

# Pine Spring 2026 challenges

## Earth and Space

Create a moon Diary – sketch/draw the shape of the moon each day over the period of a month. What do you notice about the moon phases?

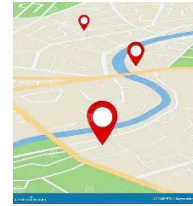


Create a scale model of the Solar System – think carefully about distances and sizes of planets

Space Missions – research famous astronauts or cosmonauts such as Tim Peake to learn about their contribution to Space Exploration.

## Our Local Area

Draw a detailed map our where you live, ad features such as the parks and other areas of interest.



Crte a visitors leaflet for Swadlincote, Hartshorne or the village you live in. Make it interesting.

## Light Light bulbs

Make a leaflet about how light bulb designs have changed over time.

Information you could include:

- Who invented the first light bulb? When?
- Diagrams/pictures of the different types of light bulb
- A timeline with the history of light bulbs
- How do these light bulbs work: filament, LED, Halogen, fluorescent etc.

### Bioluminescent animals (animals the produce light)

Make an A4 poster about three different bioluminescent animals. Many of these animals live in the deep sea.

Information you could include:

- Name of the animal
- A picture of the animal
- Type of animal it is (e.g. mammal, fish, insect)
- Which part of its body makes light and why?
- Interesting facts about the animal

## English

### The Blue Peter Book Club

#### [What is the Blue Peter Book Club? - BBC Bitesize](#)

See if you can complete the challenges and earn the Book Club Badge!!

### Quick Writing challenges

**Complete these sentences in 10 different ways:**

Patrick waited for the bus and...

Every time I look out of the window I...

Write a book review or a movie review. If you're lost for inspiration, just watch a random movie or read any book that you can find. Then write a review on it. Think about the best parts of the book/movie and the worst parts.

## Vocabulary we need:

**Light** – light, light source, reflected, angle, mirror, opaque, transparent, sunshade, rotate, optical, spectrum

**Earth and Space** – heliocentric, geocentric, astronomy, planets, gas giant, axis, orbit, moon, phase, waxing, waning

**Henry VIII and the church** – Tudor, heir, reign, throne, monarchy, reformation, Catholic, Protestant, Church of England

**Our Local Area** – human features, physical features, landmarks, grid reference, Ordnance Survey, fieldwork, geographical

## Maths -

Choose a number from below

**2, 3, 4, 5, 6, 7, 8, 9**

Multiply it by itself 10 times. Record each multiplication and the pattern you see. Try different numbers, what happens?

If the answer is 256, what is the question?

**It could be 256 x 1 or 257-1**

What is the most complicated question you can create?