

## ACTIVITY 6.1 WEEKEND ON MARS

From the Chapter Six of the Mission Mars Diary

[marsdiary.org/activities/weekend-on-mars](http://marsdiary.org/activities/weekend-on-mars)

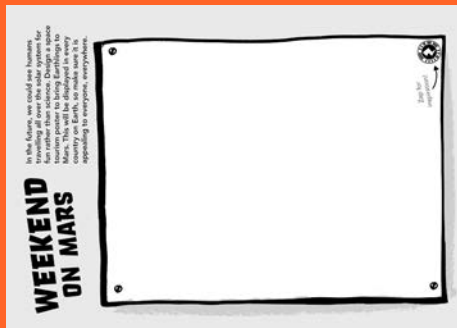
## LEARNING LEVEL

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.

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## Resources Required

- Smartphone or device for Zap code (optional – see Useful Links)
- Drawing and art materials
- It might also be beneficial to have examples of persuasive adverts available (printed holiday brochures, newspaper adverts)
- Images of Mars for inspiration

## Background to this Activity

Space tourism is fast becoming a reality, with both Virgin Galactic and SpaceX planning their first space tourism trips in 2018. Virgin Galactic is planning to take six space tourists out of Earth's atmosphere and into outer space, while SpaceX will carry two space tourists on a circuit around the moon and back to Earth, which is the furthest a human has travelled from Earth in 40 years.

A number of space tourists have already been to the ISS, however spots for this are limited because the ISS can only house ten astronauts at a time. It is also very expensive for humans to travel to space, so at the moment, only the very wealthy can afford to be space tourists.

## Running the Activity

Divide the class into pairs or small groups. Provide each group with a selection of adverts and allow time for groups to discuss these in order to identify the key features (slogans, exaggeration, effective adjectives/ superlatives, focus on positive, imperative verbs).

Ensure that children understand that the entire purpose of adverts is to sell, to persuade viewers to purchase the product.

Introduce the task to design an advert to sell holidays on Mars. Allow children a short time to discuss their initial ideas with their partners/groups.

At this point, you might want to provide children with additional information regarding the current research into space tourism. Images of adverts are also available and could be used to scaffold children who require support.

Children should draft their advert by outlining their initial ideas – you might want to provide images and a range of paper choices that children can select from.

Prior to creating their final advert, children should work with a partner to peer assess their draft design. They should use the checklist of key features that the groups created at the start of the lesson and should suggest changes to improve their design.

Finished adverts could be displayed and children could provide additional feedback to decide which are the most persuasive across the class.

## Questions for the Class

- What is the purpose of an advert?
- Who will your audience be and how will you adapt your design to target this group?
- Which key features do you think are the most important to include in a persuasive advert?
- How might a persuasive advert vary from a different type of persuasive text?

## Additional Challenges / Extension Activities

Challenge:

- Children could use a computer program to create their persuasive advert in a print format
- Children could use a computer/video editing program to turn their advert into a TV advert
- Children could write a script to turn their print advert into a radio advert
- Children could be challenged to target different

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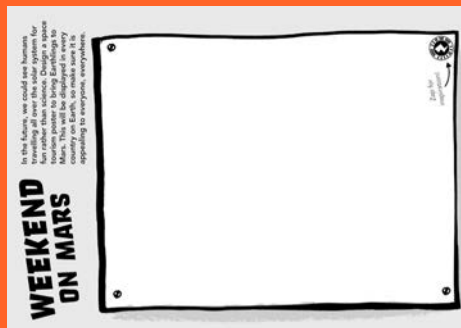
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audiences and to adapt their adverts accordingly

*Support:*

- Children could work with a partner to complete their draft and/or final design
- Children could be provided with images and lettering to include in their advert
- Children could be provided with models to use – Mars tourism adverts

### Ideas for Differentiation

*Lower:*

For support, children could work in a guided group to come up with the words and phrases to be included in their advert. They could then work independently to create their design to have the greatest impact on the audience.

For greater challenge, children could include additional information and should focus on vocabulary choices and the impact on the audience.

*Upper:*

For support, children could work in a guided group to come up with the words and phrases to be included in their advert. They could then work independently to create their design to have the greatest impact on the audience.

For greater challenge, groups of children could work together to produce a holiday brochure composed of a series adverts, each of which focuses on a different 'resort'.

### 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.

For inspiration:

NASA's Mars Explorers Wanted poster series: <https://mars.nasa.gov/multimedia/resources/mars-posters-explorers-wanted/>

Fun space tourism posters by NASA: <https://www.jpl.nasa.gov/visions-of-the-future/>

**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: [marsdiary.org/resources/#teacher-toolkit](https://marsdiary.org/resources/#teacher-toolkit)

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

## ACTIVITY 6.2 PLANET X

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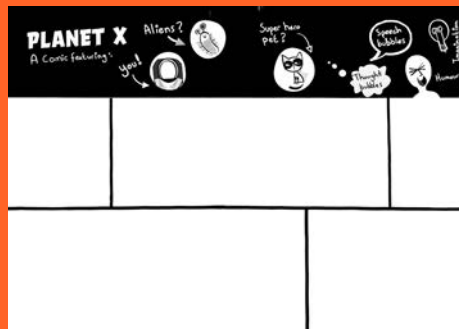
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### Resources Required

- Drawing materials
- Computers/iPads (optional)

### Background to this Activity

This creative activity lets children use their imagination to create a comic about an adventure set beyond the Red Planet. Children could think about before hand what kind of life might be out there on other planets and the similarities it might have to things on Earth.

### Running the Activity

Read some comics or graphic novels, look at online comics or have children bring them in for the lesson. Ask children: what makes a good story and how does the artist tell the story?

Children should start by making a plan for their story. Ask them to create their characters using a picture or describe their character in words then draw the picture to match. Then they can describe and draw their setting and plan their plot by writing down/drawing the beginning, middle and end.

Next lesson:

Children will create their comic using their story plan to help. Children could choose how to illustrate their comic – pens, paint, water colours etc.

### Questions for the Class

- What kinds of things can we read for enjoyment? (Books, poems, online or ebooks, magazines, newspaper, comics, graphic novels etc)
- What kinds of stories do people like? Genres?
- How do comic artists tell their stories?
- How much writing do they do?
- Who will your characters be? Setting? Plot? Crisis

point in story?

### Additional Challenges / Extension Activities

Use ICT – Using a computer or iPad app, children could recreate their comic.

Create a prequel or sequel as a homework activity.

### Ideas for Differentiation

Lower KS2 / PS4:

- Children could have a smaller number of pictures to create or tell a shorter story.
- Teachers could provide a story written in words and children could create this as a comic version.

Upper KS2 / PS5-6:

- Children could write their story in words using detailed descriptions first and then create as a comic story.
- Children could work in pairs and could write comic together as a Part 1 and Part 2 or even in groups doing a section each to create a bigger story.

### Useful Links

Junior comic artist shows how he plans and creates a one-page comic strip: <https://www.youtube.com/watch?v=c4e0NR6IEP8>

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## ACTIVITY 6.3 NO. 1 SPACE GLOSSARY

From the Chapter Six of the Mission Mars Diary  
[marsdiary.org/activities/no-1-space-glossary](http://marsdiary.org/activities/no-1-space-glossary)

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### Resources Required

- Smartphone or device for Zap code (optional – see Useful Links)
- Dictionaries
- Musical instruments (options)

### Background to this Activity

As students complete each of the five word searches in the Mars Diary, ask them to add the words they find to their Glossary. This is a great way to increase students' scientific vocabulary.

### Running the Activity

Start by building a word bank using the words found in the word searches, and then inviting students to add other scientific words they might have learnt. Students can then use dictionaries to find the definitions of words.

If available supply the students with musical instruments, or substitute instruments with vocals and clapping. Using the beats on the zap code as inspiration, create a song using words from your scientific word bank.

### Solution to the Activity

Definitions of words in word searches:

*Alien:* A lifeform that exists outside Earth

*Astronaut:* A person who is trained to travel into space

*Atmosphere:* Layers of gas above the surface of some planetary bodies

*Crew:* A group of people trained to work together, for example on a spacecraft

*Drill:* A machine with a pointy tip that spins around to burrow into things, for example a rock

*Earth:* The third planet from the sun, the only known

place to contain life, and the home of humanity

*Emergency:* A situation where something goes wrong and needs immediate attention

*Energy:* The strength and power to make things work, for example light and heat

*ExoMars:* The European Space Agency's next Mars mission, which has a robot that will land on the surface to look for life

*Experiment:* A scientific test designed under controlled conditions to understand something

*Fossil:* The remains of an ancient lifeform that has turned into rock

*Fuel:* A stored source of energy used to power something

*Gear:* A disk or wheel with teeth, which meshes with a similar disk or wheel to create motion

*Gravity:* A force of attraction between two objects. The heavier the object, the bigger the force of attraction.

*Humidity:* The amount of water vapour in the air

*Invent:* To create or design something that has never existed before

*Lever:* A stiff bar that turns on a pivot, used to apply force to move something

*Mars:* The fourth planet from the sun, once like Earth but now very cold, dry, and red-coloured

*Mechanics:* A branch of physics used to describe forces and the motion of objects

*Mercury:* The planet closest to the Sun, small and metal-rich, scalding hot on one side and freezing cold on the other

*Methane:* A strong greenhouse gas produced by some

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rocks and life forms, used as a fuel

*Method:* A particular way of doing something

*Mountain:* A piece of land that is much higher than the land surrounding it

*Nuclear:* A power source that comes from the release of energy stored between atoms, which are the building blocks of matter

*Orbiter:* A spacecraft that stays in orbit around a planet and doesn't land

*Pivot:* The central point around which a lever moves

*Propulsion:* The action of pushing something forwards

*Pulley:* A grooved wheel with a rope in it, used for lifting heavy things

*Radiation:* Energy released from particles that is damaging to humans in large amounts

*Recruit:* To hire someone to do a certain job

*Resources:* Materials supplied by nature that can be used as fuel and to make things

*Robot:* A machine able to work automatically on its own to complete a task

*Rover:* A robot that can move around, sent in place of humans to other planets to understand their environments

*Safety:* Steps taken to protect something from danger or harm

*Satellite:* A human-made object placed in a planet's orbit to collect or pass on information

*Sharp:* A fine-edged object able to piece something

*Solar:* To do with the sun

*Spacecraft:* A vehicle designed for travel in space

*Sustainable:* Something that can be used or done for a long time

*Temperature:* A measure of how hot or cold something is

*Turbine:* A machine that uses motion to turn a wheel and produce power

*Utopia:* An imagined place or time where everything is perfect

*Vehicle:* A means of moving people or objects from one place to another

*Venus:* The second planet from the sun, Earth-sized but extremely hot from a runaway greenhouse effect

*Volcano:* A cone-shaped mountain that erupts molten rock, ash, and hot gases

*Wind:* The movement of gas within an atmosphere

### Questions for the Class

- Why is it important to have definitions for words?
- What is a musical beat?
- What is a syllable? How do we work out how many syllables are in a word?

### Additional Challenges / Extension Activities

Perform your musical inventions at a school assembly or community event.

### Ideas for Differentiation

*Lower KS2:*

- Work as a class or in groups to find definitions, assigning words to children.
- Work as a class or in groups to create a song.

*Upper KS2:*

- Ask children to use printed dictionaries, rather than

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searching online for definitions.

- Record songs using a simple recording device such as a smartphone microphone.

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