

EASTER BUSH SCIENCE OUTREACH CENTRE

Get hands-on
with real-life
science

Colourful Chromosomes Information

Learning level	P4-P7/ Families
Research themes	Biological systems: Inheritance
Duration	20 – 45 mins. This activity can be run as a drop-in session or as a lesson.

Colourful Chromosomes overview

In this activity, participants will learn about genes control body systems, and how different genes control your appearance (genotype controls phenotype).

First the students will identify traits that they possess from a table. Then, using colourful beads and pipe cleaners they will build their own chromosomes with the corresponding genotypes.

There will also be a matching activity to reinforce the concepts. Participants will be asked to match finished chromosomes to their classmates.

Learning objectives:

Second Level – Fourth Level (CfE):

Inheritance

- Understand the role of DNA
- Develop an understanding of genetics

Curriculum links

Primary

Biological systems

Inheritance

By exploring the characteristics offspring inherit when living things reproduce, I can distinguish between inherited and non- inherited characteristics. [SCN 2-14b](#)

I have extracted DNA and understand its function. I can express an informed view of the risks and benefits of DNA profiling. [SCN 3-14b](#)

I can use my understanding of how characteristics are inherited to solve simple genetic problems and relate this to my understanding of DNA, genes and chromosomes. [SCN 4-14c](#)

Topical science

I have collaborated with others to find the present information on how scientists from Scotland and beyond have contributed to innovative research and development. [SCN 3-20a](#)

Developing the Young Workforce 'I can' statements

- I can discuss the relevance of skills to the wider world and make connections between skills and the world of work.
- I can recognise the skills I have and need for work.