

# Investigating the role of virtual reality in Geography via Google Expeditions

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*Funded by Google and The Open University, UK*

21.04.2017





# The project

- Investigating the role of virtual reality in **science and geography** school education
  - for teaching concepts and phenomena
  - to support geographical and scientific enquiry
  - to complement physical field trips



# Agenda

- What is virtual reality?
- Google Expeditions
- Demo
- Individual activity
- Group discussion

# What is virtual reality?

A simulated environment on a computer or **mobile platform** (e.g., smartphone, tablet):



Second  
Life



Virtual Skiddaw:  
3D Geology Field  
Trips (Unity 3D)



Head-mounted  
Displays



Viewers



Mobility



# Google Expeditions



Tablet

+



Smartphone

+



Cardboard Viewer

+



App

+



Router

# Google Expeditions App

- Free app, available on Android and iOS platforms
- Over 500 expeditions (three types)
  - physical locations, e.g. London Olympic Park, International Space Station
  - simulations, e.g. process of photosynthesis and pollination
  - career expeditions, e.g. day in the life of a software developer, Dean of an Engineering Faculty
- Each expedition has
  - Photospheres (360° view) with some explanatory text, points of interest and questions (Guide mode)
  - Google Cardboard viewer gives the 3D view (follower mode)



# How you could help us?

- Trying it out today (Demo)
- Individual activity – thoughts on using virtual reality in your teaching (activity sheet)
- Group discussion – using virtual reality in enquiry



# Demo: List of Expeditions

- Rio de Janeiro and Sao Paulo
- Borneo: Plant Adaptations
- The Great Barrier Reef
- Volcanoes around the world
- London Olympic Park



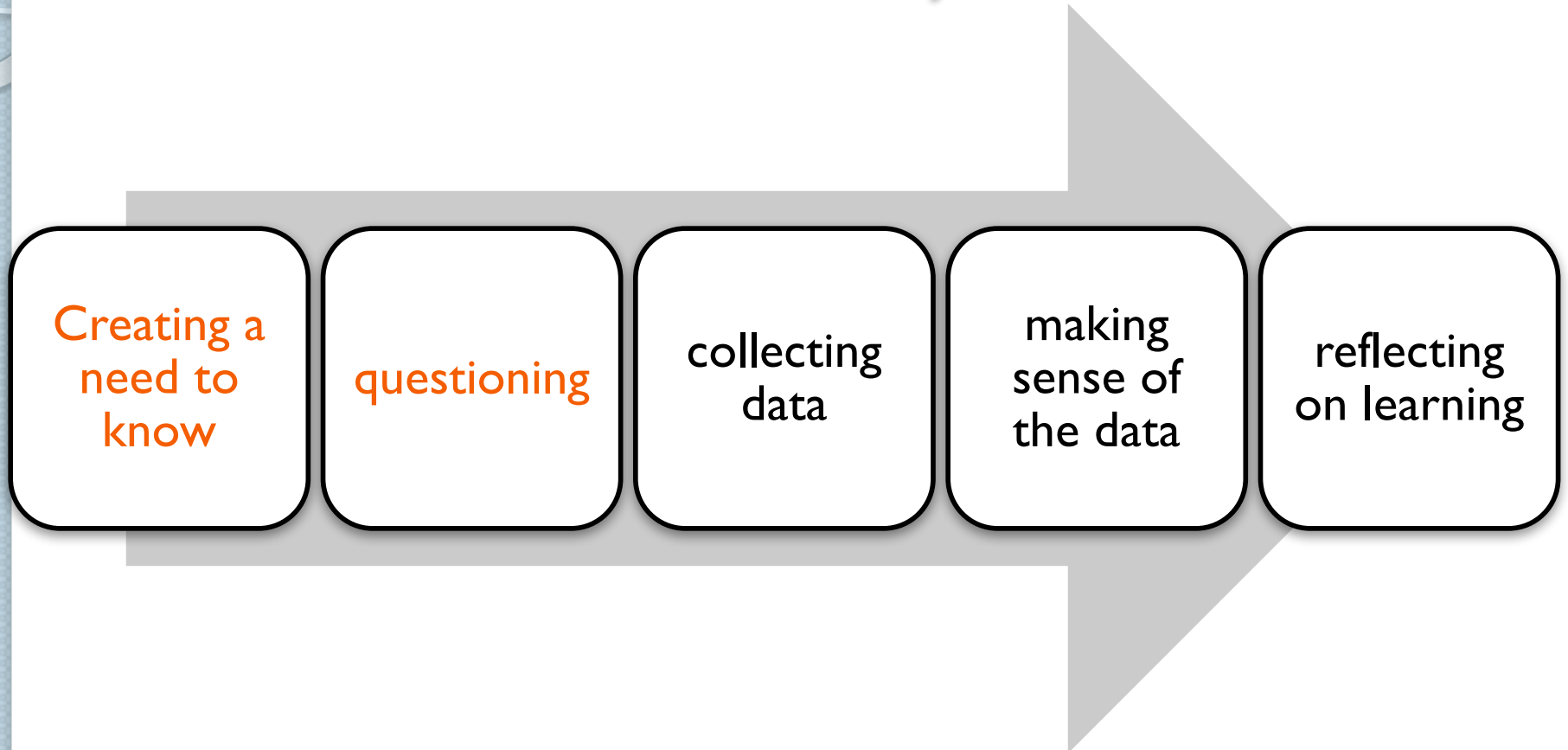


# Individual activity

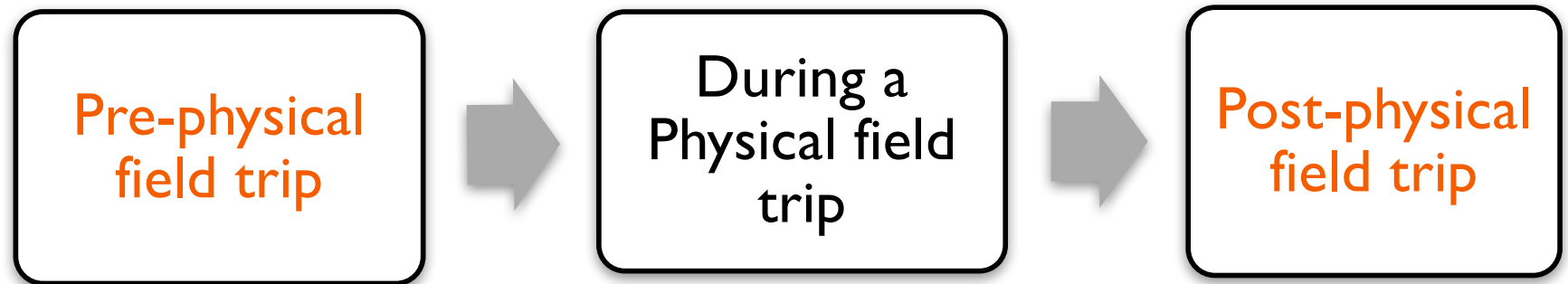
Considering any one of the stages you teach/train (e.g. KS1, KS2, KS3, KS4, etc.)

- Think of ***one example*** on how you would use ***Virtual Reality*** in a lesson or a set of lessons.
- It could be a difficult concept or a process or any topic where you feel Virtual Reality could play a role.
- ***Explain your choice***

# Geographical enquiry and Virtual Reality



# Enquiry for physical field trips





# Group activity

- What are your current practices of teaching questioning?
- How would you use Virtual Reality to facilitate questioning?

# Website and contact details

- Project website:

<http://www.shaileyminocha.info/google-expeditions/>;  
has links to blog-posts

- email addresses:

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