

Tips before you start using this material:

- You can change the part of pH testing according to your own project. However, according to our experience, fun experiments are more welcomed than knowledge itself.
- You can tailor the central dogma to a made-up story, like a story of a worker who has loads of functional cards (genes) but don't know how to realize them.
- We recommend an open sharing after kids have finished designing new life. Their works are really inspiring.
- Get these ready before giving this lecture:
 - Powerpoint related to this topic;
 - Background research in types of eyelid, earlobe, Iris and dimple;
 - Color pens for kids to draw;
 - pH test strips;
 - Glass rods for pH testing;
 - Lemonade, water, normal soil and saline-alkaline soil;

Be A Life Designer!

- **What is gene?** Recommended finishing time: after class

Explore these characteristics in your family!

	Eyelid	Earlobe	Iris	Dimple
	Single or double fold?	Free or attached?	Color?	Smile to find out!
Dad				
Mom				
I				

- **How do our genes function?** Recommended finishing time: 15 minutes



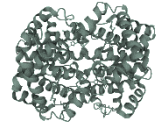
DNA

functional cards



RNA

order forms



PROTEIN

aimed products

Draw their relationships according to the lecture!

Have you understood what is **Central Dogma**? Be free to ask if you haven't yet!

- **What could these be?** Recommended finishing time: 15 minutes



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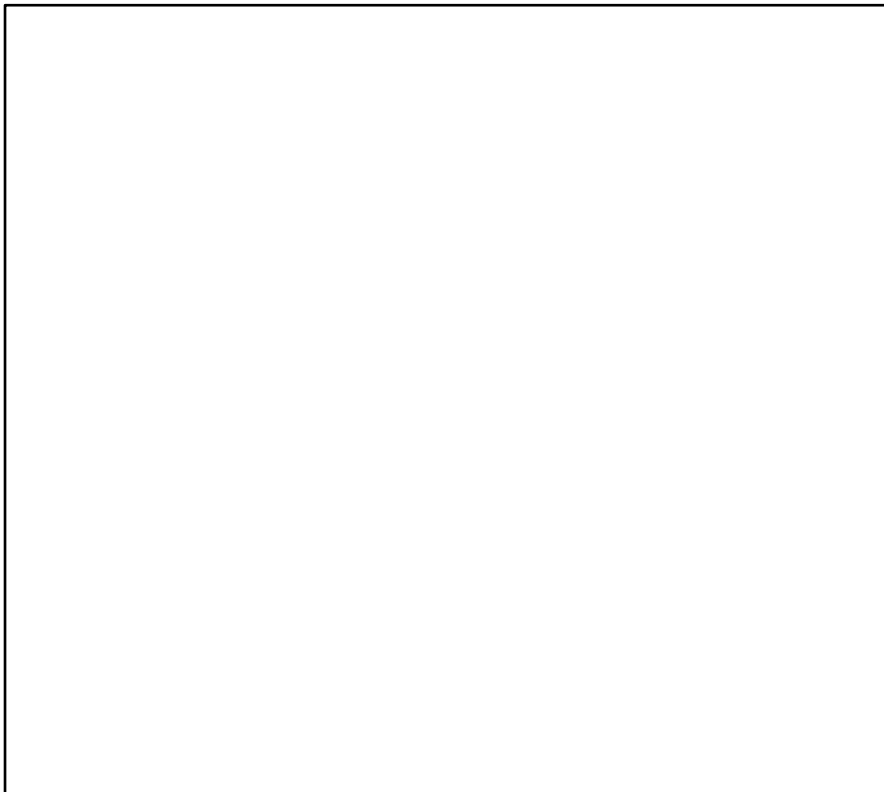
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● **Let's design!** Recommended finishing time: 10 minutes

Use your imagination and design a new creature yourself!



Document of my first life design:

Name:

Abilities:

Inspirations:

Below is the content related to our project, you can skip this part

● **Test the pH!** Recommended finishing time: 10 minutes



Paste your results here and record the pH level

Lemonade Water

Soil Sample 1 Soil Sample 2