

Overview

Within this Egypt passport learners will explore three different mathematical concepts. Learners will have the opportunity to:

- compare our base 10 system using Hindu-Arabic numbers to ancient Egyptian base10 system which used hieroglyphics for numerals but did not have 0 as a place holder.
- investigate tessellation through Islamic patterns
- create a scale model using actual measurements

Practitioners may wish to use the [additional support materials](#) when exploring the mathematics and numeracy challenges.

These learning opportunities promote links with technologies and modern languages.



Mathematics experiences and outcomes explored

I have worked with others to explore, and present our findings on, how mathematics impacts on the world and the important part it has played in advances and inventions.

MTH 2-12a

I can draw 2D shapes and make representations of 3D objects using an appropriate range of methods and efficient use of resources.

MTH 2-16c

Having investigated where, why and how scale is used and expressed, I can apply my understanding to interpret simple models, maps and plans.

MTH 2-17d

Other curriculum areas explored:

Through discovery and imagination, I can develop and use problem-solving strategies to construct models.

TCH 2-14a

I can read and demonstrate understanding of words, signs, phrases and simple texts containing mainly familiar language.

MLAN 2-08b

Responsibility of all:

I have extended the range of whole numbers I can work with and having explored how decimal fractions are constructed, can explain the link between a digit, its place and its value.

MNU 2-02a

Themes across learning:

Creativity

Overview of learning

Possible prior experiences

Discuss with the learners how our number system is constructed.

Explain origins of base 10 systems: developed because we have 10 fingers to count with.

Explain the origin of Arabic numbers or more correctly Hindu-Arabic numbers as they originated in India and then spread to Arab countries.

Demonstrate the role of zero as a place holder.

Ask the learners if they have ever wondered what numbers would look like if we didn't have zero as a place holder

Passport Challenges

Ancient Egyptian Numbers Passport Challenge

In this two-part challenge learners will compare our base 10 system using Hindu-Arabic numbers to ancient Egyptian base10 system which used hieroglyphics for numerals but did not have 0 as a place holder.

Islamic Patterns Passport Challenge

In this two-part challenge the learners are introduced to Islamic patterns and the concept of tessellation. Learner will practise using shape vocabulary in French in conjunction with colour adjectives.

Scale Passport Challenge

In this challenge the learners can create a scale model of the great pyramid by using the [PBS website](#). This gives the actual measurements and scale measurements for the Great Pyramid. This challenge links to the concepts covered in the [technologies challenge](#).

Possible evidence

Discussion with partner and feedback
Whiteboard activities
Participation in interactive activities
Carousel activities

Discussion
Participation in interactive activities
Islamic patterns
Wall display

Scale model