# **Our Solar System**

Session 2

90 min. including break

TIME







# WARM-UP: "AYE, AYE SPACESHIP CAPTAIN" - MISSION TO THE SUN

This will happen:	The students embark on their second space mission with a spotlight on the Sun and follow orders from their Captain.
Materials needed:	T19 Warm up spaceship sound (resource bank). Use making tape to create a spaceship outline on the floor. T19 Photos and face for the warm-up (resource bank). Music player.
Preparations in advance:	Make a spaceship on the floor with masking tape.
Preparations in the space:	Check that the sound system works. Create a spaceship on the floor with masking tape (with room for the whole class to stand together with room to spread out).
The space looks like this:	Open space.

### **GUIDANCE:**

The adult is the "Spaceship Captain" and the students are astronauts. Explain that they are going on a space mission in their spaceship. The adult brings the Golden Chest and asks everyone to line up and then step into the spaceship. The spaceship captain stands at the front leading the astronauts.

- 1. In the space rocket, the Captain says "Briefing." Explain that in the centre of the Solar System is the Sun. Show the pictures and fact sheet about the Sun. On their 'mission' they cannot travel all the way to the Sun because it is so hot that they would burn up. But they will go as near as possible to it. It is a risky trip so it is important that they follow all the instructions to the letter and that they do not end up outside the spaceship (highlight the marked lines of tape on the floor). If they do then they will fall into the black nothing!
- 2. Practise: Ask students what instructions they remember and review them. Introduce a couple of new instructions.
- "Astronauts" students answer "Aye, Aye Captain!" and they bring the back of their hand up to their forehead and stand up straight.
- "We are ready for take off" students put on fictional helmets and get themselves in the starting position. "Take off" – hands on the safety harnesses (over both shoulders) and respond by saying "bump-bump-bump" and shaking up and down.
- "Lean right" repeat the command, then lean right.
- "Lean left" repeat the command, then lean left.
- "Lean back" repeat the command, then lean back.

"Lean forward" - repeat the command, then lean forward.

"Landing" – respond by saying "bump, bump, bump" and put their heads between their legs and arms above their head.

#### New commands:

"Solar flare" (eruption from a solar storm) – everyone must quickly gather in a corner of the spacecraft (which is protected by lead).

"Solar flare has passed" – all quickly back in place.

During launch: "Deploy rocket" – Hands straight out to the sides with spread fingers and say the sound "pchhh". This can be repeated up to 3 times during the launch – three different rockets can be deployed.

In space: "Weightless" – students turn to another student, they lean forward towards each other, hold hands and put one foot up in the air.

- 3. Begin the mission: "We are ready for take off". Play the T19 Warm-up spaceship music (resource bank). Start by counting down from 10 in English and then together say "lift off".
- **4.** Do a variation of the rehearsed commands interspersed with some information about the Sun. Let this mission be a little 'scary'. Play with the pace and order of the commands and then say "landing" and arrive back on Earth.
- **5.** Ask the students to leave the spaceship for the debrief.

## **NOTES**

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# REFLECTION: OUR SOLAR SYSTEM QUIZ ENGLISH A OR B

This will happen:	Students use A or B reflection cards to show answers to statements about the Solar System.
Materials needed:	T19 reflection card (resource bank) – one set for each student.
The space looks like this:	Classroom.

### **GUIDANCE:**

Open the Golden Chest. Hand out a set of reflection cards to each student. Explain that some statements will be read out and that students need to listen carefully. They should choose to answer with card A or B. Count up to five. When it gets to five, the students should hold up the card they think is correct. Practise first: the sun is: A) **Hot** or B) Cold

Do the Solar System Quiz:

- 1. Solar storm in English is A) solar flare B) solar storm
- 2. The huge sun was mostly made by A) us or B) the adults
- 3. The sun is surrounded by A) corona B) karaoke
- 4. Agreeing on how to make the sun was A) yellow or B) red

Philosophical question: How did the Sun and our Solar System come about? (each student should think about this for a moment before the quiz continues but they do not answer it)

- 5. Our moon rotates around A) the Earth or B) the Sun
- 6. To make the sun you would need A) 1,000 earths or B) 1 million earths
- 7. If I were to throw a dice about the AOL session today what number would it be? A) 1,2 or 3 or B) 4, 5 or 6
- 8. Our Sun is A) a planet or B) a star
- 9. If the sun is 3.3 metres in diameter, I think the Earth is A) as big as a football or B) as big as a 50 pence 10. I think that going to the bathroom in a spaceship is A) just as it is normally or B) requires special equipment

## MAIN ACTIVITY: CREATE A HUGE SUN AT SCALE AS A CLASS.

This will happen:	Working together, the students create a Sun with a diameter of 3.3 metres, in an accessible location using art materials and artworks as inspiration.
Materials needed:	Materials for collage (magazines, newspapers, crepe paper, masking tape, other types of tape, sticky notes, other things in golden colours). Roll of paper, paint, brushes, markers, crayons, sheets of various colours and thicknesses, packing tape, glue, adhesive, set of steps. Artwork inspiration resources: T1902 Artwork inspiration (from famous artists who have worked with sun and light – resource bank), T1902 Technique inspiration (different ways to make something on a wall – resource bank), T1902 Solar images (Different pictures of the actual sun – resource bank), long ruler and tape measure.
Preparations in advance:	Find materials and print inspirational resources. Agree on how much freedom the students can have, how their ideas can be supported and get their input along the way, ensuring that all the class is involved.
Preparations in the space:	Prepare materials needed.
The space looks like this:	Open space.

#### GUIDANCE:

- 1. Debrief the astronauts after the mission and say that they now have a very important task. They must now work on a model of the Sun and scale it up from the small version they created in Session 1 (which was a ball/balloon). They have to create a giant Sun with solar storms and lots more besides.
- 2. Together the class will create a Sun with a diameter of 3.3 metres that will be hung on a wall at the school (either in the classroom, or find a place that has enough space, for example the gym, stairway or hall). Let the students have as much control over the process as much.

## Suggested tasks (feel free to divide the students into groups):

- Discover how high and wide 3.3 metres in diameter is. Where can this be placed in school?
- Tape together paper from a roll into the correct size (3.3 metres in diameter) and cut out the circle.

- Create artwork/collage/make things in golden colours that can be attached to the roll of paper. How much/ many are needed to cover the entire surface of the Sun? (Refer to maths that the students know (addition, subtraction, multiplication etc)
- Make everything necessary.
- Agree where it is going to be placed and how to hang it safely and securely. If it's going to be hung in the classroom, ask what can be done with any parts that cannot fit on the wall.

## Specific requirements:

- The Sun should have golden colours (show the student example images from the real sun).
- It must be finished during the session today.
- It must have a diameter of 3.3 metres/330 cm.
- It must be hung on a wall at school.