Pass it down
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We all share lots of the same things with our families. Things like:

- eye colour
- hair type
- what you look like

If you have something the same as someone else in your family, we say it has been **passed down**. For example, having the same eye colour.

Sometimes your family might pass something down that you don’t want.
This could be something like a health condition or problems with your mental health.

You might be worried about passing it down if you have children.

**What do you think**

We want to know what you think about you. Things like:

- what you look like
- things you like and don’t like
- things you are good at
Now think about these questions:

- Are you the same as your family in some ways?

- What things do you share with your family?

- What things did not come from your family?

- Is there anything about you that you would like to pass down if you have children?
Activity: Pass it down

We want to find out what people like best about themselves. Things that they would like to pass down to their child.

On the table, we have got some trays.

In the trays there are some different shapes.

The shapes stand for things that you might have got from your family.

Or things you might want to pass down if you have a child.

There are 2 big boards near the trays. The boards are shaped like a present.
What you need to do:

Think about what you like best about you.

Have a look at the shapes. Choose some shapes you think stand for things about you.

For example, if you like eating sweet food, pick up the lollipop shape.

You can choose up to 6 shapes.

Stick the shapes you have chosen onto 1 of the big boards.
You can look at everyone’s answers on the boards. You can see what other people like most about themselves.

If there are already shapes on the board you can take them off if you like.
More about genome editing

Using genome editing to treat diseases

A trial is when you test an idea.

Scientists are doing trials of genome editing. This is to try to stop people having some health problems like blood diseases.

These diseases only affect 1 gene.

Scientists cannot change genomes to stop people getting things like heart disease or diabetes.

These are conditions that affect more than 1 gene.
The trials must show that genome editing is safe.

If the trials work, scientists could offer genome editing to more people in future.

Using genome editing to stop passing down a health condition

There are some things you might not want to pass down if you had a child. Things like health conditions.

Genome editing is 1 way to stop you passing down a health condition.

It is against the law to do this type of genome editing in the UK.
There are other ways to try to stop passing down a health condition.

1 way is to have **IVF**.

**IVF** is when a doctor makes a baby. The doctor takes an egg and sperm from human bodies. The egg and sperm are put together by doctors.

If the sperm starts to make the egg grow, it is put back into the person with a uterus.

A baby then grows from the egg and sperm.

To stop passing down a health condition, scientists can look at the genes of the egg and sperm.
They would only use the egg and sperm that do not have the gene for the health condition.

This means the baby would not have the health condition.

Choosing genes means choosing what future people are born.

Using genome editing to make super humans

Genome editing could change what people are like.

It could be used to design people who are stronger and better at thinking.