Our Solar System

Session 5

TIME
90 min. including break

Art of learning

THEME 19

WARM-UP: "AYE, AYE SPACESHIP CAPTAIN" – ASTEROIDS, COMETS AND MOONS

This will happen:	The students continue on further space missions focusing on asteroids, comets and moons and follow orders from their captain.
Materials needed:	T19 Photos and facts for the warm-up (resource bank). Coloured water to make the outside of the spaceship in the snow or use an existing boundary such as a fence or a corner in the school to make the outline of the spaceship.
Preparations in advance:	Make a spaceship outdoors with coloured water in the snow or use existing boundaries to mark the areas.
Preparations in the space:	
The space looks like this:	Outdoors.

GUIDANCE:

1. The mission starts outside without the sound track. Focus on the students getting their bodies warmed up so work with instructions that encourage them to work closely together. Include elements which explore comets, asteroids and moons from the fact sheet.

2. Follow the familiar instructions from previous warm-ups and include the following new commands:
"Asteroid ahead!" – everyone throws themselves down on the floor with their hands above their heads (Asteroids are made of stone, so they need to protect their heads).
"Comet ahead – Freeze!" – everyone freezes in a strange pose (Comets are made of ice and are like dirty snowballs) – note this is used again in the reflection.

3. Return to Earth.

REFLECTION: FREEZE FRAME OUTDOORS

This will happen:	Students put themselves into a 'freeze frame' position in response to the reflection questions.
Materials needed:	
Preparations in advance:	
Preparations in the space:	
The space looks like this:	Outdoors.

GUIDANCE:

1. Use the "Freeze frame – Comet ahead" command as a starting point. Call out some of the other familiar commands used in previous sessions to engage the students.

2. Explain that a question will be asked and then count to 5 (like in the reflection during Sessions 1, 2, 3 & 4) but say "Freeze frame– Comet ahead" instead of saying 5, and that they will then be in a freeze position in response to the statement.
Suggested statements:
What I liked most about the session today.
What I liked least about the session today.
The warm-up with the soundtrack, the warm-up without a soundtrack.
My favourite planet.
How I feel right now.
What is most exciting about space?

NOTES

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MAIN ACTIVITY: STUDENTS GO OUTDOORS AND LOCATE THEN HANG ALL THE SOLAR SYSTEM PLANETS AT THE CORRECT DISTANCE FROM THE SUN

This will happen:	The students go to a suitable outdoor location and locate the planets in order from the Sun using the scale of the Sun from Session 2 (3.3 metres).
Materials needed:	Long tape measure (50 metres), a set of the planets in the Solar System, twine and scissors, posters about the planets (if these have been made in Sessions 3 & 4) and something to ensure they can be securely displayed (pins etc). Scale map which shows the distance of each planet from the Sun (T1905 location of the planet from the sun (resource bank).
Preparations in advance:	If possible, make laminated posters of the route which allows each of the planets to be placed in the correct location from the Sun (which avoids trespassing or crossing major roads etc. (see T1905 Location of the planets in the landscape). Print map or use a digital map application.
Preparations in the space:	
The space looks like this:	Outdoors.

GUIDANCE:

1. Start at the Sun (completed in Session 2). Ask: If the sun is here and is so big, where should Mercury, the closest planet to the Sun, be located? Ask for suggestions from the students. View the route/map and explain the destination of the trip.

2. Each group should have all their planets (completed in the previous sessions), the planet poster (Paxi The Solar System poster from resource bank) and any materials that have been displayed previously.

3. Start at the Sun and ask the students to use the measuring tape (or count the steps with their feet) to identify where Mercury should be located. Hang up all the Mercury models and possibly the poster at the correct location.

4. Measure the correct distance from the Sun to Venus and plot the correct location and directions to Venus.

5. Move on beyond the landscape. Hang the planets (and associated posters) at the correct distance from the Sun. The outermost planets can either be reached by bus, or if it's difficult, maybe someone at school can help to hang them in the right place and then take a photograph of them?

Feel free to take photographs of the Solar System displays/planets so that they can be used by the class/school to document the process.

NOTES