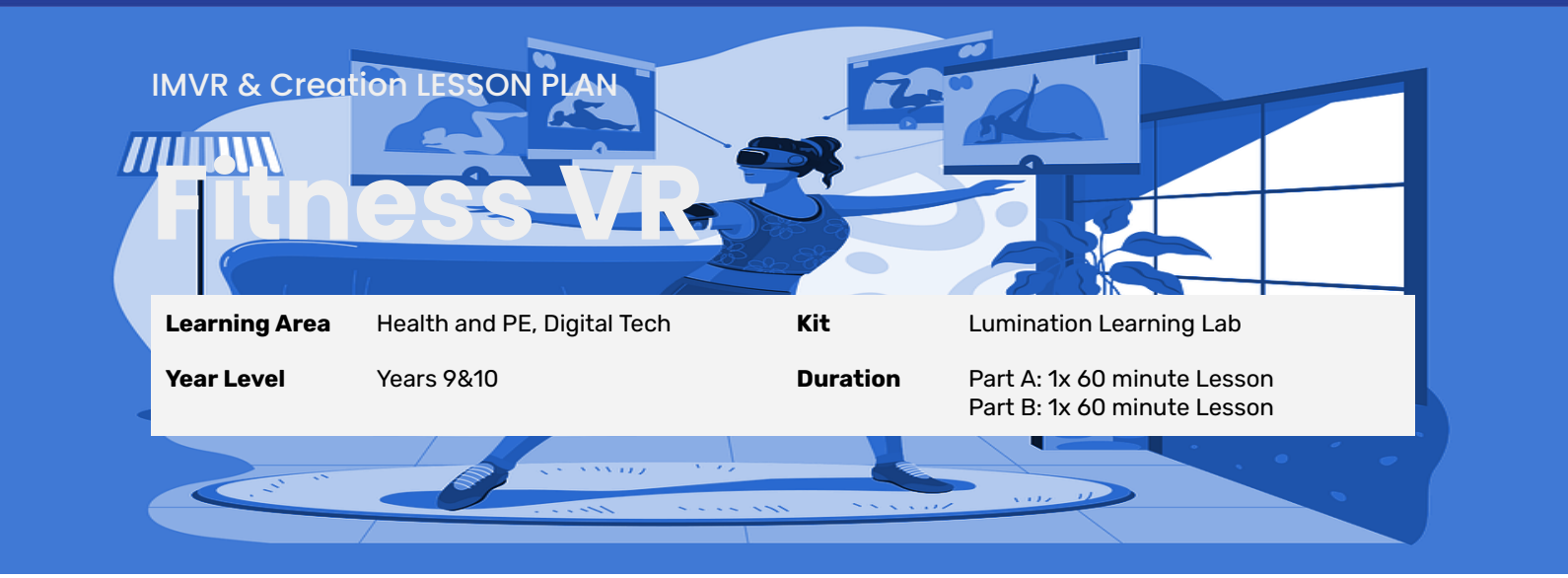
lumination

Lesson Plan



Learning Area	Health and PE, Digital Tech	**Kit**	Lumination Learning Lab
Year Level	Years 9&10	**Duration**	Part A: 1x 60 minute Lesson Part B: 1x 60 minute Lesson

Introduction/Description

Over the past few years, virtual reality technology has rapidly advanced and has started to play an increasingly important role in the world of sports. Virtual reality has the potential to revolutionise the way athletes train, compete, and even how fans experience sports.

Learning Intentions

In Part A, students will explore the various ways that virtual reality is being used in sports using IMVR and other digital technologies. Students will examine how it is being used in training and preparation for athletes and helping motivate fitness in users.
Studentswill also take a look at some of the challenges and limitations of using virtual reality in sports, as well as the potential ethical and safety concerns that may arise.

In Part B, students will engage in the ideating, designing and prototyping sections of the design cycle and explore creating their own virtual fitness and sports routine for students who are remote or isolating.

Task Summary

In Part A students will engage in research and building understanding and empathy or virtual sports and fitness. They will complete some critical thinking exercises in their Student Digital Notebooks.
In Part B, students will create their own virtual fitness and sports routine for students who are remote or isolating using Thinglink to present.

Developed by Jolanta Stephens, BEd

Preparation

Students are expected to:

- Have some background in using IMVR.
- Have some understanding of how to use *All-in-One Sports VR* in IMVR.
- Have some background on using the HHVR headsets.
- Have some background in using *Thinglink*.
- Have some knowledge on using Ricoh Theta360 cameras (please see lesson plan on this if students are not knowledgeable)

Teachers should make sure that:

- IMVR headsets are calibrated and batteries are charged.
- They are familiar with the *All-in-One Sports VR* experience using IMVR.
- They are familiar with using *Thinglink* and have class logins
- Are familiar with using Ricoh Theta360 cameras.
- The apps listed in the resources section have been downloaded onto devices and logged in.
- Fitness VR- Teaching Deck has been checked and the teacher has enabled the deck's accessibility so students can access it.
- Padlet link has been added to slide 11 on Teaching Deck and slide 12 on Student Digital Notebook.
- Students are divided into pairs or groups for Part A, depending on how many devices are available. A suggested rotation cycle may be:

Group	Round 1	Round 2	Round 3
Group 1	IMVR	App Testing	HHVR
Group 2	HHVR	IMVR	App Testing
Group 3	App Testing	HHVR	IMVR

This may differ based on student numbers and number of IMVR stations

Resources

- IMVR Apps
  - All-in-One Sports VR

11 Sports in 1 Game ! All in One sports VR offers the most safe way to keep you healthy both physically and mentally with zero contact. A variety of sports titles experiences include Baseball, Archery, Ping Pong, Basketball, Bowling, Badminton, Golf, Dart, Billiard, Boxing, Tennis

- VR Videos:
  - Trinity Workout: 360° Video Circuit (2.26)
    Four trainers. Three moves. Twelve variations. All in a 360° format. Drag your cursor side to side to follow our fitness pros -- Jamie, Abbot, Molly and Derek -- as they lead you through variations for Squats, Mountain Climbers and Lunges. You can watch and workout with one of them at a time or pan around to see what each of the moves looks like as it's being done in our 360° video circuit.

- Apps:

- Zombies, Run (will need headphones)
  Get ready for the run of your life. Join 10 million runners on an epic adventure!

  You tie your shoes, put on your headphones, take your first steps outside. You've barely covered 100 yards when you hear them. They must be close. You can hear every guttural breath, every rattling groan - they're everywhere. Zombies. There's only one thing you can do: Run!

- The Walk
  Created with the NHS and the UK's Department of Health, The Walk helps you walk more, every single day. When you're playing The Walk, every step counts.

  A bomb explodes in Inverness station, and you're given a package that could save the world. To stay alive, you'll need to walk the length of the UK. The Walk is more than just a great pedometer/step counter — it's a way to turn walking into a journey, a challenge, and a rip-roaring adventure.

- Teaching Materials:
  - Fitness VR- Teaching Deck
  - Fitness VR- Student Digital Notebook
  - Padlet
    Padlet is an innovative platform that facilitates communication between teachers and students and works as an online noticeboard.
  - Thinglink
    ThingLink is a tool for creating interactive images and videos by adding tags. Tags can link to websites, social media pages, videos, maps, images, and audio.
    Another feature that Thinglink offers is 360 degrees tours with tags.

- Other Materials
  - Part A
    - Headphones (students can use own) for Zombie, Run app
    - Medicine ball/ kettlebell (for weighted goblet squats in Trinity Workout VR video)
    - Timers (or student watches)
  - Part B
    - Dice (one per group/ pair)
    - Balled up paper/ small balls and bucket/ bins (one per groups/ pair)

Other Learning Areas

- Digital Technologies

Learning Sequence

Part A

1 Introduction (5 mins)

Show students the Pokemon Go Image on slide one of the Fitness VR- Teaching Deck .
Discuss the following question in pairs/ groups:

- What are your initial thoughts on this?
- Does it classify as PE?
- Who would this course be beneficial for?

Answer in dot points in their Fitness VR- Student Digital Notebook (Slide 2)

2 Development (45 mins)

Introduce the stations students will be engaging in Station Based Rotations in 10-15 min intervals

Station 1 - IMVR

- Students are to engage with *All-in-One Sports VR* in IMVR. They can choose one or two sports to engage in and try to focus on rather than hopping through many quickly.
    - Answer in their Fitness VR- Student Digital Notebook (Slide 4)
        - How did I feel physically during this experience (heart rate, exertion etc.)
        - How did it help PE related skills? (aim, focus, technique etc.)

Station 2 - HHVR

- Students watch Trinity Workout: 360° Video Circuit using HHVR. This is divided into 3 sections with variations - Squats, Planks, and Lunges. After watching each section, students pause the experience and complete 30 secs - 1 min (adjust to suit class and timing) of each variation.
    - Complete a critical reflection in their Fitness VR- Student Digital Notebook (Slide 5)
        - What were the pros of completing an exercise like this?
        - What were the cons?
        - Where would this type of technology be most beneficial in PE?

Station 3 - App Testing

- Students are to choose and test one of the pre-loaded fitness apps on the devices:
        - Zombies, Run (will need headphones)
        - The Walk
    - Complete the following questions in their Fitness VR- Student Digital Notebook (Slide 6)
        - What were the pros and cons of this experience?
        - What changes would you make to it?
        - How is this type of app beneficial?

3 Conclusion (10 mins)

Students can come back together in small groups and share experiences and notes. Answer in their Fitness VR- Student Digital Notebook (Slide 7):

- Rate each experience in regards to motivation, ease of use, physical

exertion, skill development.
- If you could change one thing about each experience, what would it be?
- Where would you see virtual reality fitting into PE?

Part B

4 Introduction (5 mins)

Ask students to spend 10 minutes playing the following '*fitness board game*' on Thinglink.

Introduce to them that they will be making a similar product in their pairs/ small groups.

5 Development (45 mins)

Students will need to use Thinglink to create a 'fitness' lesson or series of activities for students who are learning remotely. They will need to consider the following:

- Interactivity
- Technology
- Presentation
- Engagement
- Ease of use
- Either skill development focused, or cardio focused

They can either make a series of small curated activities, or one more involved one where they create their own content using a 360 camera/ regular camera/ app.

They will use Thinglink to present their fitness activity/ies similar to the board game and further examples in their Fitness VR- Student Digital Notebook.

6 Conclusion (5 mins)

Students to share their Thinglink content to the teacher-prepared Padlet (or choice of sharing platform)

Additional Teaching Notes

A walking path (oval, around school) will need to be negotiated/ determined with students who are testing the walk apps.

Modifications

Adaptations

Students may complete the walks/ runs etc. on a treadmill or other exercise machine.

Extension Ideas

The final product can have more detail as required by the teacher with more time allocated.

Students could research their own fitness apps etc to use.

Students could design a fitness tracker to map their progress.

All activities could be merged together on one Thinglink document to make a 'class fitness routine' that could be used in or out of class, or distributed to the school community to use.

Curriculum Connections

Australian Curriculum	NSW Curriculum	Victorian Curriculum
Health and Physical Education Design, implement and evaluate personalised plans for improving or maintaining their own or others' physical activity levels to achieve fitness, health and wellbeing outcomes AC9HP10M06	**Stage 4 - Personal Development, Health and Physical Education** designs, implements and evaluates personalised plans to enhance health and participation in a lifetime of physical activity **PD5-8**	**Health and Physical Education** Design, implement and evaluate personalised plans for improving or maintaining their own and others' physical activity and fitness levels (VCHPEM155)

Digital Technologies Select and use emerging digital tools and advanced features to create and communicate interactive content for a diverse audience AC9TDI10P11	**Computing Technology** communicates ideas, processes and solutions using appropriate media **CT5-COM-01**	**Digital Technologies** Define and decompose real-world problems precisely, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs (VCDTCD050)

Cross-Curriculum Priorities	Capabilities
☐ Aboriginal and Torres Strait Islander Histories and Cultures ☐ Asia and Australia's Engagement with Asia ☐ Sustainability	☐ Literacy ☐ Numeracy ✅ Digital Literacy ✅ Critical and Creative Thinking ✅ Personal & Social Capability ☐ Ethical Understanding ☐ Intercultural Understanding