com/watch?v=2WWCnNjeMzM). Here is a beginner tutorial for [Coding in CoSpaces](https://www.youtube.com/watch?v=15Vlqe22_x0).  Archive (old classes and CoSpaces) |

###### **Mission to Mars AR**

This app brings Mars missions to life in your very own room. Developed by the Smithsonian, this app allows you to explore, land, and examine Mars. The app functions smoothly, and the only reason it has a lower standing on this than other apps is due to it having limited connections to SHSMs programs.

3.5/5 Stars

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| **Mission to Mars AR**  Explore Mars with the power of AR. Take an interactive look at Perseverance and other rovers, drive them around, and explore Mars in immersive 3D.  Harness the power of AR to explore the Red Planet through our amazing rovers. With Perseverance now on Mars, take an up-close interactive look at this and other rovers that paved the way. You can even drive one down your street.  From the treacherous landing attempt to the flight of the first interplanetary helicopter, this app brings the mission to life through augmented reality experiences grounded in real equipment and events. Engaging, informative and fun, this is the best way to explore Mars without going there yourself! Download for free.  App features:  MEET THE ROVERS - Get an interactive look at rover design, from science tools to camera power. See how rovers have evolved into the most sophisticated robots ever built for space.  DRIVE THE ROVERS - Place a rover on your desk, driveway or street. Then drive it around and snap photos and video to share.  MARS OVERVIEW – Put the entire globe of Mars in front of you, spin it, and discover features both alien and familiar.  LAUNCH THE ROCKET – Place the Atlas V rocket anywhere you want and launch it with authentic mission audio.  MARS PORTAL – Walk through a portal onto the surface of Mars to see Perseverance in action, then jump into the future to explore a human settlement.  7 MINUTES OF TERROR – Control the nail-biting landing sequence yourself and see if you can do better than cutting-edge robotic automation.  MISSIONS ON MARS – Game your way through Perseverance missions on the surface. Drive around hazards to complete different objectives – including flying the helicopter Ingenuity.  The app also features an array of Mars images, quizzes, and video clips from the Smithsonian Channel documentary MAKING TRACKS ON MARS.  Description taken from iOS store. Also available on Google Play Store. |
| **Relevant SHSMs**: Aviation/Aerospace, Information Communication Technology, Transportation |

###### **Apollo’s Moon Shot AR**

This app is made by the same developer as Mission to Mars AR. The app functions smoothly, but appears to be more entertainment based as opposed to Mission to Mars’ focus on a scientific learning experience. The app allows the user to be part of the moon missions, immerses users in the history of the Space Age, and contains artifacts from the Apollo 11 moon mission. While this app functions just as well as Mission to Mars, it sits in a similar spot due to its niche focus.

3.5/5 Stars

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| **Apollo’s Moon Shot AR**  Harness the power of AR to relive NASA’s epic quest to conquer the cosmos, 50 years after the ground-breaking Apollo 11 lunar landing mission.  Celebrate the 50th anniversary of the Moon Landing with an immersive AR app that places you right in the action of NASA’s daring space missions of the 1960s. The perfect companion to Smithsonian Channel’s landmark six-part series, the “Apollo’s Moon Shot AR” app gives you an out-of-this-world close-up of some of the landmark events that defined the start of the Space Age. Download for free now and blast off into space with us!  App Features:  Place yourself in the middle of the moon mission: Launch your own Saturn V rocket, sit inside the Lunar Command Module of Apollo 11, and step through a portal to explore the lunar landscape with several exciting AR features.  Take a selfie on the Moon, suited up in the authentic Apollo 11 spacesuit, and share with friends on social.  Play two thrilling AR simulation games, the “Moon Shot Challenge” and the "Lunar Landing Challenge," to test your ability at navigating a course to the moon and dodging craters and boulders to make a smooth lunar landing.  Turn notifications on to immerse yourself in hour-by-hour updates about the historic Apollo 11 mission – from liftoff to landing – leading up to the 50th anniversary of the Moon Landing on July 20, 2019.  Navigate an interactive timeline to learn the extraordinary history of the Space Age, with quizzes, videos, and fascinating facts that make the past come to life.  Get close to rare artifacts and paraphernalia from NASA’s lunar missions, including authentic 3D scans of Neil Armstrong’s space suit and the Lunar Command Module.  Watch exclusive clips from episodes of Smithsonian Channel’s “Apollo’s Moon Shot.”  Description taken from iOS store. Also available on Google Play Store. |
| **Relevant SHSMs**: Arts and Culture, Aviation/Aerospace, Hospitality and Tourism, Information Communication Technology, Transportation |

###### **Google Search AR (Google App)**

On your device, if you use Google Search, you may be given an option to see a 3D version of what you have searched for. You will be prompted to open the Google app (not to be confused with Chrome) in order to generate the AR image. This app falls lower on the list due to the app only generating an image, and the categories are limited at this time.

3/5 Stars

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| **Google Search AR (Google App)**  Find & interact with 3D results   1. On your iPhone or Android device, open Safari or the Google app Google app. 2. Go to google.com. 3. Search for an animal, object, or place. 4. If a 3D result is available, tap View in 3D View in 3D. 5. To interact with the 3D result: 6. In AR: Tap AR and follow the on-screen instructions. 7. On your device: Tap Object.   What’s available in AR:   * Land Animals   + Tiger, giant panda, leopard, goat, cheetah, pony, brown bear, timber wolf, Shetland pony, python, Arabian horse, raccoon, hedgehog, and deer * Underwater & wetland animals   + Mallard duck, alligator, great white shark, octopus, angler fish, and sea turtle * Birds   + Macaw, emperor penguin, and eagle * House Pets   + Pomeranian, golden retriever, labrador, rottweiler, French bulldog, pug, and cat * Human anatomical systems   + Human digestive system, respiratory system, endocrine system, female reproductive system, nervous system, lymphatic system, male reproductive system, integumentary system, excretory system, peripheral nervous system, urinary system, skeletal system, muscular system, and circulatory system * Cellular structures   + Mitochondrion, prokaryote, endoplasmic reticulum, bacterium, eukaryote, plant cell, rough endoplasmic reticulum, nucleolus, flagellum, cell membrane, animal cell, Golgi apparatus, ribosomes, smooth endoplasmic reticulum, chromatin, nuclear membrane, fimbria, bacterial capsule, plasmids, central vacuole, cristae, plasma membrane, cell wall, and cisternae * Chemistry Terms   + Functional group, Organic chemistry, Methyl acetate, Propanol, Salicylic acid, 1-Bromobutane, Hydrocarbon, Alkane, Electrolyte, Ionic bonding, Covalent bond, Chemical bond, Metallic bonding, Chemical compound, Ethene, Orbital hybridisation, and Quantum mechanical model * Biology Terms   + Monocotyledon, Dicotyledon, Eukaryotic chromosome structure, Red blood cell, Monocyte, Neutrophil, Basophil, and Eosinophil * Physics Terms   + Solenoid * Cultural heritage sites   + Chichén Itzá, Brandenburg Gate, Thomas Jefferson Memorial, Gateway of India, Chauvet Cave, and Ahu Nau Nau * Cultural objects   + Apollo 11 command module and Neil Armstrong |
| **Relevant SHSMs**: Arts and Culture, Environment, Health and Wellness, Hospitality and Tourism, Justice Community Safety and Emergency Services |

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###### **RAF Discovery**

The RAF Discovery app has excellent teaching tools in the workshop part of this app. However, collecting the different aircraft available in the app takes time and may not be readily accessible for students. If used overtime, this could be an excellent diversionary tool for SHSM leads of different sectors.

2.5/5 Stars

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| **RAF Discovery**  The new RAF Discovery app uses augmented reality to bring concepts of flight to life in the digital Workshop.  Experience exciting flypasts and capture iconic RAF aircraft through your device camera. View official RAF flypast formations or watch your own generated formations live in your home.  FEATURES  • WORKSHOP (New for 2020)  Learn about the principles of flight, how to control planes and helicopters and see inside a jet engine at work.  • TRACK AND COLLECT  Track and collect aircraft from the flypast based on real formations at RAF events around the country. Bring images to life at our events with the RAF Discovery app’s augmented reality experiences.  • VIEW AND INTERACT  Watch aircraft come to life and fly around your environment to reveal stories, specifications, real footage and interactive 3D visualisations  • DISCOVER REAL STORIES & SHARE  Unlock detailed specifications and technical information on your aircraft. Discover historic stories, photographs and video to find out about the people behind each aircraft. Take photos and share your own flypasts with friends.  Description taken from iOS store. Also available on Google Play Store. |
| **Relevant SHSMs**: Arts and Culture, Aviation/Aerospace, Hospitality and Tourism, Transportation |

###### **Animal Safari AR**

This app allows you to place an augmented reality version of an animal right in front of your eyes. Each animal comes with some information to help you learn more about it. You can even feed the animal! However, because many of the animals are behind a paywall, the app lacks a complete experience for animal enthusiasts and could be a detriment to an experiential learning experience.

2.5/5 Stars

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| **Animal Safari AR**:  With Animal Safari AR, you can go on a safari in your own backyard. For curious explorers of all ages!  Fun & Educational Features:  • Place virtual animals anywhere with the magic of augmented reality (AR), from your living room to your backyard  • Take pictures and videos and share them with your friends and family  • Walk around the animals to appreciate their true scale and realistic features  • Listen closely to hear the unique sounds animals make  • Move, rotate, and resize the animals with familiar touch gestures  • Feed your animals with the foods they like to eat, and watch them gobble it up  • Pull up an animal’s information card to learn about its diet, habitat, and more  Is a giraffe taller than your house? Is a great white shark bigger than your car? With Animal Safari AR's life-size animals you can find out with the tap of a finger.  Travel back in time to the Jurassic era to see majestic dinosaurs come back to life before your eyes, or stay closer to home with a cute kitten or rabbit as your pet companion. There are dozens of realistic animals to choose from, so pick your favorite and get started today.  All you need to get started is an iPhone, iPad, or iPod Touch with ARKit. |
| **Relevant SHSMs**: Environment, Hospitality and Tourism |

###### **Tape Measure**

There are many apps that use augmented reality technology to replace your tape measure. This free version of the app will make simple measurements through the use of your phone’s camera. This app’s star rating is low due to it being situational, some user reviews have said the technology can be inaccurate, it’s only available on iOS, and some users have complained of pressure within the app to purchase the “pro” version.

2.5/5 Stars

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| **Tape Measure**:  The most advanced measuring app on the planet.  A complete toolkit in your pocket, powered by augmented reality.  Join over 4,500,000 contractors, DIYers, homeowners, surveyors, real estate agents, developers, landscapers, interior designers, construction workers, builders, business owners and everyday people who use our suite of measuring tools to get the job done.  Advanced A.I. and computer vision transforms your iPhone into a hub of digital tools that go wherever you go. Features & tools include:  • Snap & Chain measurements  • Area measurement tool  • Floor plan tool  • Height tool  • Level tool  • Ruler  • My Measurements + more  Description taken from iOS store. *For Android users, try* ***Measure.*** |
| **Relevant SHSMs**: Construction |

###### **Jansen AR Car**

This allows its users to place a car in the room (with relative ease). The user can then “click” parts of the car to learn about the various drive components. In its free version, there seems to be limited components to examine. However, a Transportation SHSM lead may have some use of this app if they are introducing components of a vehicle that Jansen AR Car has on its mobile app.

1.5/5 Stars

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| **Jansen AR Car**:  Rotate the virtual car in every direction on your tablet or smartphone and discover the individual applications. Simply download the app and place it on a free surface!  Jansen Steel Tubes makes use of its production expertise to provide its automotive customers with bespoke solutions. Thanks to the free AR app, you can find out first-hand in an interactive experience for which automotive applications Jansen produces steel tubes.  You can rotate the virtual Jansen car in every direction on your tablet or smartphone and zoom-in on the individual applications. Switch between a combustion engine and an electric motor. You can view the product characteristics, jump to the online area and get in touch with Jansen, should you have any questions.  Simply download the app and place the virtual Jansen car on a free surface. You can also grab a brochure or flyer featuring the Jansen Steel Tubes AR symbol and then scan the symbol to get started in augmented reality by Jansen.  Features  - 360° views of our products, entirely in 3D. The products can be rotated and tilted in every direction  - Call up the dimensions and pipe characteristics interactively  - A link to the website and contact information can be provided for those who want further information  Description taken from iOS store. Also available on Google Play store. |
| **Relevant SHSMs**: Transportation |

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