

INTRO 主题介绍

Science Detectives | SDG#4 Quality Education

When you watch balloons floating high in the air, have you stopped to think about why? Join **Moonshot Labs**, become a **【Science Detective】**, and set off on your scientific investigation journey aligned with **SDG #4 Quality Education**. Spark curiosity through **hands-on interdisciplinary experiments!** Uncover the **lifting mystery of helium**, witness **magical shape-changing metal**, **build weighing gadgets** to explore the secrets of balanced forces – more interesting science puzzles are waiting for you!

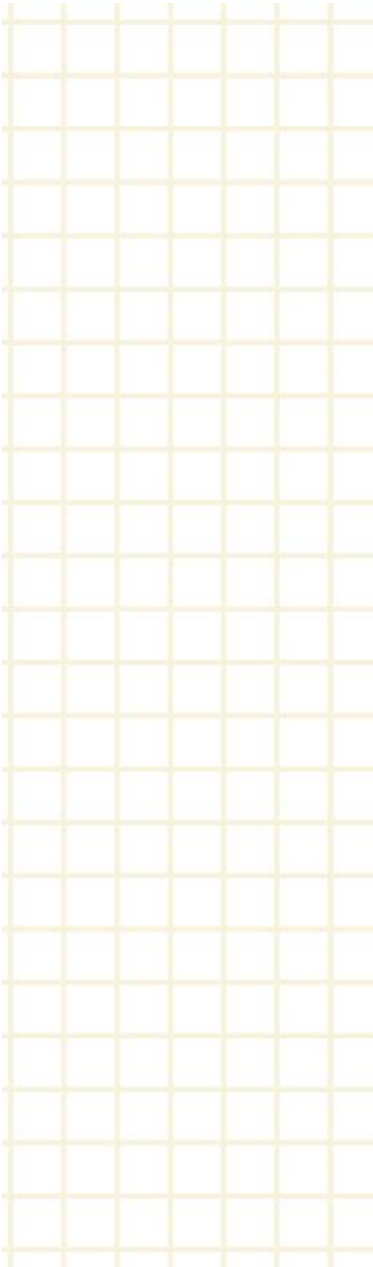
万物科学侦探 | SDG #4 优质教育

当你看见气球在空中高高飘起时，有没有一瞬间想过这是为什么？加入 Moonshot 实验室，化身 **【万物科学侦探】**，开启 **SDG #4 优质教育** 主题下的科学探案之旅！在跨学科动手实验中点燃好奇心！揭开**氦气升空**的奥秘、见证**记忆金属**的奇妙形变、制作**称重装置**探寻受力平衡的规律——更多有趣的科学谜题等你来破解！



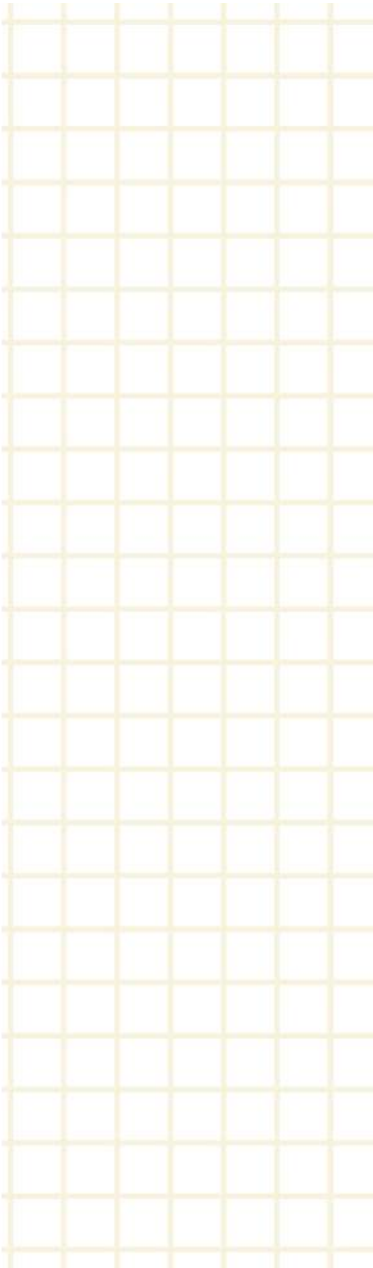
COURSE SCHEDULE 课程计划 (1/3)

Lesson	Topic	Description
1	Float Inertia 驰空浮物	Students track floating objects and analyse inertia within moving surroundings. 学生们追踪特殊浮空气球的动态变化，探究低密度气体、浮力与惯性的联动规律。
2	Colour Mirage 彩影幻变	Students combine varied light sources and explore the mixing laws of coloured light. 学生们搭配多元光源开展探索，解锁不同色光交融变幻的底层规律。
3	Alloy Memory 金形归序	Students watch metal reshape itself under the influence of temperature shifts. 学生们观察特殊合金材质，发现温度变化驱动形态自主复原的奇妙特性。
4	Vapour Cycle 羽鸟循息	Students study continuous motion driven by temperature and vapour pressure change. 学生们探究趣味饮水鸟装置，解析温差与气压联动，实现持续往复运动的科学原理。
5	Buoyancy Shift 潜浮玄机	Students adjust pressure and study how density affects objects' floating state. 学生们调控密闭空间压力，探索密度差异改变物体浮沉状态的规律。



COURSE SCHEDULE 课程计划 (2/3)

Lesson	Topic	Description
6	Heat Balance 水火相安	Students explore heat transfer and learn about substances' heat storage capacity. 学生们观察特殊的隔热现象，认知不同物质储热与导热的能力差异。
7	Steam Thrust 汽涌行舟	Students utilise vapour expansion to create forward thrust for small crafts. 学生们利用水汽热胀效应，制作依靠热力驱动前行的小型动力装置。
8	Air Power 气纳万象	Students witness strange suction and uncover the hidden force of atmospheric pressure. 学生们见证神奇的吸附现象，深度发掘大气压强潜藏的强大作用力。
9	Moment Balance 衡矩相协	Students adjust arms of balance and grasp the law of force and distance. 学生们搭建平衡结构并微调参数，掌握力与力臂相互制衡的力学规律。
10	Polymer Toughness 韧膜弥合	Students test plastic membranes and explore unique traits of polymer materials. 学生们对柔性薄膜开展趣味测试，探索高分子材料特殊的物理特性。



COURSE SCHEDULE 课程计划 (3/3)

Lesson	Topic	Description
11	Thermal Rise 热风腾霄	Students ignite light structures and observe the rising flow of heated air. 学生们借助轻质材料实验，直观观察热空气上升形成的空气对流现象。
12	Liquid Colour 灵液幻色	Students observe reversible colour shifts caused by dissolved gaseous matter. 学生调配专属溶液，探究气体溶入液体引发的可逆变色化学反应。
13	Fruit Power 果蕴电流	Students use plant tissue to turn chemical energy into visible electric power. 学生们利用果蔬生物组织，完成化学能向可视化电能的奇妙转化。
14	Magnetic Rotation 磁旋启元	Students build tiny coils and discover interactions between magnetism and electricity. 学生们搭建微型线圈结构，探寻电与磁交互作用产生机械动力的奥秘。
15	Colour Spread 色纹渐展	Students watch colour spread and separate mixed pigments via capillary force. 学生们依托毛细作用力，拆分混合色素，呈现层次丰富的色彩纹路。

Note: The schedule may be adjusted a little based on students' actual situations to provide them with more suitable and fulfilling exploration experiences. 课程可能根据学生的实际情况做出适应性调整，以带给学生们更合适、充实的探索体验。

