

ACTIVITY 2.3 EXCESS BAGGAGE

From the Chapter Two of the Your Mission Mars Diary
marsdiary.org/activities/excess-baggage

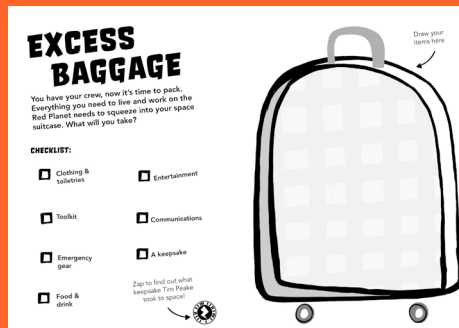
LEARNING LEVEL

KS2, P5-7, Y4-6

CURRICULUM LINKS & DIFFERENTIATION IDEAS

View detailed curriculum links for England, Scotland, Northern Ireland and Wales in the Teacher Toolkit, plus differentiation ideas for your region and year level.

marsdiary.org/resources/#teacher-toolkit



Resources Required

- Smartphone or device for Zap code (optional – see Useful Links)
- Drawing materials

Background to this Activity

When Tim Peake went to the ISS, he was able to take a few personal items with him. Everything he needed for his scientific experiments and wellbeing was already waiting for him on the ISS. But the first humans to travel to Mars will need to take sustainable food and water supplies, scientific equipment, tools to maintain their spacecraft and other machinery, communications systems, safety equipment, medical supplies and entertainment to support mental health.

This activity asks students to consider the essential things humans need to survive, as well as what equipment they would need to carry out their research on Mars. When students write and draw their packing list, they will have to think carefully about what is essential for human welfare and safety. As they can only take a few items, they will have to justify each item and explain why they have made certain choices.

Running the Activity

Begin with talking about what we take on our holidays, either in pairs, small groups or as a class. Why do we choose these items (sun cream, swim suits, shorts and t-shirts etc)? Make a list of things we could take to space – carousel under the headings from the activity checklist. If working in groups, ask each group to add to the list.

Now imagine being the first people on Mars – what will be most essential (food and water, tools etc)? Ask you class to reflect on their initial ideas of what they would take to Mars. Would anyone change or add things? Compare to what Tim Peake took to space. Would they now change anything?

Questions for the Class

- What do we take on our holidays?
- What about different types of holidays?
- Why do we take these things?
- What would we need in space?
- Why would you choose these items?

Additional Challenges / Extension Activities

Children could write a justification of why they have picked certain items.

Ideas for Differentiation

Lower:

- Teacher could prepare pictures of set things – both appropriate and inappropriate – to be taken into space such as computer game and a photo of loved ones. This could scaffold the children's learning and give them an idea of where to start and what things are inappropriate and why.

Upper:

- Children could explore the more technical aspects of items that would have to be taken and their uses for them. They could write a report on what they have packed and why they have packed these items or they could research some of the things that they would need to take and write a report on what these things are and how they work.

Useful Links

Zappar Content: Download or view the Zappar content for this activity on its webpage (URL to the left) or access it via the Zap.

ZAP! Students can independently access multimedia resources using the Zappar mobile/tablet app. See Zappar instructions at the link below and note that the mobile/tablet will need to be on a WIFI connection:

Your Mission MARS DIARY

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If you don't have access to the internet in the classroom, all Zap code content is available to download on the activity's web page (see link to the left) as a PowerPoint presentation or as bundles of images.



Find more great space-themed STEM resources at <https://www.stem.org.uk/esero>

The screenshot shows the 'EXCESS BAGGAGE' activity page. At the top left, the title 'EXCESS BAGGAGE' is written in large, bold, black letters. Below the title, there is a short paragraph: 'You have your crew, now it's time to pack. Everything you need to live and work on the Red Planet needs to squeeze into your space suitcase. What will you take?'. To the right of this text is a large, simple line drawing of a suitcase with a handle and wheels. An arrow points to the top of the suitcase with the text 'Draw your name here'. Below the paragraph is a checklist with two columns of items, each preceded by a small square checkbox. The items are: 'Clothing & toiletries', 'Tools', 'Emergency gear', 'Food & drink', 'Entertainment', 'Communications', and 'A keepsake'. At the bottom left of the checklist, there is a small circular icon with a lightning bolt and the text 'Zap to find out what keepsake Tom Peake took to space!'. The entire page is set against a white background with a decorative orange border on the left side.