

<b>Executive unit</b>	<b>Department of Physics</b>
<b>Project name</b>	Science popularisation activities in 2020: Students who are visually impaired and hard of hearing conduct hands-on science camps and related teacher training and fostering
<b>Project host</b>	Zhongqing Wu

## 1. Project Summary:

This project unites subject experts and educational scholars from the Yuanzhe Science Education Foundation, National Changhua University of Education, National Taiwan Normal University, National University of Tainan, Premier Foundation, Zhide Listening, and Language Centre to plan the Natural Science and Mathematics camps for students who are visually impaired or hard of hearing. An attractive hands-on model, focusing on and complying with the spirit of inquiry and practice in the 2019 curriculum, and allocating a sufficient teaching workforce subtly enhances the interest and effectiveness of scientific learning for students who are visually impaired or hard of hearing. The project can also effectively shorten the gap in science learning of disadvantaged groups and enhance the multiple employment options for these students. We hope that by promoting this project and providing a reference for standard education units to conduct science education courses, we also provide government units with a reference for the future planning of science learning courses for students who are visually impaired or hard of hearing.

## 2. Achievements :

<b>Event name</b>	<b>Event Date</b>	Student No. (Junior Class of kindergarten)	Student No. (Senior Class of kindergarten)	Student No. (Junior High-School Class)	Student No. (Senior High-School Class)	Team auxiliary number	Total participants
2020 Yuanzhe Summer Camp for the Visually	2020/08/10–08/14	9	8	11	9	25	85

Impaired							
2021 Yuanzhe Winter Camp for the Visually Impaired	2021/01/25–01/29	11	13	12	7	26	92

Event name	Event Date	Student No. (Junior Grades)	Student No. (Middle Grades)	Student No. (Senior Grades)	Team auxiliary number	Total participants
2020 Yuanzhe Summer Camp for Students who are Hard of Hearing	2020/08/10–08/14	15	9	11	20	74
2021 Yuanzhe Winter Camp for Students who are Hard of Hearing	2021/01/25–01/29	18	14	16	22	90

Index corresponding to SDGs	<input checked="" type="checkbox"/> SDG01 <input type="checkbox"/> SDG02 <input type="checkbox"/> SDG03 <input type="checkbox"/> SDG04 <input type="checkbox"/> SDG05 <input type="checkbox"/> SDG06 <input type="checkbox"/> SDG07 <input type="checkbox"/> SDG08 <input type="checkbox"/> SDG09 <input type="checkbox"/> SDG10 <input type="checkbox"/> SDG11 <input type="checkbox"/> SDG12 <input type="checkbox"/> SDG13 <input type="checkbox"/> SDG14 <input type="checkbox"/> SDG15 <input type="checkbox"/> SDG16 <input type="checkbox"/> SDG17
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Supporting photos



Course Name: Between breath



Course Name: Between pulling

Instructor: Professor Zhongqing Wu

If you directly blow on a Ping-Pong ball (or styrofoam ball), it will be blown away. However, if you cover the ball in a funnel with a special device (the straw is covered with a funnel-shaped cover) and then blow hard on the straw, will the ball be blown away or will it get stuck?



Course name: Know the best summer heat sink: Aiyu

Instructor: Professor Suzhen Yang

Listen to the teacher's introduction and use various sensory observations such as touch and smell to get to know more about Taiwan's unique plant species, Aiyu. Finally, try to make Aiyu jelly on your own.



Course name: Kaleidoscope of arts

Instructor: Teacher Jialing Li

From the rectangular expanded view to the

Instructor: Professor Zhongqing Wu

Have you heard of 'inertia'? Objects will 'get used to' or 'keep' their original state of motion, i.e., things that are still will remain still. If you are in motion, you will get used to the original state of motion: you will not become faster or slower and will not turn.



Course name: Simple filter paper colour layer analysis

Instructor: Professor Shuiping Yang

In daily life, we often find various pigments and dyes such as food pigments, advertising pigments, and coloured pen inks. Are these coloured substances a single pigment or mixture of multiple pigments?



Course Name: Seeing magnetism

Instructor: Professor Zhongqing Wu

I will explore with you a type of

three-dimensional (3D) kaleidoscope DIY, ultra-distance force, namely a magnetic I will show you the magical changes that force. What do magnets feel when they occur when something transforms from flat approach each other? Repulsion? Or to 3D. The 3D heart, diamond seat, and big attraction? Take a transparent iron powder challenge of the apple pie will test your box and place the magnet under the box. hand-eye coordination. What do you see?

#### Related links

- 'Yuanzhe Science Camps of the Visually and Hearing Impaired' Fan Page  
<https://reurl.cc/LbYOaK>