ELERNITY

Edmodo Classroom

User Guide

NETDRAGON WEBSOFT HOLDINGS LIMITED
FUJIAN ELERNITY EDUCATION TECHNOLOGY LIMITED

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1 Introduction

1.1 Overview

Edmodo Classroom is a comprehensive teaching software designed for teachers. We are committed to providing teachers around the world with better lesson preparation experience and more efficient in-class tools.

1.2 Lesson Preparation

- **Abundant high-quality teaching resources that are intelligently matched by chapters**

This software integrates millions of courseware, pictures, videos, animations, audio, exercises and other high-quality teaching resources that cover all grades and disciplines, as well as different textbook versions. Teaching resources can be accurately allocated to each chapter, allowing teachers to quickly find the resources needed, so as to improve courseware quality and save time.

- **Featured ND resources**

3D and VR resources are provided to facilitate teaching of abstract knowledge points and those that are difficult to describe and explain. By bringing new teaching environment and methods into the classroom, students can understand and master knowledge points more effectively.

- **Professional subject tools**

Special tools are provided for each knowledge point of each discipline to facilitate visualization of abstract knowledge points, help teachers simplify complex teaching processes and provide more advanced teaching methods to improve teaching efficiency and quality.

Interesting and interactive exercises

In addition to traditional basic exercises such as Single Choice, Fill in the Blank, Matching, etc., we also have highly interactive and fun exercises such as Link-up, Classification and Drag to Right Order. Gamified questions and cool interface effect allow students to have fun and improve their enthusiasm while doing exercises.

1.3 Teaching Section

Common basic teaching tools

It perfectly integrates the operating functions of electronic whiteboards that teachers are used to use, and allows users to use the courseware conveniently and easily.

Including: Electronic blackboard, Brush, Eraser, Timer, Laser pointer, Spotlight, etc.

Featured class tools

A series of class tools are provided to help teachers effectively manage the classroom, improve teaching efficiency, solve the problems in class such as tediousness, poor discipline and control, low participation and absent-minded in class.

Including: Class Evaluation, Random Roll Call, Random Grouping, Buzz, Solitaire etc..

Mobile controller

The mobile app allows users to manage the courseware from their mobile phones. Teachers are not bound to the front of the classroom whilst teaching, improving interaction with students.

The app also has a series of special features designed according to characteristics of mobile phone hardware. For example, the teacher can take photos of a student's ideas of solving a mathematical problem and upload it to the whiteboard to share it with other students for reference and discussion. Such features greatly promote the

realization of the teaching concept of “obtaining great teaching contents straight from the classroom”, which is conducive to the construction of a new classroom teaching culture.

■ Data analysis report

By collecting and organizing all the data of Edmodo Classroom, it provides corresponding data reports for teachers, students, parents and other stakeholders.

Including: Data collection throughout the learning process, modeling of knowledge and ability structure, diagnosis and analysis of learning problems, discovery and enhancement of disciplinary advantages.

■ Extendibility

Connection with tablets provides the smart classroom which allows effective interaction between teachers and students. Under the interactive classroom mode, it supports real time feedback of classroom exercise results and timely presentation of academic reports, and helps the teacher accurately understand the learning progress and carry out targeted explanation and practice in time.

2 Operating Environment

2.1 PC configuration requirements

	Minimum configuration	Recommended configuration
OS	Windows XP (sp3)	Windows 7
Office	Microsoft Office 2007 or WPS Office 2016 or higher versions	
CPU	Intel E2160@1.80GHz	Intel® Core™ i5-4590 cpu @ 3.30GHz
Graphics card	Integrated Graphics	NVIDIA GeForce GTX 750
RAM	2GB	8GB
Storage space	40GB free hard disk space	More than 100GB free hard disk space
Internet	Internet connection	
Multimedia	Media player of Windows OS, flash plugin	
Input device	Keyboard and mouse	Keyboard, mouse, whiteboard with stylus
Resolution ratio	1024*768	1440*900

Table 2-1 PC Configuration Requirements

2.2 iOS configuration requirements

	Minimum configuration	Recommended configuration
OS	iOS 8.0	iOS 9.0
CPU	Apple A5	Apple A9
Graphics card	Imagination Power VR SGX543	Power VR GT7600
RAM	512M	2GB

Storage space	8GB available storage space	16GB available storage space
Internet	WIFI, 3G/4G	WIFI, 3G/4G
Resolution ratio	960*640	1334*750

Table 2-2 iOS Configuration Requirements

2.3 Android configuration requirements

	Minimum configuration	Recommended configuration
OS	Android 4.0	Above Android 6.0
Graphics card	Qualcomm Snapdragon801	Qualcomm Snapdragon820
RAM	1GB	2GB
Storage space	8GB available storage space	16GB available storage space
Internet	WIFI, 3G/4G	WIFI, 3G/4G
Resolution ratio	800*480	1920*1080

Table 2-3 Android Configuration Requirements

3 How to Use

3.1 Getting Started 1: Preparation (create courseware)

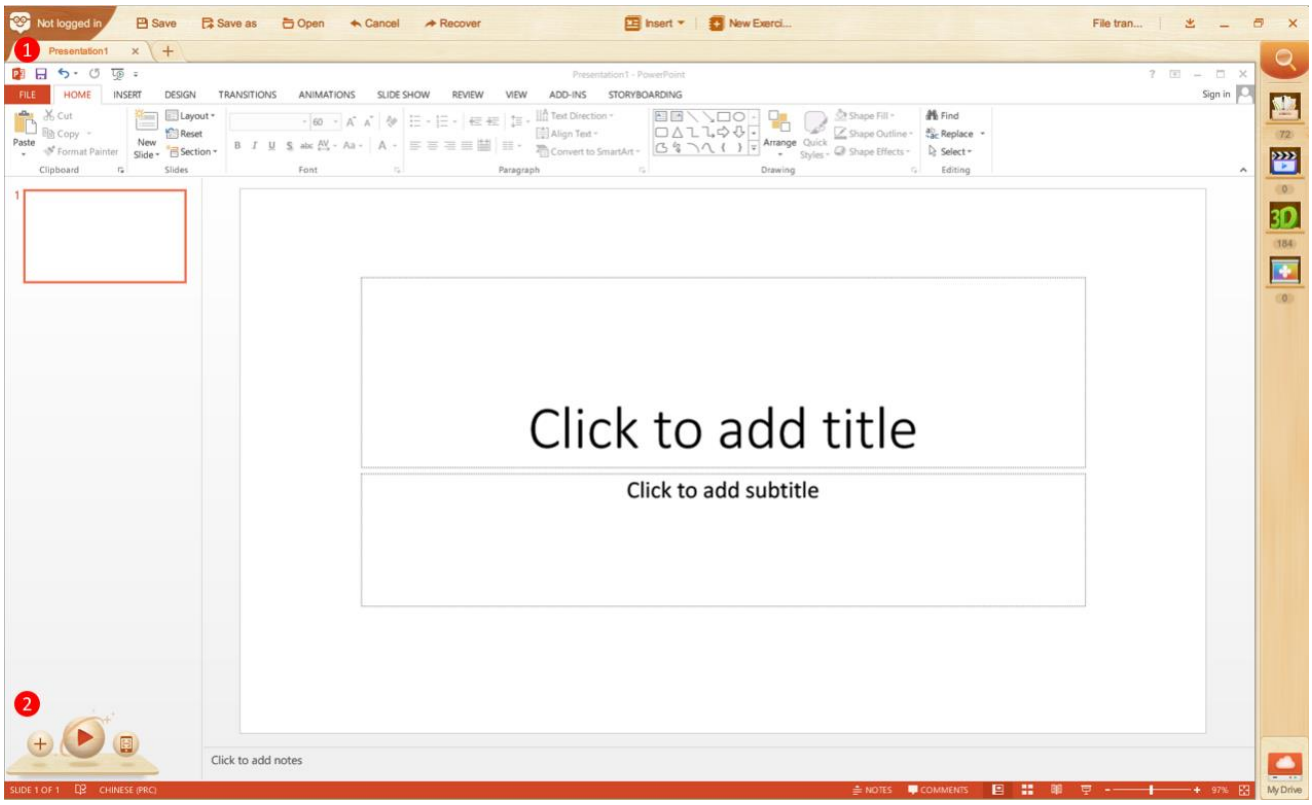


Fig.3-1 Create Courseware

No.	Area Name	Direction for Use
1	New courseware	Use this product to create new courseware for using or editing.
2	New slide	Use this product to create new slide and customize it.

Table 3-1 Create Courseware

3.2 Getting Started 2: In-class Operations (playing courseware) 1

Open your courseware and click on a blank area to drag the button to any position as

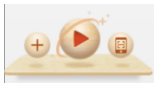
appropriate, click  on the lower right corner of the interface to play the courseware. As shown in Fig. 3-2.

Fig. 3-2 Play Courseware

No.	Area Name	Direction for Use
1	Toolbar	Auxiliary tools provided for teachers to use.
2	Page turning	**Previous** and **Next** buttons are on both sides of the interface to control the slideshow.
3	Thumbnails	Expand or collapse the thumbnails that display all slides of your courseware if you like. Click on any of the thumbnails and directly go to the corresponding slide.

Table 3-2 Play Courseware

3.3 Getting Started 3: Mobile Control

Fig.3-3 App Interface

No.	Area Name	Direction for Use
1	Show courseware	Show courseware from the beginning or the current page.
2	Page turning	Turn pages of the courseware displayed on PC.
3	Thumbnails	Click to expand all thumbnails of courseware and click on any of them to go to the corresponding page.
4	Landscape view	Click to switch to the landscape view from the portrait mode; click again to return to the portrait mode.
5	Sidebar	Click the button to view the Login/Register, Fast Sharing, Feedback, Settings and Disconnect. View sidebar introduction in 10 (mobile).

6	Tools	Gain access to functions such as login, feedback, settings etc.

Table 3-3 App Control

3.4 Getting Started 4: Interactive Classroom

■ Introduction

Breaking the traditional one-way teaching mode, 101 Interactive Classroom based on the hardware platform of 101 Pad achieves "1 to 1" smart classroom control and "once every 5 minutes" quiz mode and provides instant classroom feedback, teaching evaluation, data analysis and other functions. It represents a new type of intelligent teaching software that is highly efficient and competitive.

Combined with the Edmodo Classroom, 101 Interactive Classroom creates a more efficient classroom. See Fig. 3-4-1.

Fig.3-4-1 101 Student Pad

When Edmodo Classroom plays courseware, the toolbar provides interactive tools such as Magnifier, Spotlight, Class Summary, Buzz, Random Roll Call, and Timer. Teachers can use the Edmodo Classroom to interact effectively with students who are using Pad, as show in Fig. 3-4-2.

Fig.3-4-2 Interactive Tools

4 Installation Instructions

Download the PC or mobile version of the software from: http://ppt.101.com/

4.1 PC Installation

1. After downloading the installation program, double-click the installation package to start to install. Select your country/region and click "Next", as shown in Figure 4-1-1.

Fig.4-1-1 Choose a Country

2. After reading and confirming the license agreement, click [Install Now] to install software to the default installation path, as shown in Figure 4-1-2.

Fig.4-1-2 Quick Installation

3. To customize the software installation path, click [Customize] icon shown in Fig. 4-1-2 and choose a path you like, check [Add shortcut to desktop], [Add to taskbar] and [Set the default open mode for the courseware file], then click [Install] to install the software, as shown in Fig. 4-1-3.

Fig.4-1-3 Custom Installation

4. After installation is completed, click Start to launch the software immediately. You can also start the software by double-clicking its desktop icon or by selecting Edmodo Classroom from the “All Programs” pull-down list in the “Start” menu, as shown in Fig. 4-1-4.

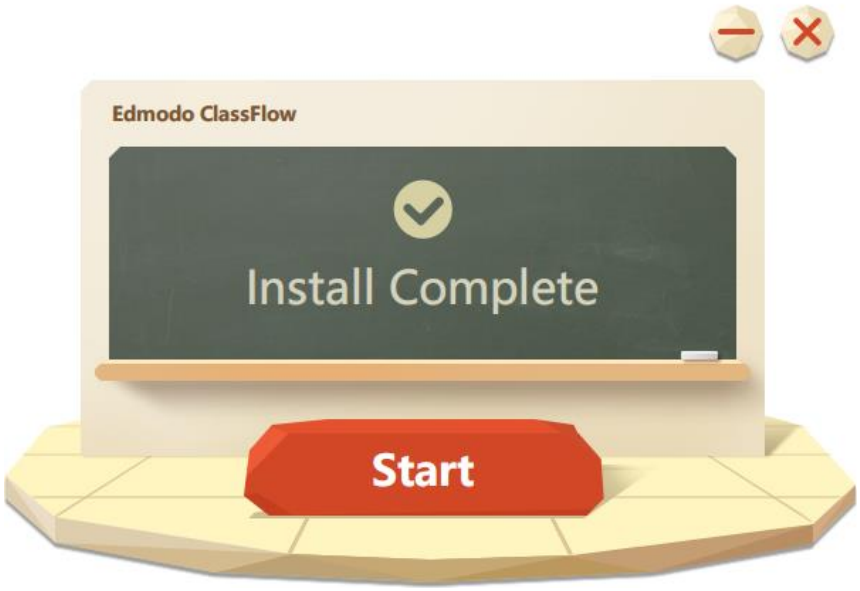


Fig.4-1-4 Installation Completed

4.2 Android-based mobile devices

To download the Android app, please click [Android] on the official website page and scan the QR code to download, as shown in Fig. 4-2.

Fig.4-2 Android App

4.3 iOS Devices

Edmodo Classroom also provides the IOS app, but it is still under the test. It is coming soon. Once the app is ready, the user can click [iOS] on the official website page and scan the QR code to download.

5 Functions of Software Modules

5.1 Client module description (preparation)

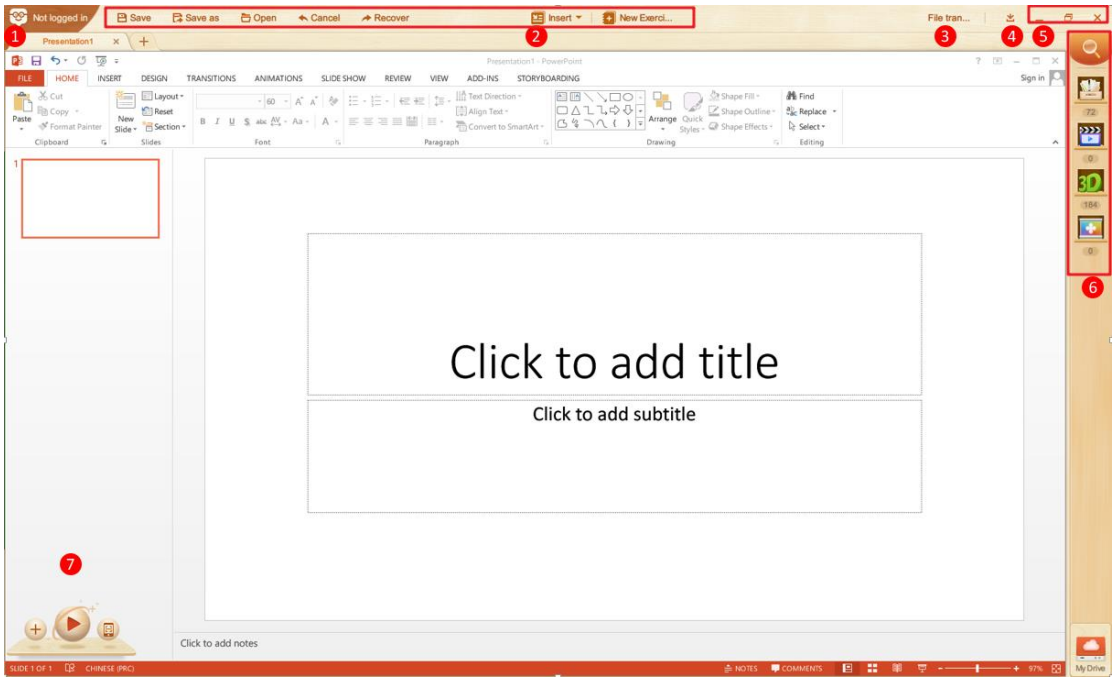


Fig.5-1-1 Client Function Modules

No.	Area Name	Instructions
1	Logo extension login	It contains: Login, Check updates, Update Logs, Settings, Contact us and About.
2	Menu	Provide functions: Save (Courseware), Open (local courseware), Cancel (previous operation), Recover (recover previous Cancel), Insert (insert local image, video or animation file to courseware), New Exercises (as figure).
3	File transfer	Scan to connect mobile phone then you can control Edmodo Classroom mobile client playing and file transfer.
4	Download management	Display downloading progress; click it to obtain the list of downloaded files and downloading

		files.
5	Window control	Contain minimize, restore or close the window.
6	Resource	Resource bar module. Including education resource library, school library, shared resource, my network disk. The education resource library contains the official online resource of Edmodo Classroom; the school library contains the exclusive online resource of the school; the shared resource contains the shared resources uploaded by the teachers; my network disk contains the resources uploaded to cloud disk by the teachers, it can be used after login.
7	Office	Office main interface module, including all office function modules. Click "New Slide" to create. Click "Connect" to connect phone. "Play" means enter the show mode.

Table 5-1 Description of Each Client Module (preparation)

5.2 Client module description (teaching)

Fig.5-2-1 Teaching Main Interface

No.	Area Name	Direction for Use
1	Toolbar	The toolbar (contains left and right) includes Subject Tools, Interactive Tools (the unavailable interactive tools will be gray without connection with student pads), Arrow, Brush, Eraser, Ink Remover, Back-to-desktop and Exit-full-screen. Toolbar not used for 5s will be grey. Click the Collapse to hide the Toolbar as shown in Fig.5-2-2, 5-2-3, or drag and position the Toolbar appropriately.
2	Page turning	Click Page turning to control the slide.
3	Thumbnails	Click the thumbnails to display all slides of your courseware when showing. Click any of the thumbnails and directly go to the corresponding slide.

Table 5-2-1 Description of Each Client Module

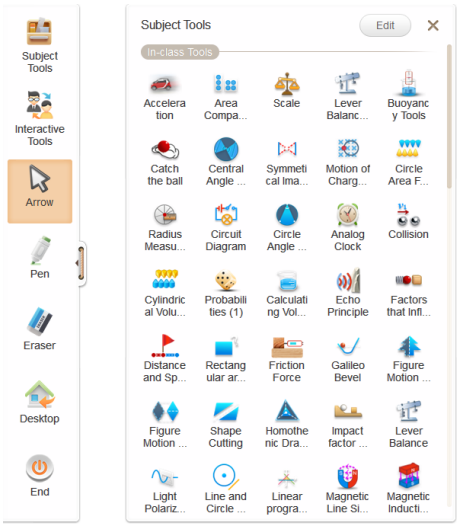


Fig.5-2-2 Teaching Toolbar-Subject Tools

Fig.5-2-3 Teaching Toolbar-Interactive Tools

Fig.5-2-4 Courseware Thumbnails

6 Main Interface

Functions of upper menu bar include: Logo extension menu, Save, Save as, Open, Cancel, Recover, Insert, New exercises, File transfer, Customer Service, Live, Recording, Download manager, minimize window, maximize/restore window,close window.

The middle part is office, and teachers can use office related functions normally.

Resource column is on the right, provides teaching resources for teachers to prepare lessons, as shown in Fig. 6.

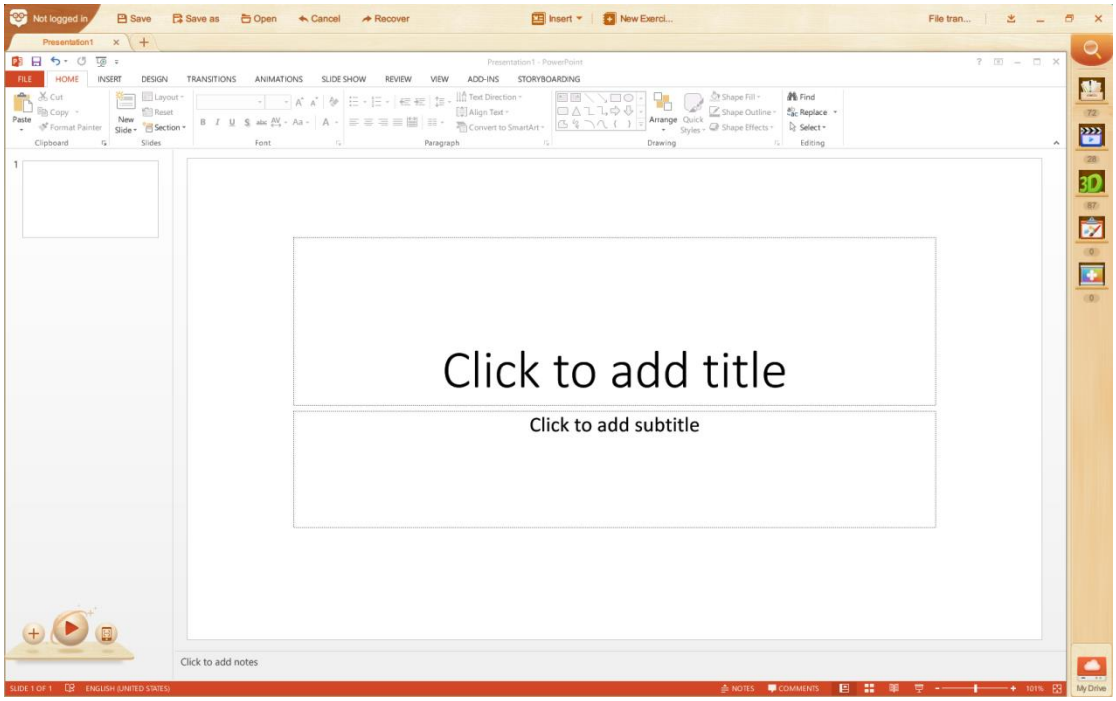


Fig. 6 Main Interface

6.1 Logo extension menu

Logo extension menu provides functions such as Check updates, Update logs, Settings, Feedback, About, Help, etc., as shown in Fig. 6-1.

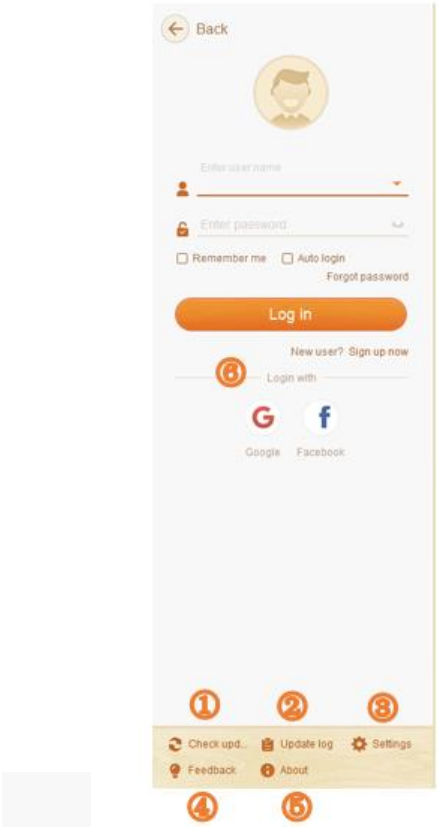


Fig. 6-1 Logo Extension Menu

No.	Area Name	Direction for Use
1	Check updates	Check for new versions of the software and update.
2	Update log	Check new added or modification feature point each update version.
3	Settings	Complete software related settings, including general settings, download settings, language settings, resource settings, kernel settings.
4	Feedback	Any comments or suggestions about product can be feedback via this module.
5	About	Copyright information related to Edmodo Classroom.
6	Accounts	Enter your account name and password to login. Select Remember the password and Auto Login, then the account will auto login next time. If you do not have a

		Edmodo Classroom account, register with your mobile phone number or email address or login with Weibo, QQ, WeChat, Guangzhou Digital Education City. Check Chapter 9 Account Module for details.

Table 6-1 logo Extension Menu

6.1.1 Check updates

Click to manually check update. If there is any update, a small red dot will appear. The system will prompt if new version released during use the software, then click "Update Now" to install new version immediately. If teacher is creating courseware, it is recommended to click "Update Later", the system will automatically complete the update in the background. Fig. 6-1-1.

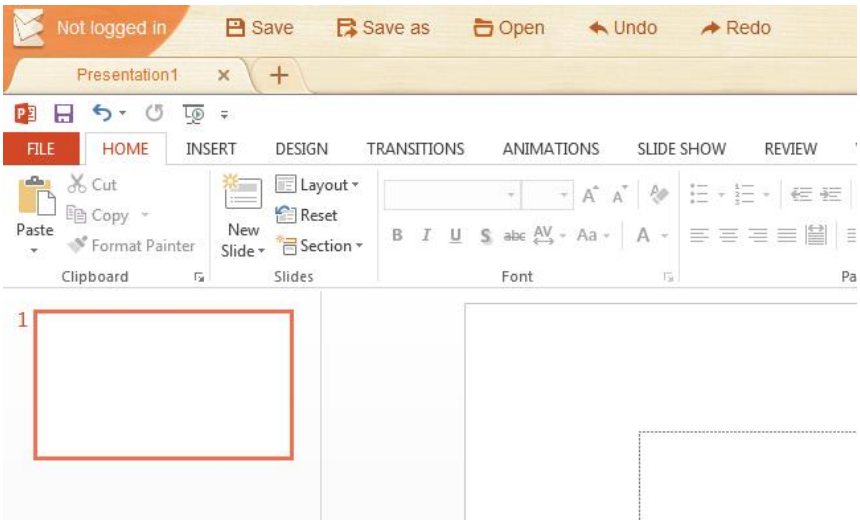


Fig. 6-1-1 Update Prompt

6.1.2 Update log

Update log records the details of each update of the software. At the same time, the teacher can relay feedback and suggestions about functions via "Functions I Want", as shown in Fig. 6-1-2.

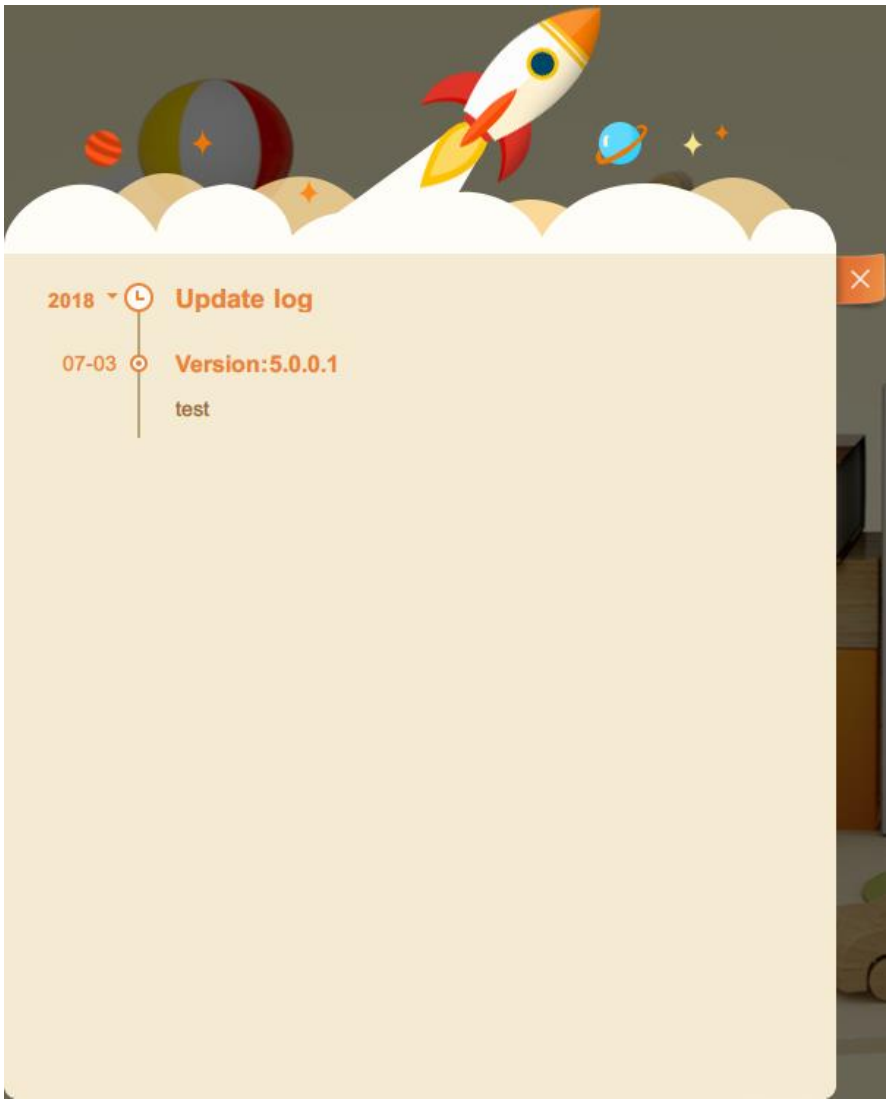


Fig. 6-1-2 Update Log

6.1.3 Settings

Settings include general settings, download settings, language settings, resource settings, and kernel settings.

General settings include open method and boot settings. Opening method: Set Edmodo Classroom as default way to open PowerPoint documents, teacher can set this in settings.

Download settings include file download location and clear cache. Teacher can view and modify the file download location or clear cache to make the software more smoothly as shown in Fig. 6-1-3-1.

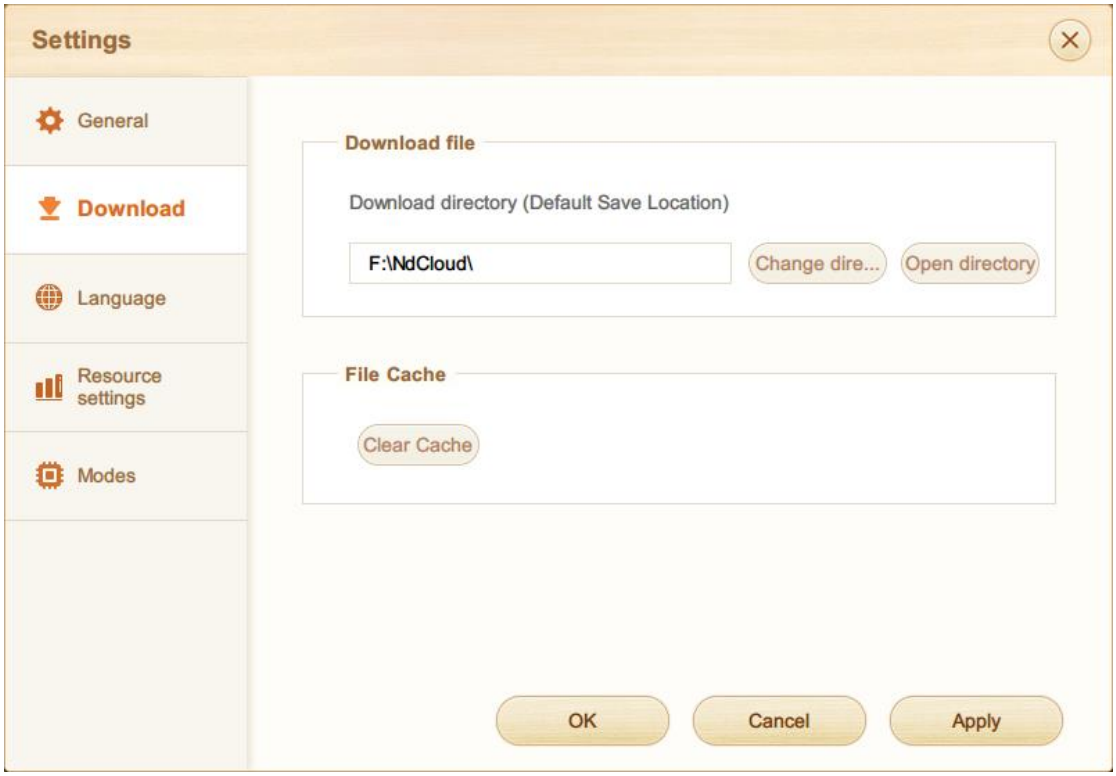


Fig. 6-1-3-1 Download Settings

Via language settings, teachers can choose Chinese, Traditional Chinese, English, Tibetan, Japanese, Turkish, Thai, Russian, Spanish, French, and German according to their region and habits. As shown in Fig. 6-1-3-2.

Fig. 6-1-3-2 Language Settings

As shown in Fig. 6-1-3-3, you can set regional resources for the software via resource settings.

Fig. 6-1-3-3 Language Settings

Modes settings, you can choose WPS or Office mode. Edmodo Classroom can also be used with WPS2016 version, just select the corresponding mode and restart. Fig. 6-1-3-4.

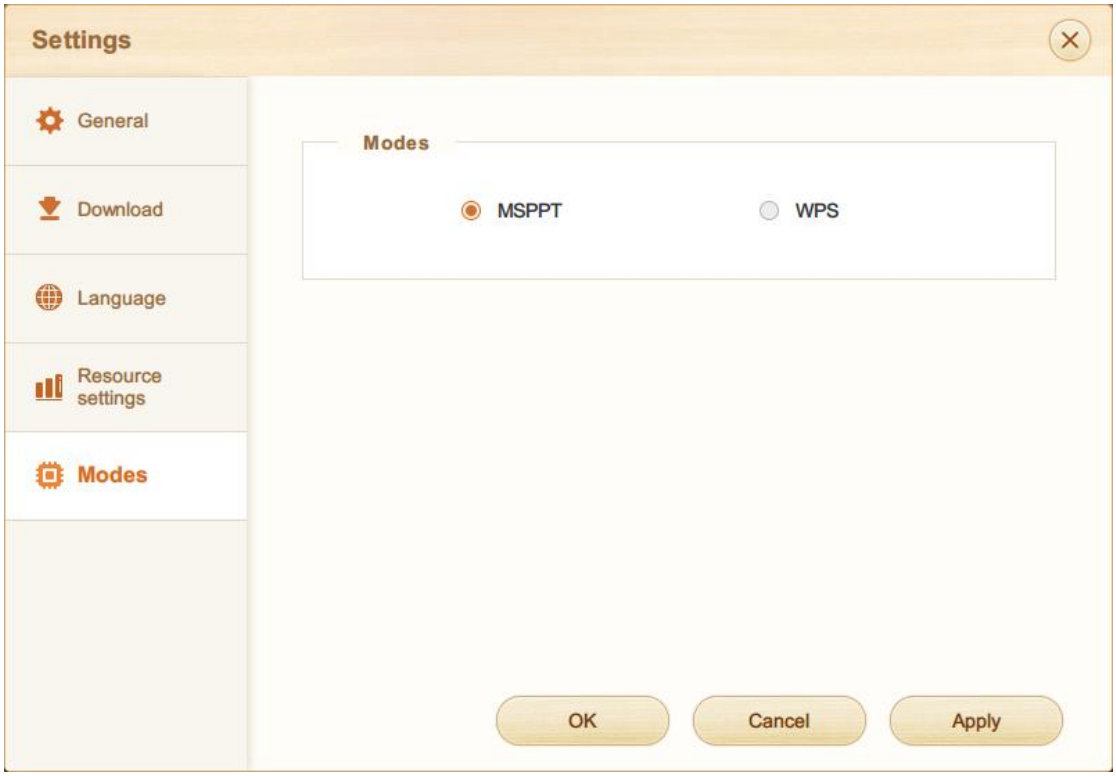


Fig. 6-1-3-4 Modes Settings

6.1.4 Feedback

Any comments or suggestions on the software can be provided via this module. See Fig. 6-1-4.

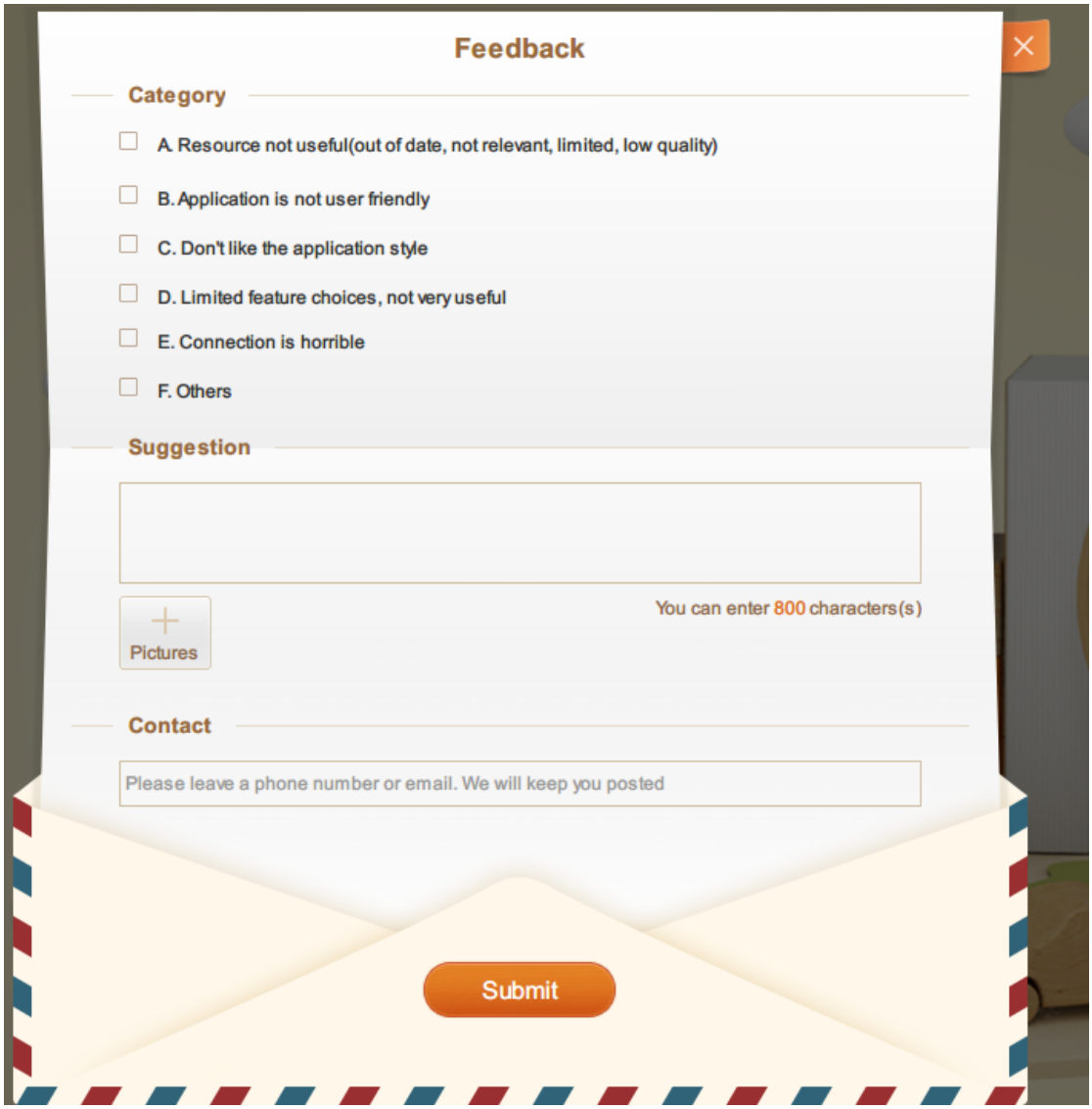


Fig. 6-1-4 Feedback

6.2 Save

Save: Save the courseware after creating. Fig. 6-2.

Fig. 6-2 Save

Save function description and usage method, please check 7.9 Storage introductions for detail.

6.3 Save as

It is convenient for teachers modify courseware to satisfy different requirements of multiple classes, “Save as” can save the modified courseware in familiar path, avoid new files cover the file content of original saved.

Fig. 6-3 Save as

6.4 Open

Click "Open" to directly open the courseware file in PC, as shown in Fig. 6-4.

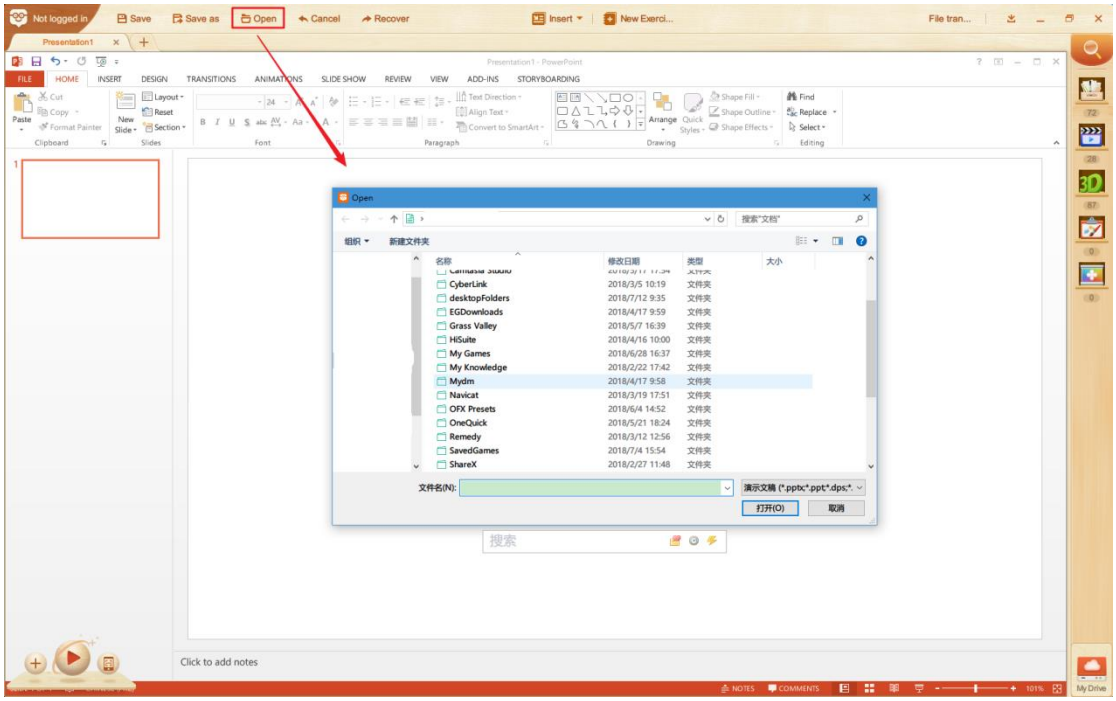


Fig. 6-4 Open the Sample File

6.5 Undo/Redo

Undo: click it to undo preview operation in case of any error during production of courseware, Redo: click it to recover previous cancelled

For example, after inserting a picture, click “Cancel” icon to remove picture, then click "Recover" to reappear this picture. Fig. 6-5.

Fig. 6-5 Undo/Redo

6.6 File transfer

Scan the QR code to connect mobile phone, then control "Edmodo Classroom" play in mobile client and file transfer.

6.7 Download manager

Download manager: Display downloading resources and downloaded resources to teachers. After the download is completed, the number of downloaded files will be highlighted over the icon. See Fig. 6-7-1, Fig. 6-7-2.

Fig. 6-7-1 Download Manager

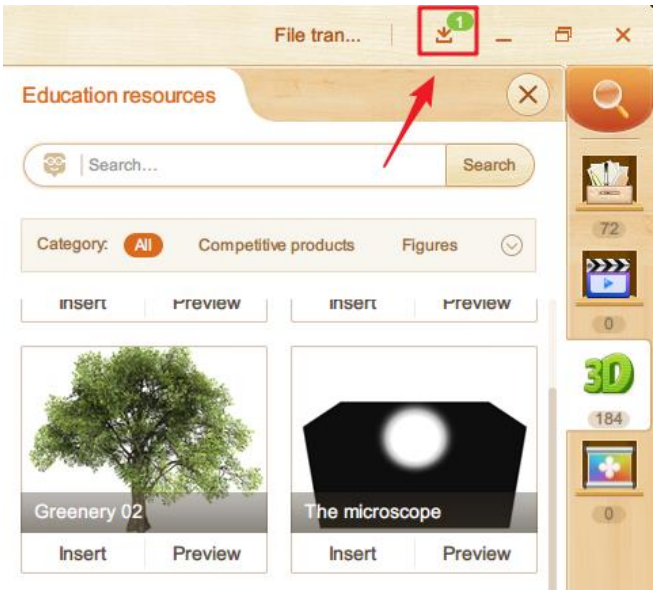


Fig. 6-7-2 Number of Downloaded Files

6.8 Play

Click Play icon at the bottom left corner of the software to play the courseware.

6.9 Connect to Phone

Click the icon to pop up the QR code window, as shown in Fig. 6-9-1.

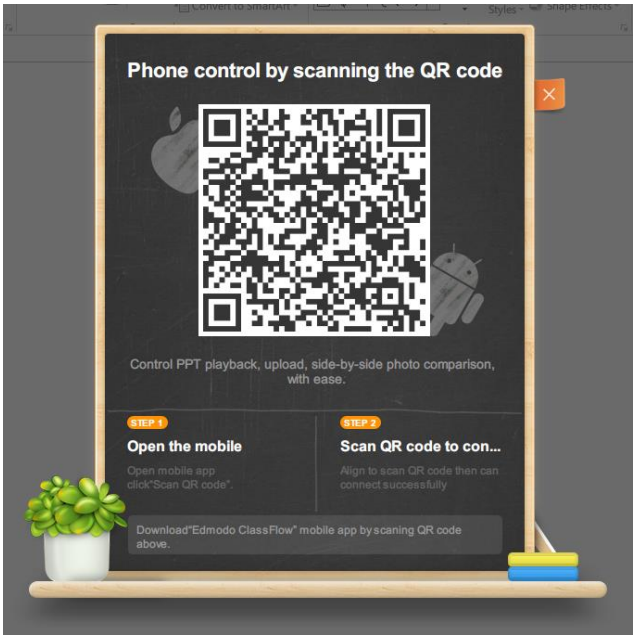


Fig. 6-9-1 Connect to Phone

Open Edmodo Classroom Mobile Edition, as shown in Fig. 6-9-2.

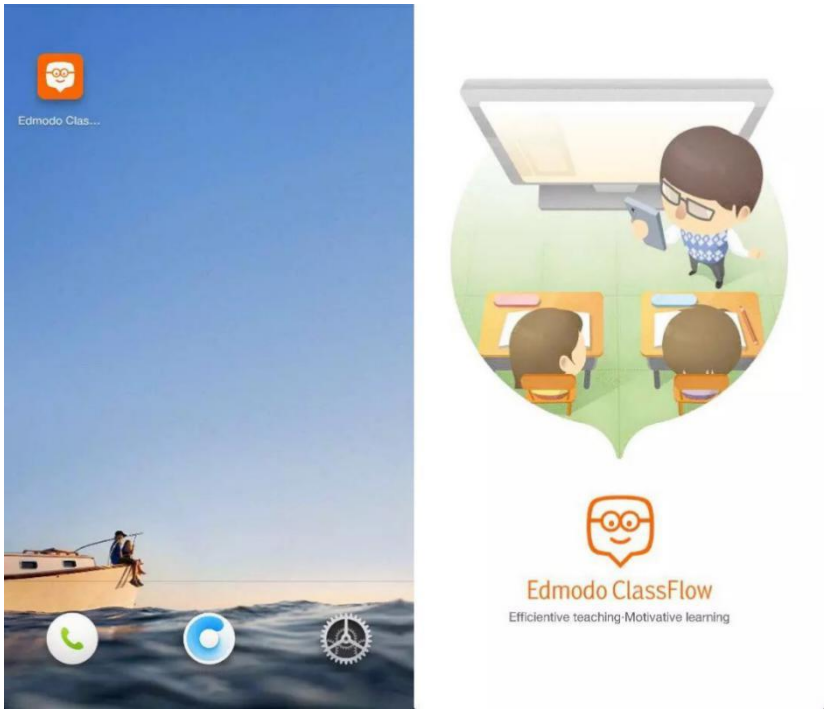


Fig. 6-9-2 Open Edmodo Classroom

Click Scan QR Code to connect, as shown in Fig. 6-9-3.

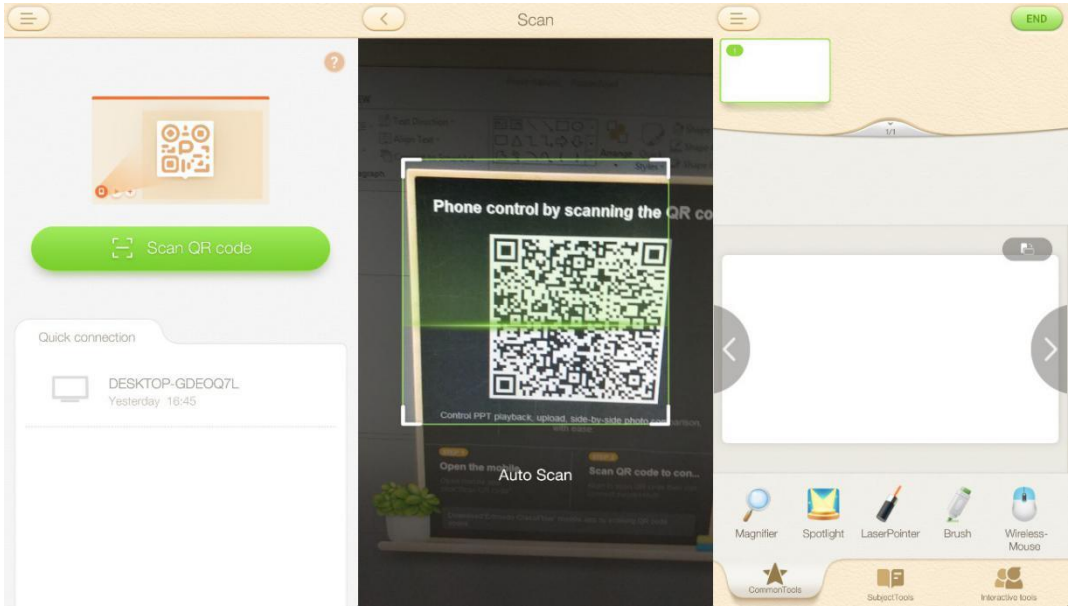


Fig. 6-9-3 Scan QR Code

As shown in Fig. 6-9-4, You can directly connect based on connected record and swipe left to clear connection history or click Delete batch to clear all records.

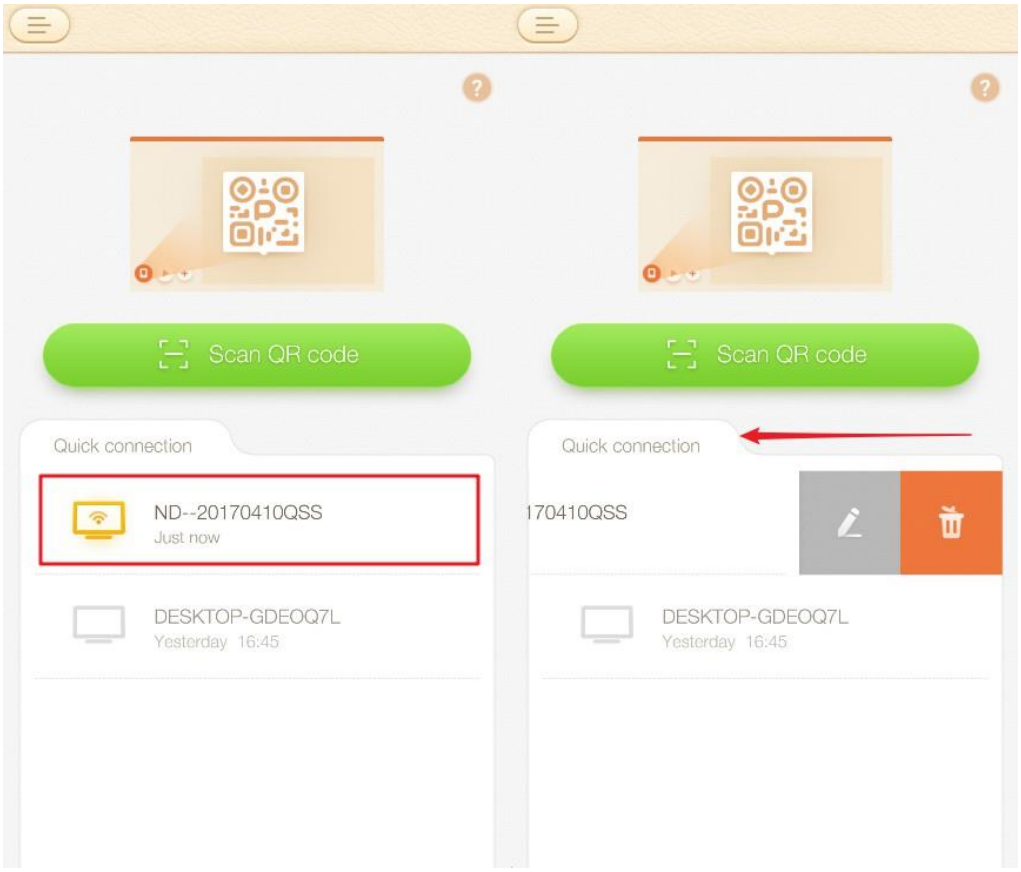


Fig. 6-9-4 Quick Connection

As shown in Fig. 6-9-5, if there is a connection failure, please check your network and try again.

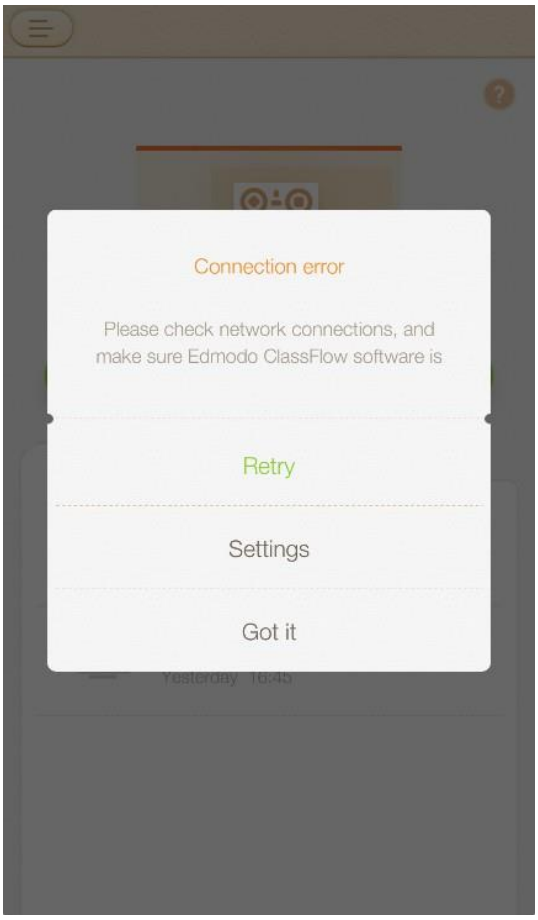


Fig. 6-9-5 Failed

6.10 Search

Click the “Search” above resource bar and search in non-projection status. As shown in Fig. 6-10-1.

Fig 6-10-1 Search

Enter a keyword in the pop-up search box to search, you can also filter search results by types, sources or courseware for a convenient finding of wanted resources or courseware. Fig. 6-10-2

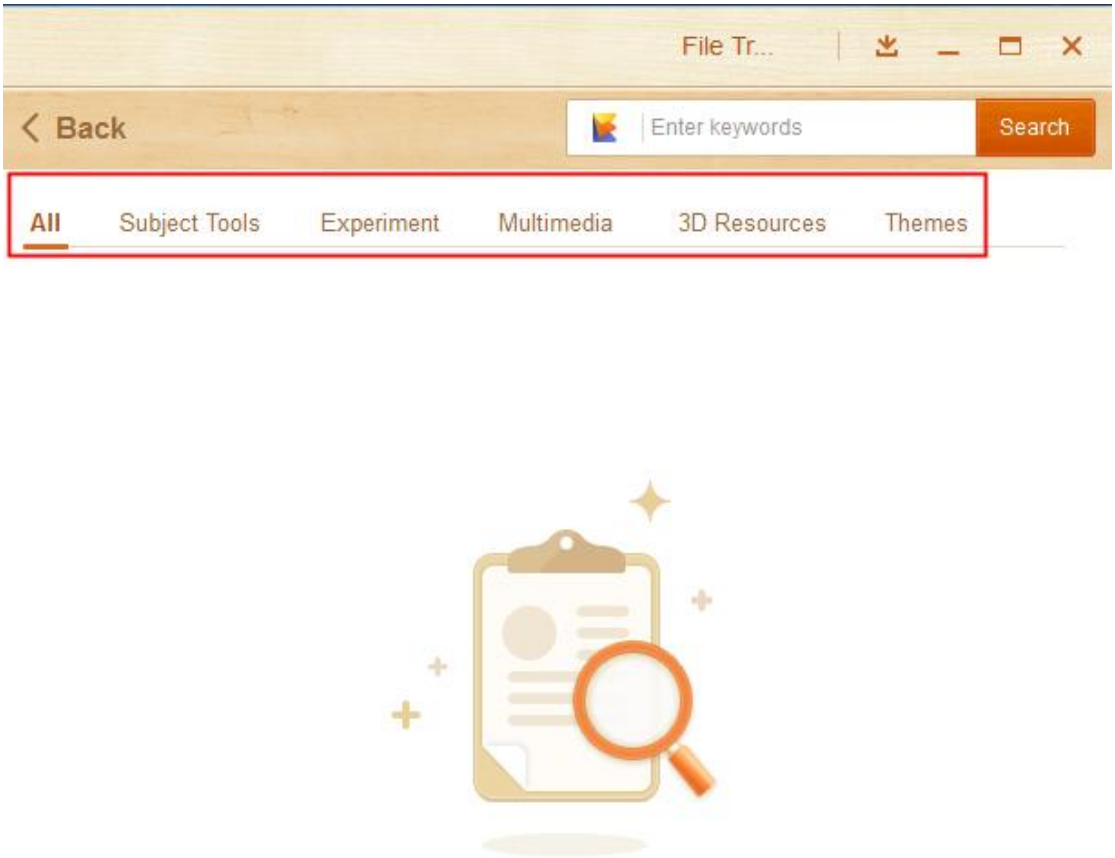


Fig. 6-10-2 Filtering of Search Results

6.11 Education Resource Library

The Education Resource Library contains courseware, subject tools, multimedia resources (video, picture, animation, and audio files), 3D resources, papers, themes, etc. Teachers can directly preview and apply. In addition to search tool described in 6.13, you can also accurate searches within each module.

Move your mouse over the resource name to show information such as name, author, page number, and the specific download volume and praise. The teacher can choose according to downloads and likes, Take some courseware as examples. See Fig. 6-11-1.

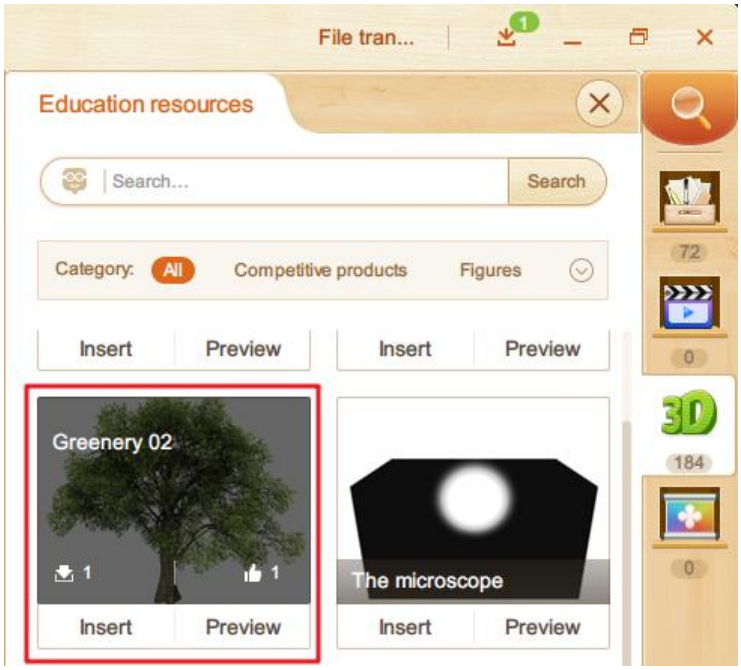


Fig. 6-11-1 Resource details and hot

6.12 Subject Tools

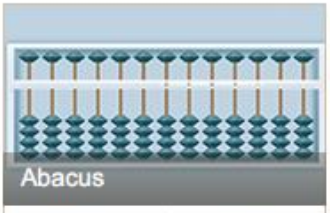
The teacher can insert the subject tools directly into the courseware. The Inserted prompt will appear when completed. Subject tools will be matched according to the course selected by the teacher. To view the more corresponding resources of courses, click View More, as shown in Fig. 6-12-1, Fig. 6-12-2.

File tran...

Education resources

Search...

Search



Abacus

Insert Preview

Faster

Insert Preview

Area Comparison

Insert Preview

Scale

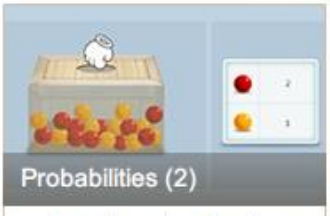
Insert Preview

Lever balance bar

Insert Preview

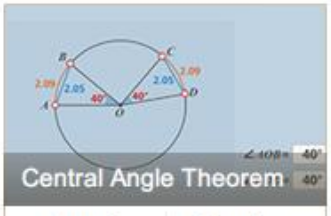
Buoyancy tools

Insert Preview



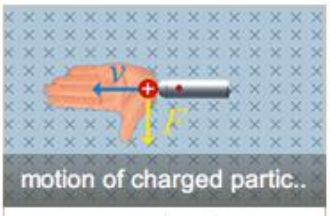
Probabilities (2)

Insert Preview



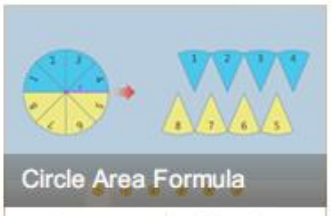
Central Angle Theorem

Insert Preview



motion of charged partic..

Insert Preview



Circle Area Formula

Insert Preview

View more

1/4

72

28

87

0

0

My Drive

Fig. 6-12-1 Subject tools-Education resources

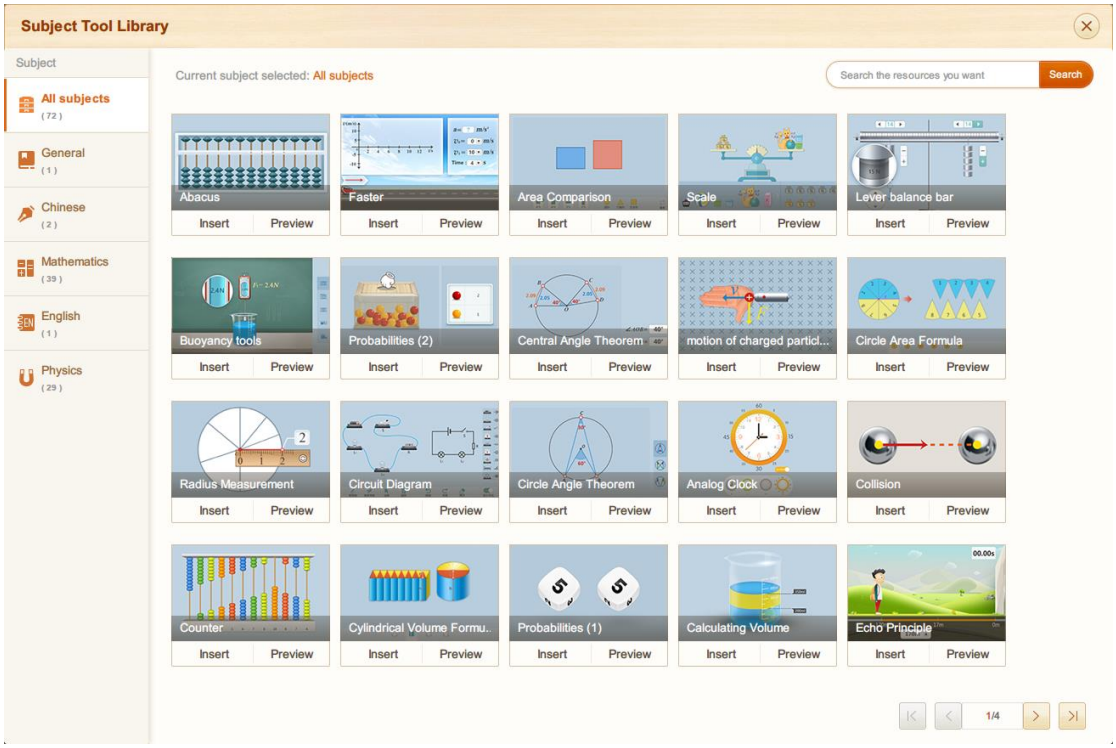


Fig. 6-12-2 Subject Tool Library

6.13 Multimedia

The Education Resource Library contains a wide range of pictures, videos (the video duration is displayed on top of the resource), animations and audios, as shown in Fig. 6-13-1, and these resources can be inserted to prepare courseware.

Fig. 6-13-1 Multimedia Resources

Click the Preview option to learn more details of the given multimedia resources, as shown in Fig. 6-13-2. Video preview supports likes, insert, volume adjustments, viewing file information, and 90° rotation of video.

Fig. 6-13-2 Video Preview

6.13.1 3D Resources

The Education Resource Library includes relevant 3D resources, which can be directly inserted and applied to courseware. Click **View more** at the bottom of the Resource Bar to view more, as shown in Fig. 6-13-1-1.

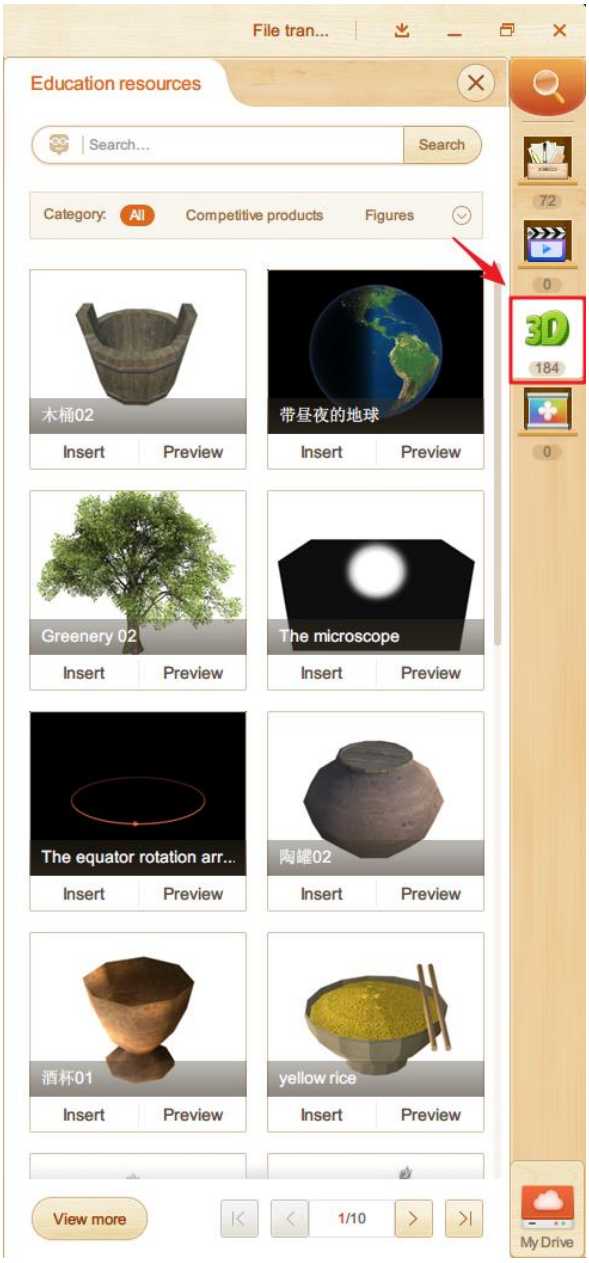


Fig. 6-13-1-1 3D Resources

Education Resource Library classified all 3D resources, users can search 3D resources with relevant keywords or types of resources, as shown in Fig. 6-13-1-2.

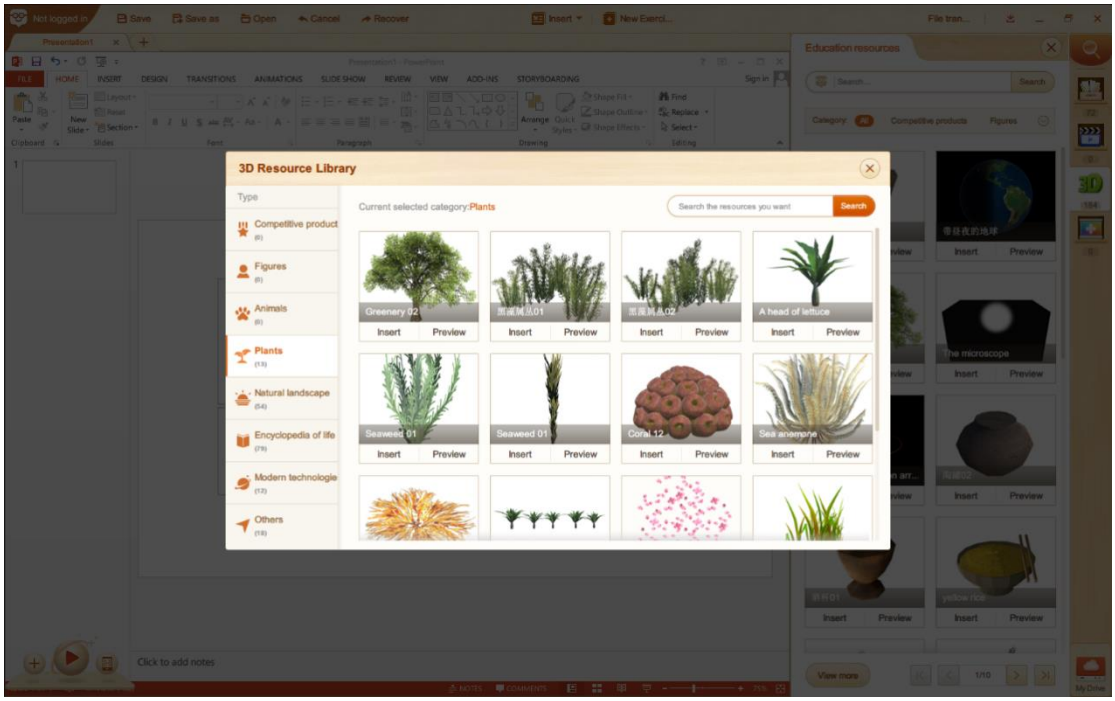


Fig. 6-13-1-2 3D Resource Library

The Inserted prompt will appear when the 3D resource inserted, as shown in Fig. 6-13-1-3.

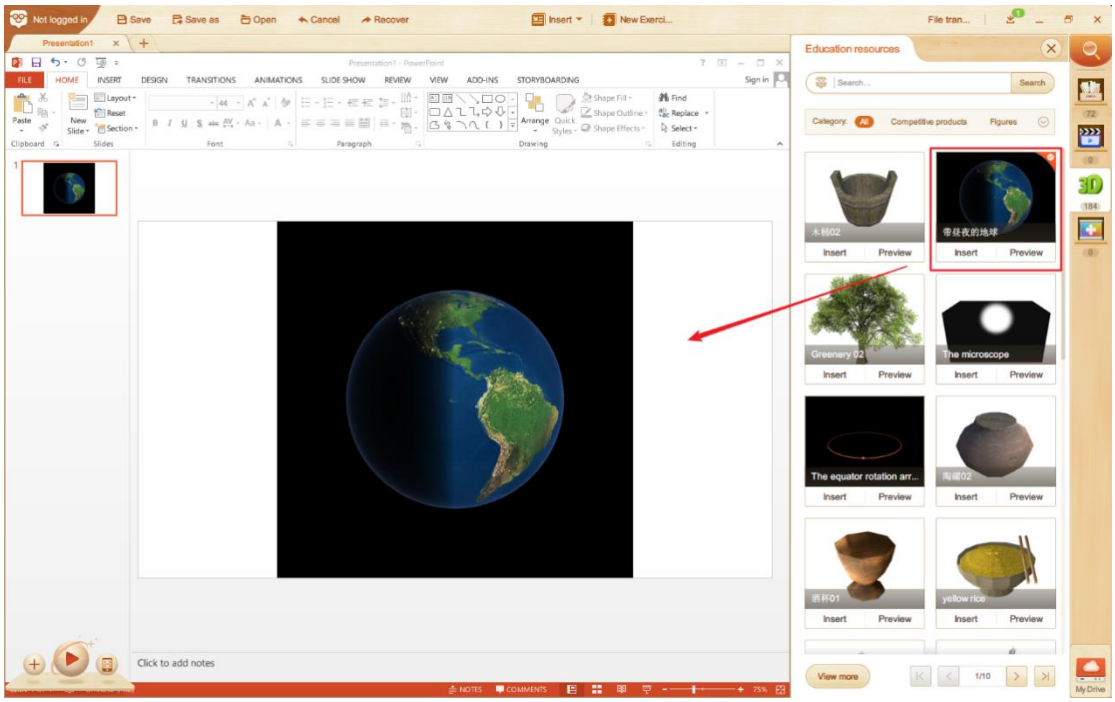


Fig. 6-13-1-3 3D Resource-Earth

When playing 3D resources, you can operate resource: rotate (press the mouse to rotate), zoom in/out (scroll the mouse), operations (as operation buttons) and change the background (on the lower right corner). As shown in Fig. 6-13-1-4.

Fig. 6-13-1-4 3D Resource Preview – Earth

6.13.2 Themes

The Education Resource Library offers a variety of themes to help teacher create eye-catching courseware. Click Preview to check details of the corresponding theme. Select Apply option on the preview page to apply the viewed theme to current editing pages, then one-click replace batch. As shown in Fig. 6-13-3-1.

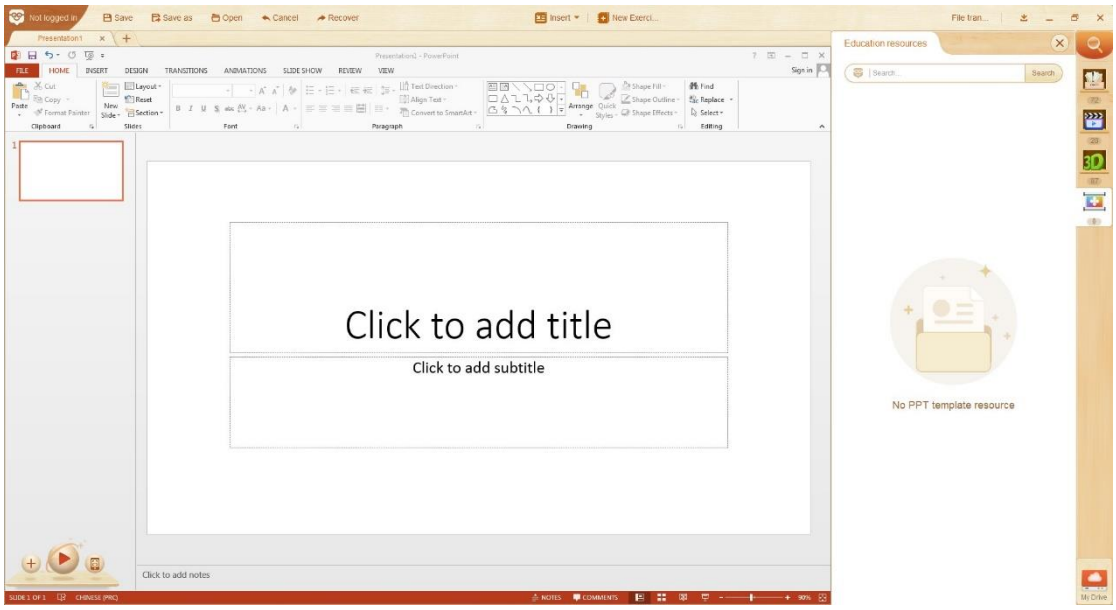


Fig. 6-13-3-1 Theme Previewing - Apply

As shown in Fig. 6-13-3-2, the user can choose and apply a theme in the Theme Selection page.

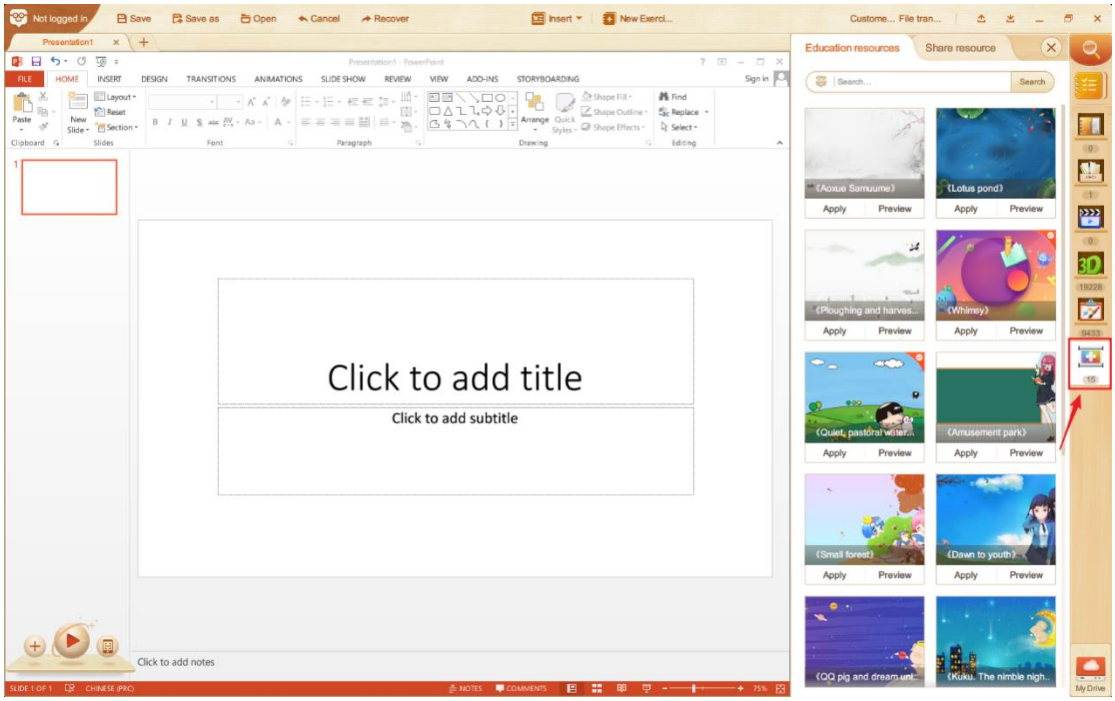


Fig. 6-13-3-2 Theme Preview - Apply

6.14 My Drive

Users can access My Drive after login. Similar to a cloud disk, My Drive allows users to manage and edit any files in the My Drive anywhere, to ensure files are saved. Files are divided into four categories: courseware, multimedia, exercises, and documents helping teachers to find saved files. As shown in Fig. 6-14-1.

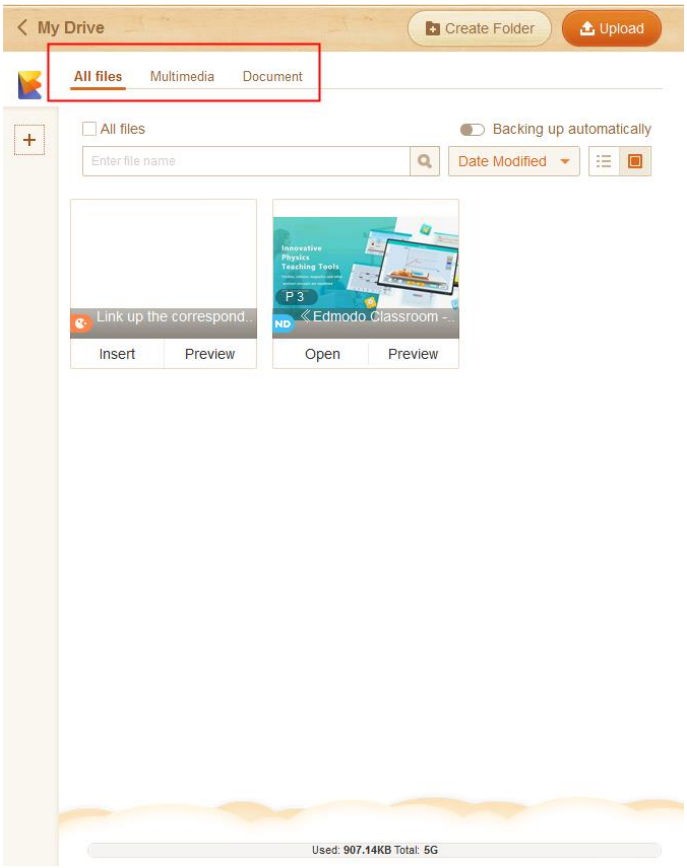


Fig. 6-14-1 My Drive

My Drive supports creating folders. Teachers can classify and manage the contents stored at My Drive as he/she sees fit. Click Create Folder and enter the folder name in the pop-up folder creation window, and then click Create to finish the process. As shown in Fig. 6-14-2.

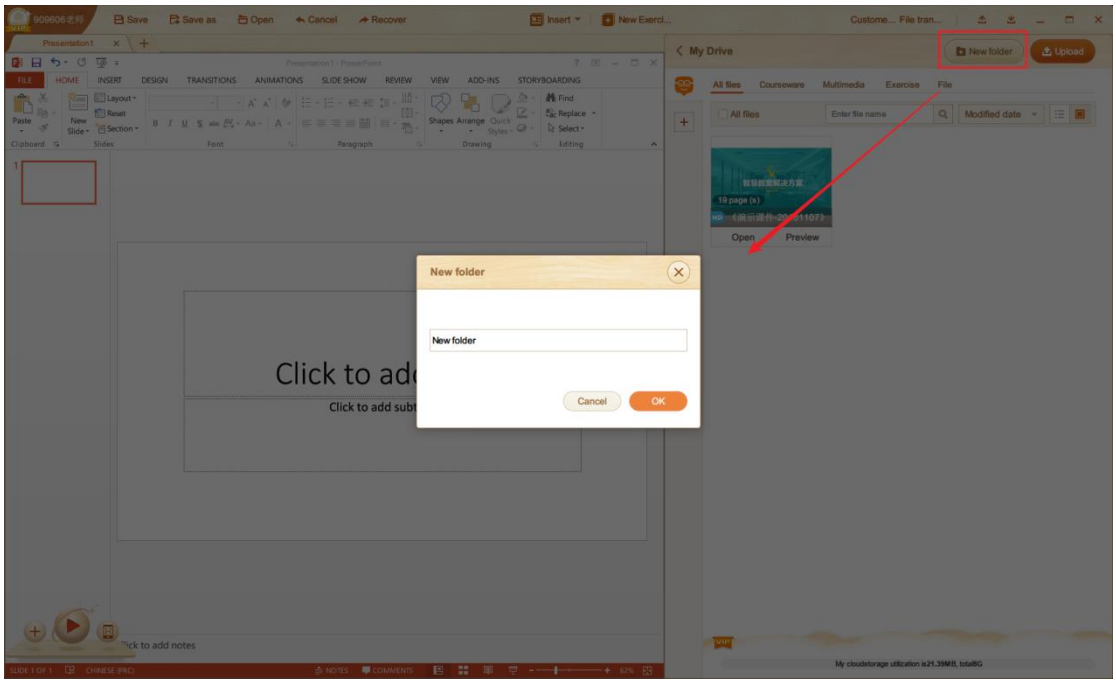


Fig. 6-14-2 My Drive - Create Folder

Resources in My Drive can be sorted by time, file name or size. Select view method to check. See Fig. 6-14-3.

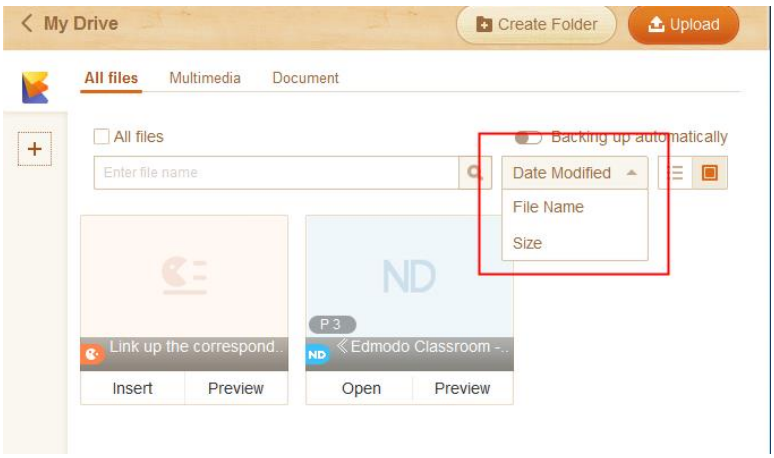


Fig. 6-14-3 My Drive – Sorting order

After inserting the question(s) into the ClassFlow, users can click Edit button on the upper right corner of the screen to start editing. After editing, users click Finish to complete the editing, and then click Save to My Drive to upload the question. You can backup your exercise faster through this process. As shown in Fig. 6-14-4, Fig. 6-14-5,

Fig. 6-14-6.

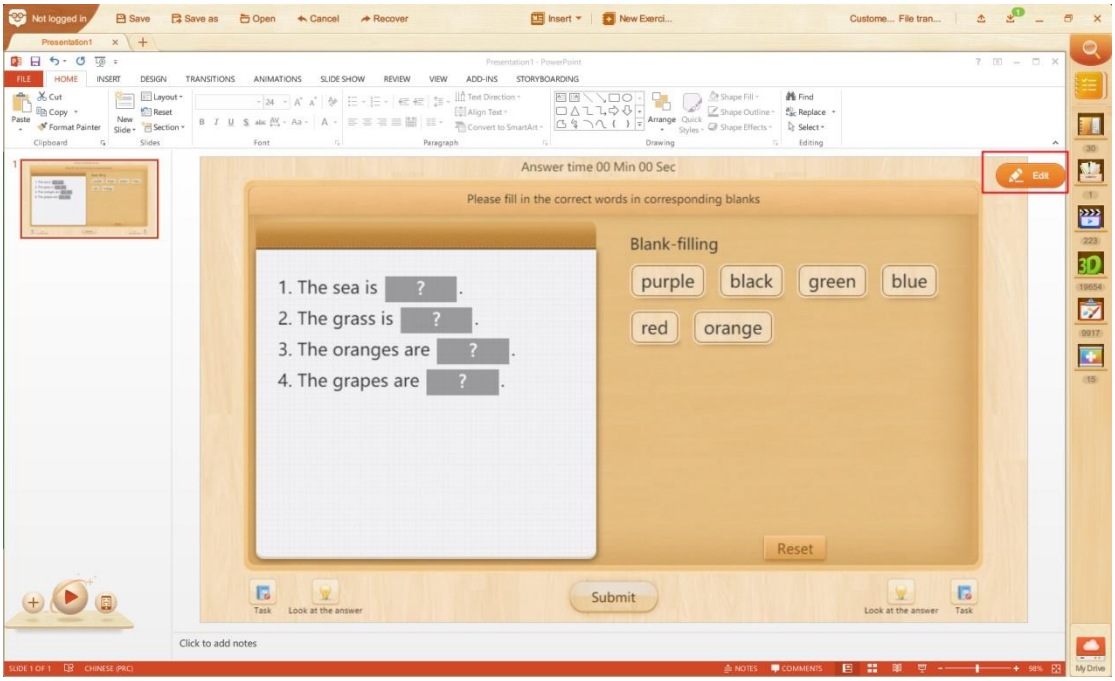


Fig. 6-14-4 My Drive - Save Exercises

Fig. 6-14-5 My Drive - Save Exercises

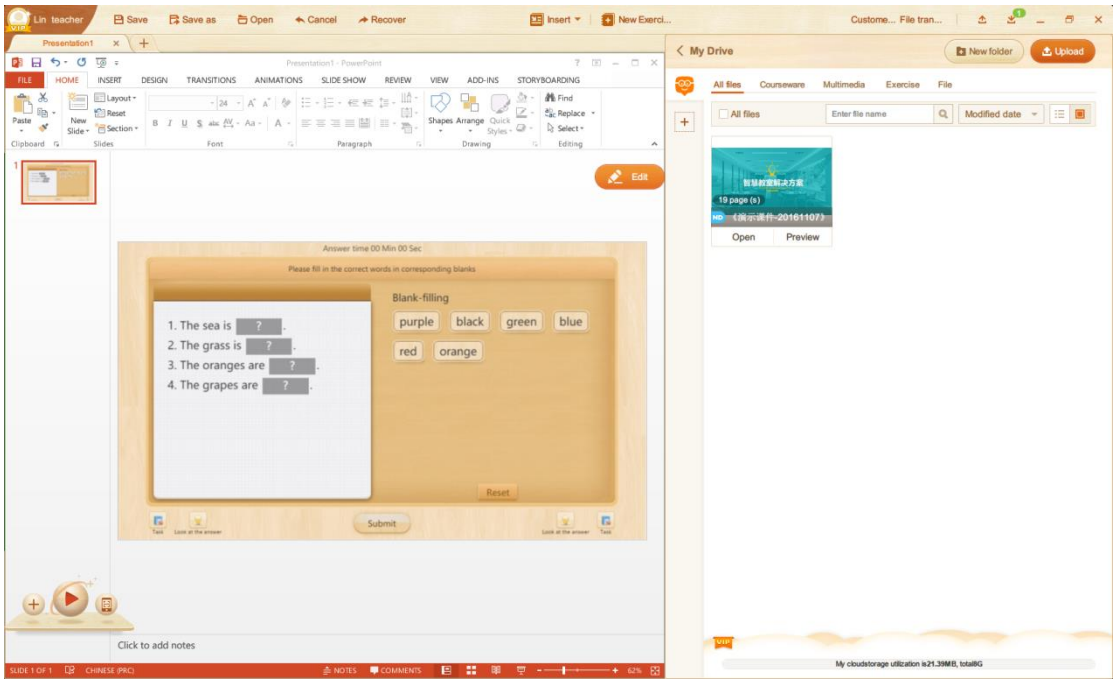


Fig. 6-14-6 My Drive - Save Exercises

A more convenient way to upload local courseware (e.g. PPT, NDPX), multimedia files (e.g. pictures, video, animation, audio) to My Drive is selecting the files, then right-clicking the mouse and selecting Upload to My Drive of Edmodo Classroom. See Fig. 6-14--7.

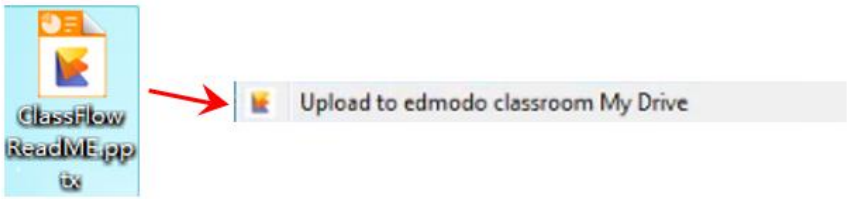


Fig. 6-14-7 My Drive - Quick Upload

Or users can move the cursor to the resource they want to [Share], then right-click and select "Share to local school library". As shown in Fig. 6-14-8.

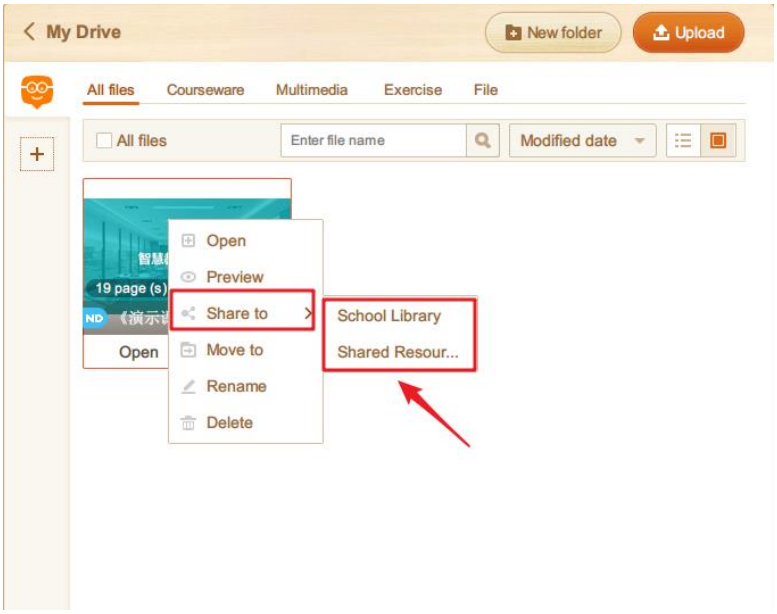


Fig. 6-14-8 My Drive - Share

Or right click the mouse, then click [Move] icon to transfer the file, as shown in Fig. 6-14-9.

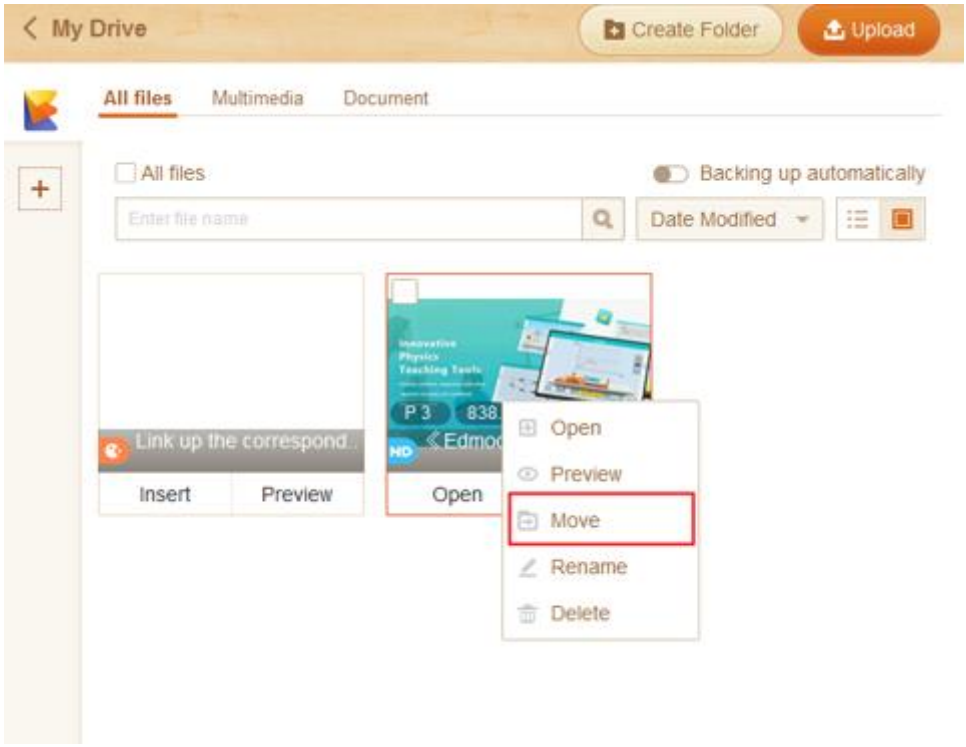


Fig. 6-14-9 My Drive - Move to 2

Files in My Drive support search by file name and quickly locate resources. For

example, do a search by the keyword "example" you can find all files which name contains the word "example". See Fig. 6-14-10.

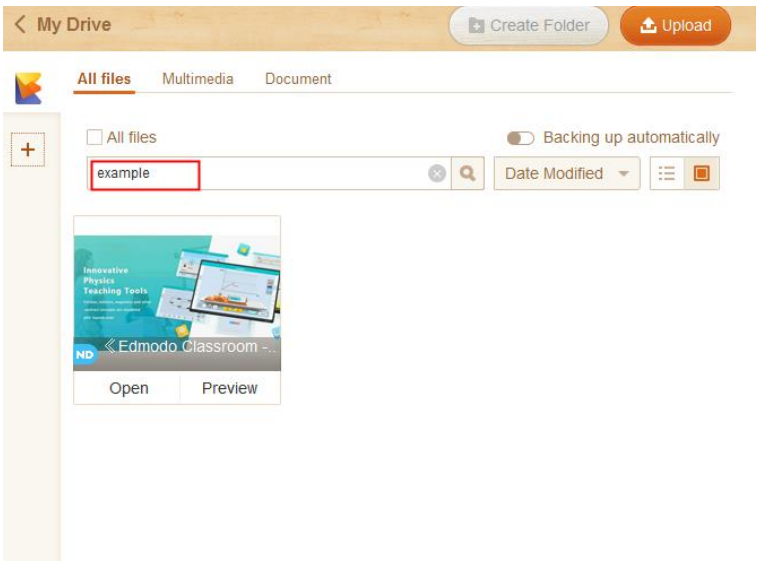


Fig. 6-14-10 My Drive - Search by File Name

My Drive also supports binding with third-party network disk accounts, which conforms to the traditional usage habits of foreign users and facilitates more convenient transfer and sharing. The current version already supports Google Drive, and OneDrive, and more third-party web disks will be available for teachers, as shown in Fig. 6-14-11.

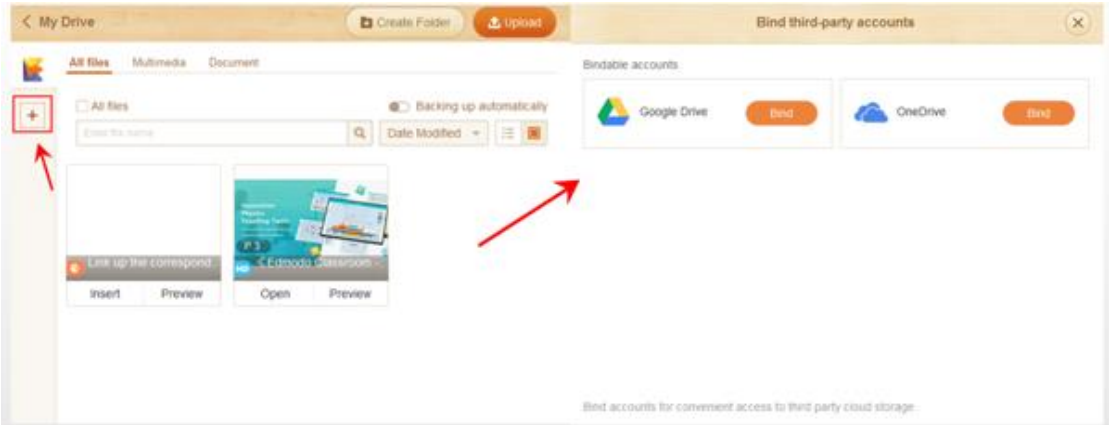


Fig. 6-14-11 My Drive - Binding of Third Party Accounts

To unbind the account, just select the account to be unbind and click “Unbind" in the

same page, then click Confirm in the pop-up window to finish the operation. The corresponding account will move from bound account area to the bindable account area.

6.15 New Exercise

The product provides: Multiple Choice, Fill-in-the-blanks Test, Matching Tests, True-or-false Question, Link up, Cloze and Classification Form, etc. Teachers can click on the “View More Question Types” below to view all question types and manually edit the exercises for use. See Fig. 6-15-1.

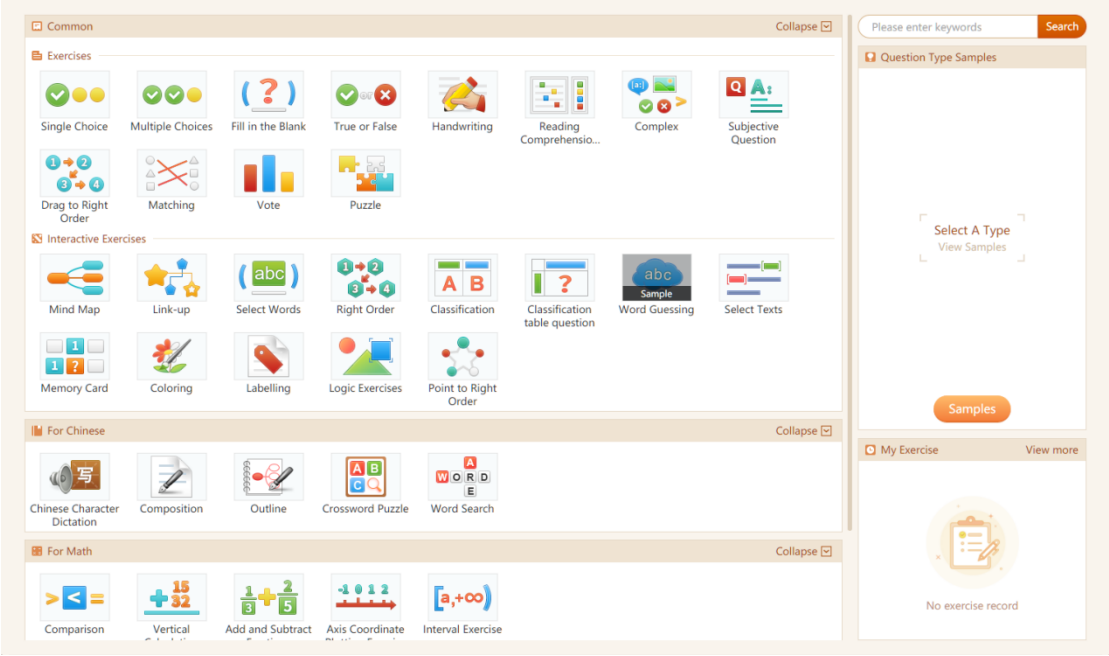


Fig. 6-15-1 New Exercises

The specific introduction and use of the exercises are detailed in Appendix 10.1.

■ Import Samples

Edmodo Classroom allows you to import samples during creating an exercise. There

are two ways to import samples. The first method is directly clicking on the question type to enter the edit page, then clicking Import Example at the top to preview and import default examples set by the system. See Fig. 6-15-2, Fig. 6-15-3.

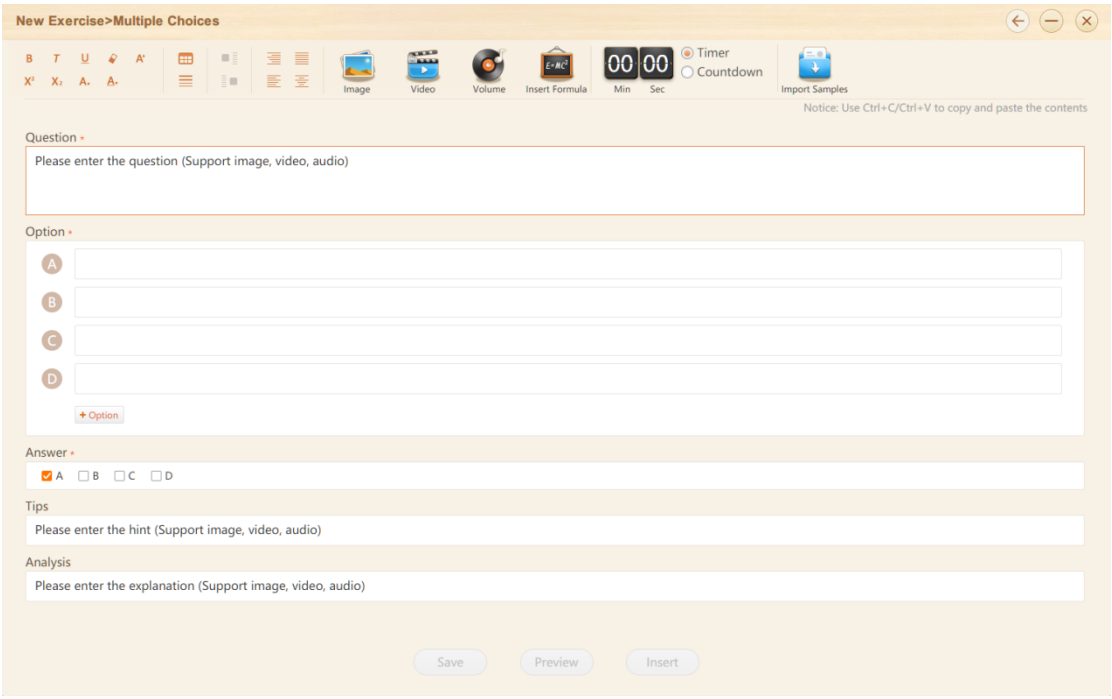


Fig. 6-15-2 Import Samples 1

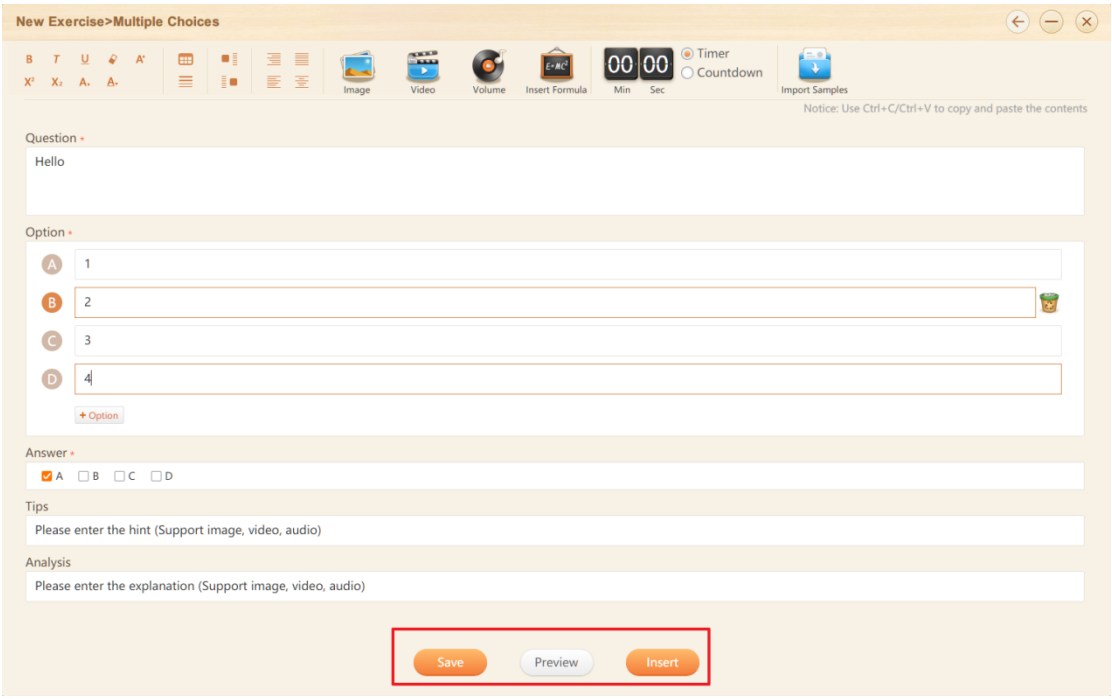


Fig. 6-15-3 Import Samples 2

Another way to import samples is to click New Exercises at the top. Hover the mouse over the question type you want to edit in the question selection page, select Sample under the question type, after which “Editing” and “Example” will appear on the right side of the page, then click Sample to import the default sample. As shown in Fig. 6-15-4.

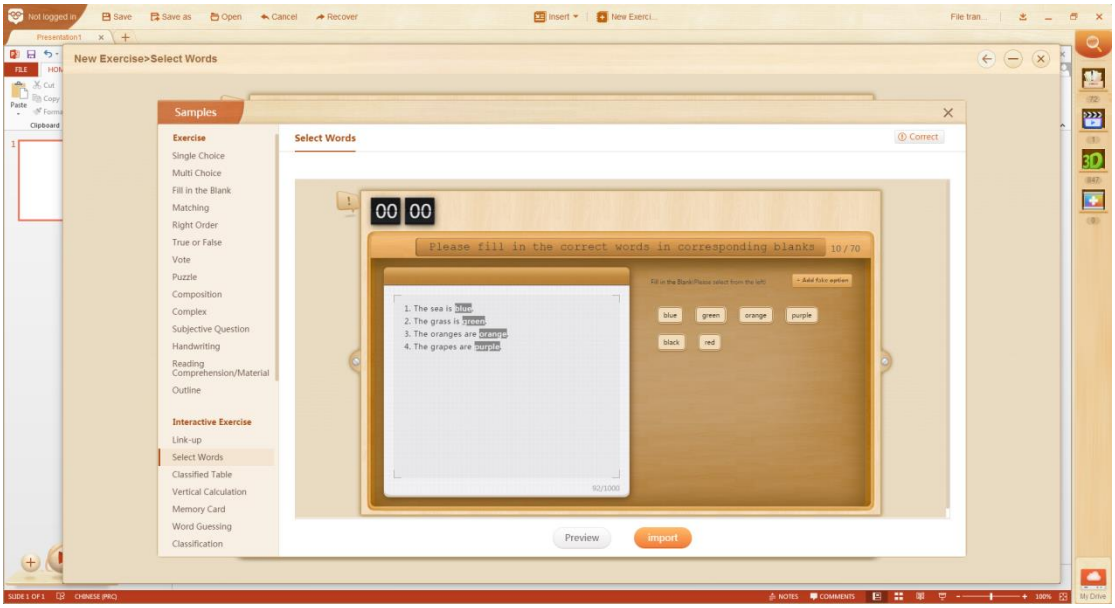


Fig. 6-15-4 Import Samples 3

■ Correct

If you find any problems in the question, click "Error Correction" in the upper right corner of the page to feedback. See Fig. 6-15-5.

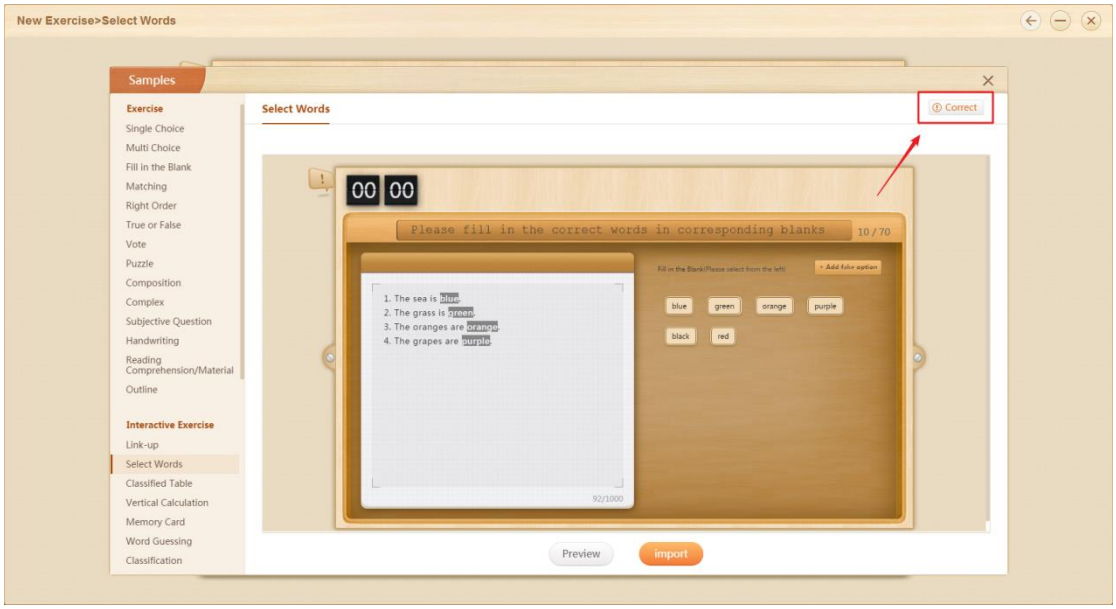


Fig. 6-15-5 Correct

6.16 Insert

Teachers can click the “Insert” button to insert pictures, videos, audio (MP3, wav, etc.) and animation files on the local into the courseware, as shown in Figure 6-16.

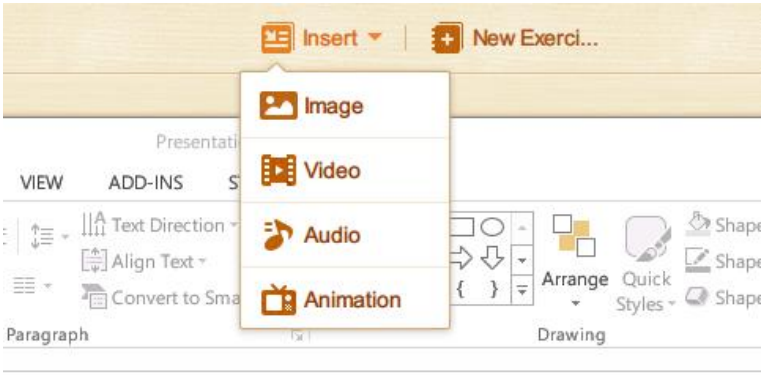


Fig. 6-16 Insert Multimedia

6.17 Storage

6.17.1 Manual save

■ Save function

Click “Save” located at the upper menu bar. A pop-up window will appear, click "OK" and choose a local save path. If your account is logged in, the saved courseware will be automatically uploaded to the network disk. See Fig. 6-17-1-1 for successful upload page.

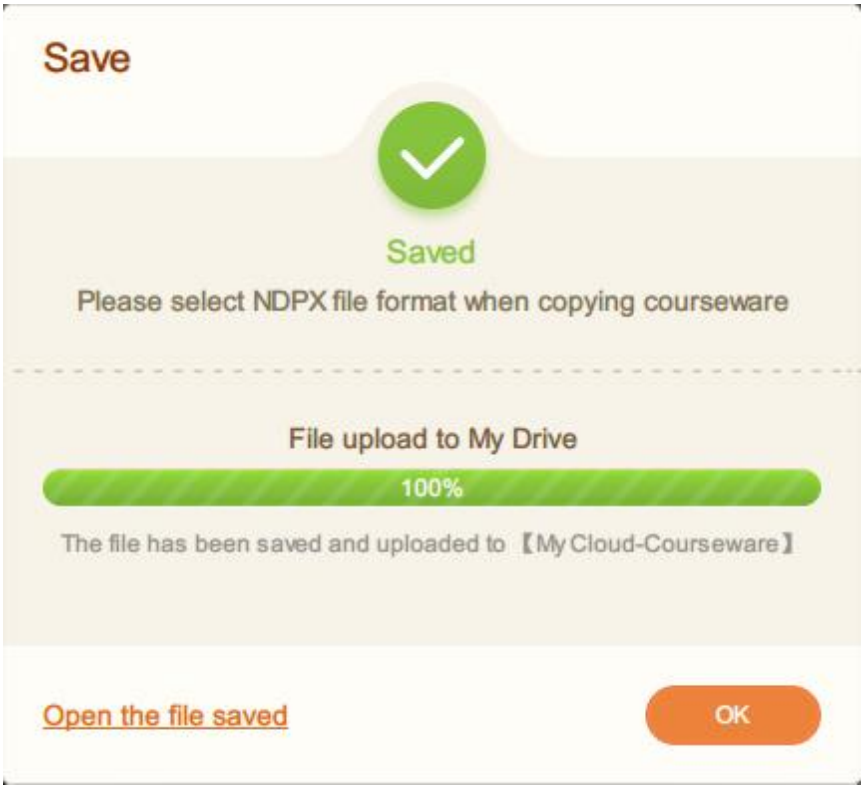


Fig. 6-17-1-1 Saved

Edmodo Classroom can generate two formats of courseware, namely PPT (PPTX) and NDPX. NDPX allows teachers to save audios, videos, 3D resources and other materials that are inserted into their courseware simultaneously. Once the courseware has been saved, relevant resources will be carried by the courseware—which overcomes the problems of regular save options that separately save resources and courseware and makes it more convenient for teachers to prepare lessons (NDPX files can only be opened in Edmodo Classroom). As shown in Fig. 6-17-1-2.

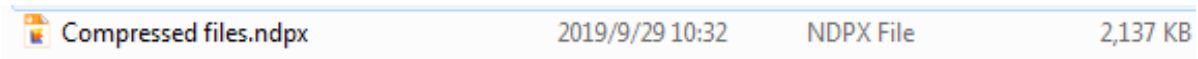


Fig. 6-17-1-2 Format after saving

■ Saving in Office PowerPoint

Teachers are able to save the courseware using Office PowerPoint (PPTX), but this version cannot be uploaded to Netdisk, nor can some of the resources be played back.

Therefore it is recommended to save in NDPX format, as shown in Figure 6-17-1-3.

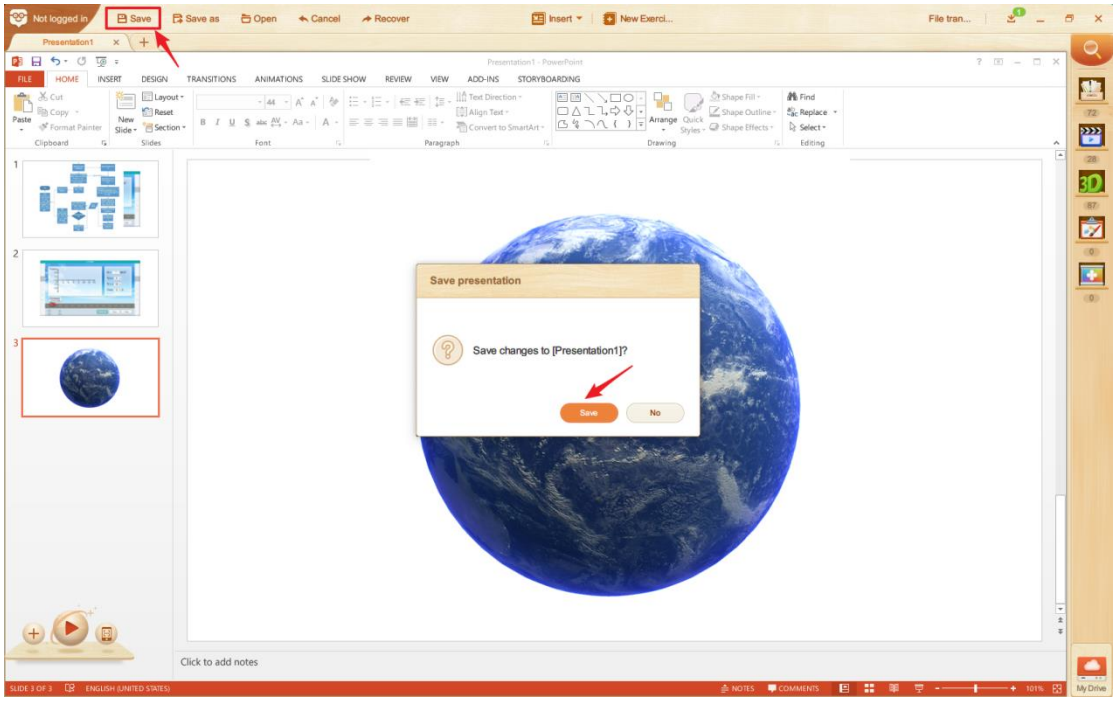


Fig. 6-17-1-3 Save

6.17.2 Save when closing

As shown in Fig. 6-17-2 when closing the courseware, a prompt-up window will appear to ask for saving current file.

If you have logged in, the file will be saved locally and automatically uploaded to your Netdisk; in the case of non-login, the courseware will be saved only locally.

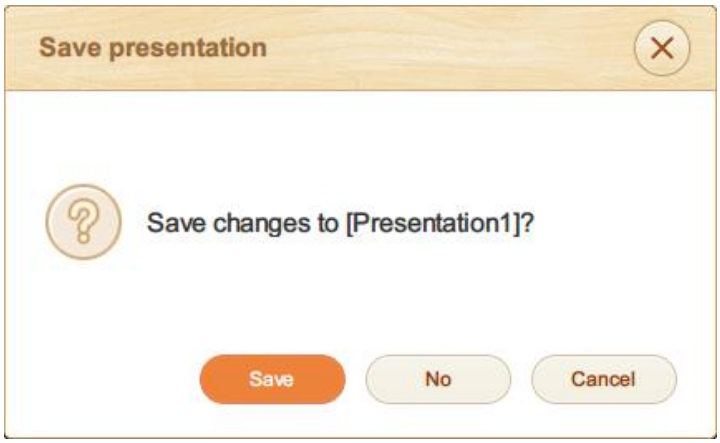


Fig. 6-17-2 Save When Closing

7 In-class Teaching

7.1 Play courseware

Tap "Play" icon in the lower left corner to play the courseware in full screen.

Toolbars on both sides: the full-screen playback interface has two toolbar icons on the left and right sides to facilitate the teacher's operation. As shown in Figure 8-1-1.Functions in the toolbar are successively Subject Tools, Interactive Tools, Arrow, Brush, Eraser, Desktop and Stop Presentation.

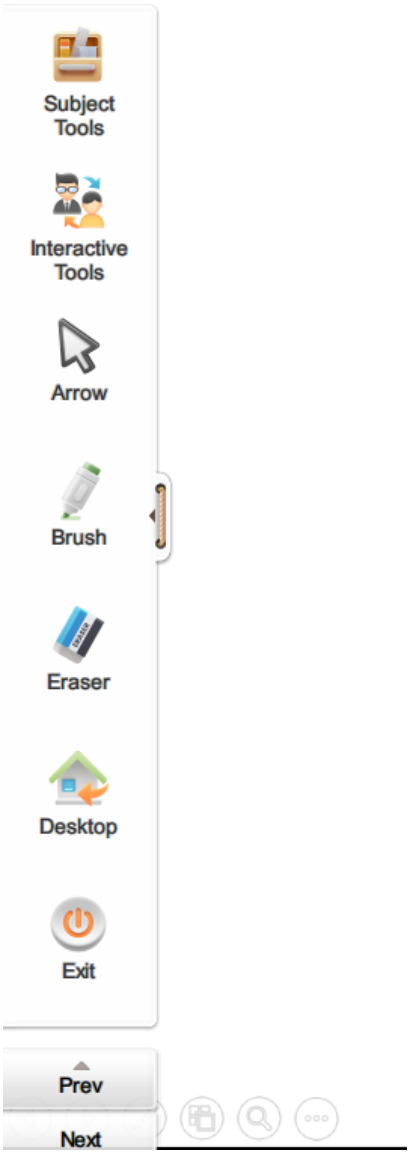


Fig 7-1-1 Full screen play tool bar

Subject Tools

Categorized according to the subject (mathematical subject tools will appear if mathematics is selected during preparation, Chinese language subject tools will appear if Chinese is selected). For details of subject tools, see Appendix 10.2.

Interactive Tools

Interactive tools include Magnifiers, Blackboard, Spotlight, Timer, Roster,, Connect

to Phones,Hightlight to Search, Random Team, Sequence Picker, Random Picker, Team Competition, Commetn, Encourage, Summary. See Figure 7-1-2.

Fig 7-1-2 Interactive Tools

■ Brush, Eraser

As shown in Fig. 8-1-3, use the multi-color brush to take notes on courseware directly.

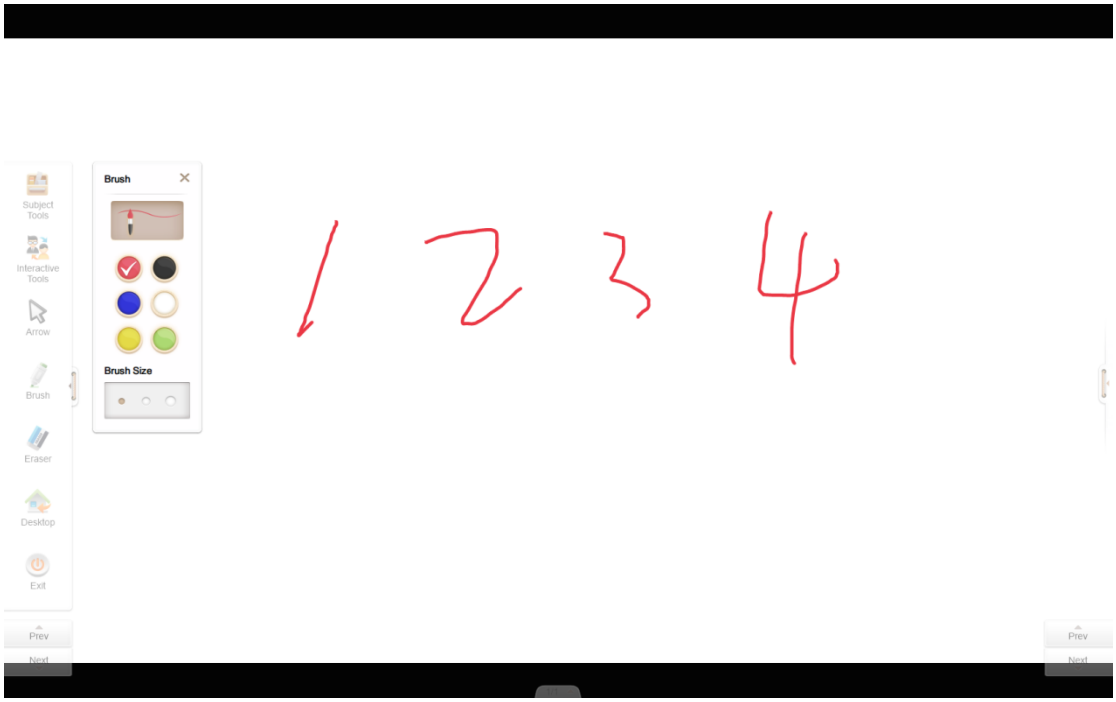


Fig. 7-1-3 Brush

The Eraser is used to wipe off writing made by the Brush so that a teacher can avoid rewriting and correct writing errors in a more efficient way.

7.2 Remote Control

This function allows the user to control PC courseware playback from his/her mobile phone. And PC-side supports optimal courseware thumbnail display on the mobile end according to the resolution of the mobile, therefore enhancing the clarity of courseware display on the mobile terminal (this high-definition function requires upgrading the mobile software to V1.6.1 or above). See Fig.7-2.

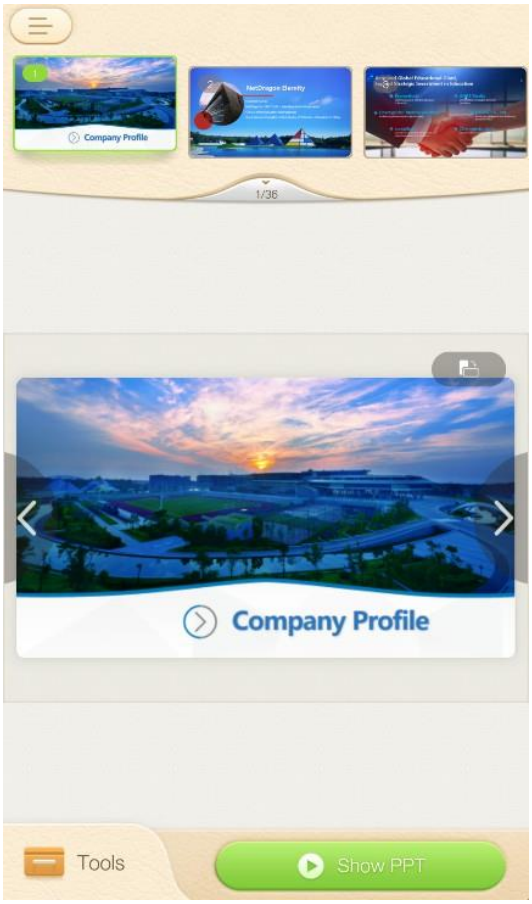


Fig.7-2 HD Picture Function

7.2.1 Start showing

After connecting successfully, Tap Start showing icon at the bottom of the phone screen to start full-screen playback in the computer. See Fig.7-2-1-1.

Fig.7-2-1 Start Showing Icon

7.2.2 Page turning

As shown in Fig. 7-2-2, use the left and right icons on the phone screen to synchronously control the page turning of computer-based playback.

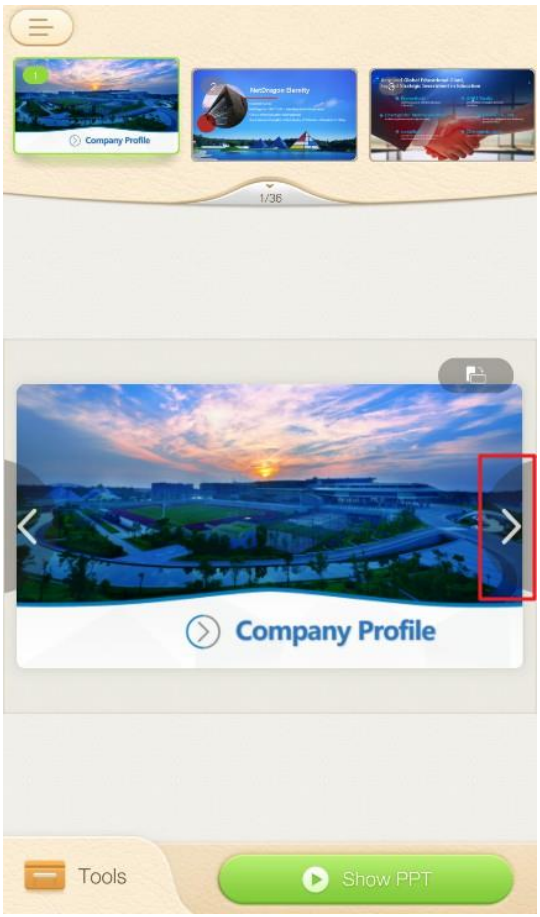


Fig. 7-2-2 Page Turning Icons

7.2.3 End

The “END” icon appears in the upper right corner of the screen upon completion of playback, tap it to stop the presentation. See Fig. 7-2-3.

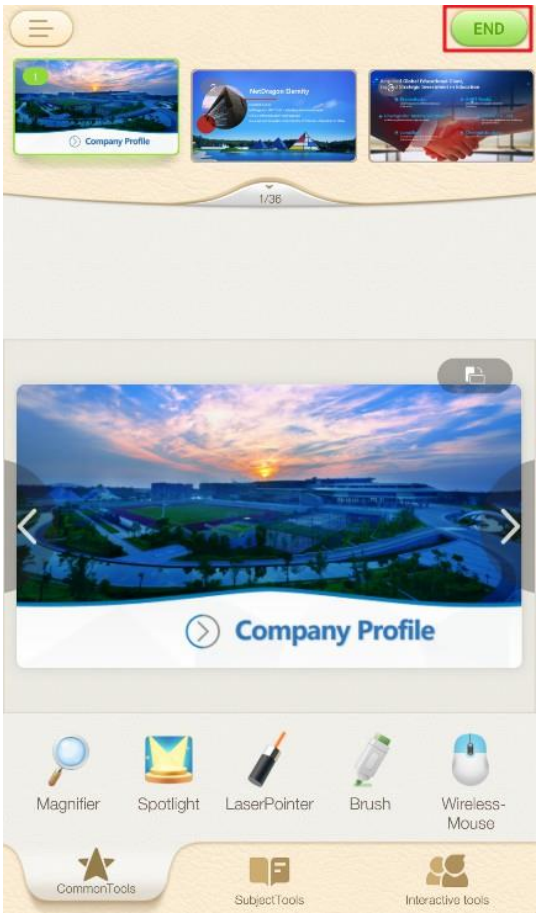


Fig. 7-2-3 End

7.2.4 Jump

Swipe thumbnails at the top of the screen and click to go to the corresponding page. See Fig. 7-2-4.

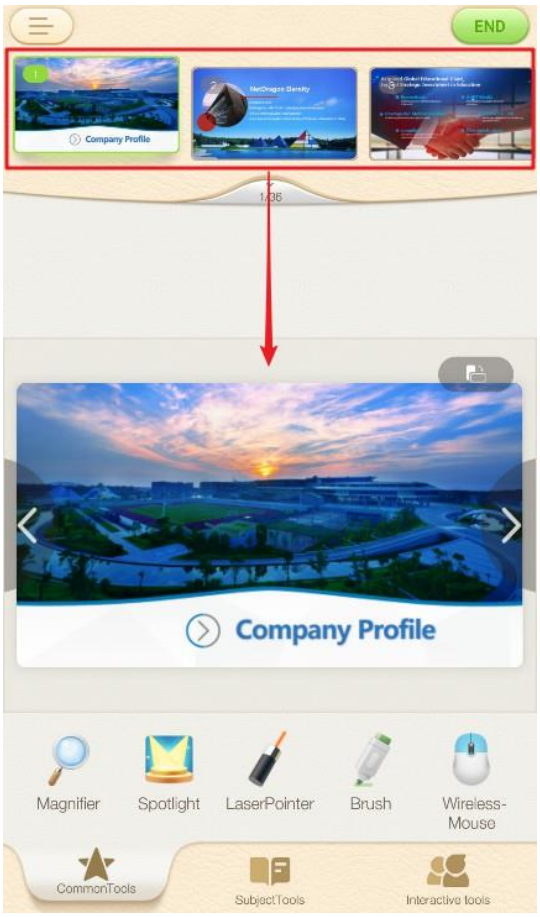


Fig. 7-2-4 Jump to Page

7.2.5 Magnifier

Tap magnifier icon to activate the magnifier at the computer end. See Fig. 7-2-5-1 and Fig. 7-2-5-2.

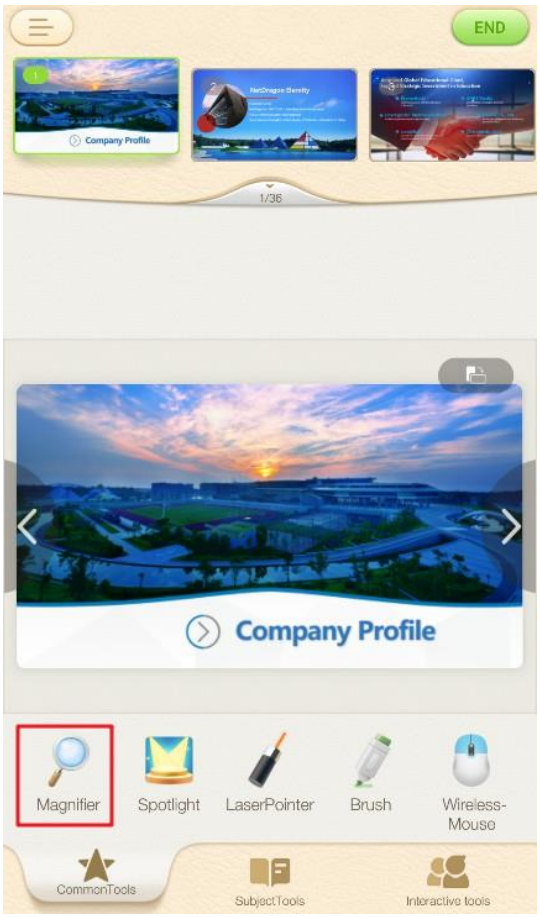


Fig. 7-2-5-1 Mobile Magnifier

Fig. 7-2-5-2 Synchronous Magnifier

7.2.6 Spotlight

Click spotlight icon to activate the spotlight at the computer end. See Fig. 7-2-6-1 and Fig. 7-2-6-2.

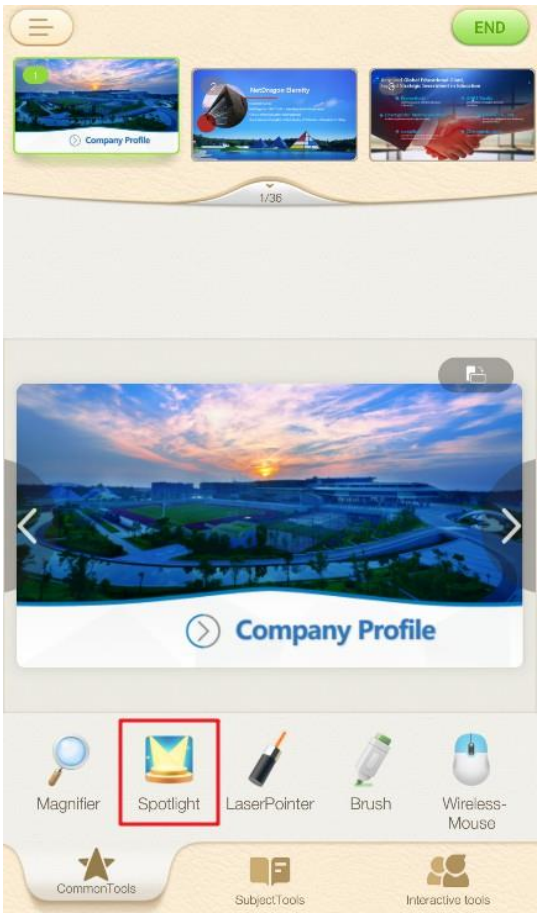


Fig. 7-2-6-1 Spotlight

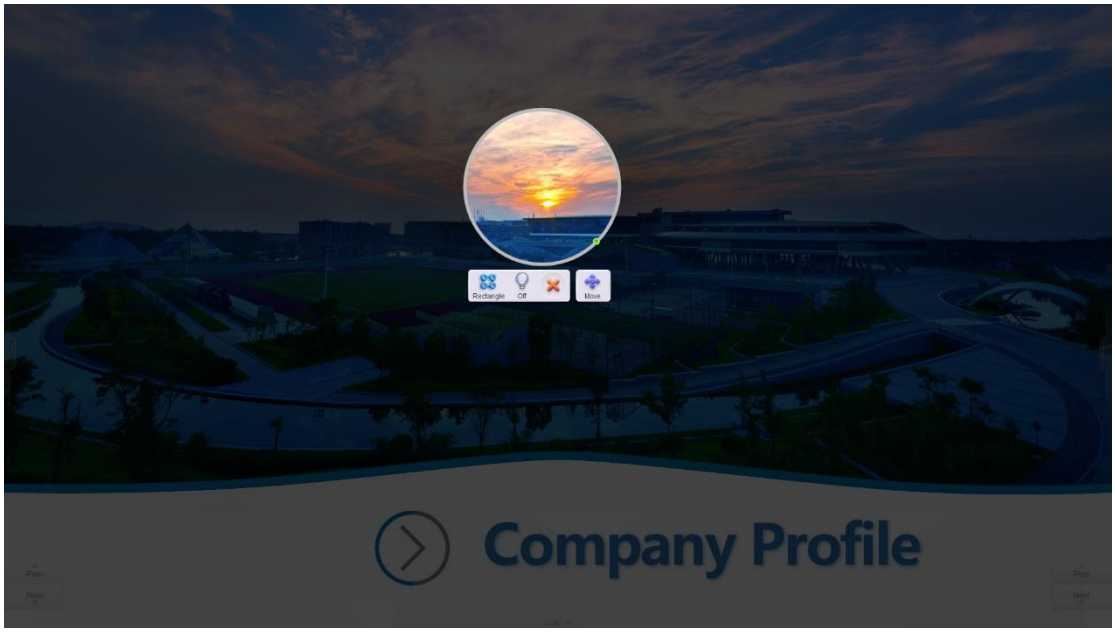


Fig. 7-2-6-2 Synchronous Spotlight

7.2.7 Laser pointer

As shown in Fig. 7-2-7-1, tap the laser pointer icon to turn on this function.

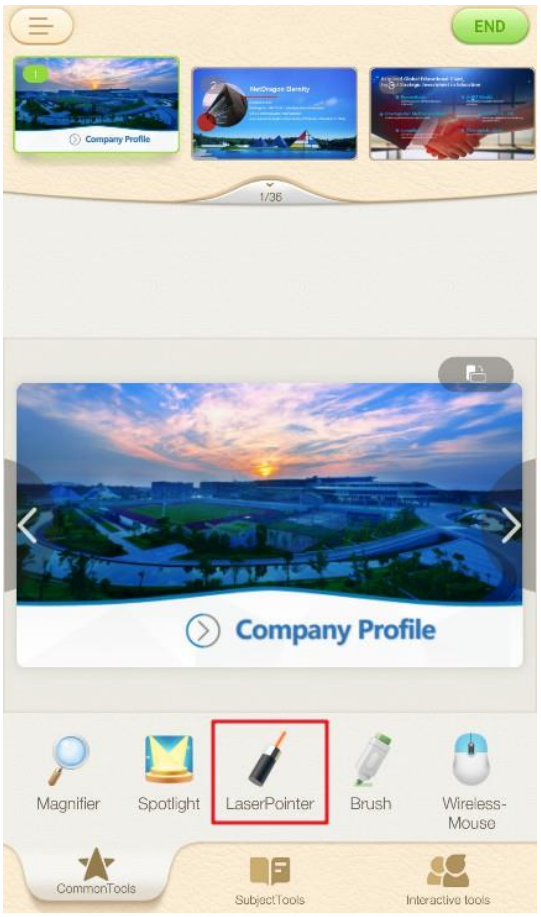


Fig. 7-2-7-1 Laser Pointer

Laser pointer function has two control modes, one of which is wave mode: As shown in Fig. 7-2-7-2, in order to control the laser point in this mode, the user just need to press and hold the screen, then wave the phone accordingly.

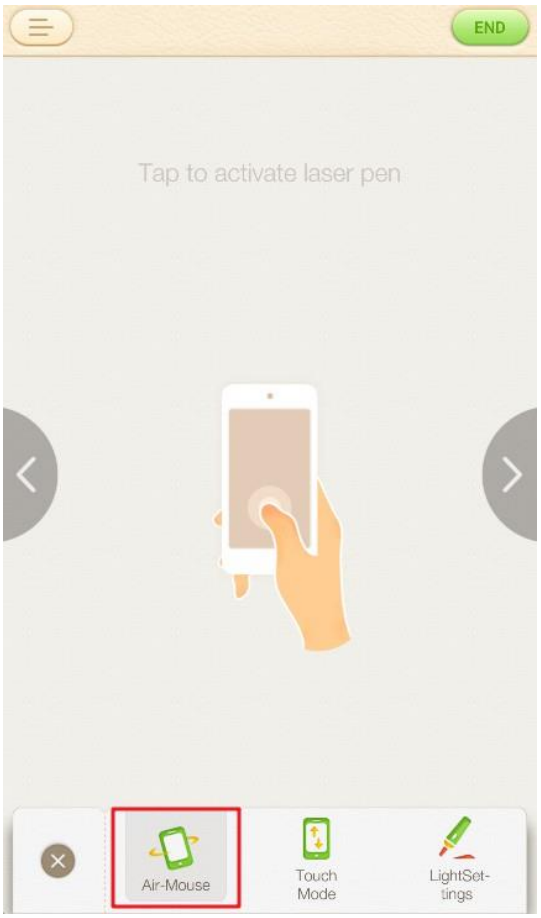


Fig. 7-2-7-2 Air Mouse

The second mode is Touch Mode: In this mode, the user can control the laser pointer by simply swiping on the screen of the cellphone. See Fig. 7-2-7-3.

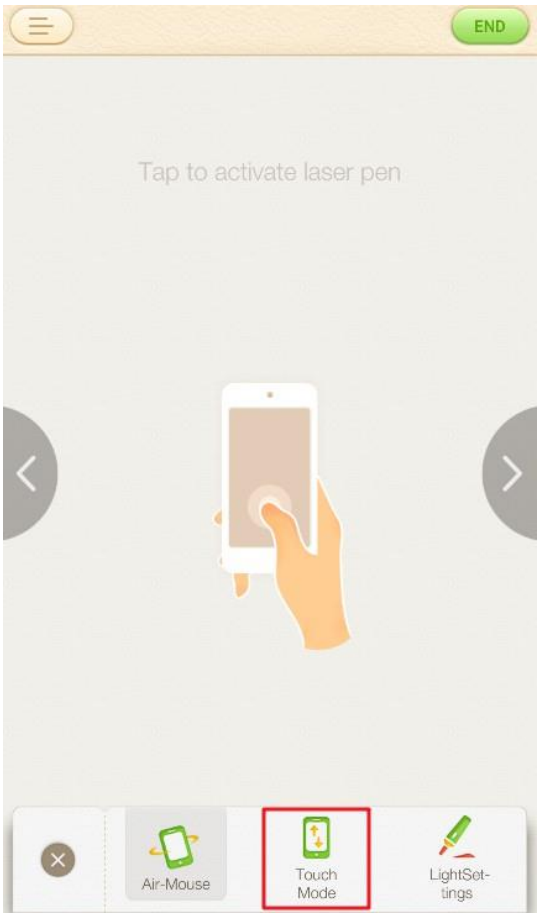


Fig. 7-2-7-3 Touch Mode

As shown in Figure 7-2-7-4, you can also choose the light beam color (colorful meteors, novel fireworks effects) of the laser pointer to attract students' attention.

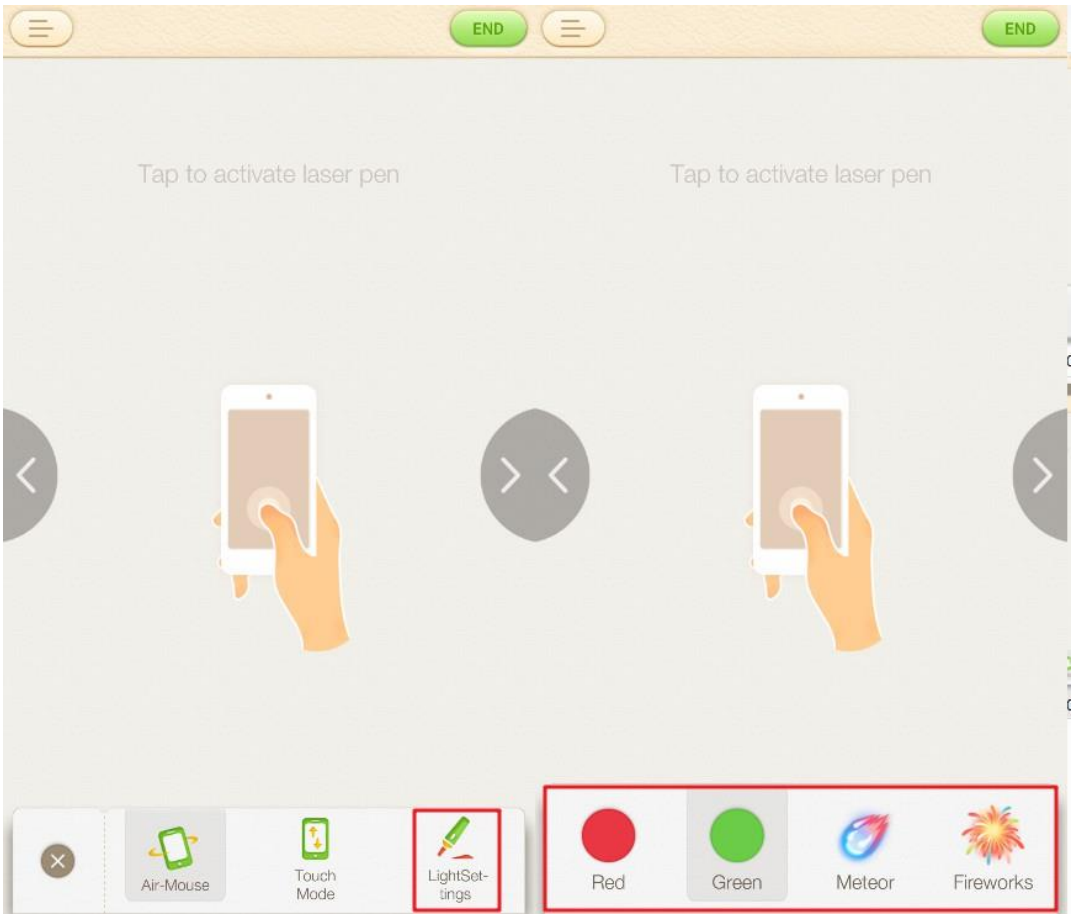


Fig. 7-2-7-4 Light Beam Setting

The beam effect can be synchronized on the PC side as shown in Fig. 7-2-7-5.

Fig. 7-2-7-5 Synchronous Beam Effect

7.2.8 Brush

Tap on the brush to draw directly on the phone, the drawing effect will be synchronized to the PC. When you start using the brush, the app will automatically switch to landscape mode (the brush traces generated from the mobile end will be cleared after exiting the full screen playback). See Fig. 7-2-8-1and Fig. 7-2-8-2.

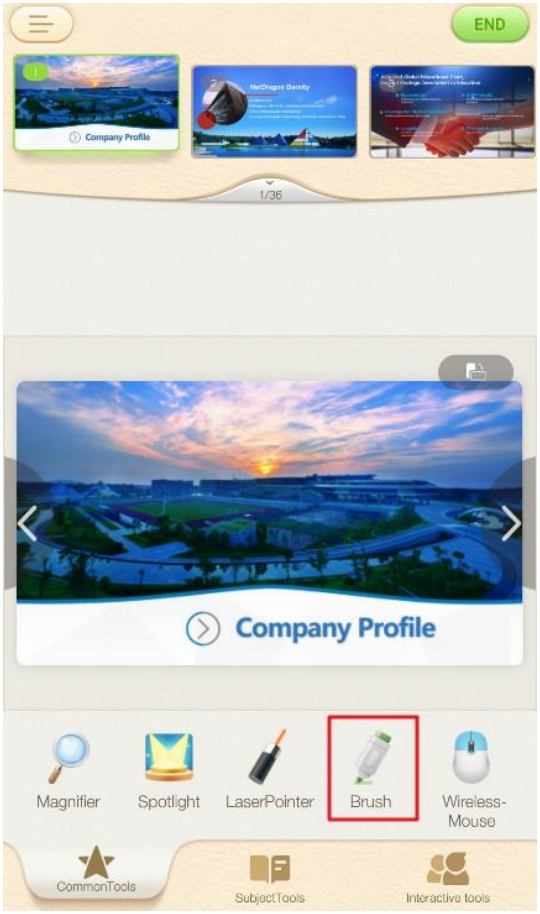


Fig. 7-2-8-1 Brush

Fig. 7-2-8-2 PC Synchronized Drawing Effect

7.2.9 Subject tools

Use the app to control the subject tools on the PC side, including: balance, ball drawing, dice, planting, graphic segmentation, simulation clock, etc., See Fig. 7-2-9

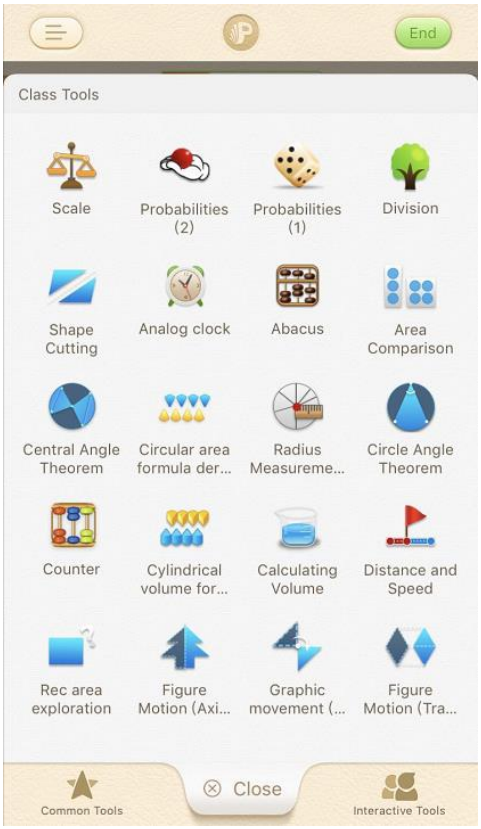


Fig. 7-2-9 Subject Tools

7.2.10 Encouragement

Tap Encourage to choose between three interactive effects and corresponding animations will be simultaneously presented the on the PC courseware. See Fig. 7-2-10-1 and 7-2-10-2.

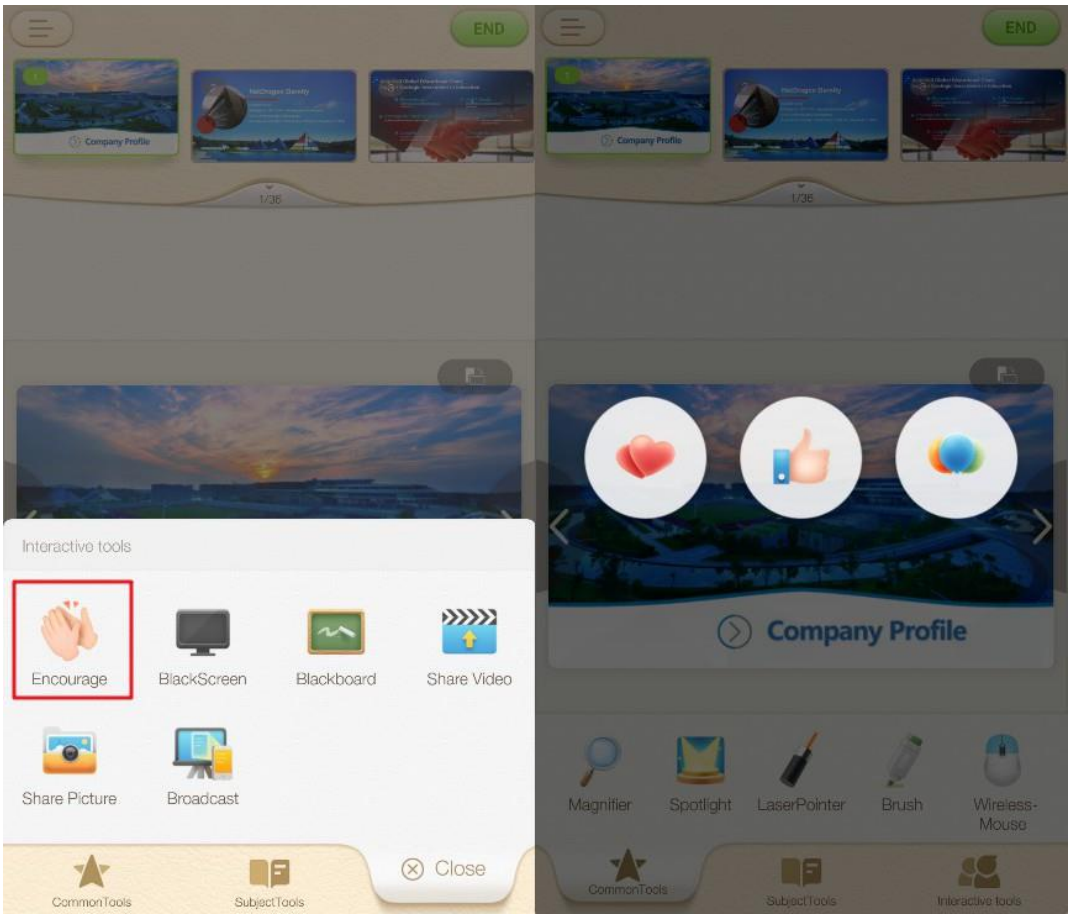


Fig. 7-2-10-1 Encouragement

Fig. 7-2-10-2 Simultaneous Presentation on PC

7.2.11 Black Screen

In order to facilitate teaching operations, the user can tap the black screen to achieve black screen effect on PC. See Fig. 7-2-11-1 and 7-2-11-2.

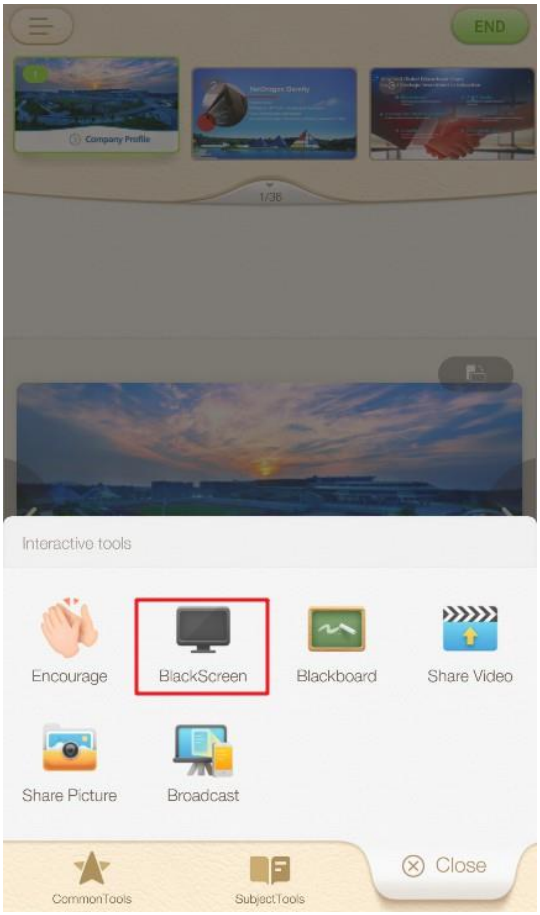


Fig. 7-2-11-1 Black Screen Tool

Fig. 7-2-11-1 Synchronized Black Screen on PC

7.2.12 Blackboard

Tap blackboard icon of the App to launch the blackboard at the computer end. See Fig. 7-2-13-1 and Fig. 7-2-13-2.

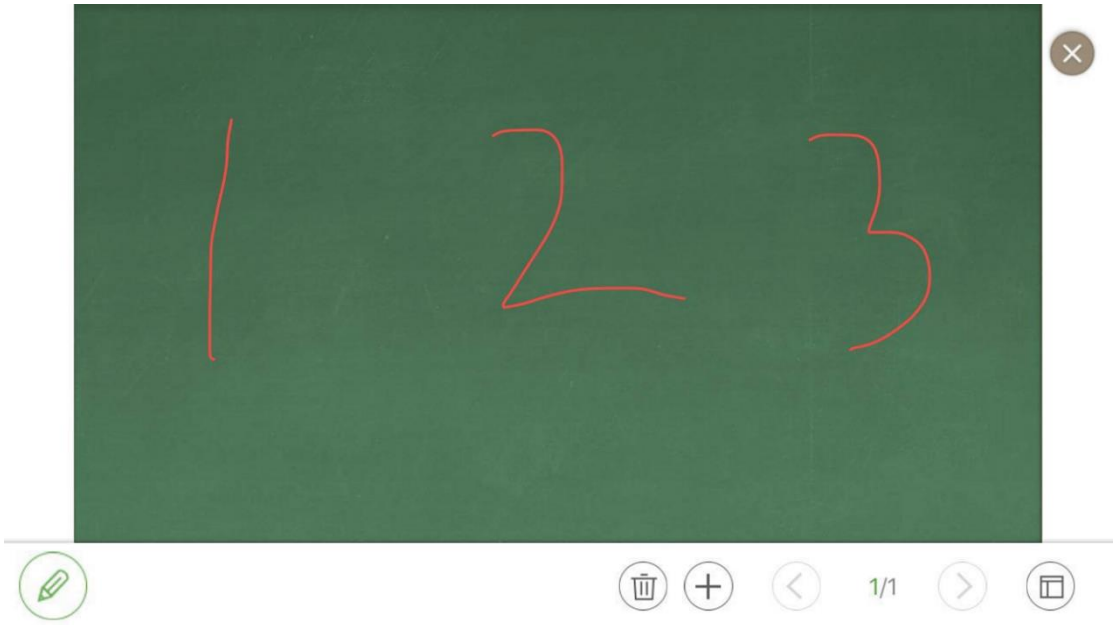


Fig. 7-2-12-1 Blackboard

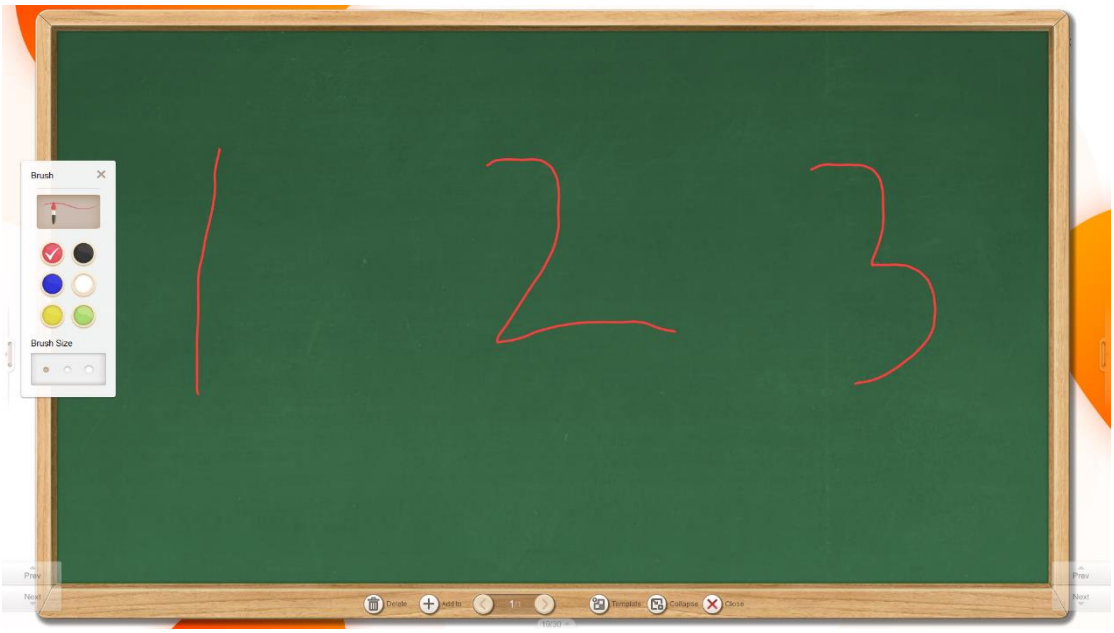


Fig. 7-2-12-2 Synchronized Blackboard on PC

7.2.13 Quick Video Upload

Tap Quick Video Upload to record a video or select one from the mobile then upload it to PC. Successfully uploaded video(s) will be shown on the PC screen. The user can play or pause the video(s) or conduct other related operations (quick video upload requires upgrading mobile software to V1.6.1 or above). See Fig. 7-2-13-1 and 7-2-13-2.

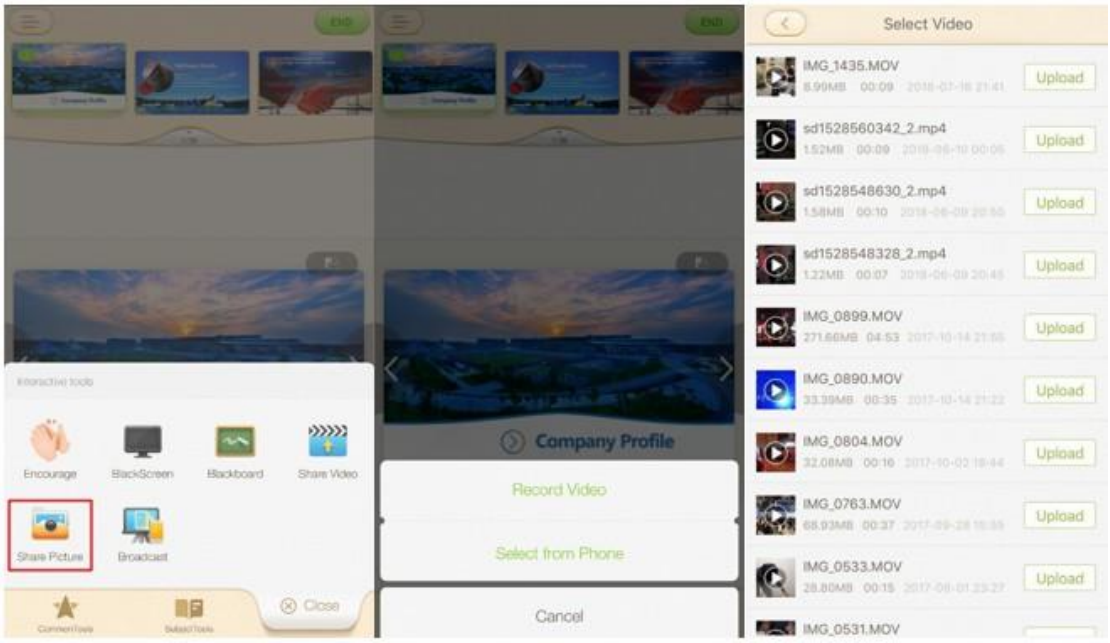


Fig. 7-2-13-1 Video Upload

Fig. 7-2-13-2 Video Synchronized to PC

7.2.14 Wireless-Mouse

Tap Toolbox – Wireless-Mouse, then operate according to the prompt. In the central touch area, single finger swipe can be used to control mouse position. User can tap,

double tap or use other gestures to perform "left button" functions. See Fig. 7-2-14-1.

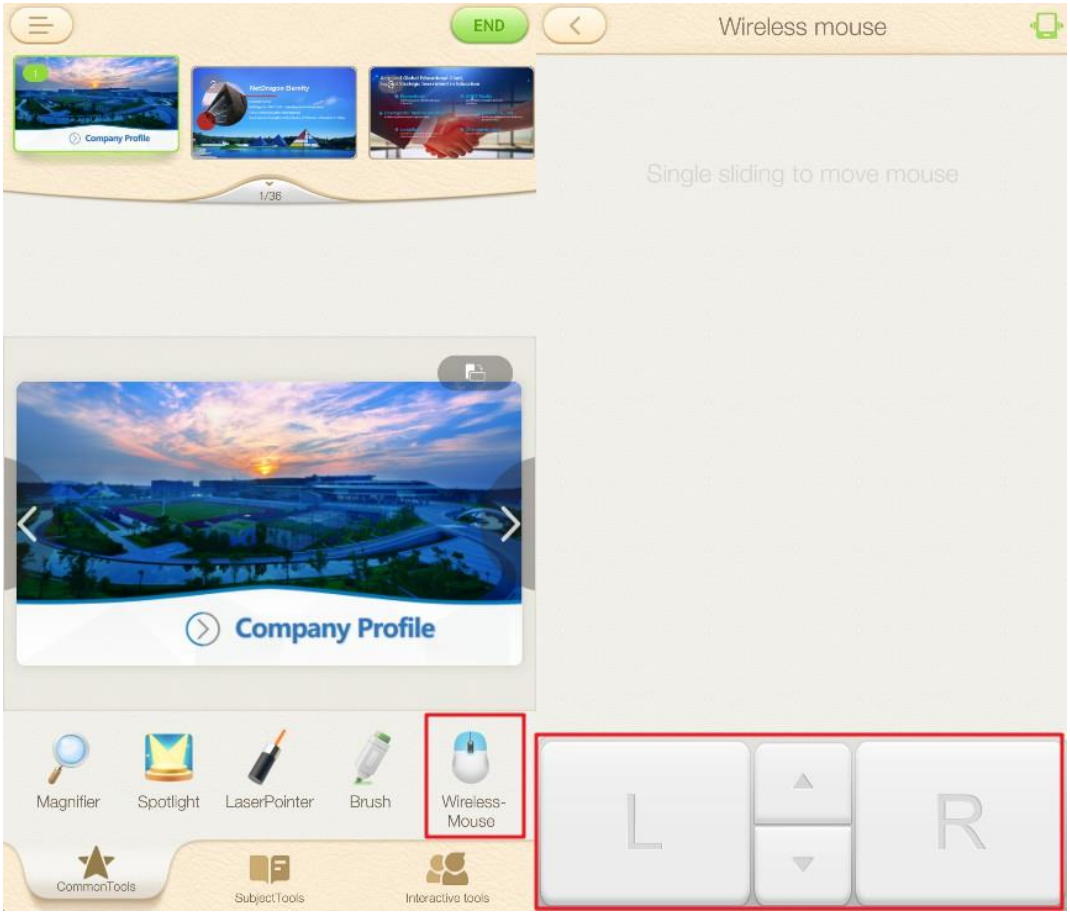


Fig. 7-2-14-1 Wireless-Mouse

Mouse function keys are displayed at the bottom. The three function keys are left button, right button and mouse wheel. Tap with one finger to achieve “up and down scrolling” of the page. (Note: In the touch area, you can use the two-finger slide to perform “mouse wheel” scrolling function.) Scroll direction: When you slide up and down with two fingers, the page also scrolls up and down. At the same time, the teacher can turn on and off vibration function by clicking the icon in the upper right corner of the menu bar. See Fig. 7-2-14-2.

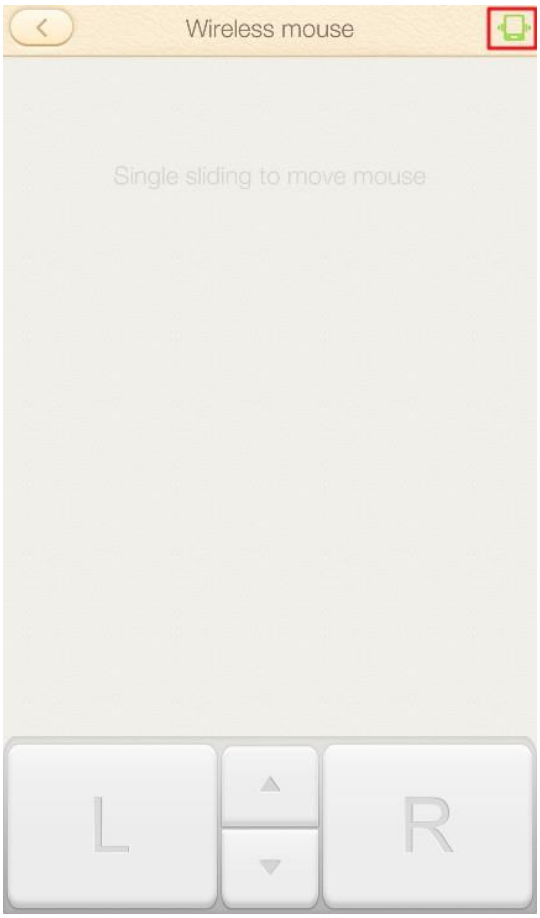


Fig. 7-2-14-2 Wireless-Mouse Control

7.2.15 Instant Picture Upload

Tap Instant Picture Upload to take a photo or select one from the album photo, then upload it to PC. Successfully uploaded photo(s) will be shown on the PC screen, which can be further edited by the user. See Fig. 7-2-15-1 and 7-2-15-2.

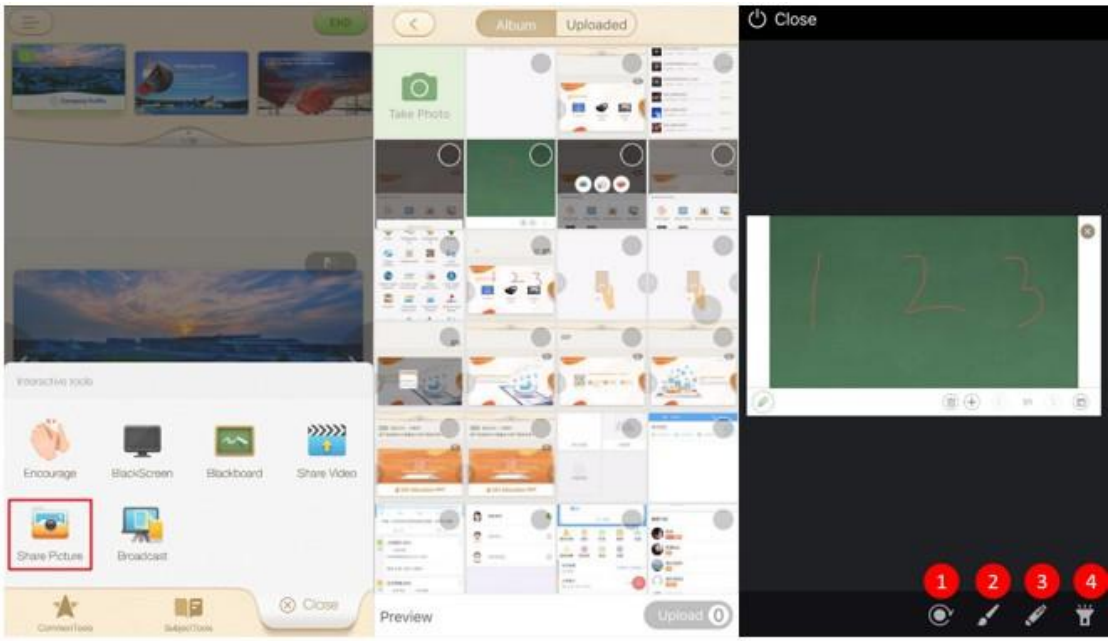


Fig. 7-2-15-1 Instant Picture Upload

No.	Area Name	Direction for Use
1	Rotate	Rotate the picture 90 ° clockwise.
2	Brush	Activate the brush function and make annotations on the picture.
3	Laser pointer	Activate the laser pointer function.
4	Spotlight	Activate the spotlight function.

Table 7-2-15-1 Instant Picture Upload

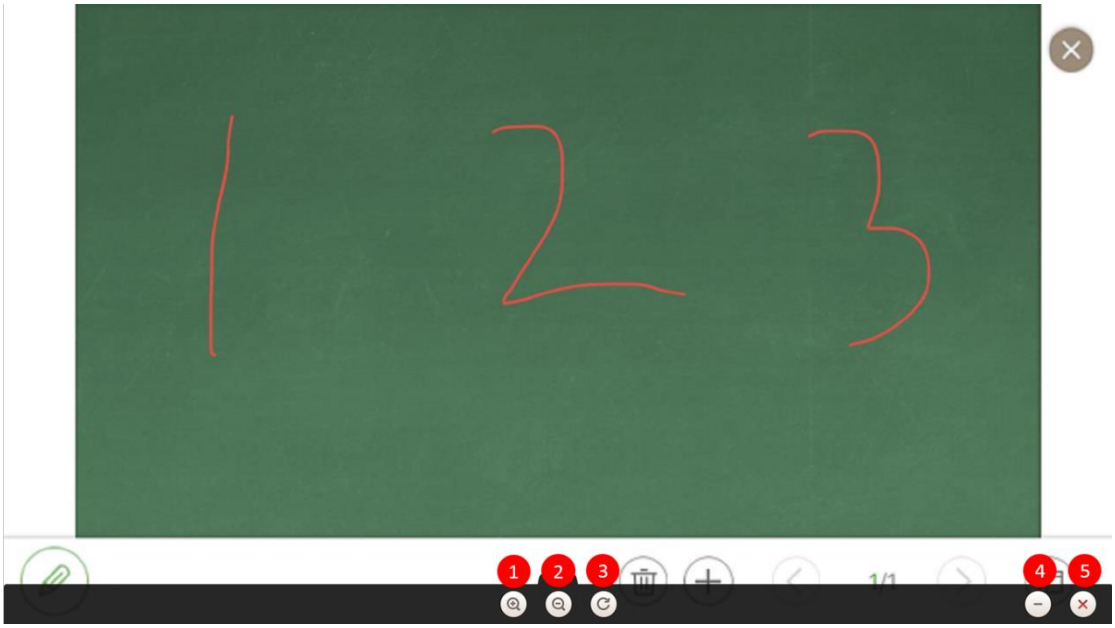


Fig. 7-2-16-2 Pictures Uploaded to PC

No.	Area Name	Direction for Use
1	Zoom in	Click to zoom in on the picture.
2	Zoom out	Click to zoom out on the picture.
3	Rotate	Rotate the picture 90 ° clockwise.
4	Minimize	Minimize the tool.
5	Close	Close the tool.

Table 7-2-15-2 Pictures Uploaded to PC

Instant Picture Upload supports simultaneous upload of up to 4 pictures. Successfully uploaded pictures are displayed on the PC (either separately or all together). See Fig. 7-2-15-3.

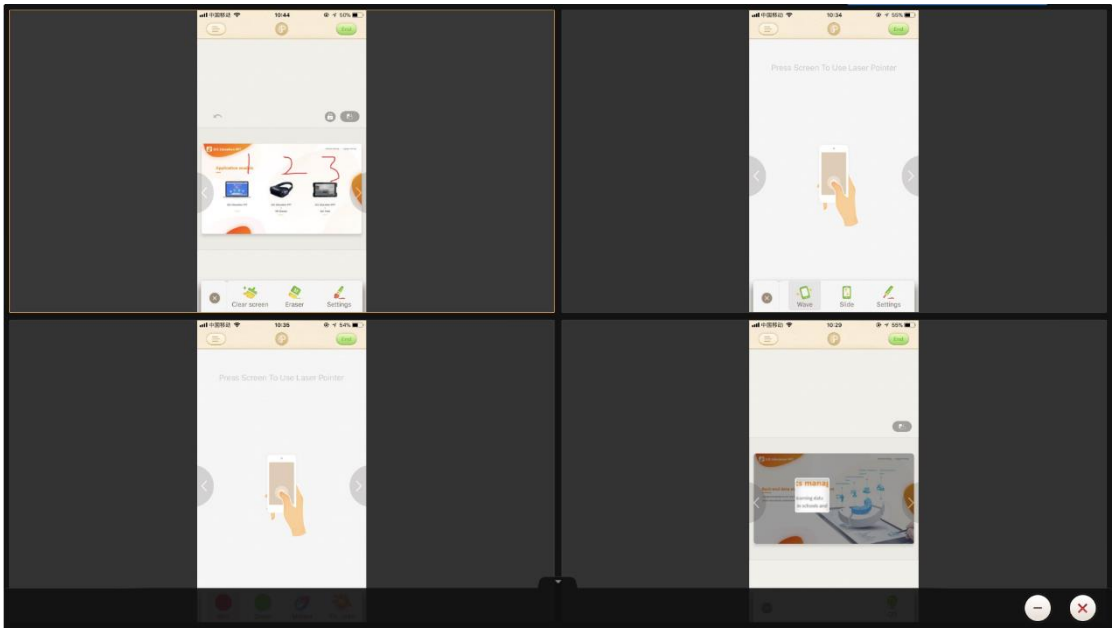


Fig. 7-2-15-3 Pictures Uploaded to PC - Simultaneous Display

7.2.16 Screen Projection (Only supports Android)

When your phone and the computer are connected to the same local network, you can project your phone screen in real time (including pictures, documents, courseware, and applications) (only portrait view is supported as of now).Tap Toolbox-Screen Projection, then select “Start screen projection”. Tools such as laser pointer, brush, eraser, writing pad and screen save are available during screen cast. Click “Exit screen cast” to exit the screen cast. See Fig. 7-2-16-1 and Fig. 7-2-16-2.

Fig. 7-2-16-1 Screen Projection

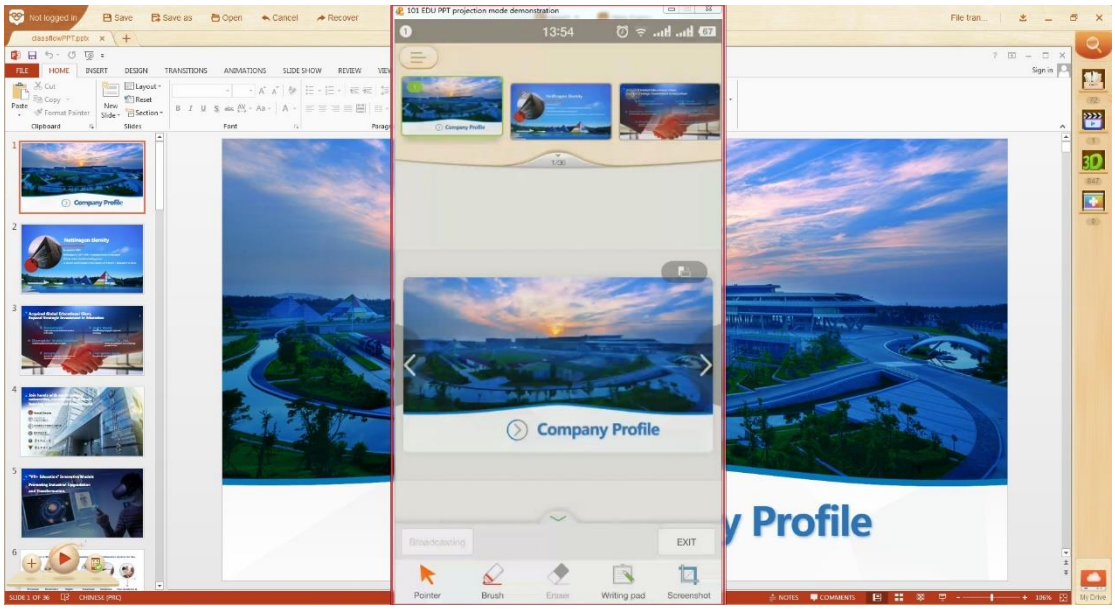


Fig. 7-2-16-2 Screen Projection Effect on PC Screen

8 Account

8.1 Sign up

8.1.1 Sign up via PC

Open up the Edmodo Classroom interface, find the login page and select Register Now. Enter your mobile phone number/e-mail address, password and verification code to register a new user account. See Fig. 8-1-1-1.

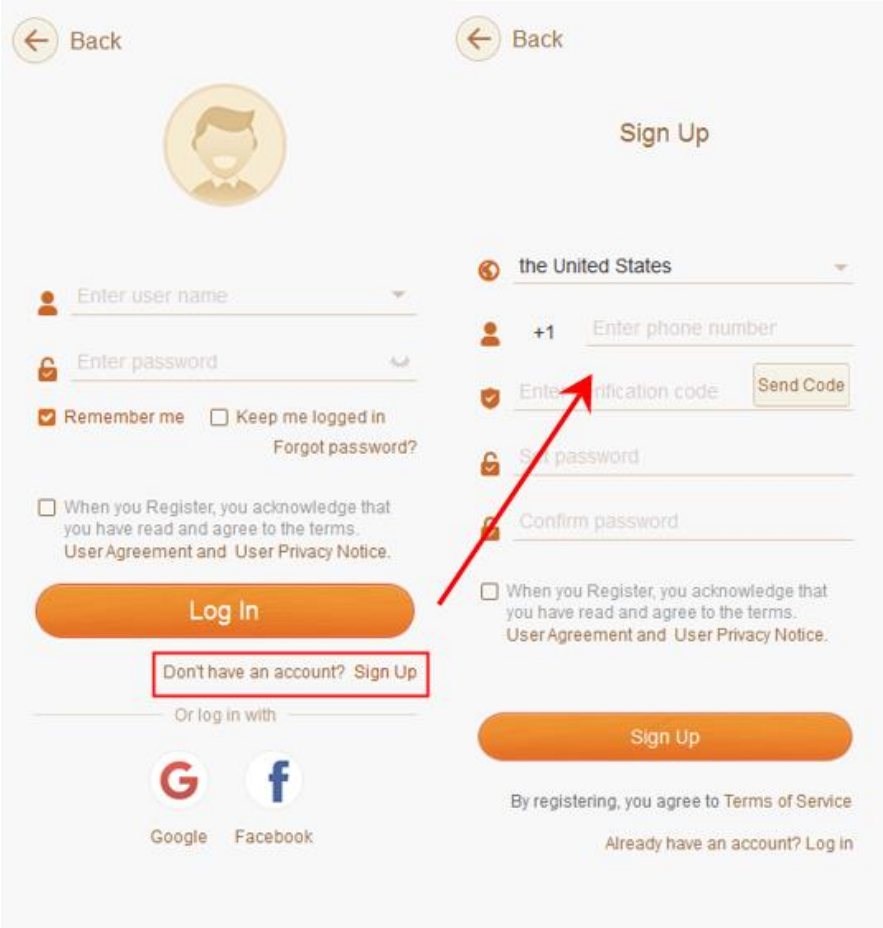


Fig. 8-1-1-1 Sign Up

Edmodo Classroom supports registering with mobile phone numbers of different countries. Currently supported countries and regions include: China, Hong Kong,

Taiwan, USA, Thailand, Turkey and Russia. Select the matching country code when registering, as shown in Fig. 8-1-1-2.

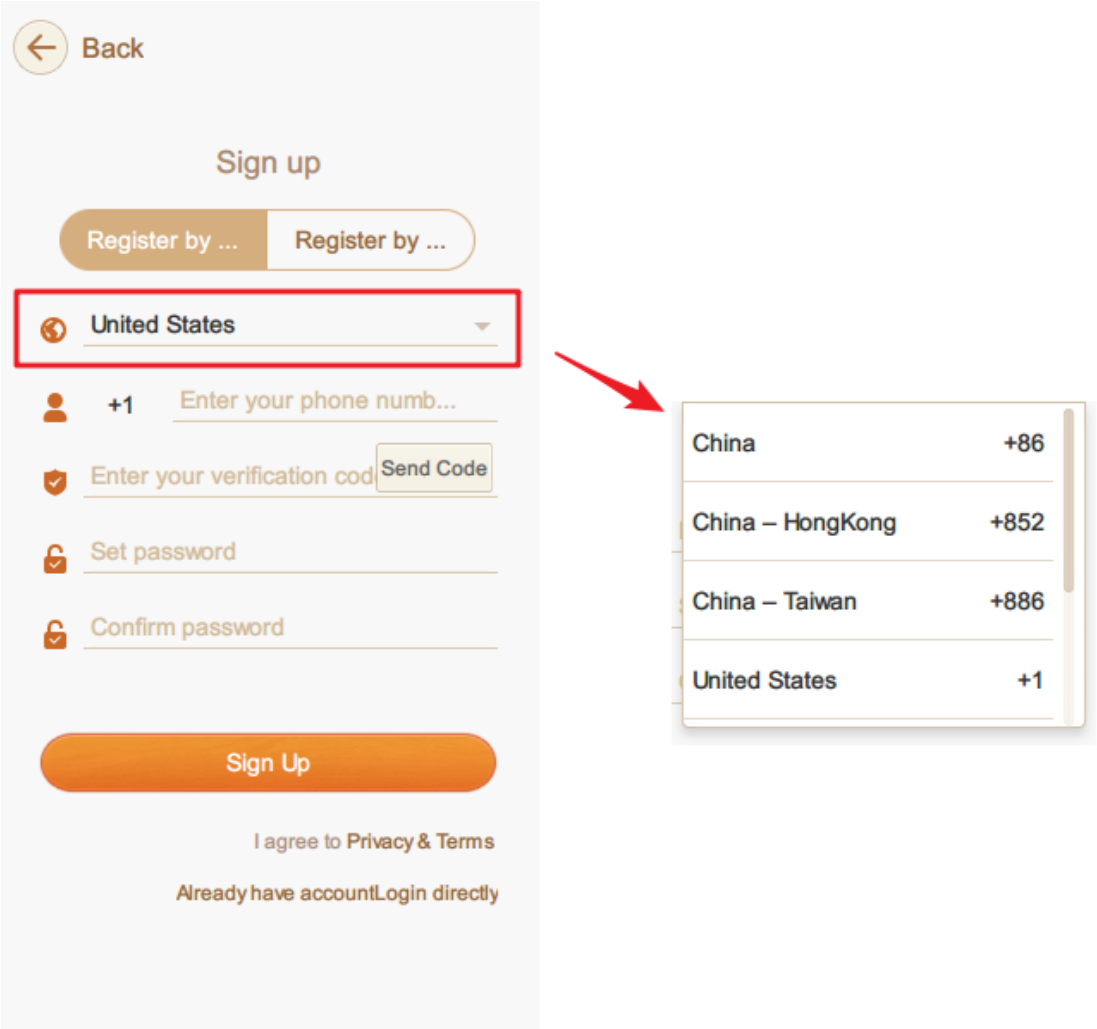


Fig. 8-1-1-2 Select Country Code

8.1.2 Sign up via phone

Click the menu icon in the upper left corner of the software, then click Log In on the pop-up page to log in or register. If there is no account, you can click the registration icon in the upper right corner of the login page, enter the account number, password, then confirm the password and verify the mobile phone number, as shown in Fig. 8-1-2.

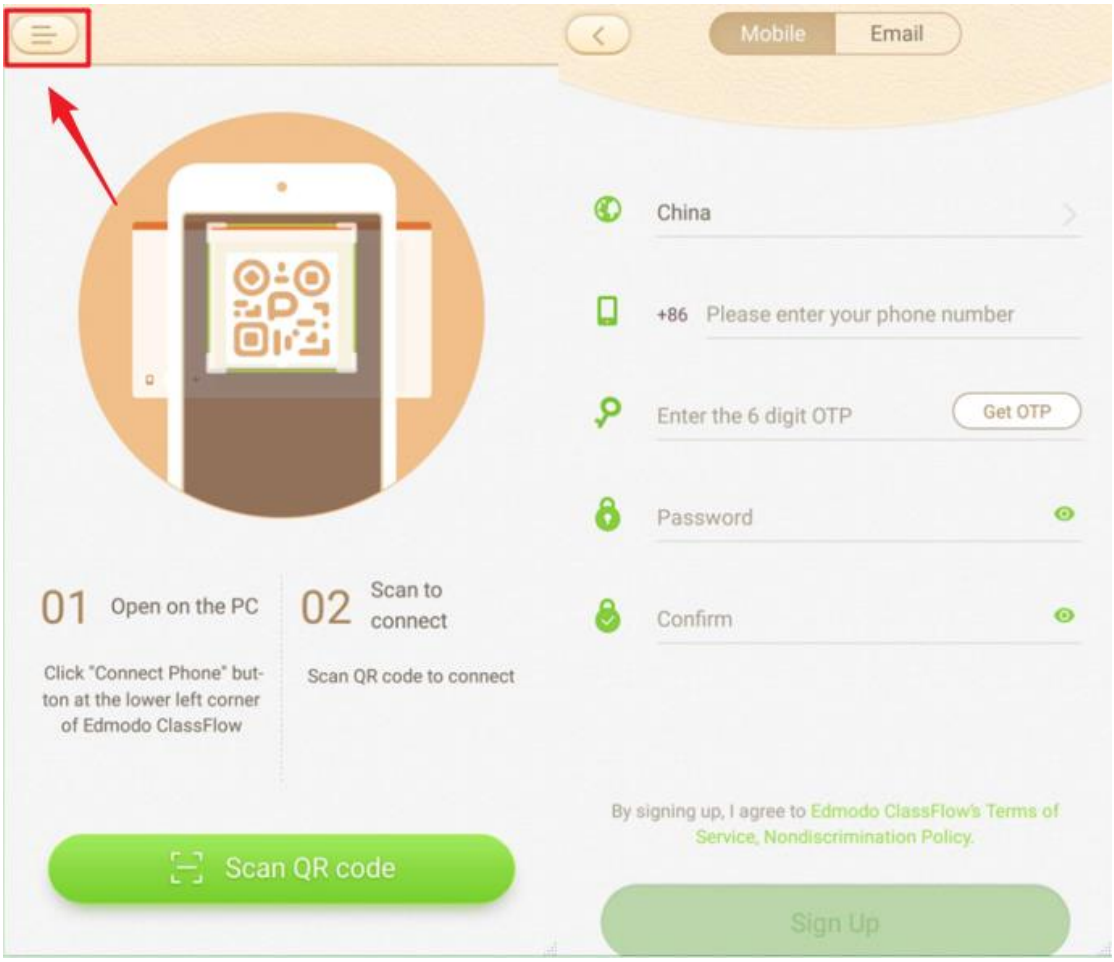


Fig. 8-1-2 Sign Up via Phone

8.2 Login

8.2.1 Login via PC

Click the Login icon in the upper left corner of the Edmodo Classroom interface; enter your account name and password, and click the Login icon to log into Edmodo Classroom.

In addition to logging in with Edmodo Classroom account and password, the application also supports login using other accounts such as Weibo, QQ, WeChat and other third parties.

Select Remember Password and Auto Login if you like. Select Remember Password to avoid typing the password during the next login; turn on Auto Login and the system will automatically open Edmodo Classroom and login to the application with the current account name and password upon booting. See Fig. 8-2-1-1.

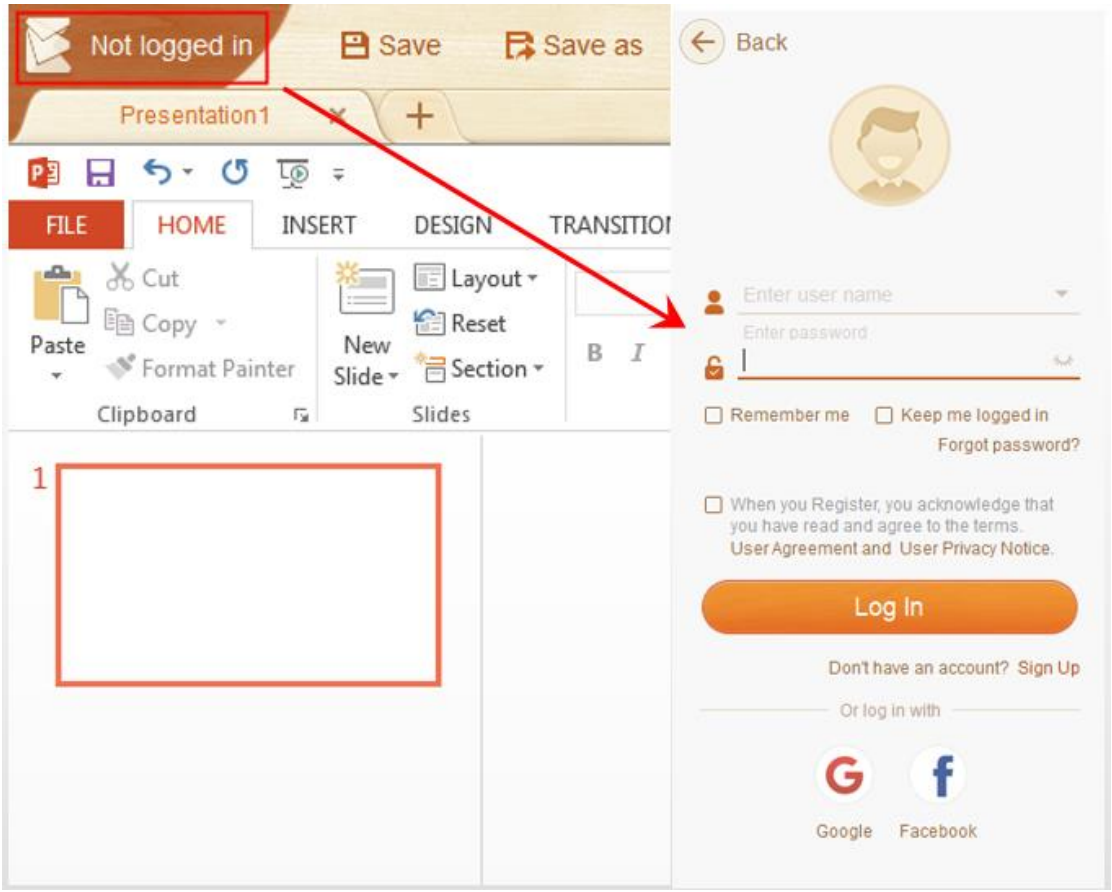


Fig. 8-2-1-1 Login

If the password has been forgotten, the teacher can click “Forgot Password?” below the password input box to retrieve it through account verification.

After logging in via PC, you can view school and class information on the profile

interface. Click your avatar to modify the image. You can set personal information as shown in Fig. 8-2-1-2.

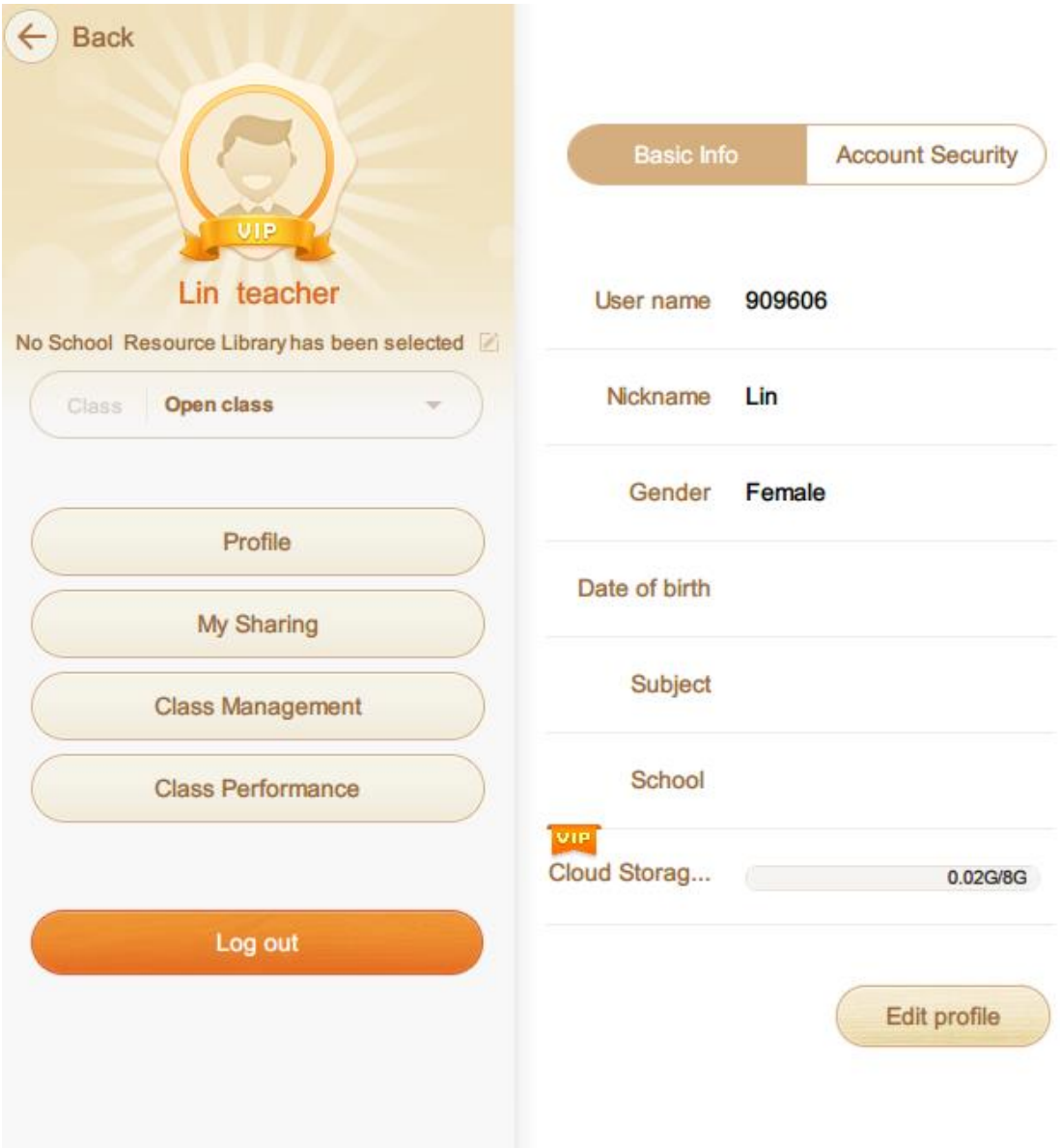


Fig. 8-2-1-2 Profile

8.2.2 Login via phone

After signing up, the teacher can log in directly by entering account number and password on the login page. If the password has been forgotten, you can click “Forgot Password?” below the password input box to retrieve it through account verification. See Fig. 8-2-2

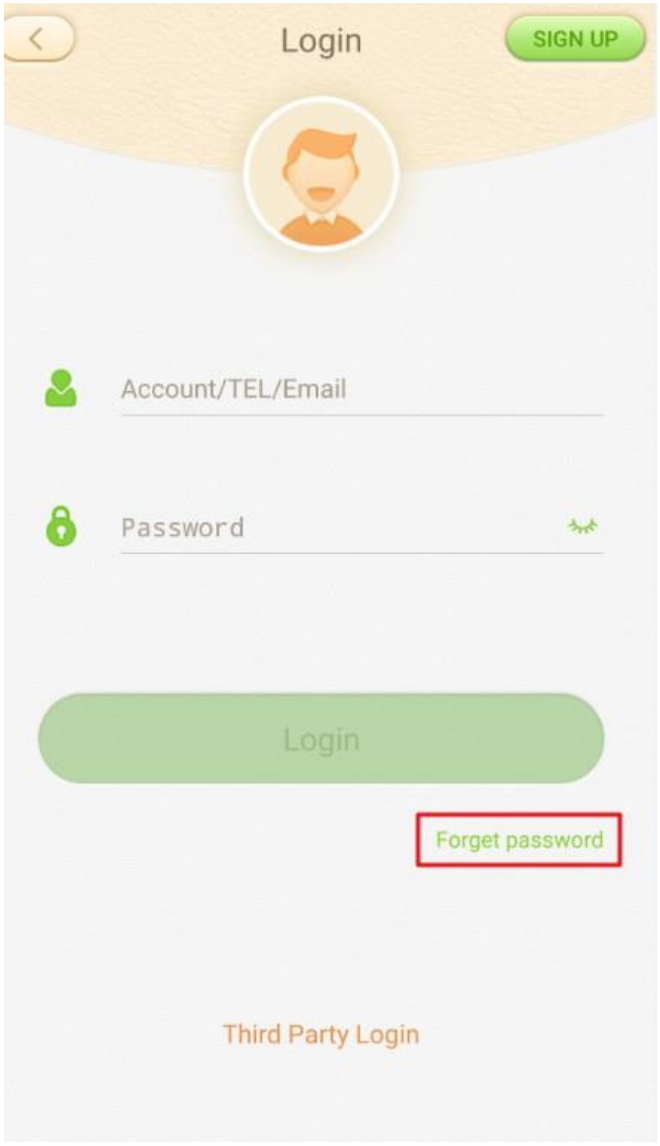


Fig. 8-2-2 Login via Phone

9 Introduction of Sidebar Menu (Mobile Phone)

9.1 Edmodo Classroom Courseware Library

Teachers may select phrase of learning, grade and textbook chapter, etc. needed in the “Edmodo Classroom” in the sidebar of the mobile end. And then, the selected courseware can be viewed upon adding conditions, as shown in Fig. 9-1-1.

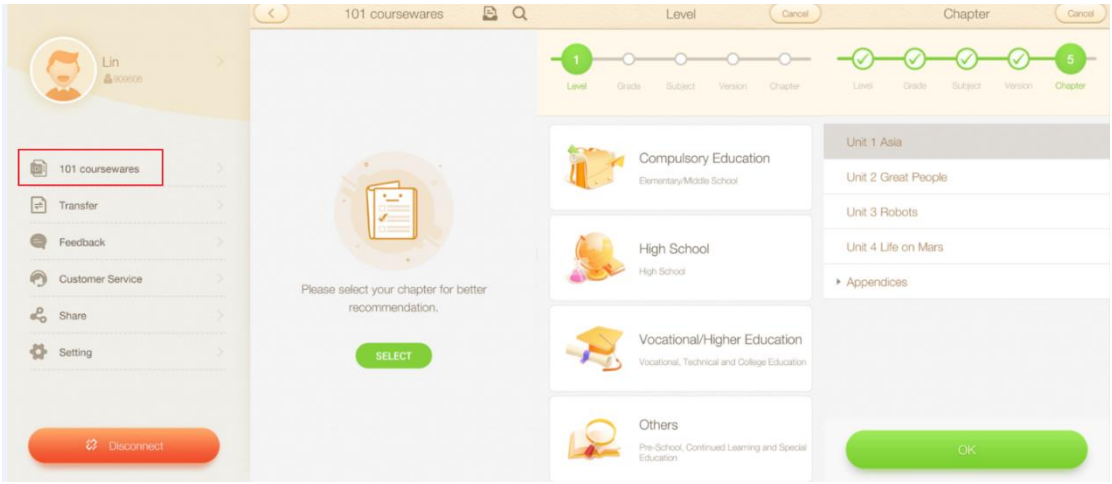


Fig. 9-1-1 Edmodo Classroom courseware library

Also, local courseware in the mobile end can be viewed through tapping the button on the right; or contents of the courseware database can be directly found through tapping the button for searching keywords library, as shown in Fig. 9-1-2 and Fig. 9-1-3.

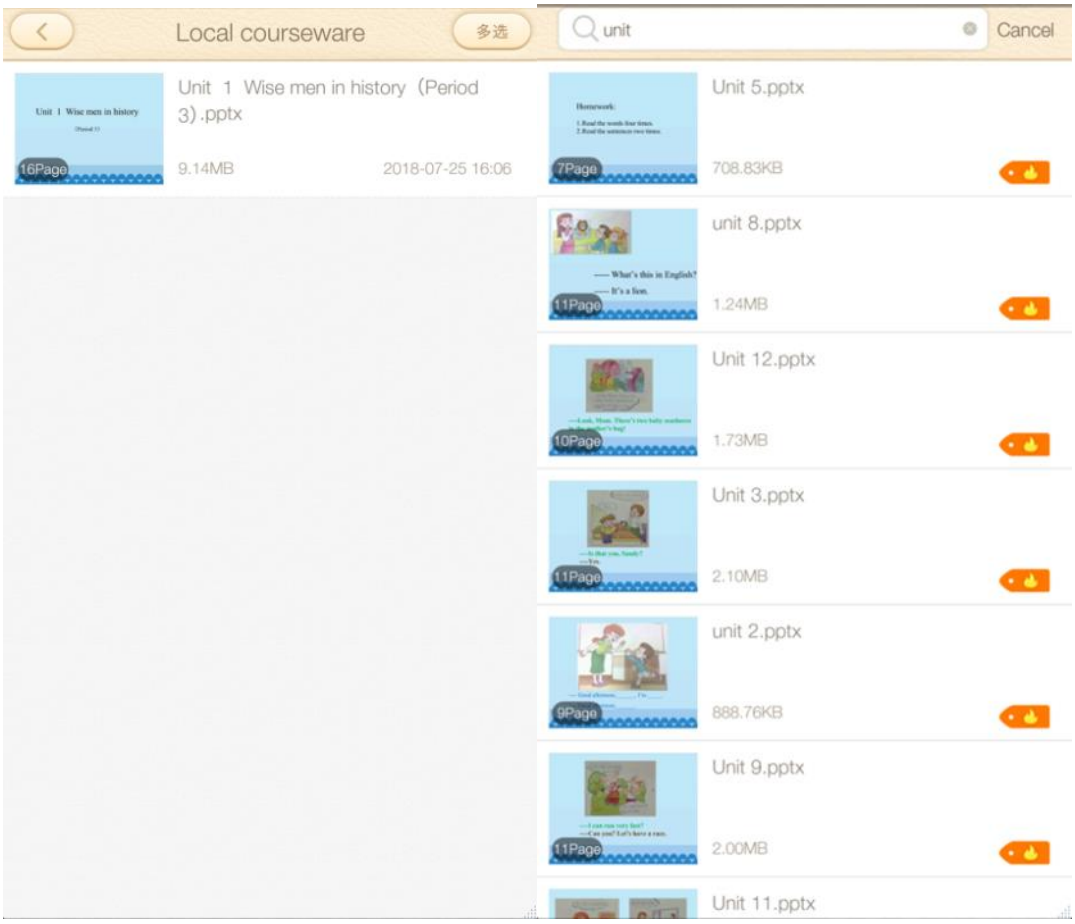


Fig. 9-1-2 Local courseware Fig. 9-1-3 Search for courseware

9.2 File transfer

To meet the needs of daily file transfer and storage of teachers, the function allows the mobile end and the PC to be connected efficiently and conveniently. Detailed methods for use are presented below:

When a file in the mobile end needs to be uploaded to the PC, the file can be sent synchronously through the file transfer, and transferable types include: pictures, videos, audios and documents, as shown in Fig. 9-2-1.

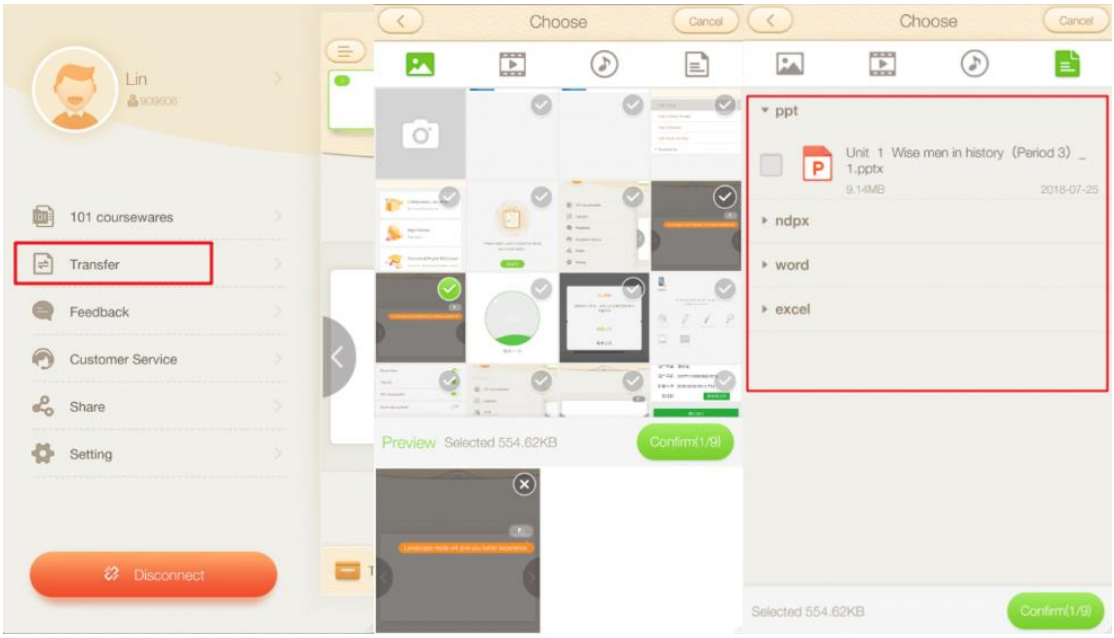


Fig. 9-2-1 File transfer

The uploaded file can be viewed in the “File Transfer” on the upper right corner of the PC menu bar, as shown in Fig. 9-2-2.

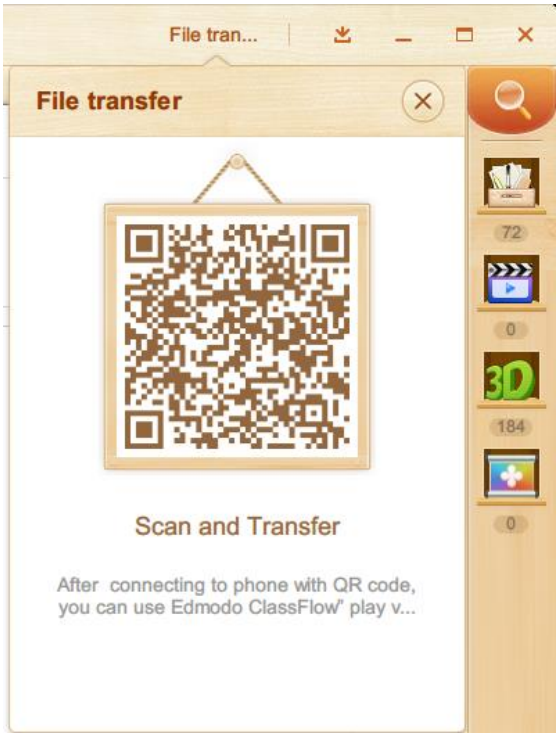


Fig. 9-2-4 View on the mobile end

If a file on the PC needs to be transferred to the mobile end, just tap the “Transfer Local File”/ “Transfer Current File” (currently open courseware file) buttons after connecting the mobile end with the same account logged in, as shown in Fig. 9-2-3 and Fig. 9-2-4.

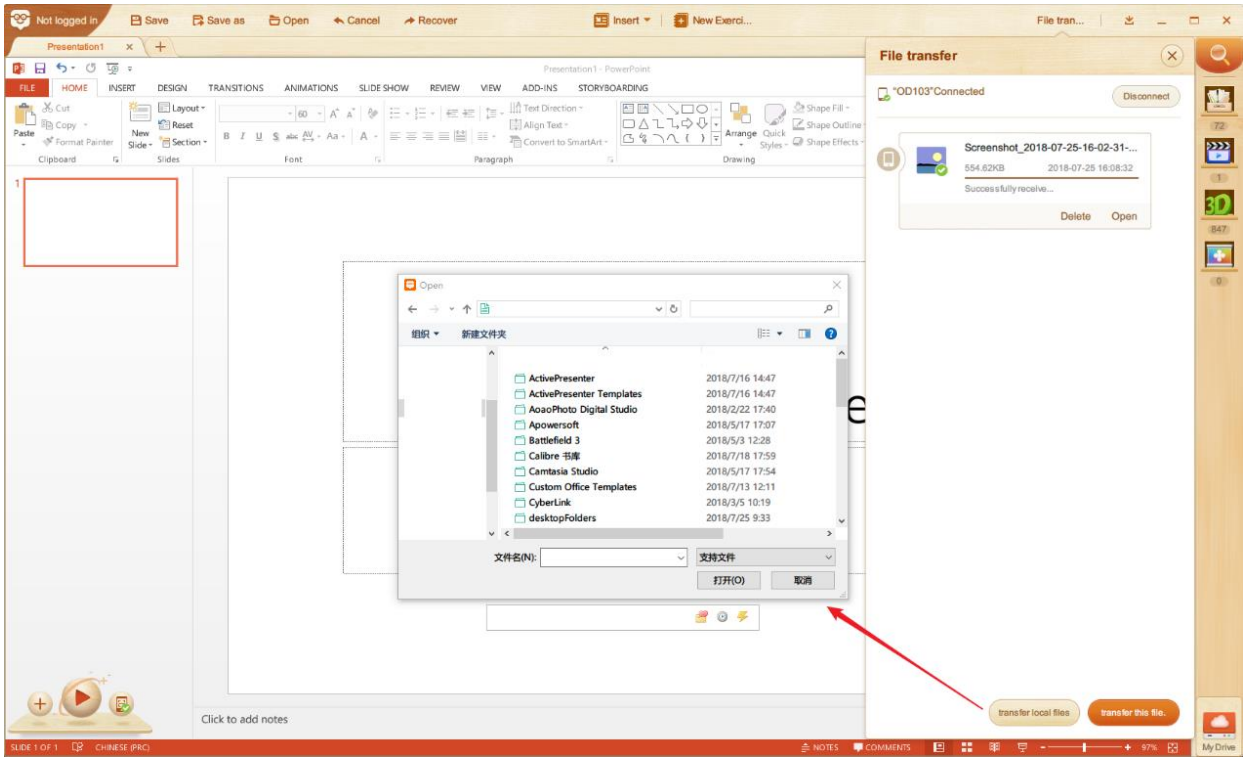


Fig. 9-2-3 PC file transfer

Fig. 9-2-4 View on the mobile end

9.3 Feedback

Teachers are welcomed to propose any suggestion or opinion on the software in the Feedback, so that the software can be improved based on the feedback, as shown in Fig. 9-3.

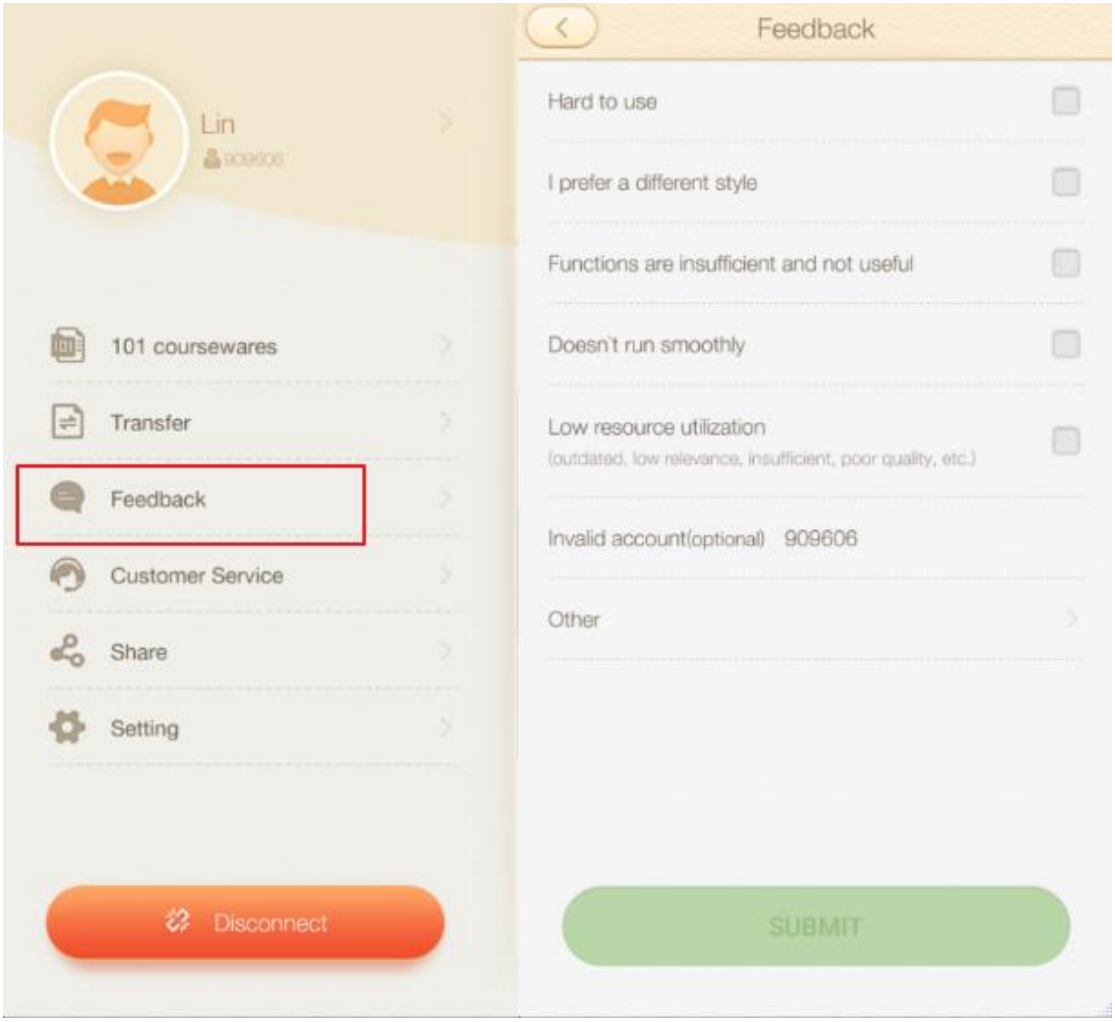


Fig. 9-3 Feedback on the mobile end

9.4 Share

Tap the Share button to share the download link of the mobile end of Edmodo Classroom to third-party websites, as shown in Fig. 9-4.

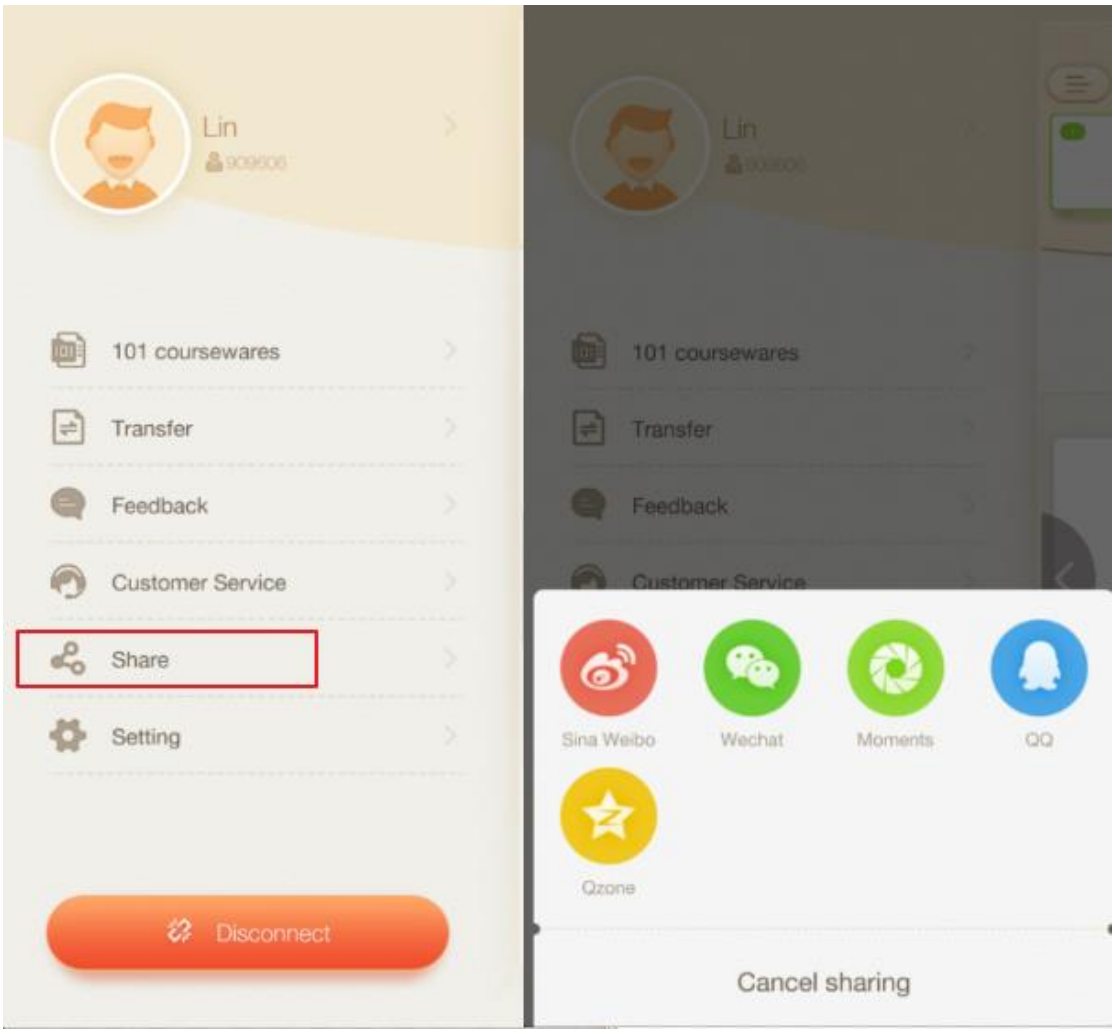


Fig. 9-4 Share

9.5 Setting

You can set up the prompts of Photo Instant Transfer, Video Instant Transfer, File Transfer and 101 courseware library without wifi connection; meanwhile, Power-saving Mode, Projecting Option (if it's on, the position where the projection starts can be selected), HD Mode of courseware and Language settings can also be set. Moreover, software update and version information about the Edmodo Classroom can be viewed through tapping the View button, and you can tap the Log Out button to log out, as shown in Fig. 9-5.

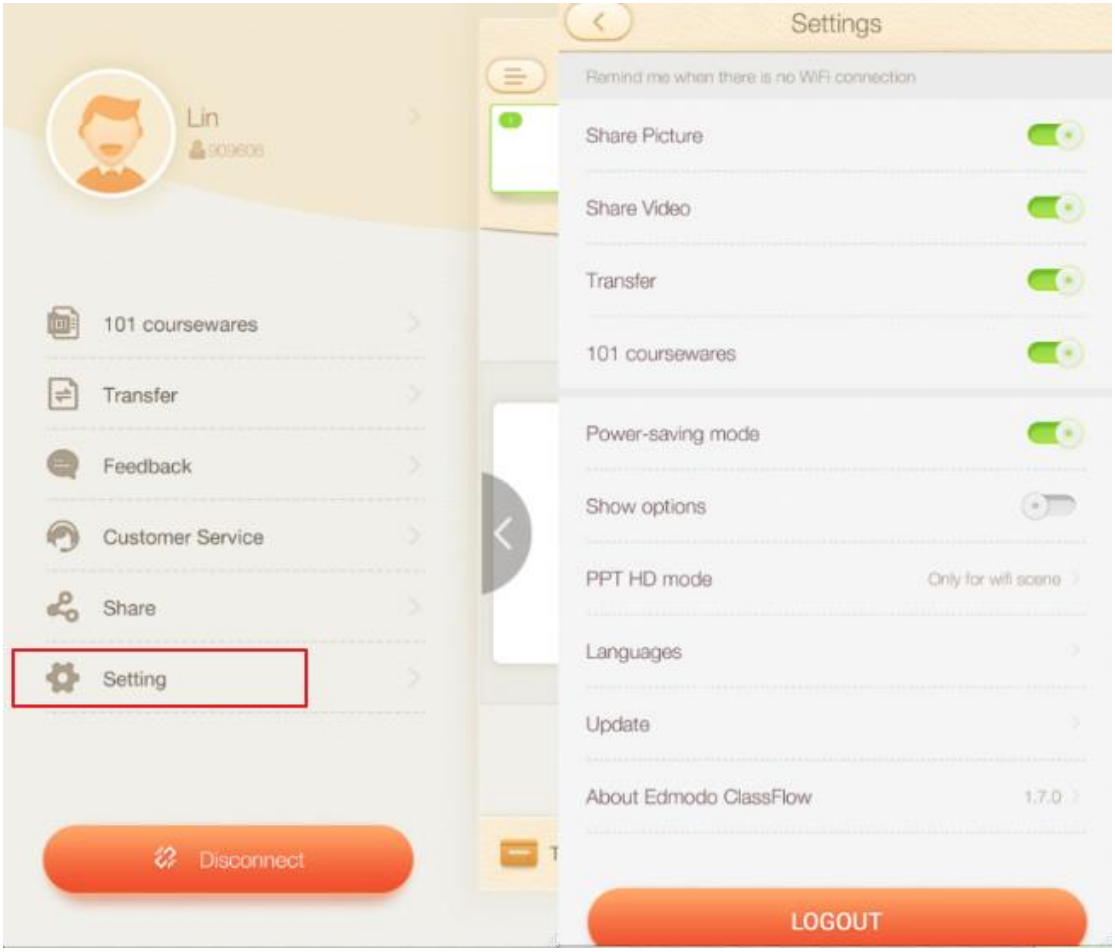


Fig. 9-5 Setting

9.6 Disconnect

The mobile end and the PC are connected. Tap the Disconnect button to confirm the disconnection, as shown in Fig. 9-6.

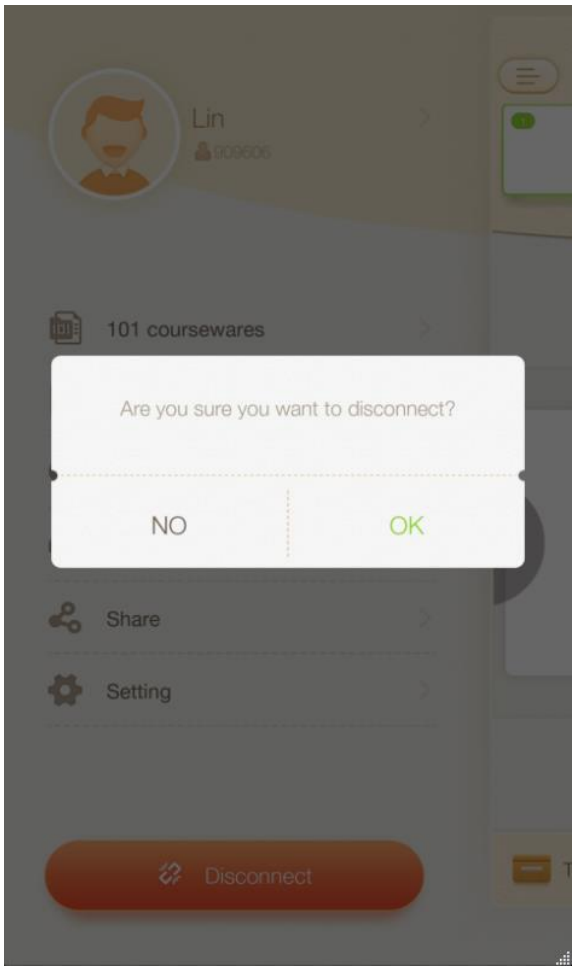


Fig. 10-6 Disconnection

10 Appendix

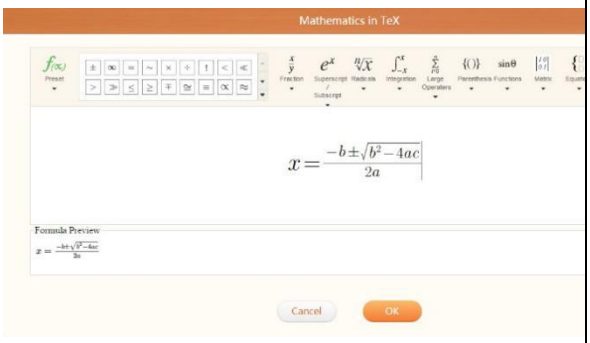
10.1 New Exercise

10.1.1 Single Choice

For example, when editing the single choice of addition, firstly you shall edit the stem, secondly edit the options and thirdly set a correct answer; moreover, edit hints and explanations if necessary to complete the editing, as shown in Fig. 10-1-1-1.

Fig. 10-1-1-1 New Exercise-Single Choice

No.	Area Name	Direction for Use
1	Format	When you edit a question, change formats of the font (i.e., bold, italic, underline, strike through, font size, superscript, subscript, font color, highlight color) if you like.
2	Draw a table/horizontal line	Click the icon on top to complete table settings and insert a table; click the icon at the bottom to draw a horizontal line.

3	Set alignment	Align right, Justified align, Align left or Align center
4	Insert an image	Select an image from the Local Library or Edmodo Classroom Library, and add the image to the question.
5	Insert a video	Select a video from the Local Library or Edmodo Classroom Library, and add it to the question.
6	Insert an audio	Select an audio file from the Local Library or Edmodo Classroom Library, and add the file to the question.
7	Insert formula	When editing a question, click and open the formula editor to insert a new formula, and click OK to add the formula to the question, as is shown below: 
8	Question (stem)	Click to edit the stem.
9	Options	Click to edit possible answers. Click "+ Option" at the bottom to add another new option. Move the cursor to a possible answer and click on the right to delete it.
10	Answer	Enter a correct answer to the question.
11	Hint	Edit hints for the question.

12	Explanation	Edit explanations for the question.
13	Save to Drive	Click to save the exercise to the Drive.
14	Preview	Preview the exercise after completion. Answer the question and submit your answer in the preview mode if you like, as shown in Fig. 11-1-1-2.
15	Insert	Click to insert the new exercise to your courseware.
16	Timer	Select Timer or Countdown.
17	Import samples	Click to import a question, as shown in Fig. 11-1-1-3.

Table 10-1-1-1 New Exercise-Single Choice

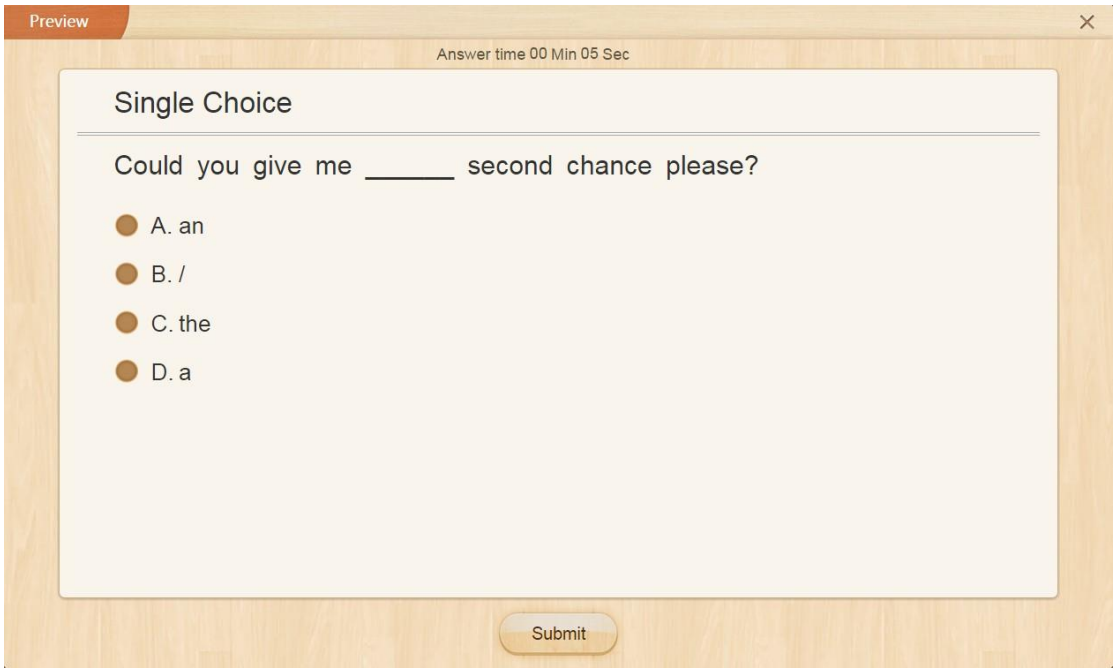


Fig. 10-1-1-2 Preview Single Choice Exercises

10.1.2 Multiple Choices (with more than one correct answers)

Same as Single Choice, but with more than one correct answers. See Fig. 10-1-2.

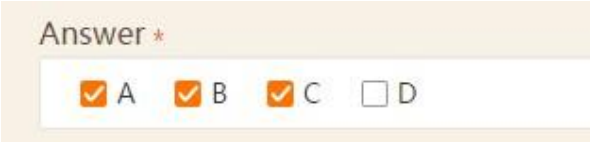


Fig. 10-1-2 Set multiple answers

10.1.3 Fill in the blank

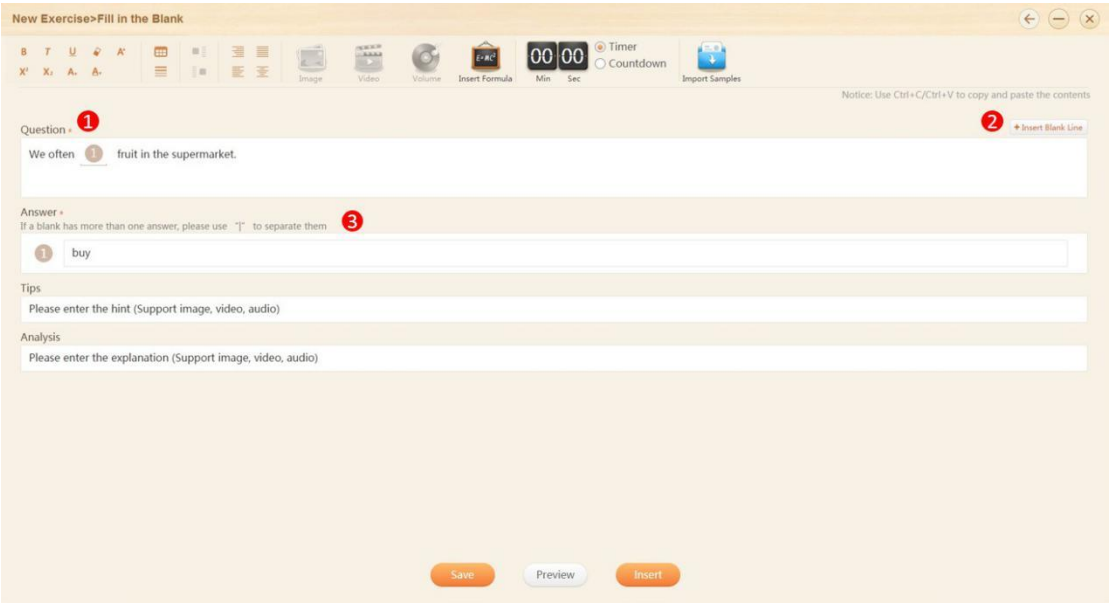


Fig. 10-1-3-1 New Exercise-Fill in the Blank

No.	Area Name	Direction for Use
1	Question (stem)	Click to edit the stem (see multiple choices question settings mentioned above).
2	Insert blank line	Click to insert blanks.
3	Set answers	Click to edit answers to be filled in the corresponding blanks.
4	Preview	Click Preview to see the exercise, as shown in Fig. fig.10-1-3-2.

Table 10-1-3-1 New Exercise-Fill in the Blank

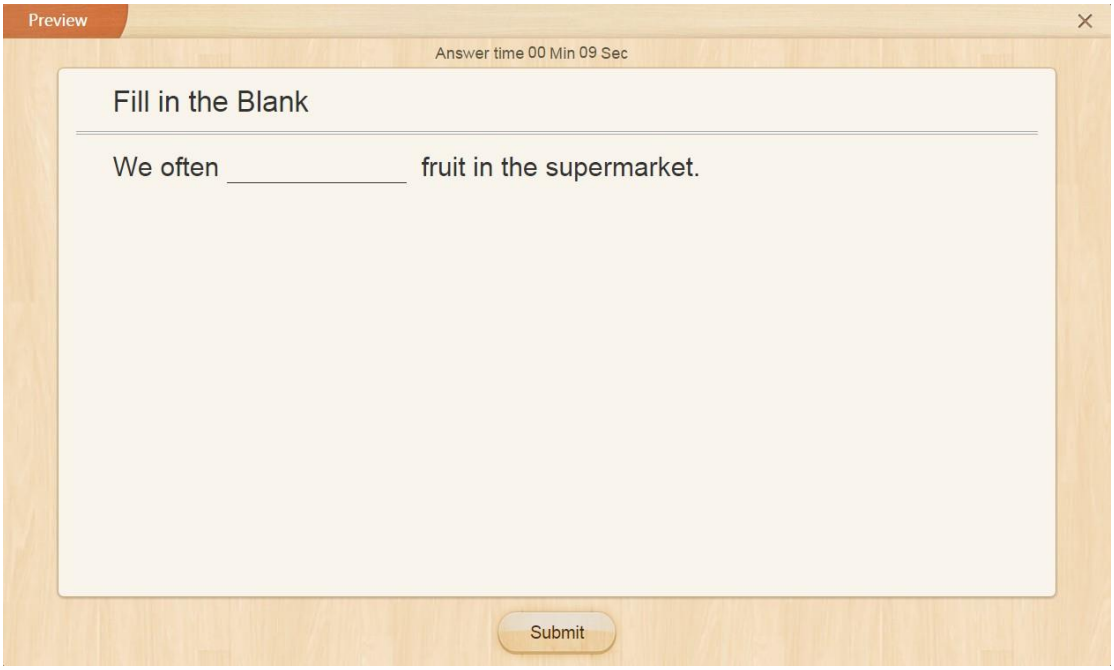
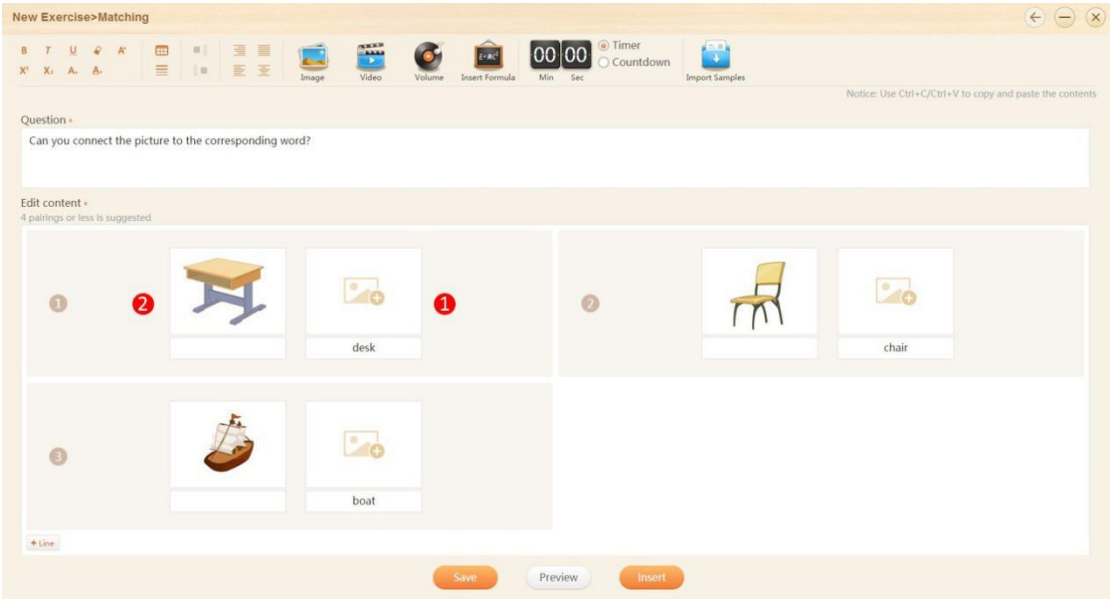


Fig. 10-1-3-2 Preview-Fill in the Blank

10.1.4 Matching



No.	Area Name	Direction for Use
1	Text	Click to edit the text for matching; pay attention to the correspondence.

2	Add a picture	Click to add a picture. Edit either the text or picture or both if you like.
3	Preview	Click Preview to see the exercise, as shown in Fig. 10-1-4-2.

Table 10-1-4-1 New Exercise-Matching

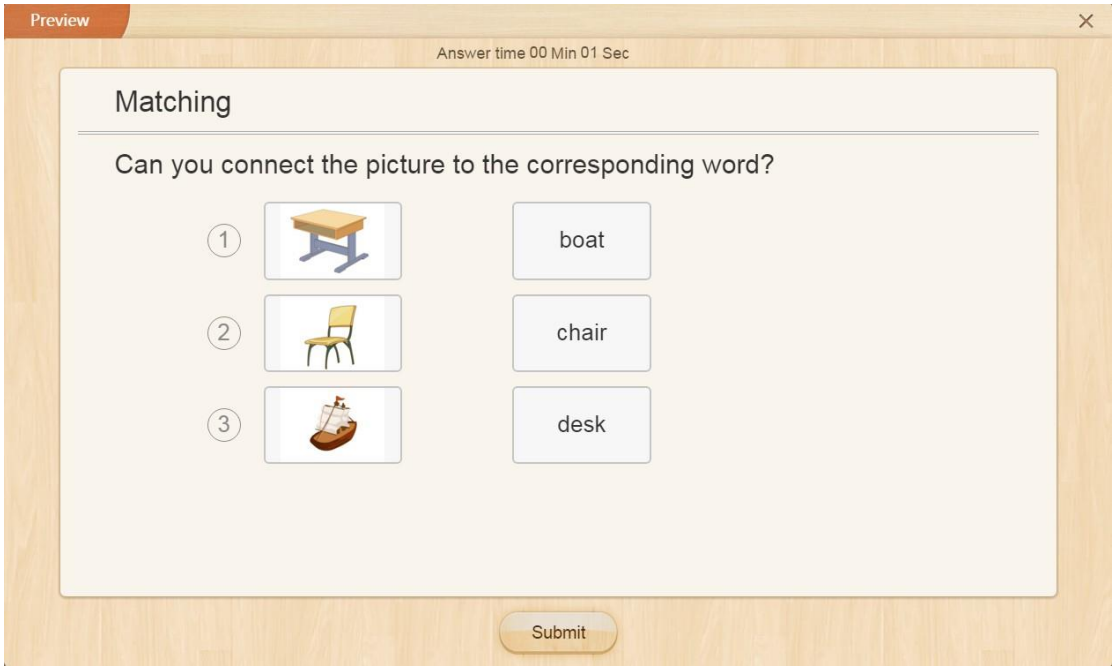


Fig. 10-1-4-2 Preview-Matching

10.1.5 Right Order

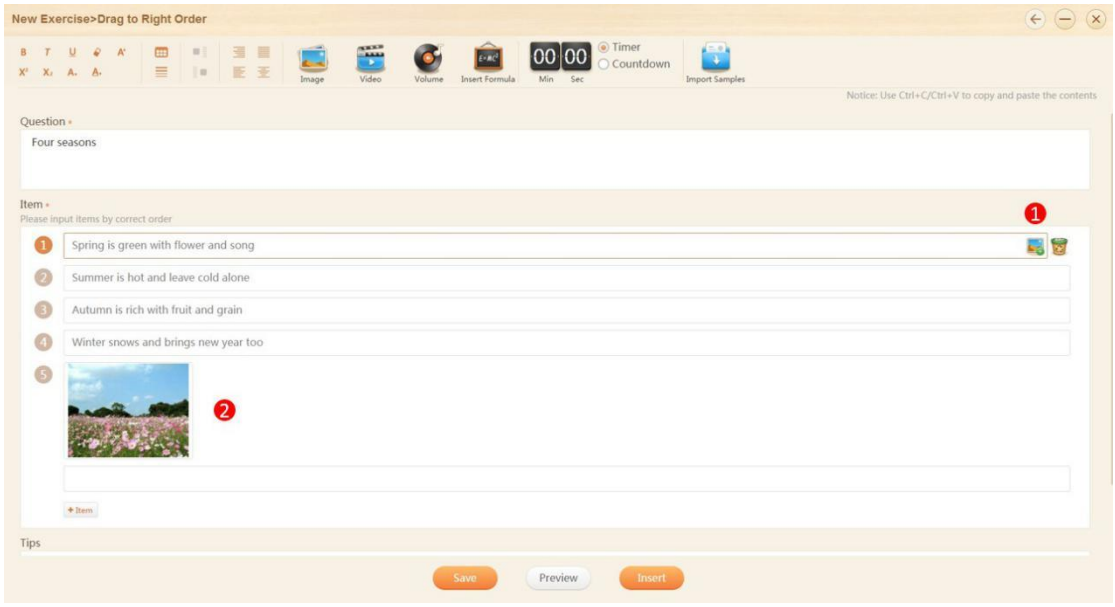


Fig. 10-1-5-1 New Exercise- Right Order

No,	Area Name	Direction for Use
1	Add a picture	Click to add a picture if you like.
2	Picture area	Move the cursor to a picture until the Delete button appears; click the button to delete it, or click the Picture button to replace it.
3	Preview	Click Preview. Select and drag the items to put them in a sequential order, as shown in Fig. 10-1-5-2.

Table 10-1-5-1 New Exercise-Drag to Right Order

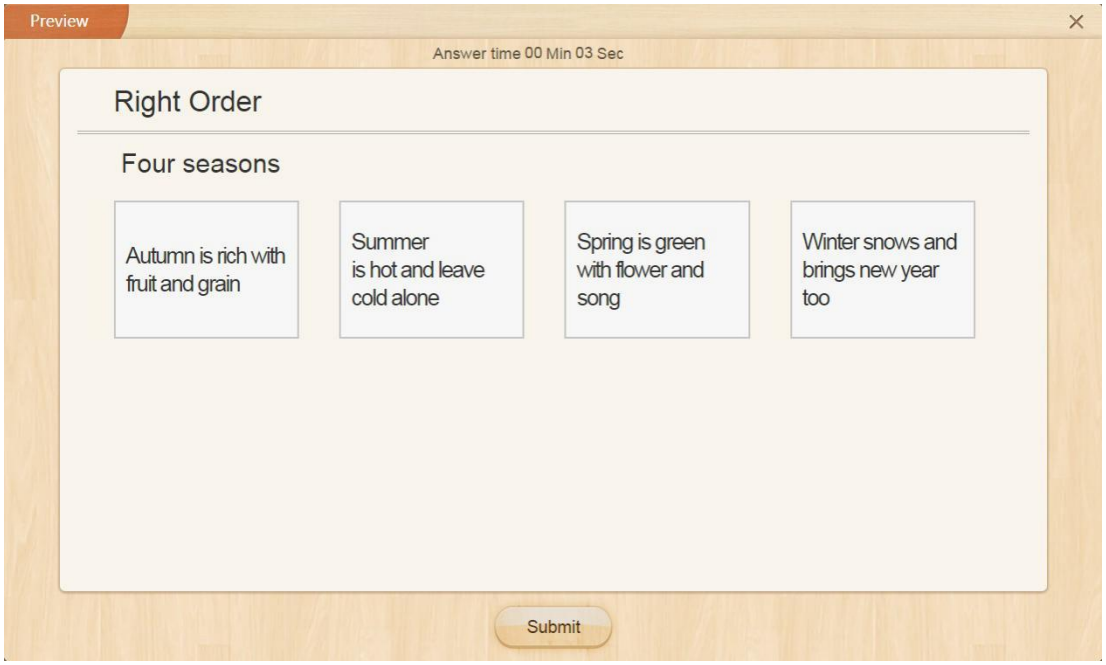


Fig. 10-1-5-2 Preview- Right Order

10.1.6 True or False

Edit the stem and set a correct answer to the question, as shown in Fig. 10-1-6-1.

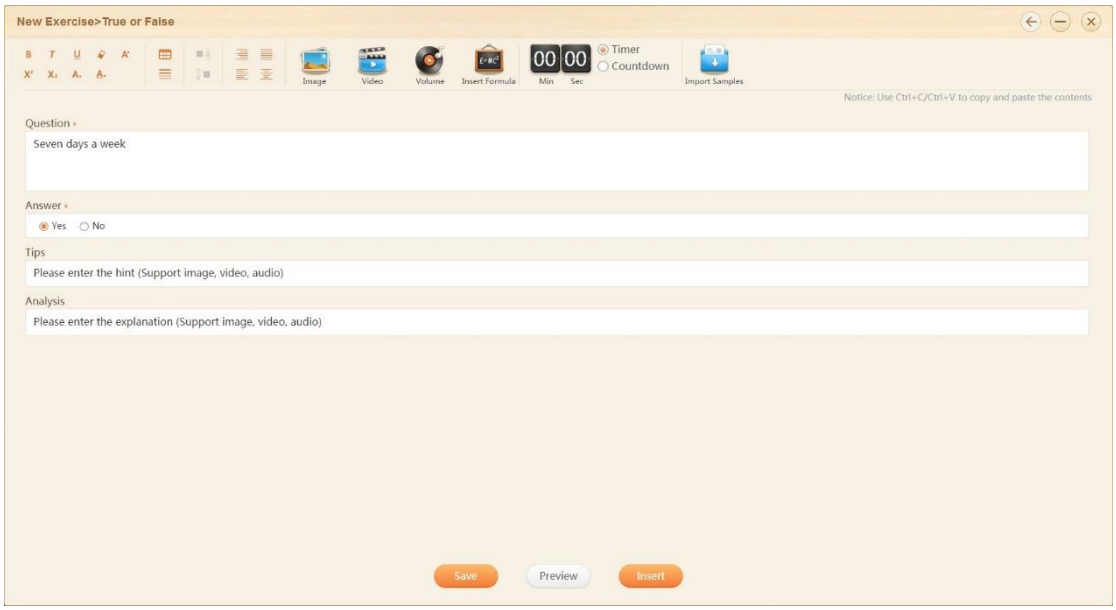


Fig. 10-1-6-1 New Exercise-True or False

No.	Area Name	Direction for Use
1	Preview	Click Preview to see the exercise, as shown in Fig. 11-1-6-2.

Fig. 10-1-6-1 New Exercise-True or False

Fig. 10-1-6-2 Preview-True or False

10.1.7 Vote

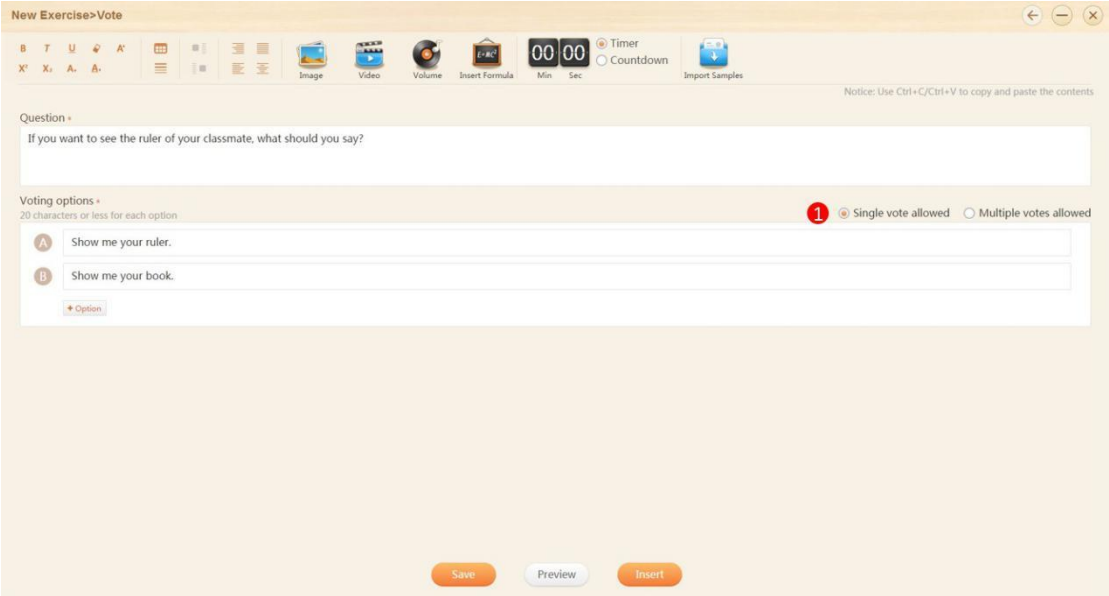


Fig. 10-1-7-1 New Exercise-Vote

No.	Area Name	Direction for Use
1	Select a form of voting	One or more options can be selected.
2	Preview	Preview after preparation. Click Submit to complete the settings, as shown in Fig. 10-1-7-2.

Table 10-1-7 New Exercise-Vote

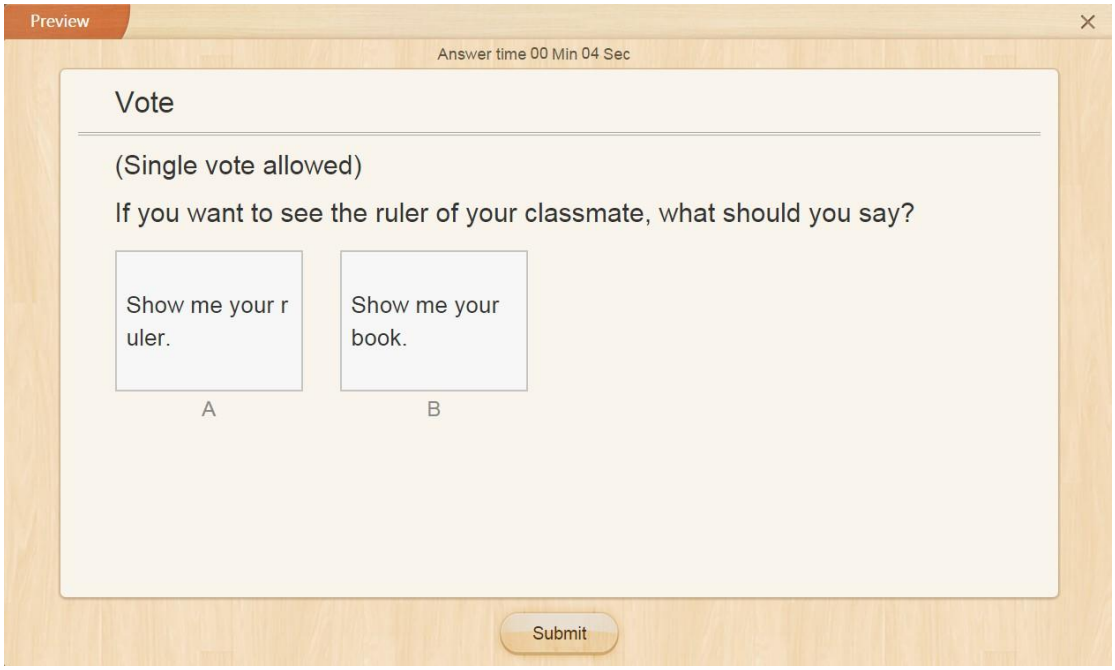
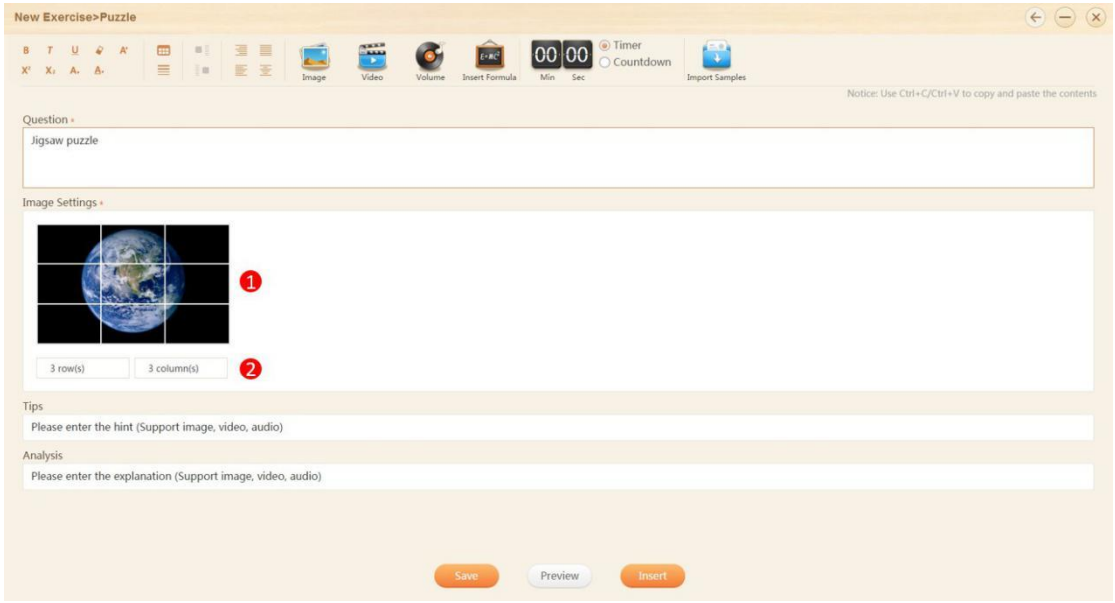


Fig. 10-1-7-2 Preview-Vote

10.1.8 Puzzle



No.	Area Name	Direction for Use
1	Add a picture	Select a picture from the local photo gallery, My

		Photo Gallery, 101 Photo Gallery or Baidu Photo Gallery.
2	Create jigsaw puzzles	Segment the selected picture into several pieces.
3	Preview	Click Preview to see the effect. Drag the pieces from right to left and click Submit to complete the exercise, as shown in Fig. 10-1-8-2.

Fig. 10-1-8-1 New Exercise-Puzzle

Table 10-1-8 New Exercise-Puzzle

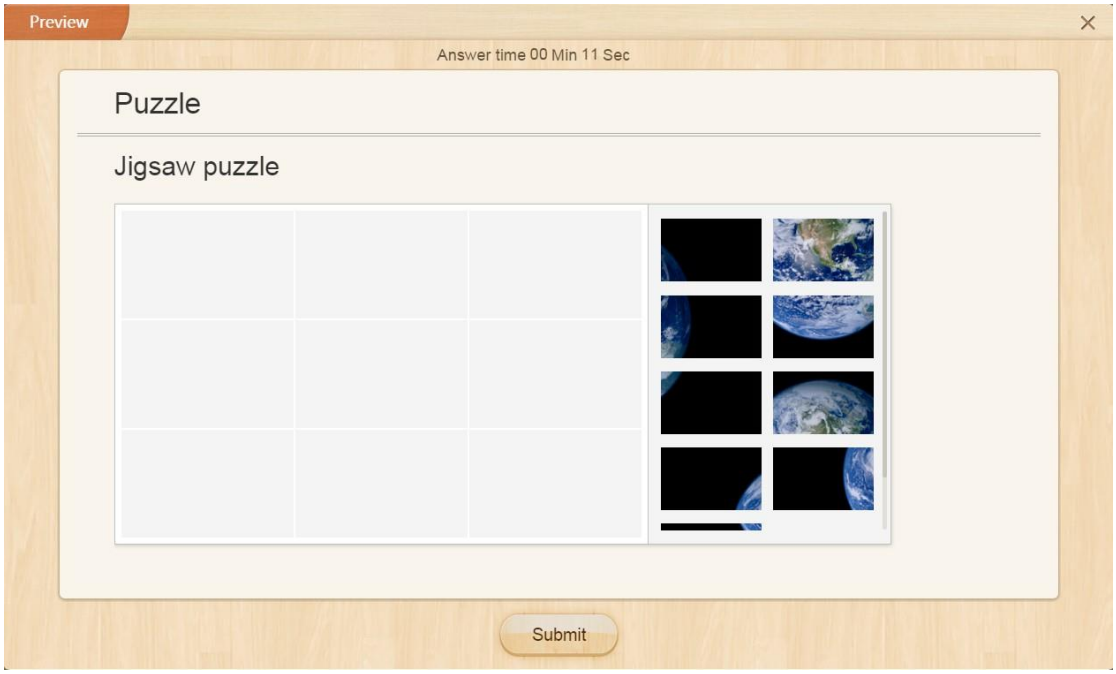


Fig. 10-1-8-2 Preview-Puzzle

10.1.9 Complex

A complex question consists of the main stem and multiple questions ranging from multiple choices (with one or more correct answers), true/false, fill-in-the-blank and other six types. Edit a complex question as shown in Fig. 10-1-9-1.

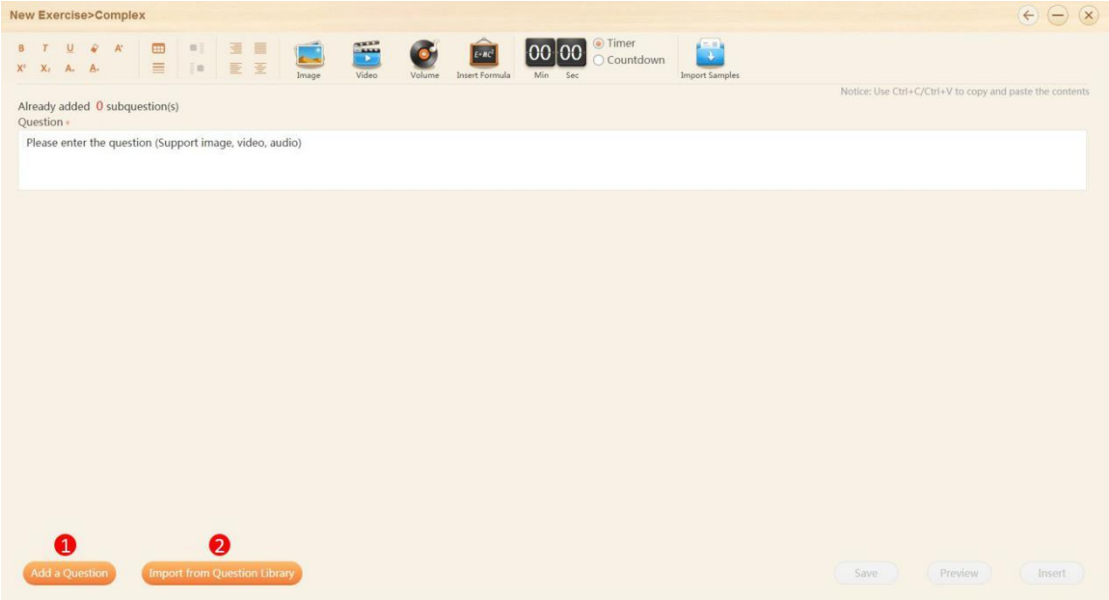
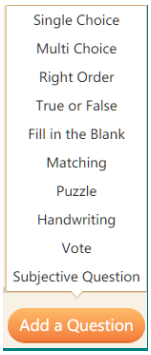
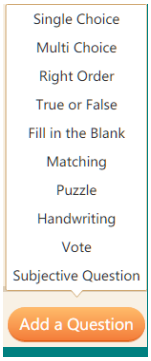


Fig. 10-1-9-1 New Exercise-Complex

No.	Area Name	Direction for Use
1	Add a question	 Multiple questions can be added under the parent question with over 10 question types including single choice, multiple choice, true or false and fill in the blank, etc. 
2	Import from the	Exercises can be imported from Edmodo

	library	Classroom, school-based library and my exercise library
3	Preview	Click Preview to see the exercise upon the completion, as shown in Fig. 10-1-9-2.

Table 10-1-9-1 New Exercise-Complex

The scroll bars are displayed when page content exceed the display scope of the current page by dragging the stem and dragging the strip in the middle part of the question to adjust the area size up/ down split screens (the default downwards limit is half-divided); dragging the scroll to the top to display all questions, while dragging downwards to the height of setting two rows of thee question, as shown in Fig. 10-1-9-2.

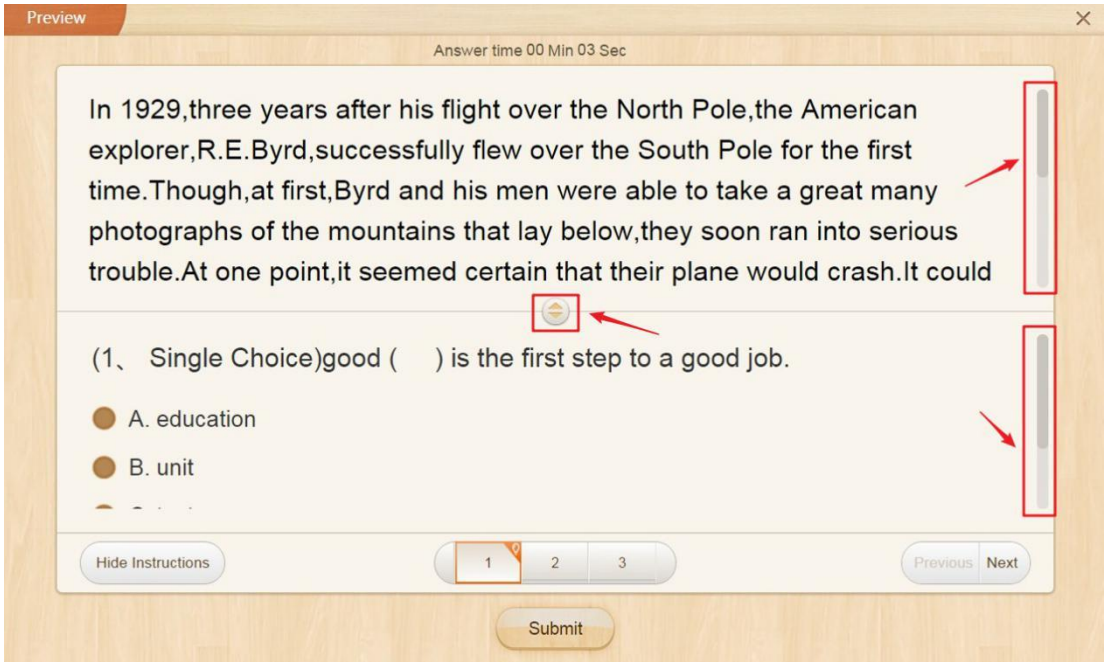


Fig. 10-1-9-2 Preview-Complex

10.1.10 Subjective question

Subjective question only requires a stem and keys to the question. Edit a subjective question as shown in Fig. 10-1-10-1.

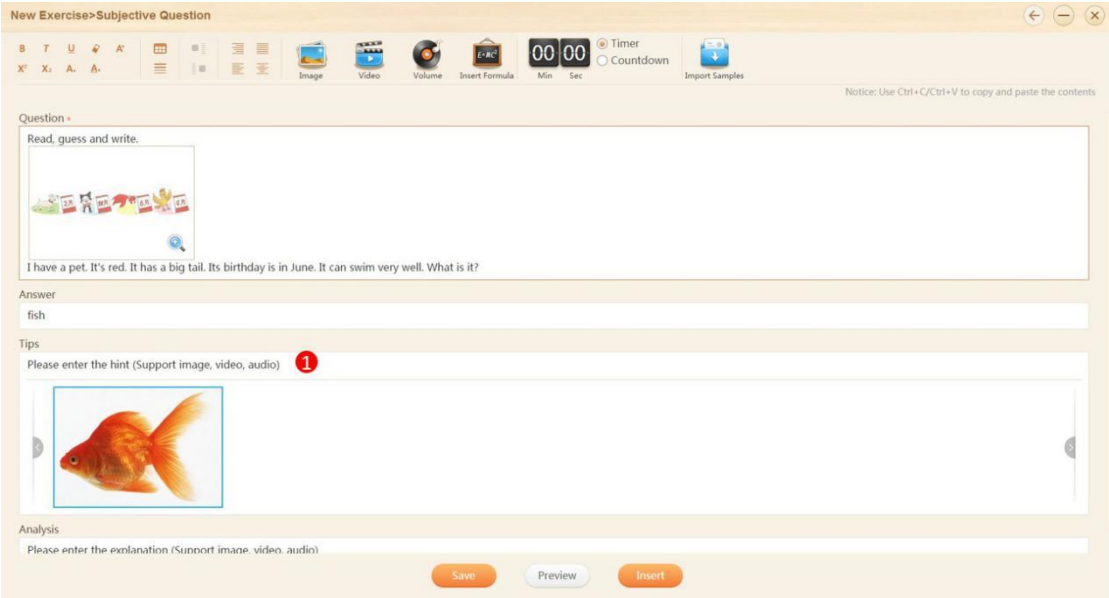


Fig. 10-1-10-1 New Exercise-Subjective Question

No.	Area Name	Direction for Use
1	Hint	Hint for the question can be conducted through adding pictures, videos or audios. Also, resources added can be previewed directly, as shown in Fig. 10-1-10-2.

Table 10-1-10 New Exercise-Subjective Question

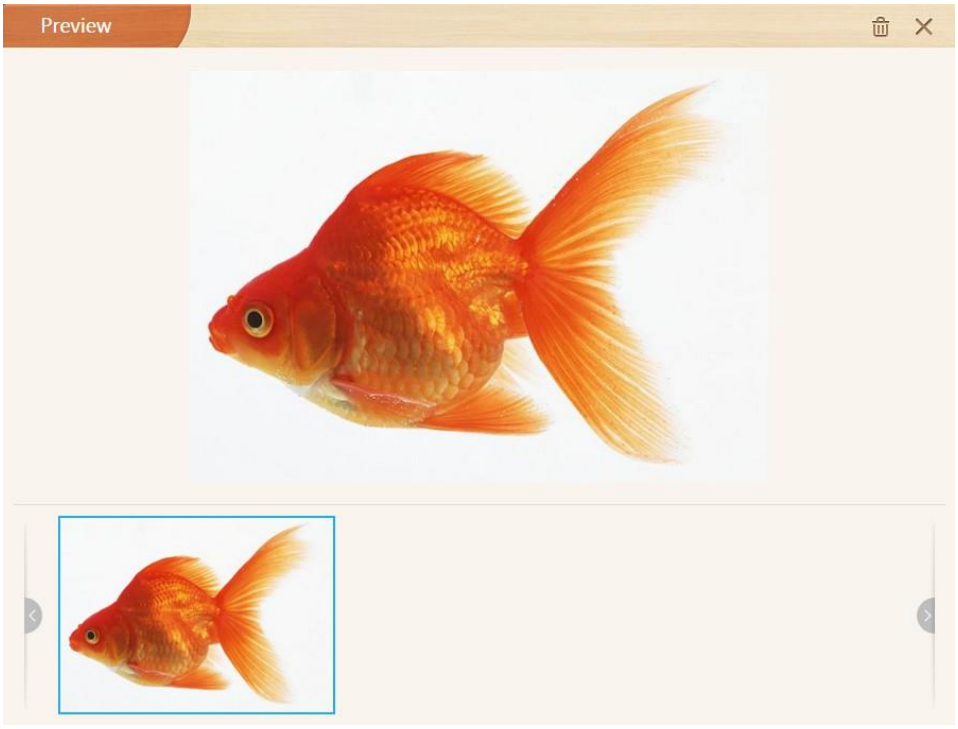


Fig. 10-1-10-2 New Exercise-Preview Resources of Subjective Questions

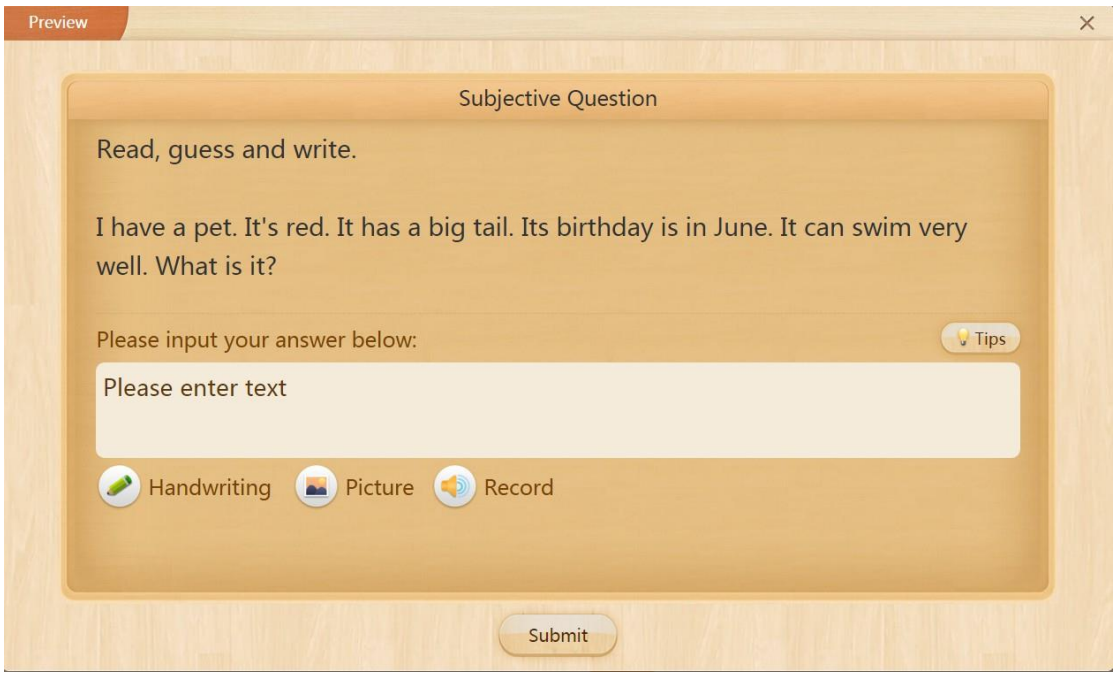


Fig. 10-1-10-3 Preview-Puzzle

10.1.11 Composition

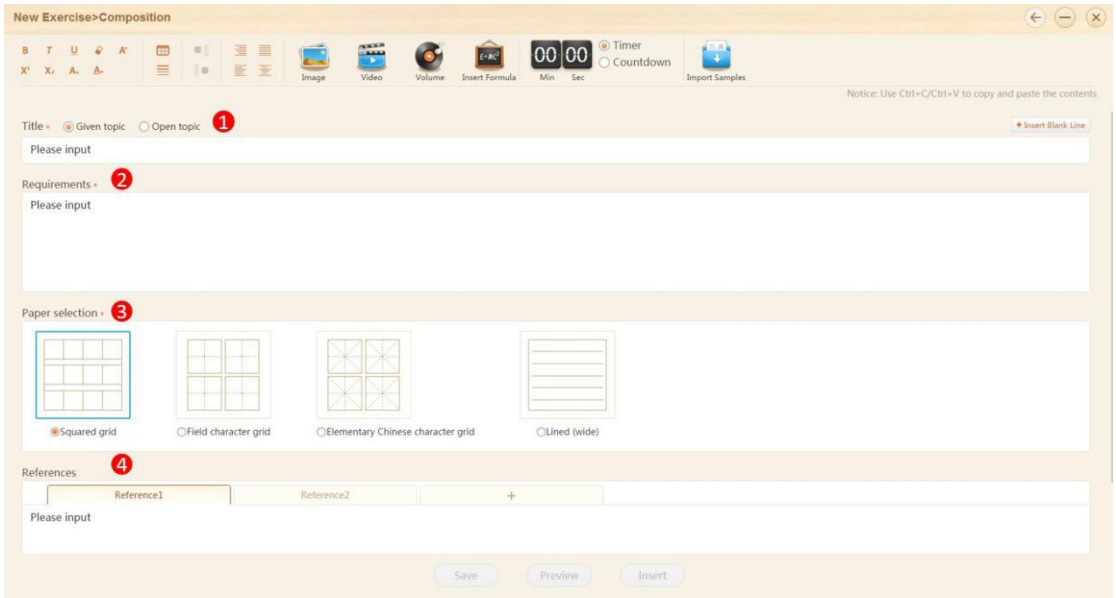


Fig. 10-1-11-1 New Exercise-Composition

No.	Area Name	Direction for Use
1	Edit a title	Generally, composition has a given title or requires students to come up with a title. Click the button on the right and insert a transversal line.
2	Edit requirements	Click to enter requirements.
3	Select an answer sheet	Select an answer sheet. It will be displayed on student pads.
4	Edit materials	Click to edit materials.
5	Preview	Click Preview to see the exercise, as shown in Fig. 10-1-11-2.

Table 10-1-11 New Exercise-Composition

Fig 10-1-11-2 Preview-Composition

In the interface of Composition, in addition to viewing questions and materials, there are three enter modes for selecting, i.e., recording, keyboard and handwriting. It should be noted that the written content will be cleared upon switching a enter mode. Do not switch the enter mode in the midway of writing, as shown in Figure 10-1-11-3.

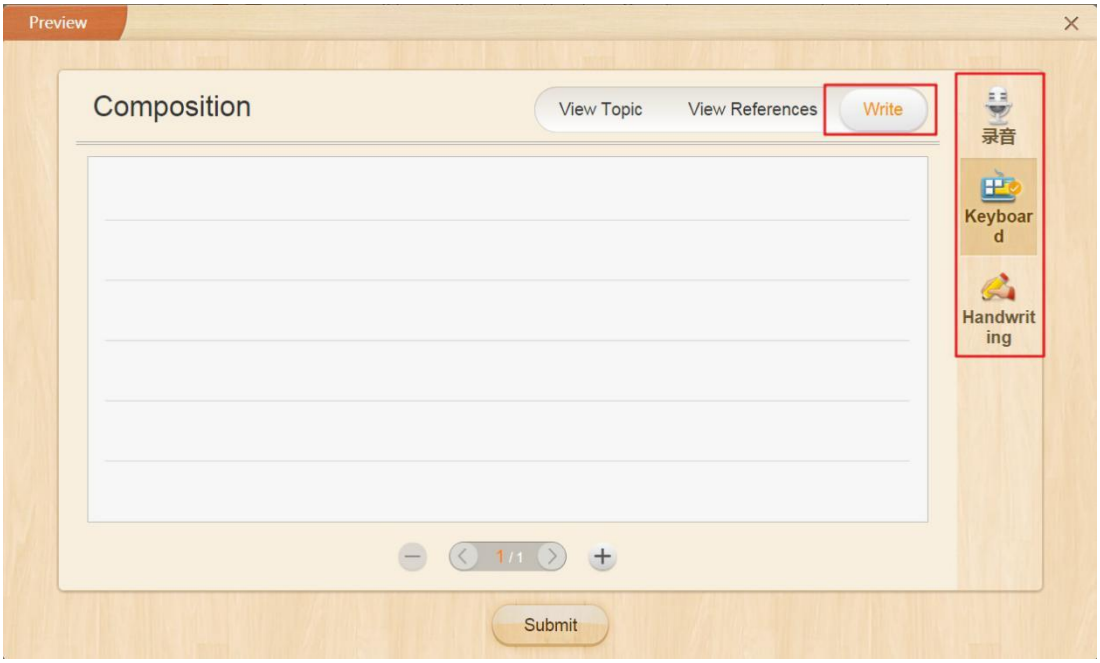


Fig. 10-1-11-3 Start Composition

10.1.12 Outline

The question settings are similar to those of composition. However, it can be seen from the preview interface. Outline is designed to help students get their ideas into shape. See Fig. 10-1-12.

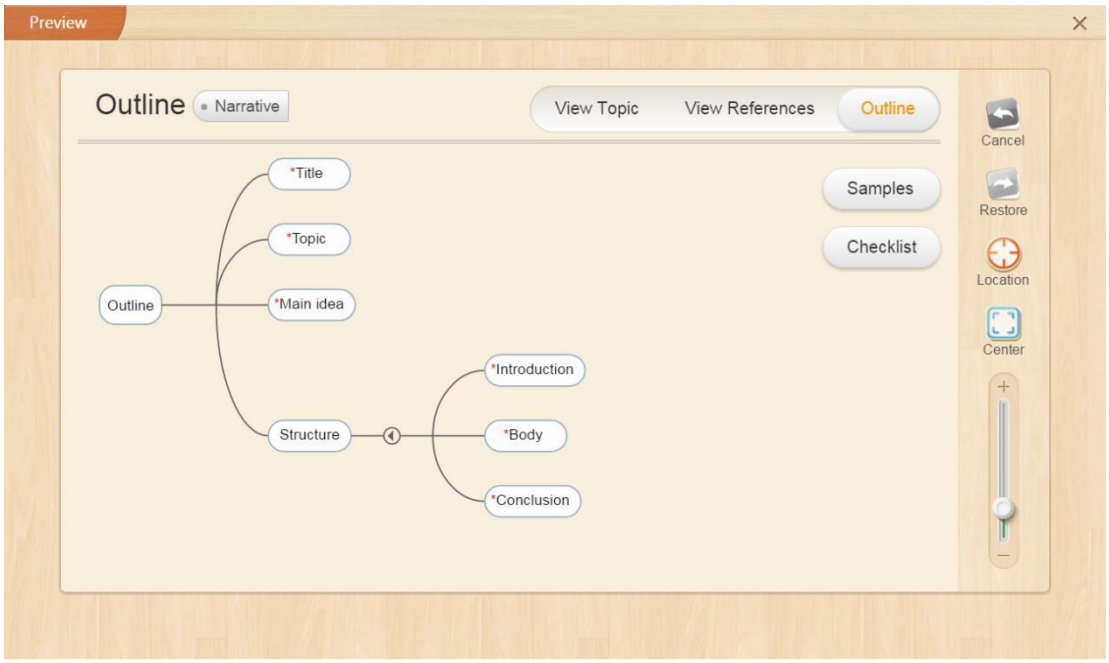


Fig. 10-1-12 Preview-Outline

10.1.13 Handwriting

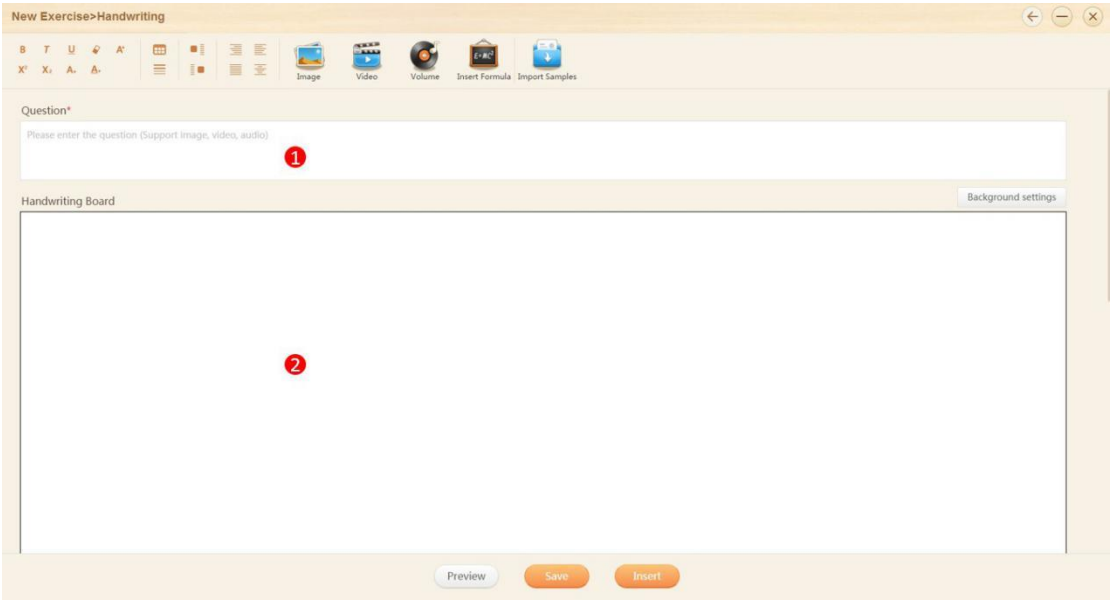


Fig. 10-1-13-1 New Exercise-Handwriting

No.	Area Name	Direction for Use
1	Edit stem	Click to edit the stem.

2	Writing Board	Click Background Settings in the top right corner of the writing board and select a picture. Click Remove Background to delete the selected picture.

Table 10-1-13-1 New Exercise-Handwriting

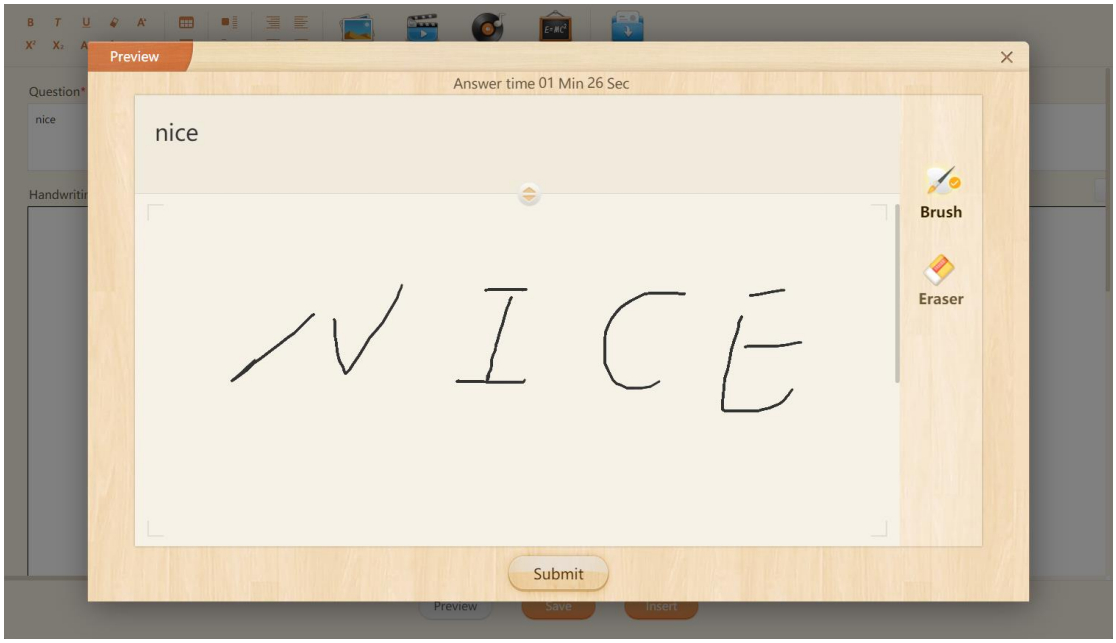


Fig. 10-1-13-2 Preview-Handwriting

10.1.14 Link-up

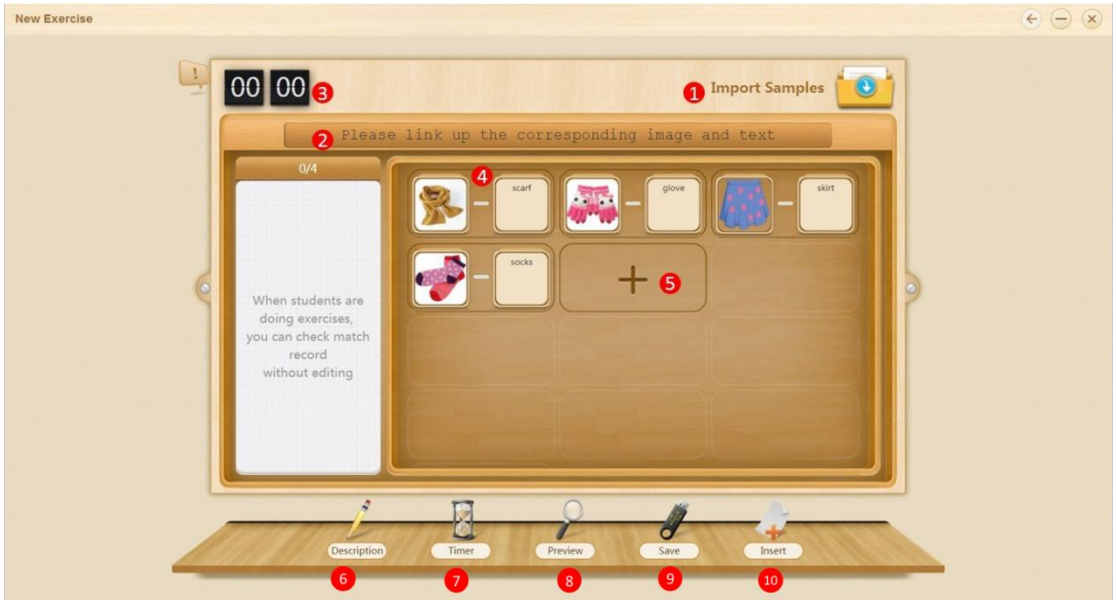


Fig. 10-1-14-1 New Exercise-Link-Up

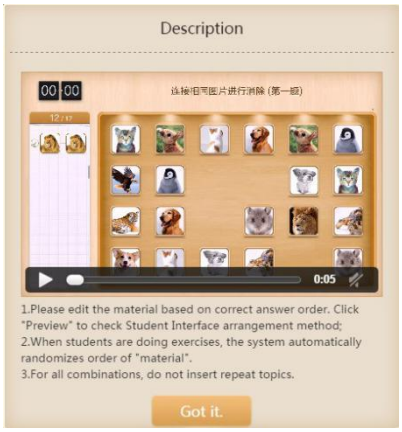
No.	Area Name	Direction for Use
1	Import samples	Click to import the existing question sample in the system.
2	Edit a title	Type a title before starting a matching game.
3	Hints	Edit hints here.
4	Preparation	Different matching forms are available, including picture-to-picture, picture-to-text (as shown in Fig. 10-1-14-1) and text-to-text.
5	Add a matched pair	Click “+” to create a new matched pair.
6	Description	Describe the matching game, e.g. 
7	Time settings	Count up and Count down are available, e.g.
8	Preview	Click Preview to see the game, as shown in Fig. 1-0-14-2. Click to eliminate a matched pair.
9	Save to Drive	Click to save the exercise to the Drive.
10	Insert	Click to insert the prepared exercise into your courseware.

Table 11-1-14 New Exercise-Link-Up

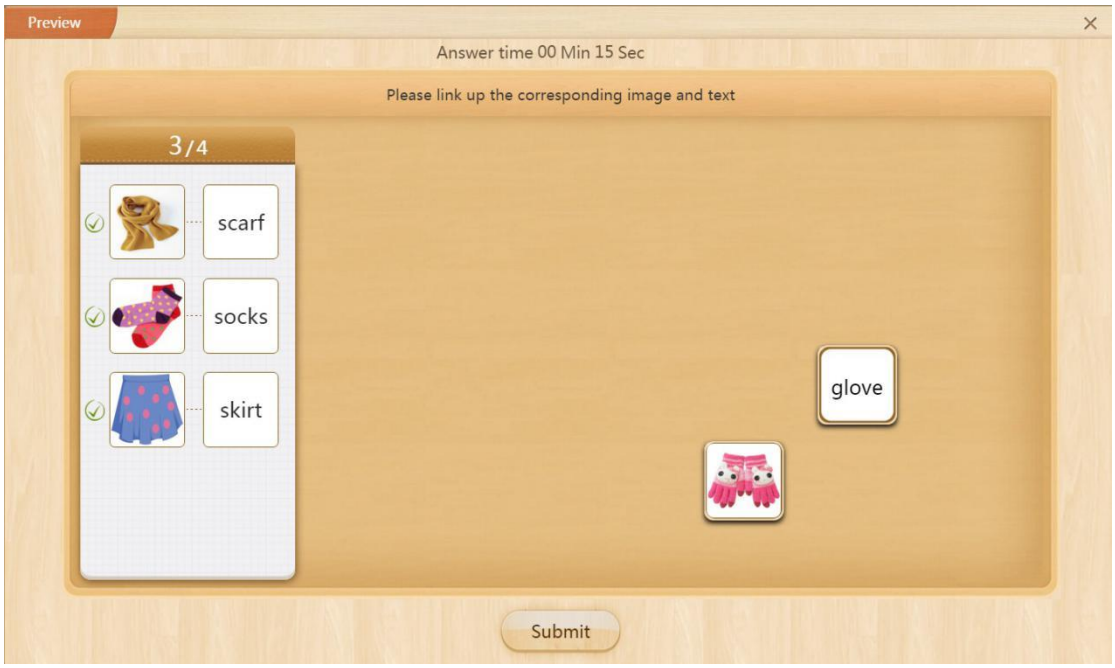


Fig. 10-1-14-2 Preview-Link-Up

10.1.15 Select Words

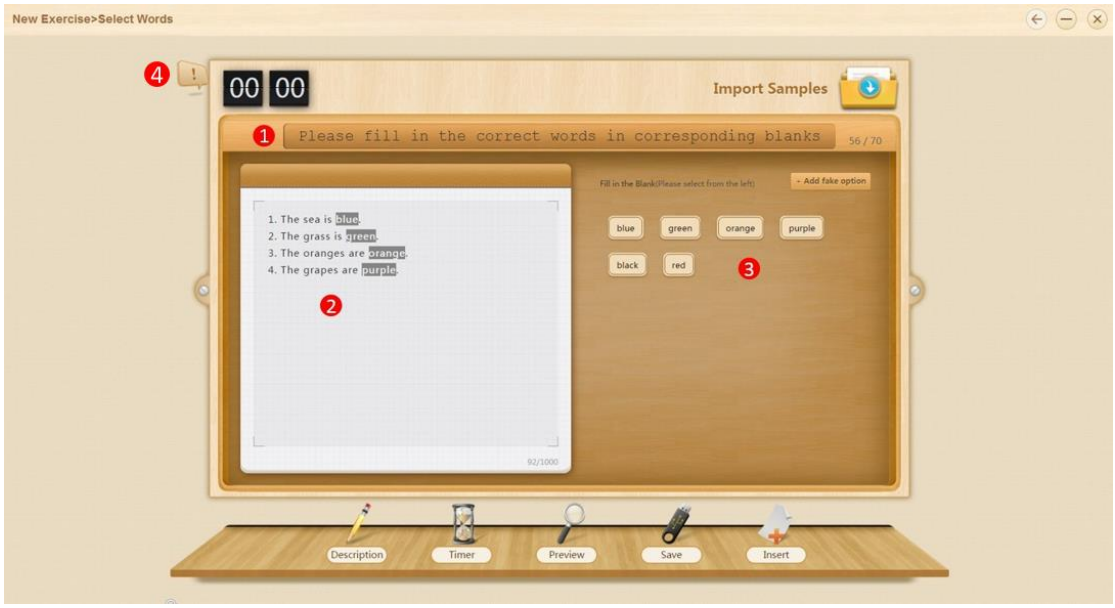


Fig. 10-1-15 Create Exercises-Select Words

No.	Area Name	Direction for Use

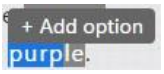
1	Edit a title	Add a title to create a new exercise.
2	Set a question	Edit the question or directly copy and paste a question from other sources.
3	Select words	Move the cursor on a word and click “+” in the top right to select the word as an option, e.g. 
4	Add distractors	Add incorrect answers (distractors) to distract attention.

Table 10-1-15 New Exercise-Select Words

10.1.16 Classified Table

No.	Area Name	Direction for Use
1	Set a question	Add references when you edit a question, e.g., pictures, audios, videos.
2	Add options	Add materials, e.g., texts, pictures, to be classified. Move the cursor on a material

		and click to delete it
3	Add a vertical classification	Add a vertical classification.
4	Name a vertical classification	Click to name it.
5	Add a horizontal classification	Add a horizontal classification and name it.
6	Add materials	Drag materials in the box (Area 2 in Fig. 10-1-16-1) to the corresponding slots as correct answers.

Fig. 10-1-16-1 New Exercise-Classified Table

Table 10-1-16-1 New Exercise-Classified Table

Fig. 10-1-16-2 Preview-Classified Table

10.1.17 Memory Card

Fig. 10-1-17-1 New Exercise-Memory Card

No.	Area Name	Direction for Use
1	Add pictures and texts	Click on the left to add or replace a picture and click on the right to type the corresponding words.
2	Add a matched pair	Click “+” to add a new matched pair.

Table 10-1-17 New Exercise-Memory Card

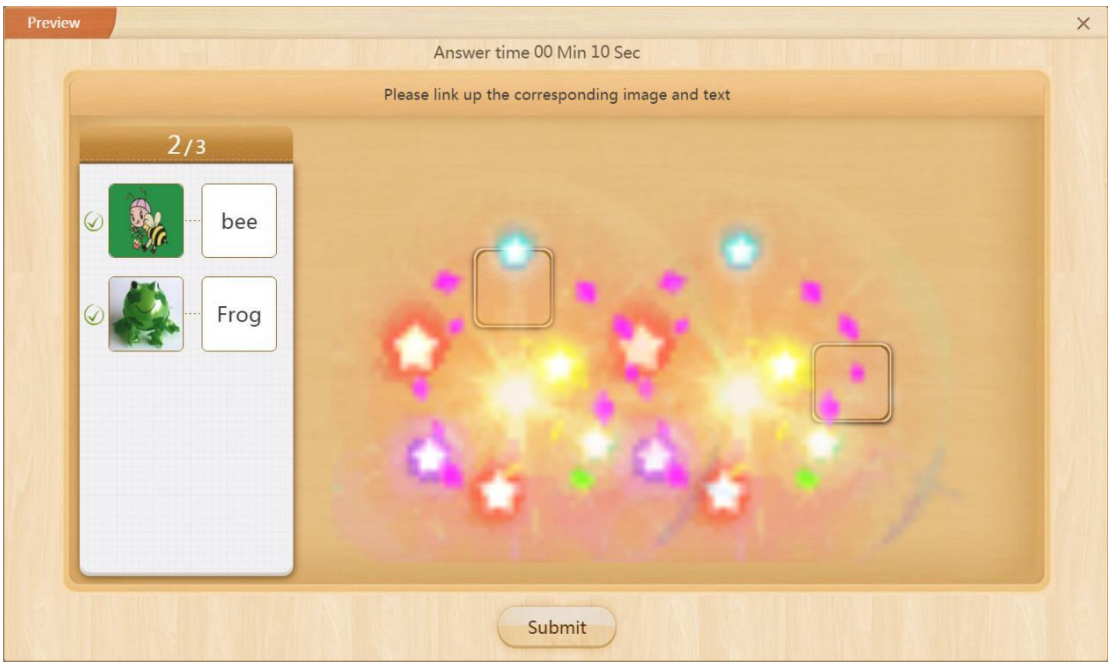


Fig. 10-1-17-2 Preview-Memory Card

10.1.18 Word Guessing

No.	Area Name	Direction for Use
1	Edit a question	Create multiple guessing games with different materials if you like.

2	Add materials	Click to add or replace materials to the guessing game.
3	Set answers	Provide correct answers to questions with Chinese characters or letters.

Fig. 10-1-18-1 New Exercise-Word Guessing

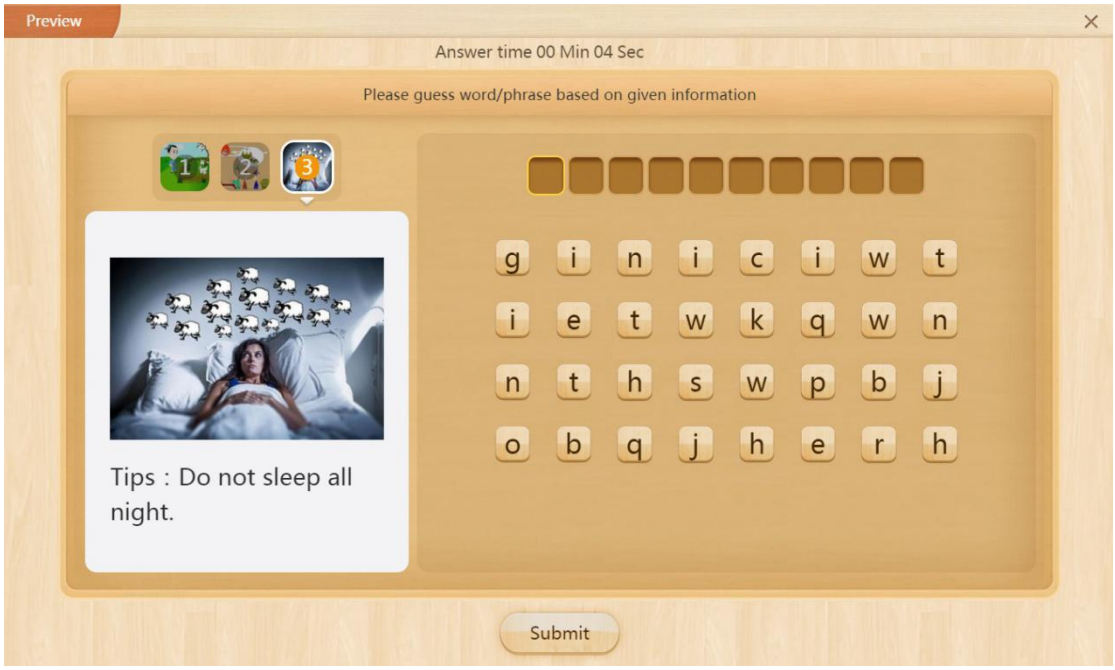


Table 10-1-18 New Exercise-Word Guessing

10.1.19 Classification

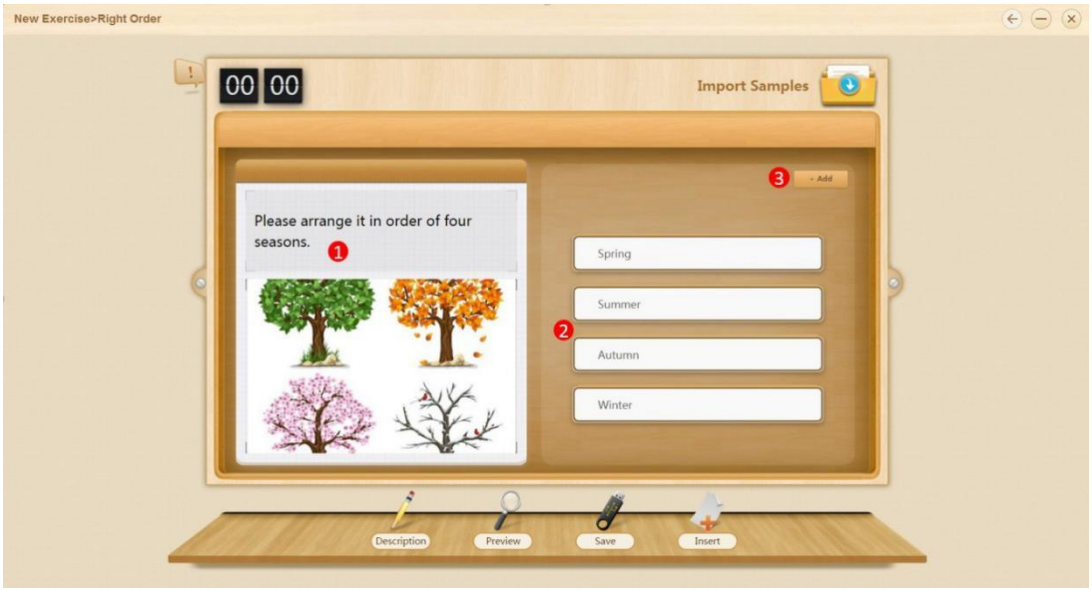
Fig. 10-1-19-1 New Exercise-Classification

No.	Area Name	Direction for Use
1	Classification name	Edit classification name, e.g., initials, finals.
2	New items	Add new items to a classification.
3	New classification	Add a new classification below, e.g., animal. Click the button at the bottom to delete it.

Table 10-1-19 New Exercise-Classification

Fig. 10-1-19-2 Preview-Classification

10.1.20 Drag to Right Order



No.	Area Name	Direction for Use
1	Add multimedia resources	Provide references, e.g., pictures, audios or videos, to help students.
2	Edit options	Put options in the correct sequential order and the system will arrange them randomly when generating the question.
3	Add another line	Click to type another option.

Fig. 10-1-21-1 New Exercise-Drag to Right Order

Table 10-1-21 New Exercise-Drag to Right Order

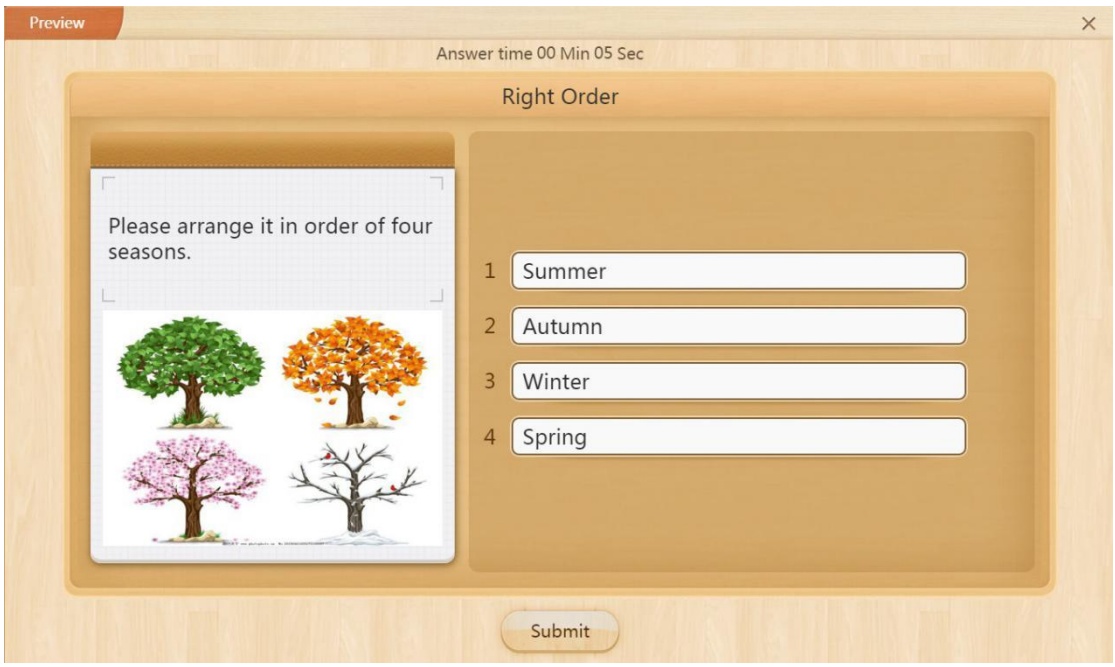


Fig. 10-1-21-2 Preview-Drag to Right Order

10.1.21 Select Texts

Fig. 10-1-20 New Exercise-Select Texts

No,	Area Name	Direction for Use
1	Edit a question	Add a title to a question.

2	Enter a correct answer to the question	Select texts and click Correct answer or Fake answer.

Table 10-1-20 New Exercise-Select Texts

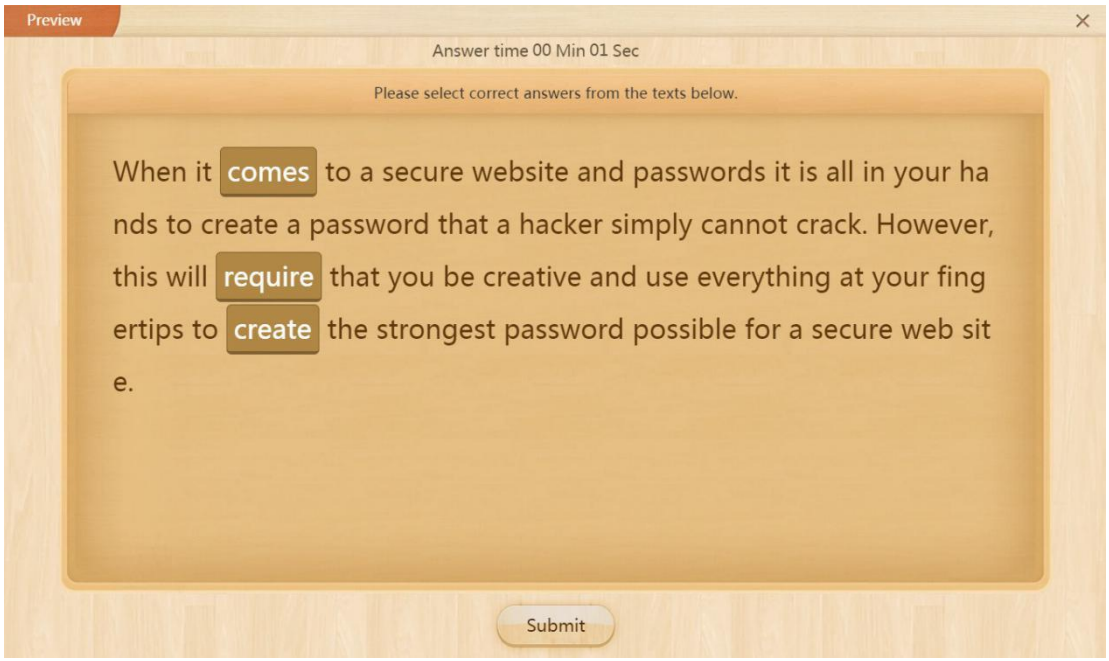


Fig. 10-1-20 Preview - Select Texts

10.1.22 Point to Right Order

Fig. 10-1-22-1 New Exercise-Point to Right Order

No,	Area Name	Direction for Use
1	Change picture	Click to select or change a picture for connecting dots.
2	Control picture size	Drag the scrollbar to adjust the picture size, or click **Adaptive**.
3	Point settings	Double click to select an area as a point of connection.

Table 10-1-22 New Exercise-Point to Right Order

Fig. 10-1-22-2 Preview-Point to Right Order

10.1.23 Labelling

Fig. 10-1-23-1 New Exercise-Labelling

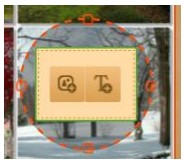
No.	Area Name	Direction for Use
1	Pictures	Add pictures that can be tagged.
2	Edit tags	Click to add a picture or text to tag the corresponding picture.
3	Select a labeling region	Click a picture to add a tag. Move the cursor on the picture and click **Delete** to remove the tag.
4	Switch to point-line mark/area mark	Circle a region and add a tag, e.g., 

Table 10-1-23 New Exercise-Labelling

Fig. 10-1-23-2 Preview-Labelling

10.1.24 Mind Map

A mind map is a general question type for multiple subjects. It is a diagram used to visually organize information and associate representations of ideas. It is often created around a single concept in the center that present visual construction and classification. Teachers can edit a mind map continuously, with the changes tracked.

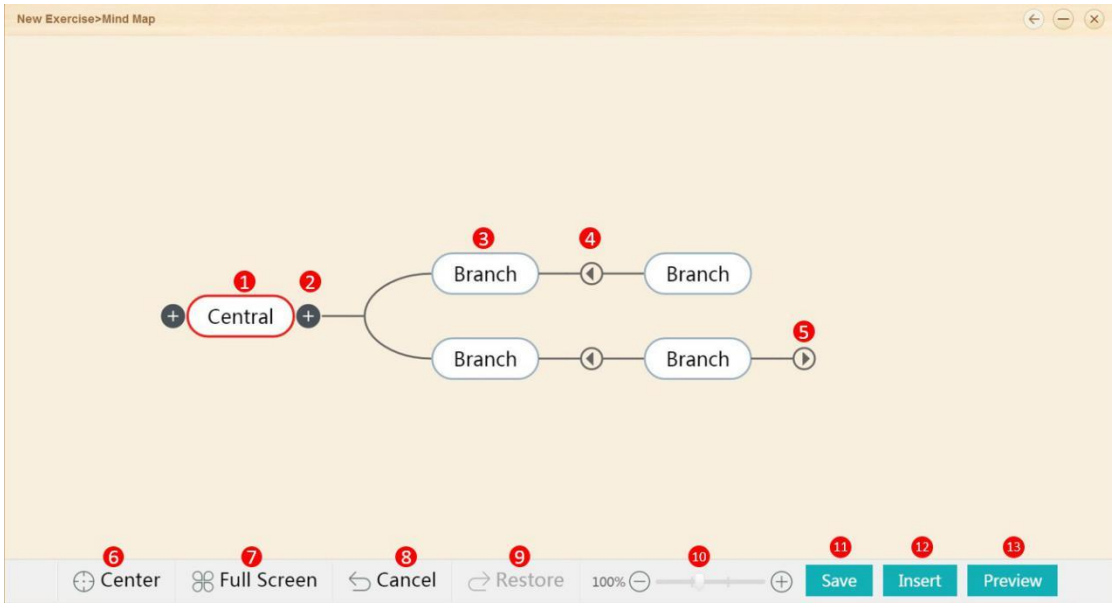


Fig. 10-1-24 New Exercise-Mind Map

No.	Area Name	Direction for Use
1	Topic	Click to select a topic, and click "+" on each side of the topic to add branch topics.
2	Add branch topics	Add branch topics.
3	Edit topic name	Double click to edit the topic, e.g.
4	Collapse branch topic	Click to collapse the branch topic.
5	Expand branch topic	Click to expand the branch topic.
6	Center	Click the Center button to display the mind map with the central topic in the middle.
7	Full screen	Click to display the mind map in the full screen mode.
8	Cancel	Cancel the previous step.
9	Restore	Restore the previous step.
10	Display scale	Drag to adjust the scale of the mind map.
12	Save	Click to save the exercise to the Drive.
12	Insert	Click to insert the mind map into your courseware.
13	Preview	Preview the mind map.

Table 10-1-24 New Exercise-Mind Map

10.1.25 Logic Exercises

It is a new question type that can be applied to multiple disciplines to create a learning environment of openness and divergent thinking. For example, students are required to put several flat shapes together to form shapes.

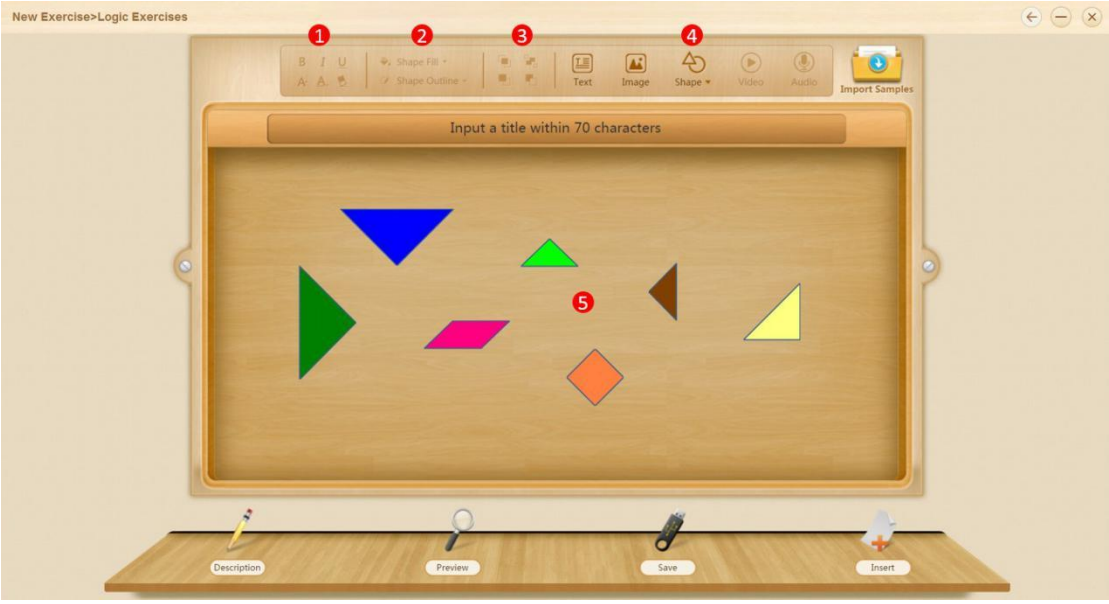


Fig. 10-1-25-1 New Exercise-Logic Exercises

No.	Area Name	Direction for Use
1	Text formats	Different formats including bold, italics, underline, font size, font color and strikethrough are provided to edit texts.
2	Edit shapes	Add a shape and fill the shape and its contour with colors.
3	Layer settings	Click **Bring to front**, **Send to back**, **Bring forward** or **Send backward** to arrange elements by changing their orders.
4	Add elements	Click the corresponding icons to add texts, pictures, shapes and other elements to the editing area; click the stem to add videos or audios.
5	Editing area	Select an element and click on an area to position the element.

Table 10-1-25 New Exercise-Logic Exercises

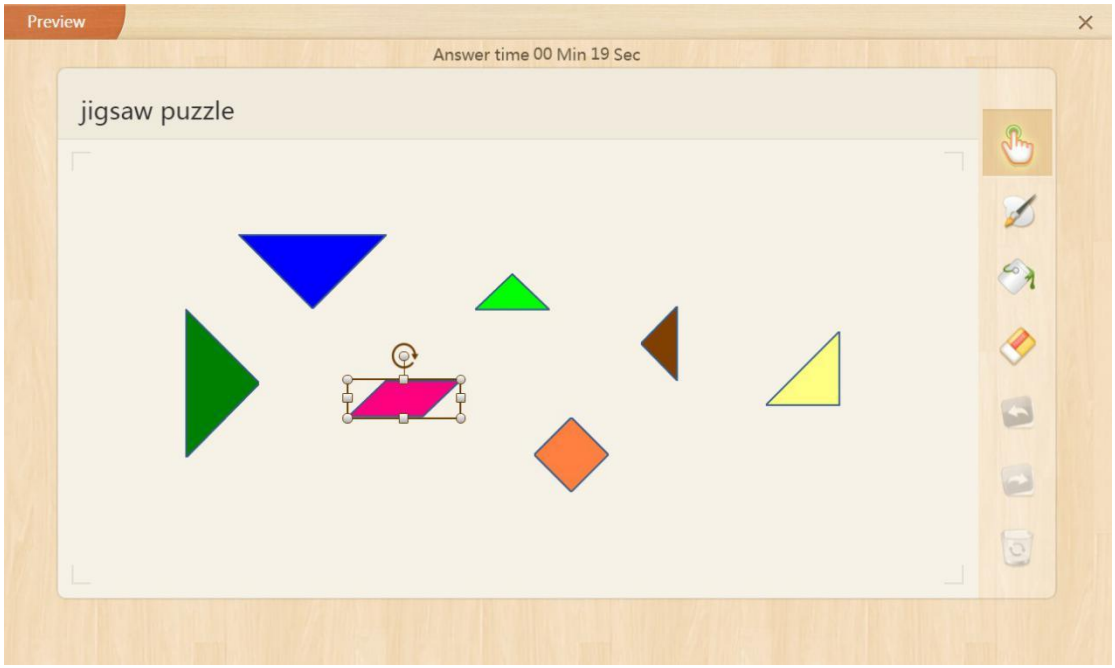


Fig. 10-1-25-2 Preview-Logic Exercises

10.1.26 Coloring

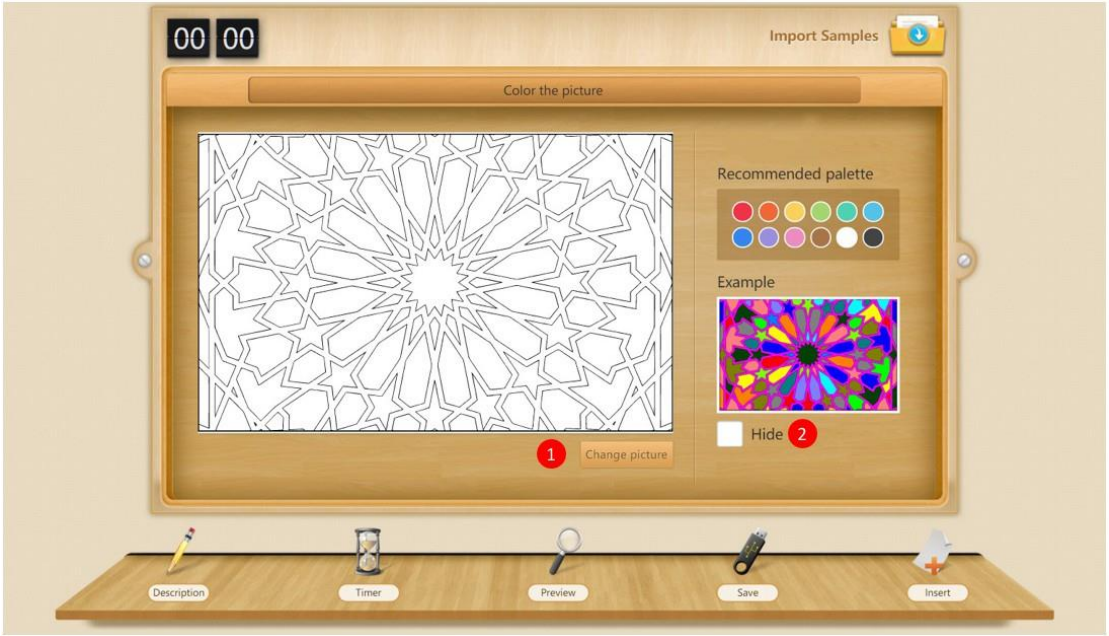


Fig. 10-1-26-1 New Exercise-Coloring

No.	Area Name	Direction for Use
1	Add a sample	Add or change a picture for coloring.

2	Hide example	Click to hide the example.

Table 10-1-26 New Exercise-Coloring

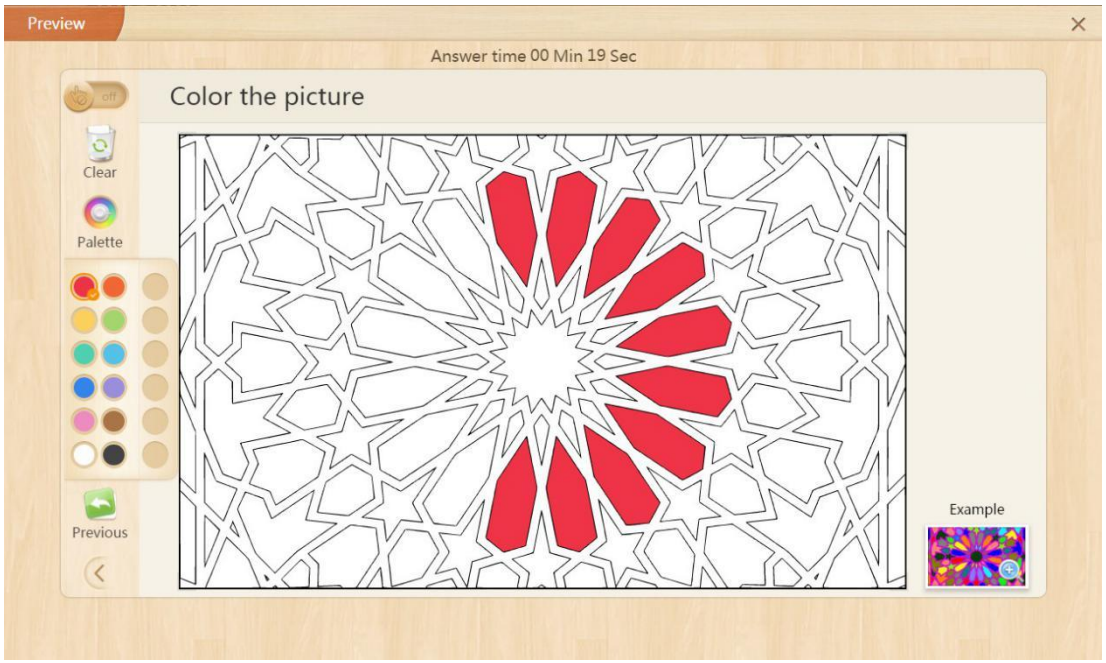


Fig. 10-1-26-2 Preview-Coloring

10.1.27 Crossword Puzzle

Establish a new exercise upon entering into the Crossword Puzzle; and then, select the language (Chinese/ English) of the question, as shown in Fig. 10-1-27-1.

Fig. 11-1-27-1 New Exercise-Crossword Puzzle

Taking an example of a question in English, select English to enter the settings of Crossword Puzzle, as shown in Fig. 10-1-27-2.

Fig. 10-1-27-1 New Exercise-Crossword Puzzle

No.	Area Name	Direction for Use
1	Set a question	Type questions in the table, including correct answers and distractors
2	Enter a correct answer to the question	Select the correct answer and set relevant hints

Table 10-1-27 New Exercise—Crossword Puzzle

Fig. 10-1-27-2 Preview-Crossword Puzzle

10.1.28 Word Search

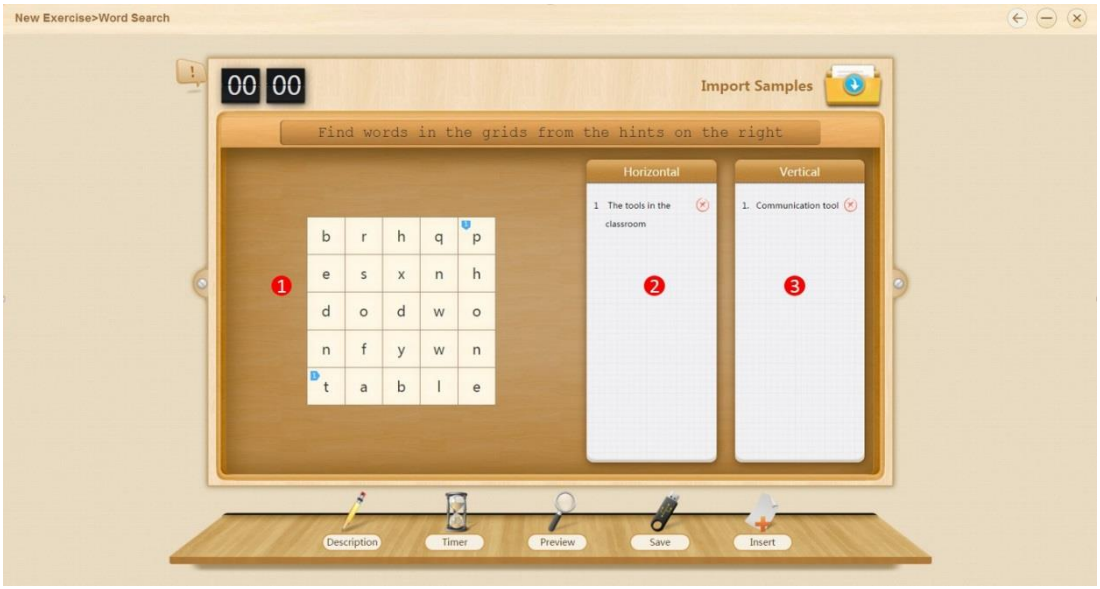


Fig. 10-1-28-1 New Exercise-Word Search

No.	Area Name	Direction for Use
1	Set a question	Add a title to a question.
2	Hints for rows	Add hints for correct answers of rows.
3	Hints for columns	Add hints for correct answers of columns.

Table 10-1-28 New Exercise-Word Search

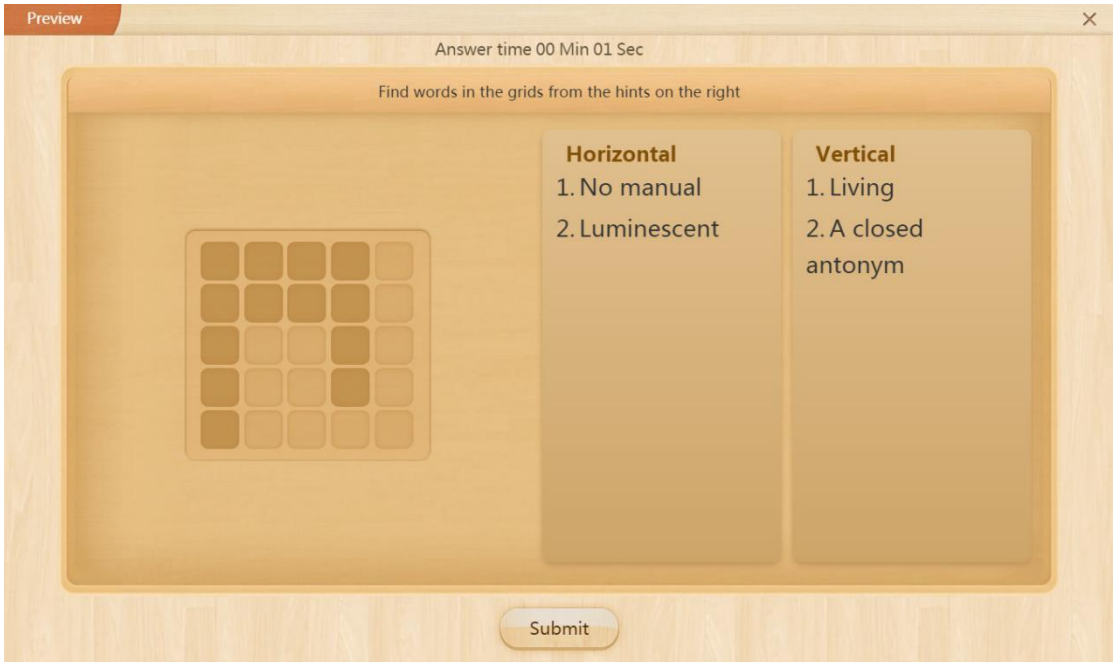


Fig. 10-1-28-2 Preview-Word Search

10.1.29 Vertical Calculation

As shown in 10-1-29-1, type a formula and click Next.

Fig. 10-1-29-1 New Exercise-Vertical Calculation

As shown in Fig. 10-1-29-2, select and hide the digit(s) requiring calculation by

students.

Fig. 10-1-29-2 New Exercise-Vertical Calculation

As shown in Fig. 10-1-29-3, preview a question and use the numeric keyboard on the right to fill in the box with the correct answers.

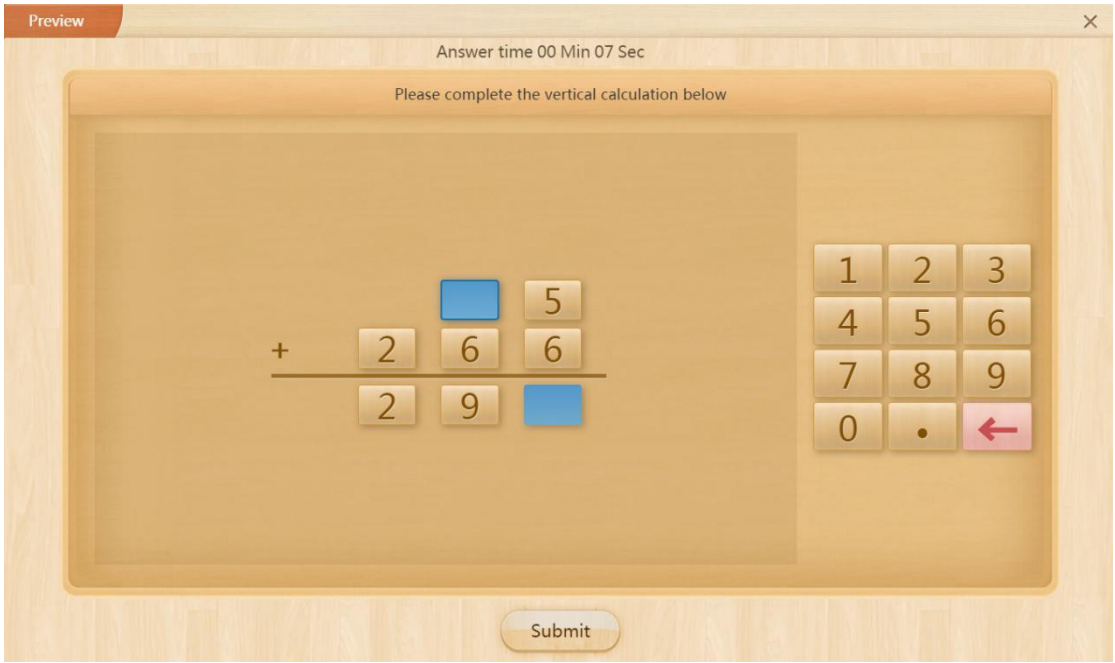


Fig. 10-1-29-3 Preview-Vertical Calculation

10.1.30 Add and Subtract Fractions

As shown in Fig. 10-1-30-1, enter a fractional expression and click Next.

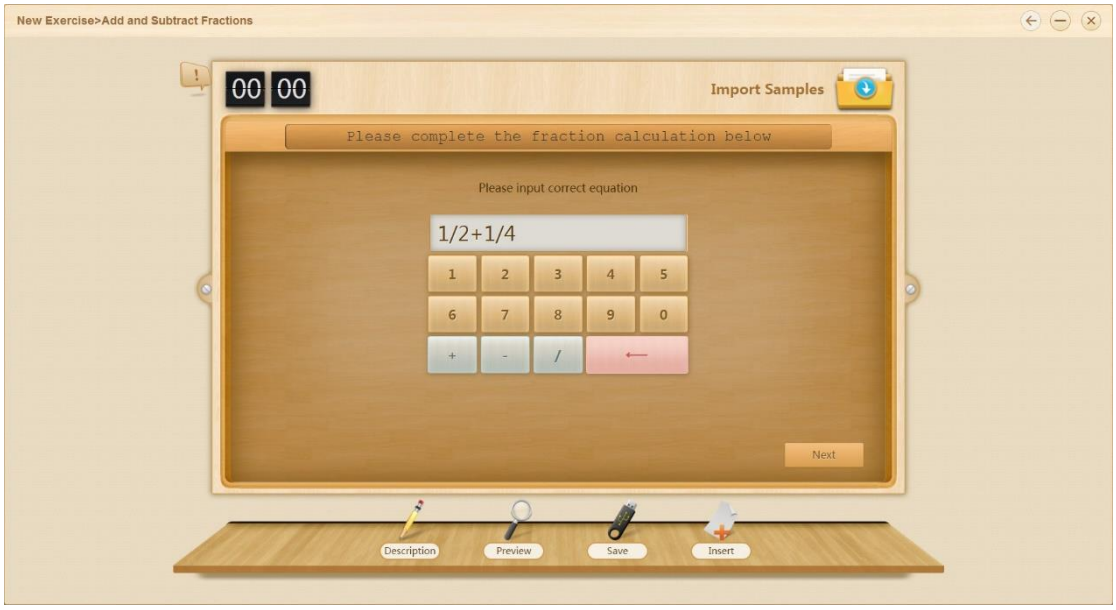


Fig. 10-1-30-1 New Exercise-Add and Subtract Fractions

As shown in Fig. 10-1-30-2, select the block(s) to be filled in and tick "Automatic calculation" or "Only lowest common multiple" if you like.

Fig. 11-1-30-2 New Exercise-Add and Subtract Fractions

As shown in Fig. 10-1-30-3, preview the question and select correct answers from the given digits at the bottom.

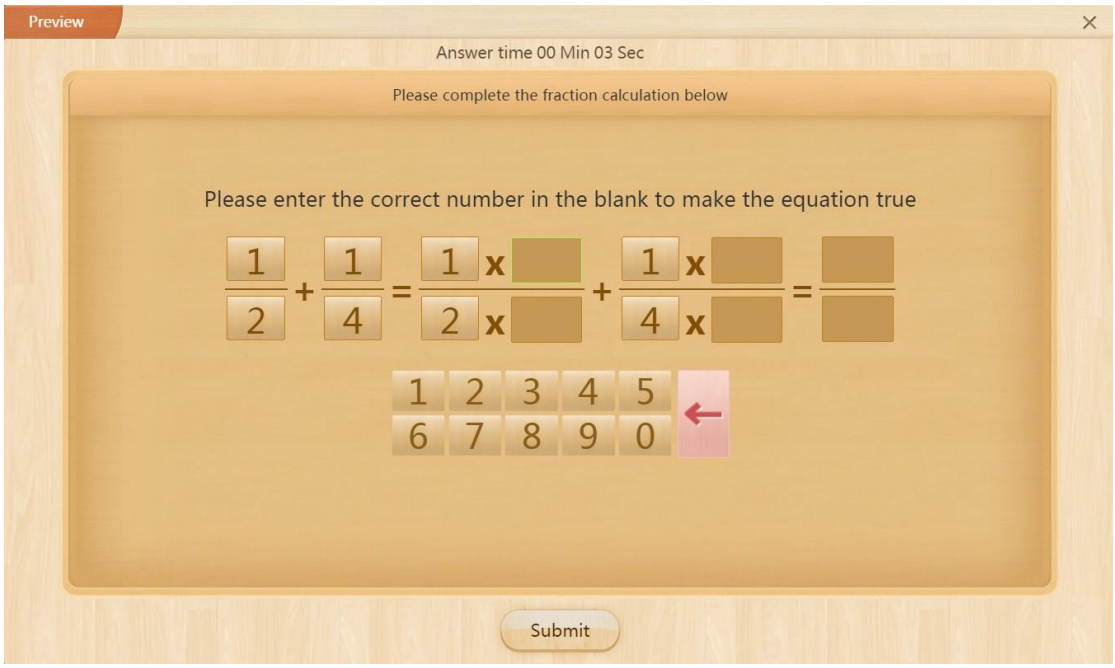


Fig. 10-1-30-3 Preview-Add and Subtract Fractions

As shown in Fig. 10-1-30-3, preview the question and select correct answers from the given digits at the bottom.

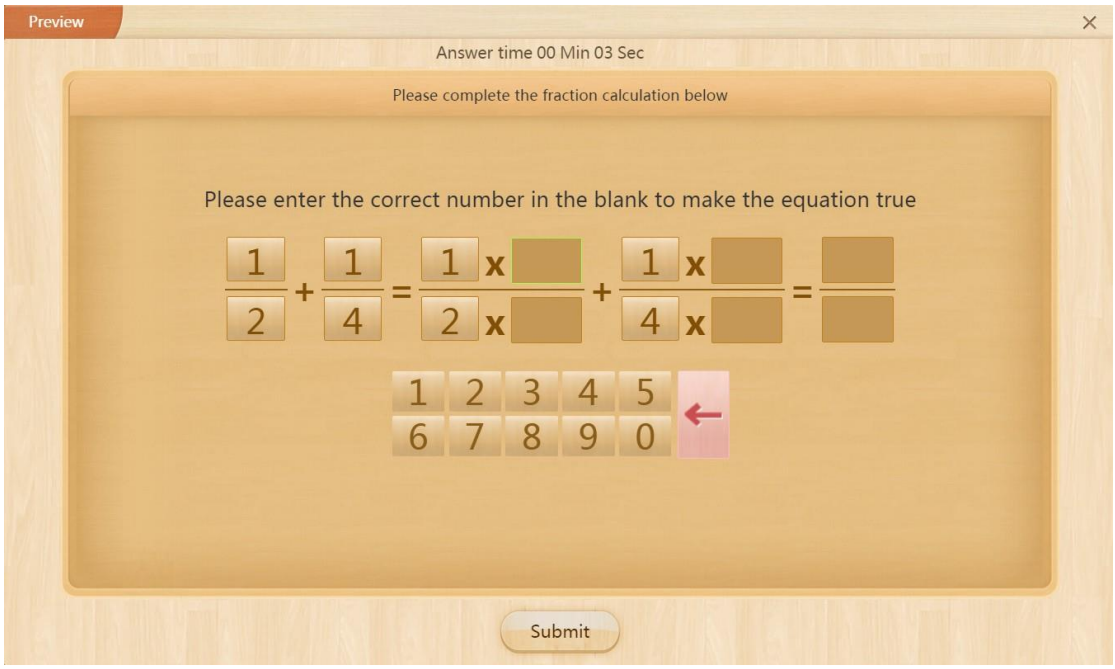


Fig. 10-1-30-3 Preview-Add and Subtract Fractions

10.1.31 Comparison

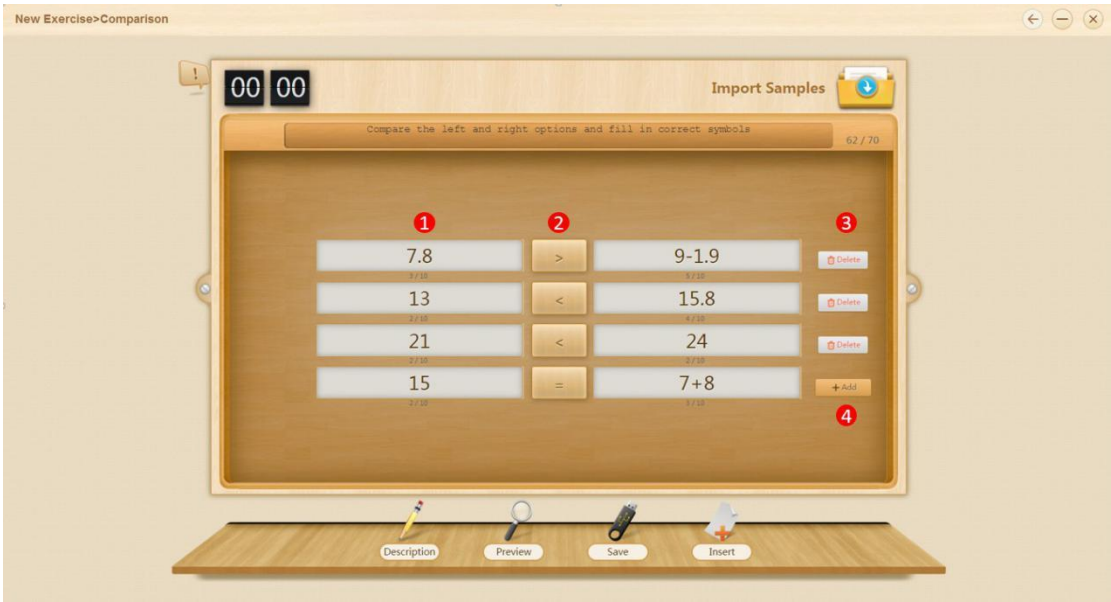


Fig. 10-1-31-1 New Exercise-Comparison

No.	Area Name	Direction for Use
1	Input digits	Type digits in boxes on both sides for comparison.
2	Set comparison results	Select the correct symbols to indicate the comparison results, e.g., < > ≤ ≥ = ≈
3	Delete a question	Click to delete a question.
4	Add a question	Click to add another question below.

Fig. 10-1-31-2 New Exercise-Comparison

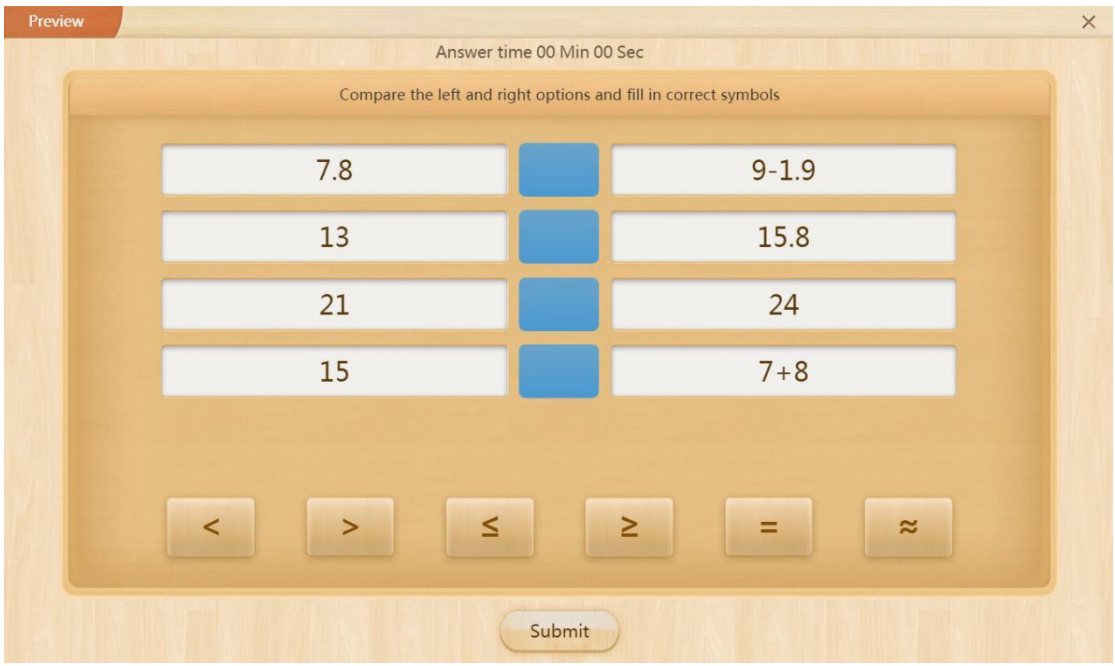


Table 10-1-31-2 New Exercise-Comparison

10.1.32 Interval Exercise

Fig. 10-1-32-1 New Exercise-Interval Exercise

No.	Area Name	Direction for Use
1	Edit an interval	Enter interval number (integers ranging from -20 to 20).

2	Switch between intersection/union sets	Click to switch between intersection and union sets ∪ ∩ .
3	Preview number axis	Click to generate the result at the bottom.

Table 10-1-32-1 New Exercise-Interval Exercise

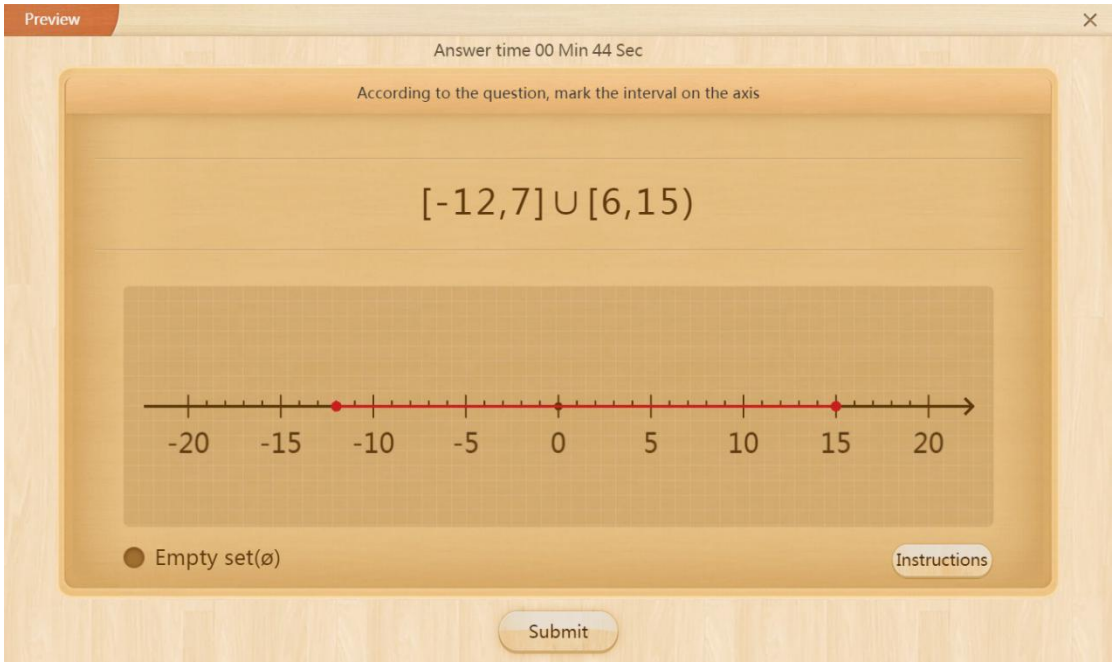


Fig. 10-1-32-2 Preview Exercise-Pronunciation Test-Sentence

10.1.33 Axis Coordinate Plotting Exercise

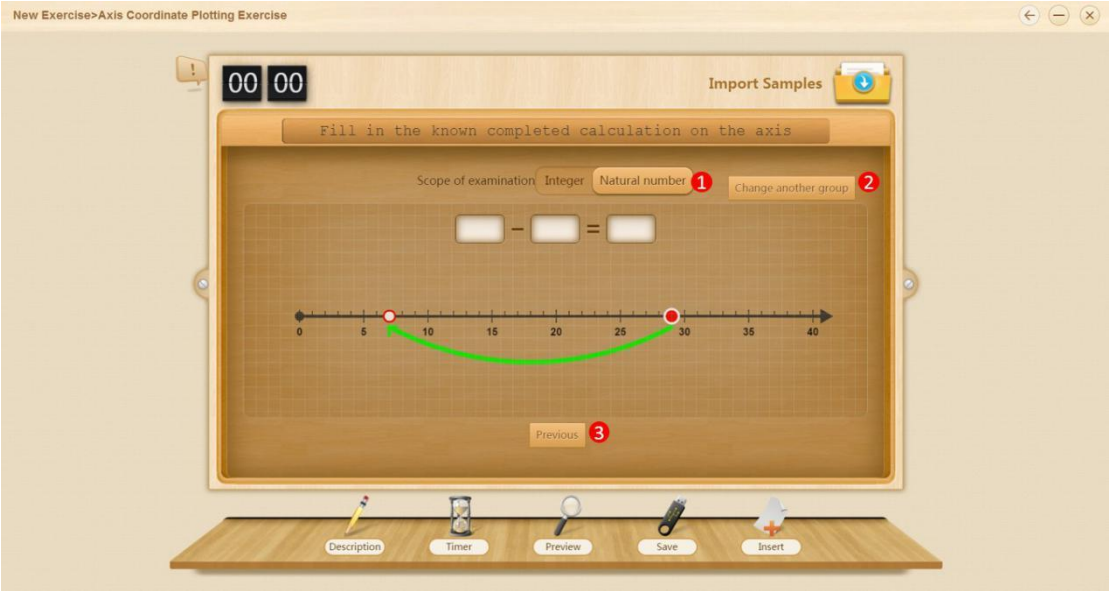


Fig. 10-1-33-1 New Exercise-Axis Coordinate Plotting Exercise

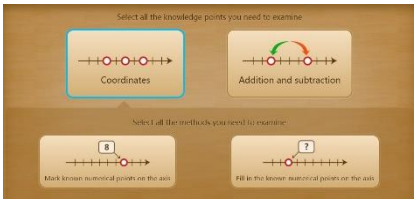
No.	Area Name	Direction for Use
1	Scope	Select a scope of evaluation (integer/natural number).
2	Change	Change the question in the Auto mode.
3	Previous	Go back to select a method to inspect students' understanding of the relevant knowledge. The system will present questions accordingly, e.g. 

Table 10-1-33-1 New Exercise-Axis Coordinate Plotting Exercise

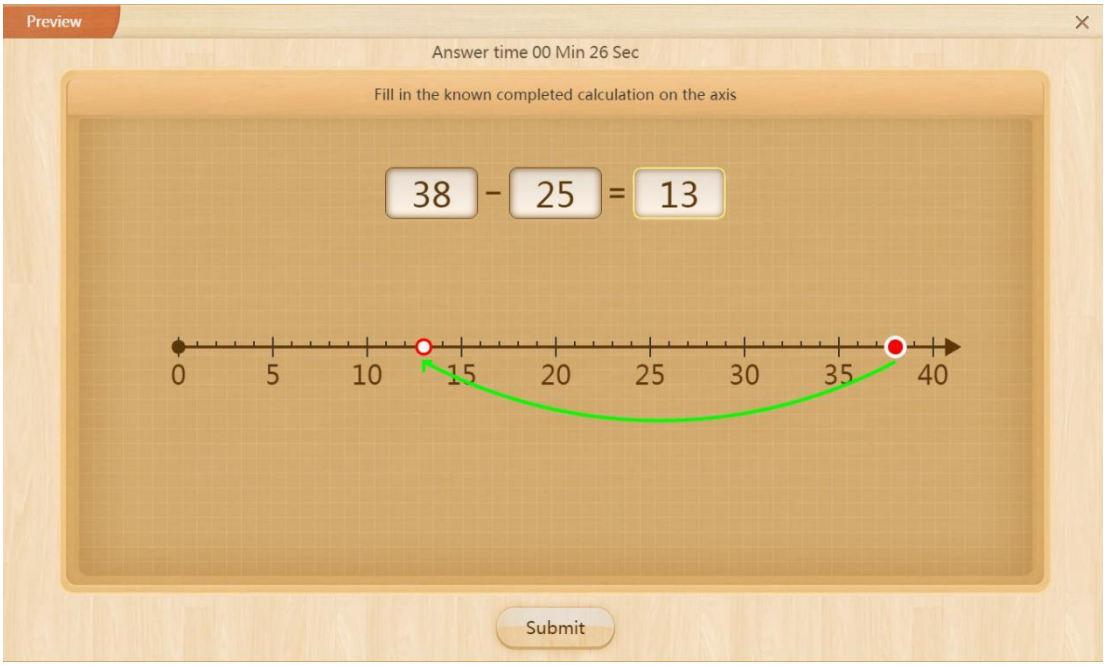


Fig. 11-1-33-2 Preview-Axis Coordinate Plotting Exercise

10.1.34 Reading Comprehension/ Material Questions

Reading comprehension/ reading comprehension material questions (material questions) is the key and indispensable part of general exam questions for all subjects in the entrance examinations of senior high schools/ colleges, which can satisfy exercises for the teaching needs of the Chinese (a question of appreciating ancient poems, the reading comprehension of contemporary Chinese literature, the reading comprehension of classical Chinese), English (reading comprehension), Politics (material questions), History (material analysis questions) and Geography (comprehensive questions with materials), facilitating teachers to explain, exercise and count comprehension questions in the classroom easily and quickly. At present, reading comprehension questions support single choice, multiple choice, true or false, fill in the blank and handwriting.

After clicking the “New Exercises” button on the top menu bar, left-click “Reading Comprehension/ Material Questions” module to enter the editing interface and the

editing end of reading comprehension questions, as shown in Fig. 10-1-34-1.

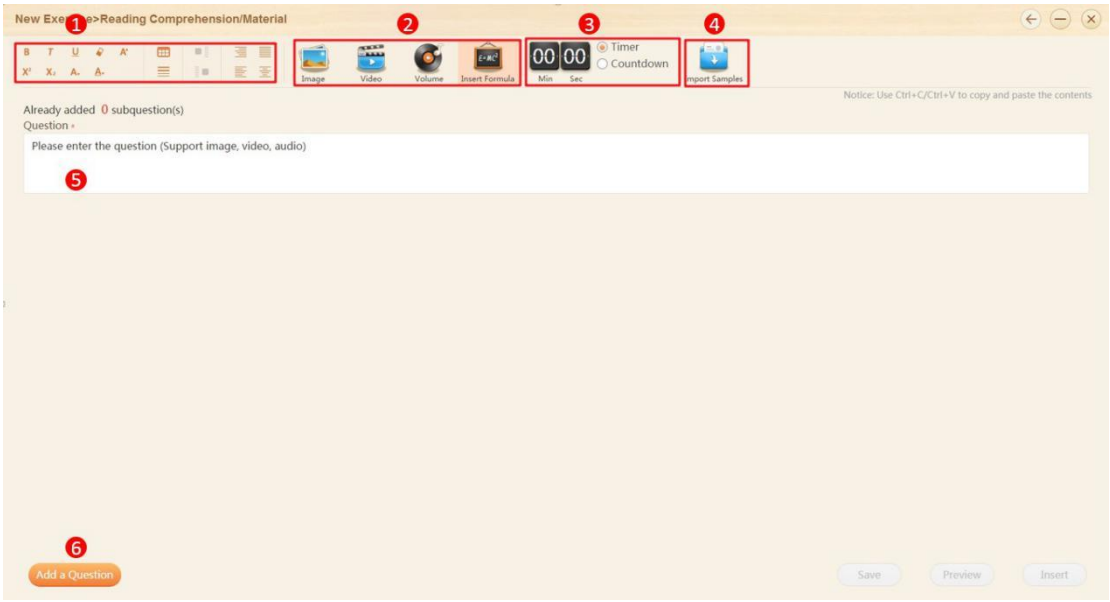


Fig. 10-1-34-1 New Exercise-Reading Comprehension/Materials Questions

No.	Area Name	Direction for Use
1	Text format	Use different formats, set different alignments, add a new table and draw a new horizontal line to edit questions.
2	Multimedia	When editing a question, select a picture from the local picture library or 101 Picture Library for inserting it to the question.
3	Timer	Set the timer, and click to select counting up or counting down.
4	Import samples	Click to import exercise samples.
5	Question stem	Click to edit the stem.
6	Add a question	Add a question consisting of single chose, multiple choice, true or false, fill in the blank and handwriting.
7	Preview	Preview the exercise after the completion of editing. Answer the question and submit your answer in the preview mode, as shown in Fig. 11-139-1.
8	Insert	Click to insert the new exercise to your courseware.

Table 10-1-34-1New Exercise-Reading Comprehension/Materials Questions

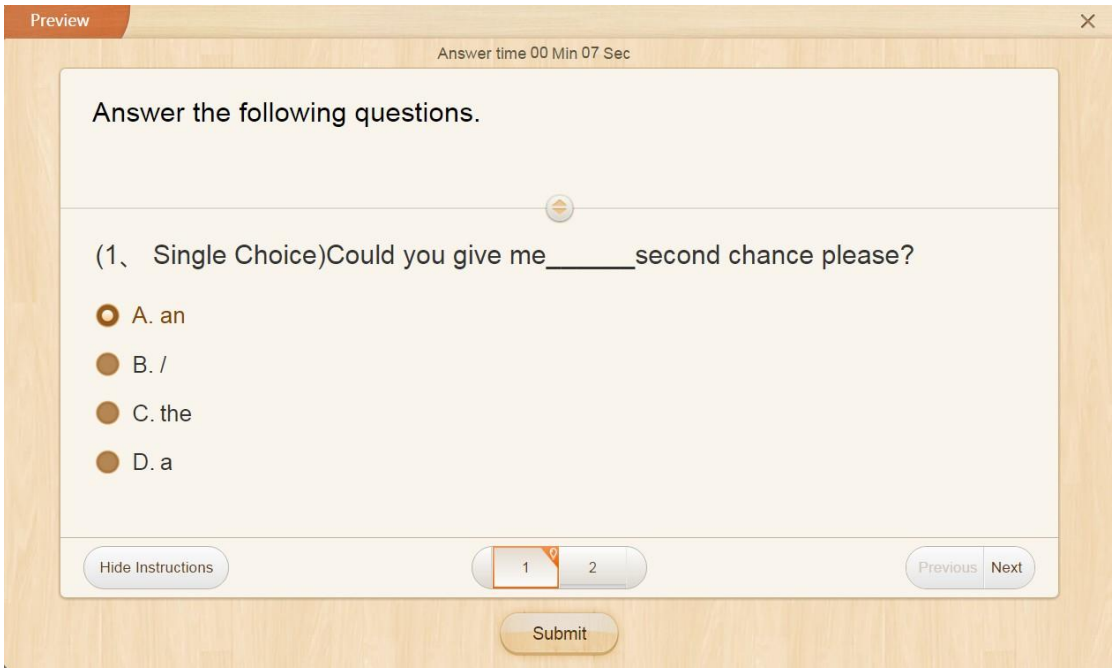


Figure 10-1-34-2 Preview Exercise-Reading Comprehension/Materials Questions

Click the "Slide Show" button to enter the display end in class after the completion of editing questions, as shown in Fig. 10-1-34-3.

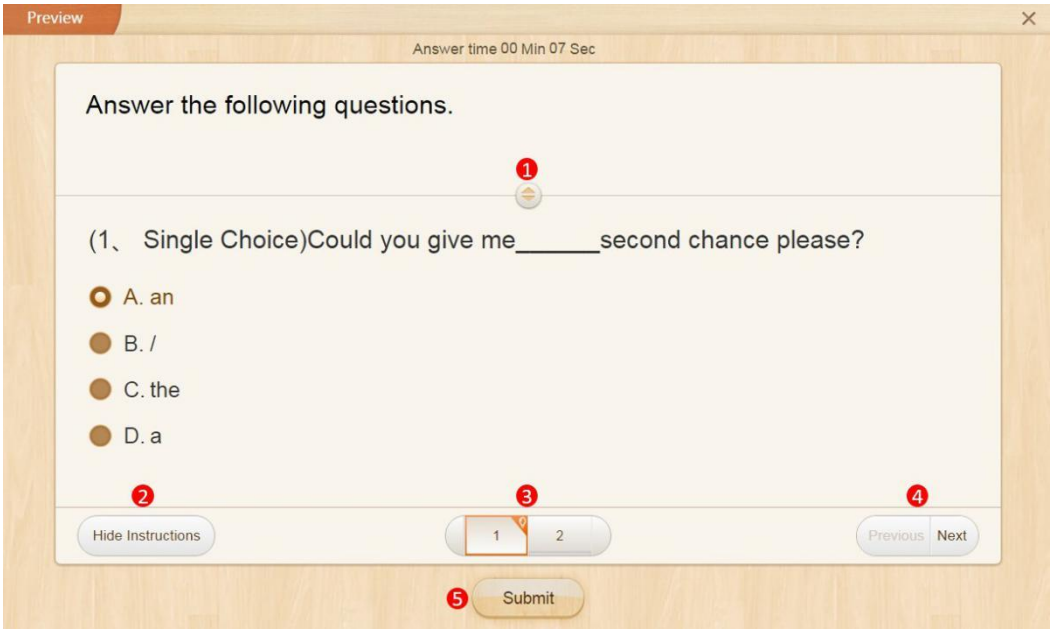


Fig. 10-1-34-3 New Exercise-Reading Comprehension/Materials Questions

No.	Area Name	Direction for Use
1	Split adjustment	Drag to the top and bottom to adjust the display range of the stem and question.
2	Hide the stem	Select to hide/ show the stem.
3	Switch questions	Click on each question to switch.
4	Previous/ Next	Click to switch to the previous or the next question.
5	Send the exercise	Send the exercise to the student end.
6	View explaination	Click to view the explaination if it's added while editing questions.
7	View answers	Click to view the answer.
8	View hints	Click to view hints if hints are added while editing questions.
9	Submit	Click to submit an answer.

Table 10-1-34-3 New Exercise-Reading Comprehension/ Materials Questions

10.1.35 Word Dictation

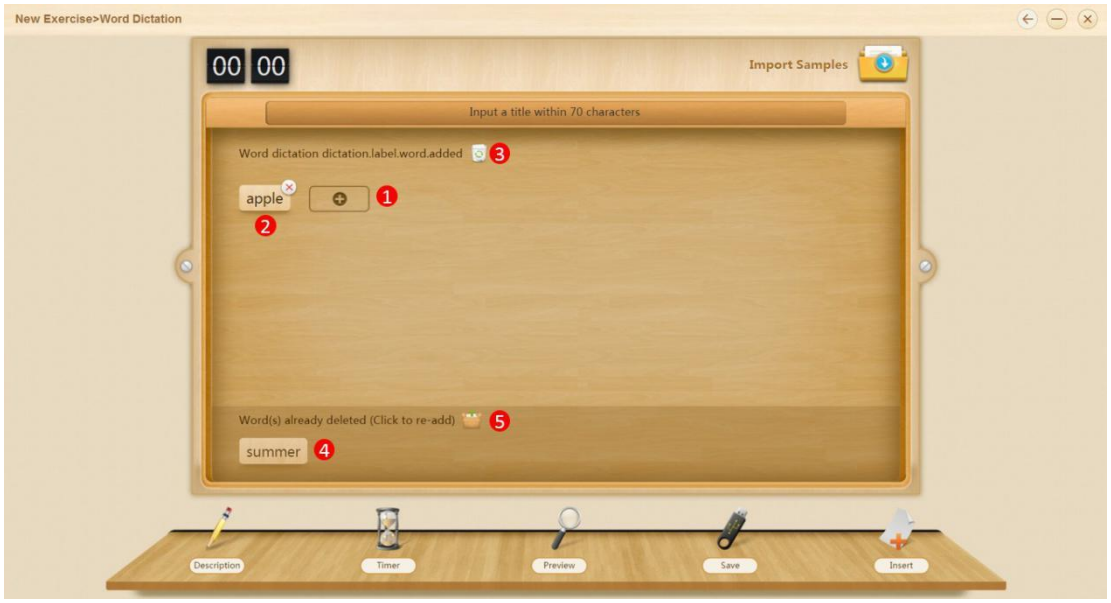


Fig. 10-1-35-1 Word Dictation

No.	Area Name	Direction for Use
1	Add a word	Click to select the word adding method. Select [Search] to manually enter words for adding, or select [Word List] to match words of the current course for adding.
2	Added words	Click to view the phonetic symbols and paraphrasing (click to edit and modify paraphrasing as well as to listen to the word pronunciation.
3	One-click to clear	Click to clear all added words by one click.
4	Deleted words	Delete the word by clicking the Delete button in the upper right corner of words, or the words which have been one-click deleted will be added in deleted words and click a certain deleted word to recover it to the added words
5	One-click recovery	Click to recover all deleted words by one click

Table 10-1-35-1 Word dictation

Fig. 10-1-35-2 Preview Exercises - Word Dictation

After submitting, the correctness of the dictation will be displayed, as shown in Fig. 10-1-37-3.

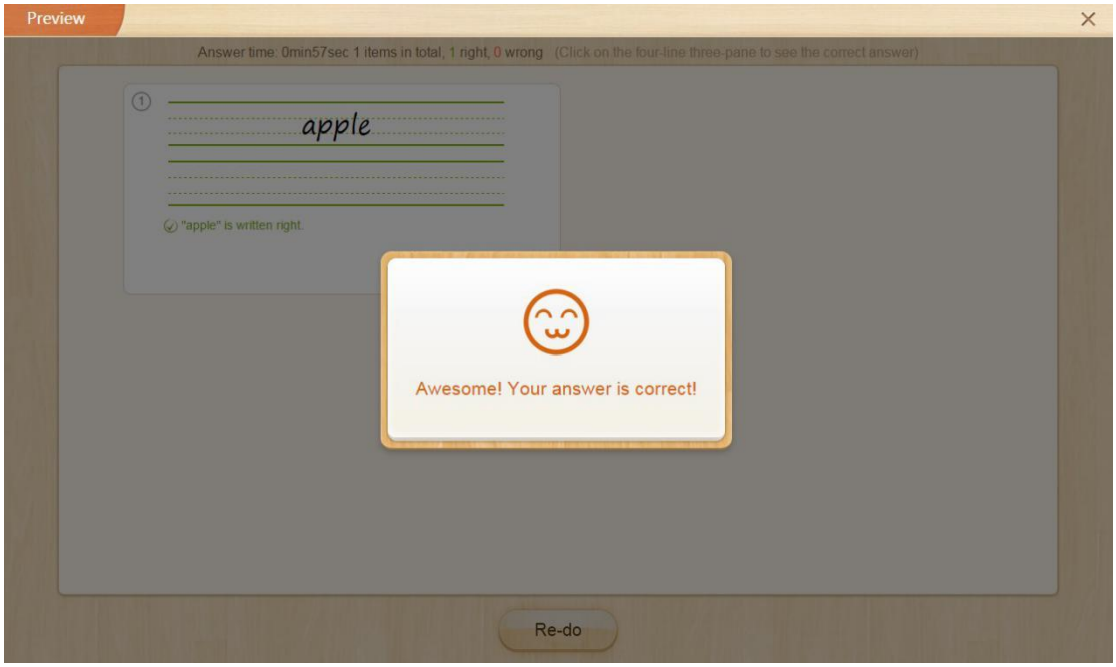


Fig. 10-1-35-3 Preview Exercise-Submit Answer

10.1.36 Chinese Character Dictation

Fig. 10-1-36-1 Chinese character dictation

No.	Area Name	Direction for Use
1	Add a Chinese character	Click to select the word adding method. Select [Search] to manually enter Chinese characters for adding, or select [List of New Words] to match Chinese characters of the current course for adding.
2	Added Chinese characters	Click to view the phonetic symbols and paraphrasing of the Chinese character (click to edit and modify paraphrasing as well as to listen to the pronunciation of Chinese character.
3	One-click clear	Click to clear all added words.

Table 10-1-36-1 Chinese character dictation

Fig. 10-1-38-2 Preview Exercise-Chinese Character dictation

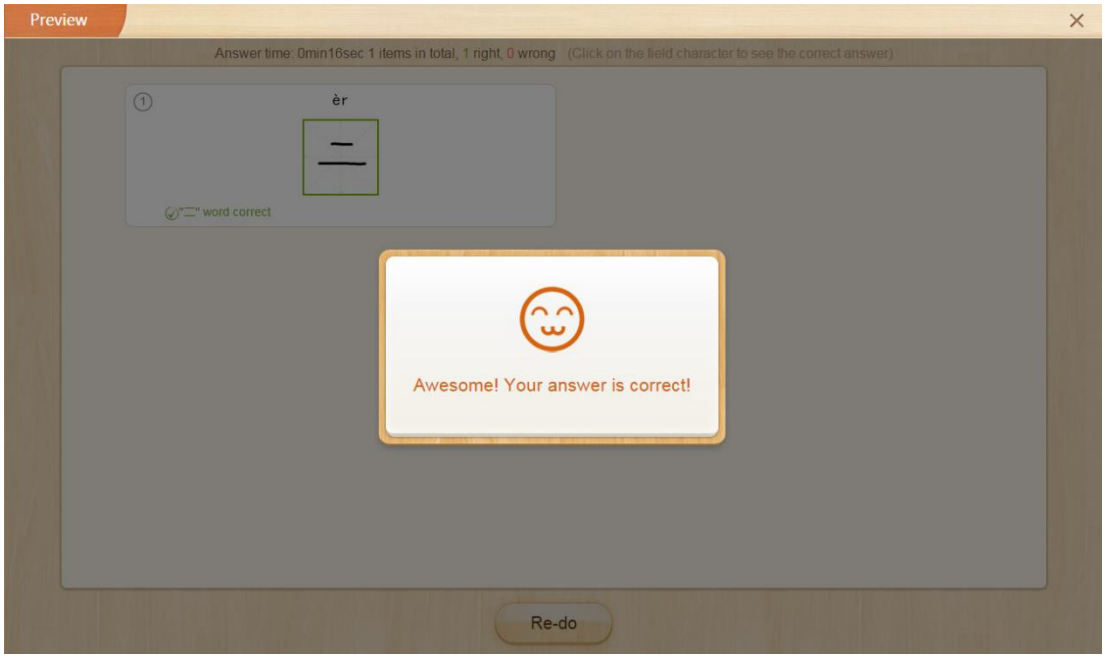


Fig. 10-1-38-3 Preview Exercise-Submit Answers

10.2 Introduction of Subject Tools

10.2.1 Area Comparison

Overlapping and splicing are two basic methods for area comparison. See Fig. 10-2-1-1 and 10-2-1-2.

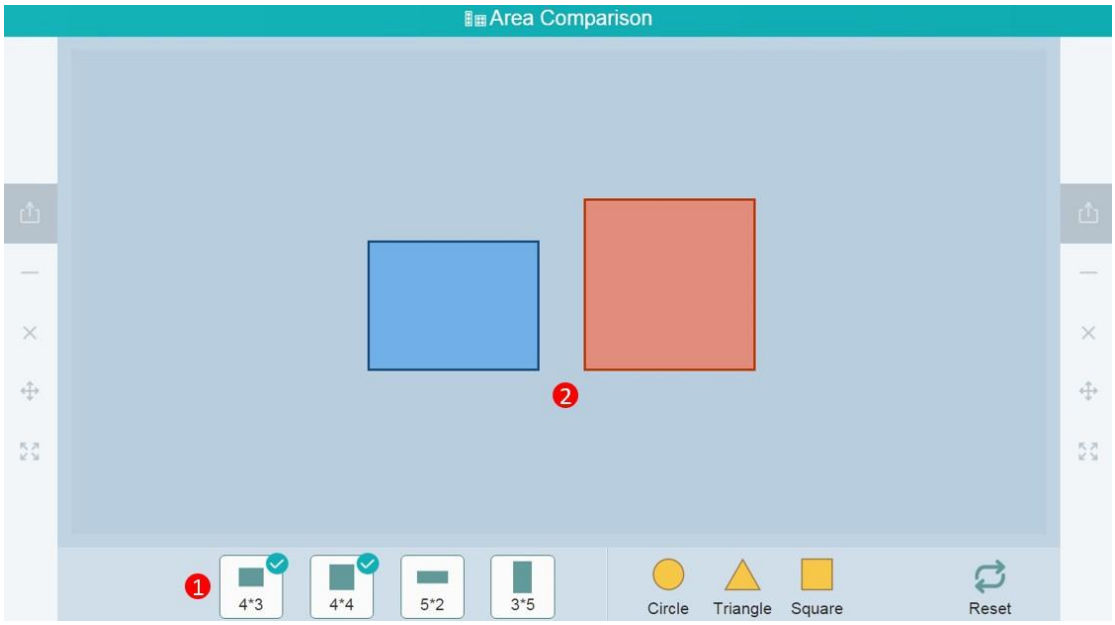


Fig. 10-2-1-1 Subject Tools-Area Comparison 1

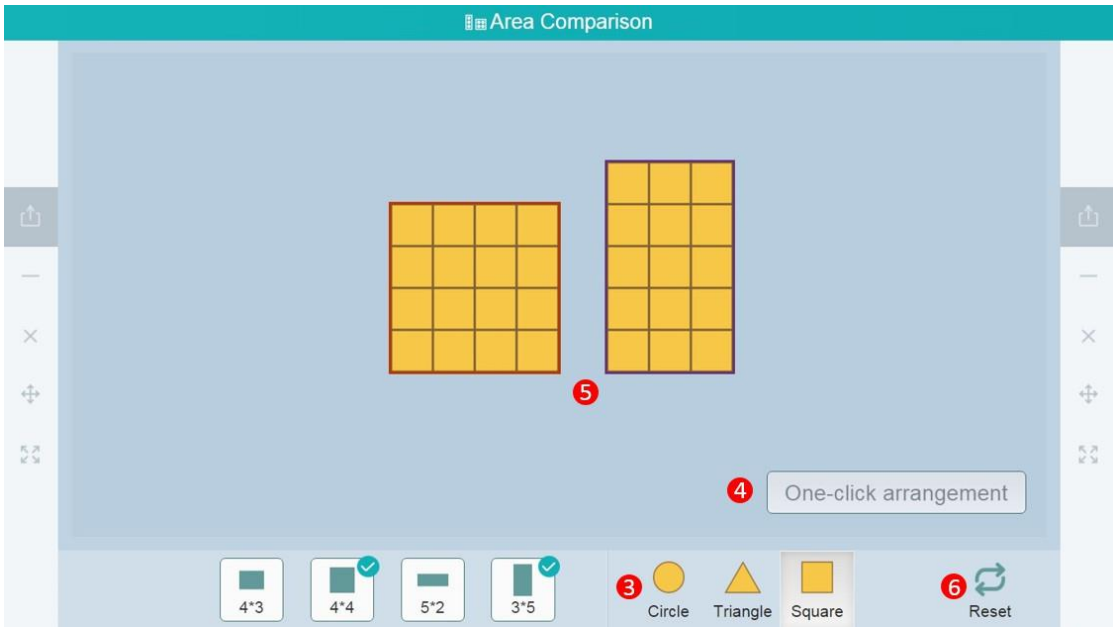


Fig. 10-2-1-2 Subject Tools-Area Comparison 2

No.	Area Name	Direction for Use
1	Figure selection	Select two figures in different dimensions (four types of dimensions are available) for comparison.
2	Comparison area	Drag the shapes for comparison.
3	Splicing	Select circles, triangles or squares in a specific proportional scale to cover the original figure for comparison.
4	One-click arrangement	Click and select a shape to automatically cover the comparison objects.
5	Splicing demonstration	As shown in Fig. 10-2-2-2, compare the area of two figures by counting the number of smaller shapes covering them.
6	Reset	Click **Reset** and the comparison objects will revert to the initial state.

Table 10-2-1 Subject Tools-Area Comparison

10.2.2 Scale

A balance is an instrument for weighing things, as shown in Fig. 10-2-2.

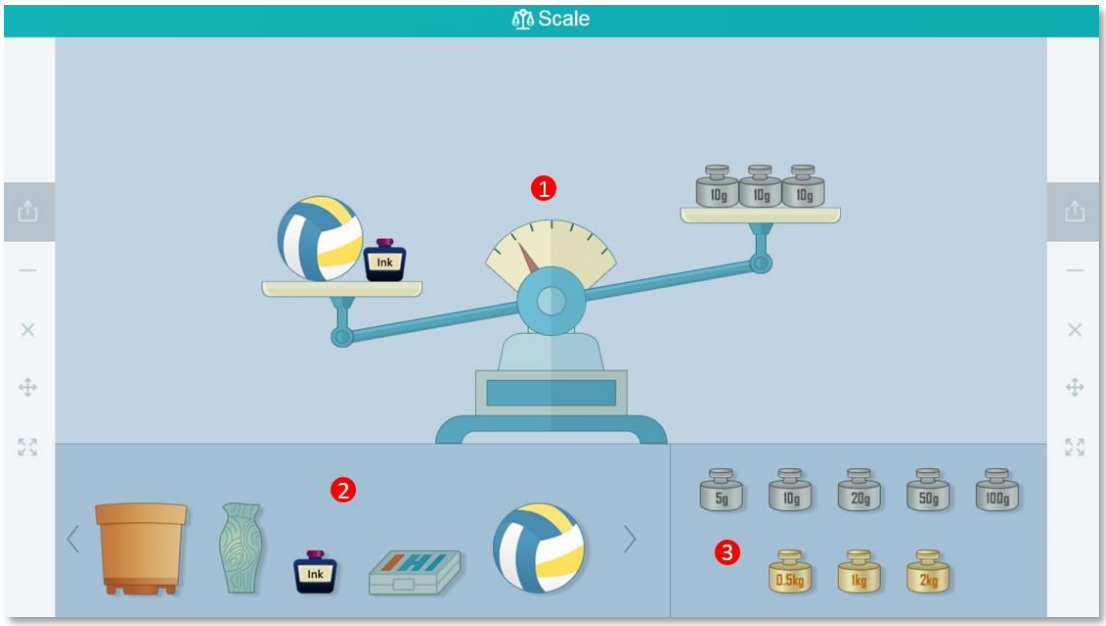


Fig. 10-2-2 Subject Tools-Scale

No.	Area Name	Direction for Use
1	Balance	Weighing things with weights and two dishes that hang from a bar.
2	Weighing objects	Select and drag one or more objects to the balance.
3	Weights	Drag the appropriate weight(s) to the balance.

Table 10-2-2 Subject Tools-Scale

10.2.3 Catch the Ball

Ball drawing can be applied to probability problems, as shown in Fig. 10-2-3.

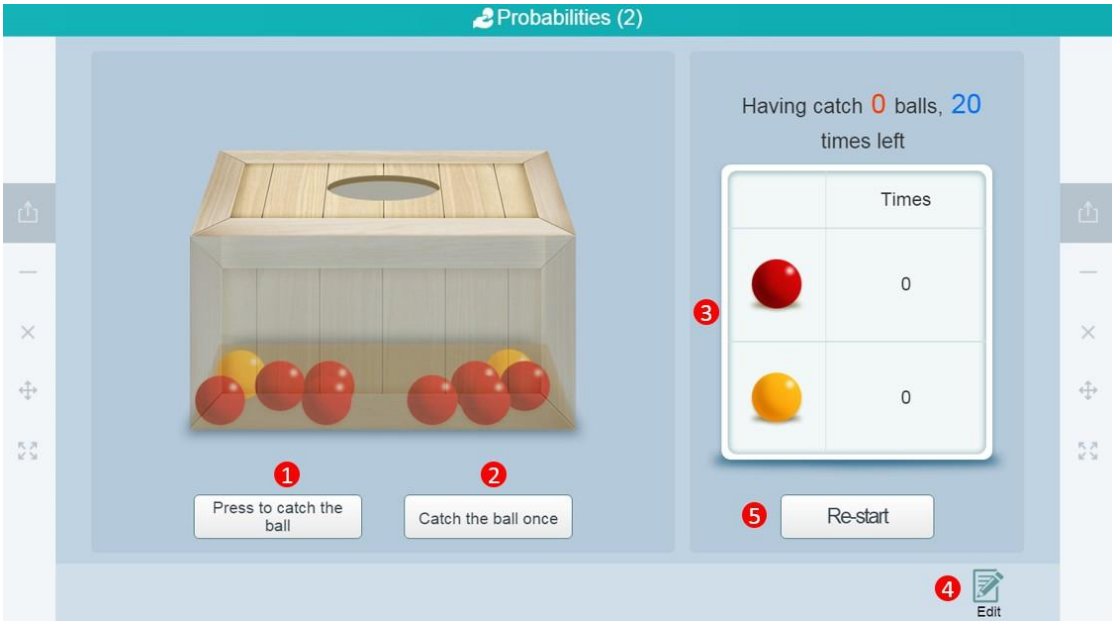


Fig. 10-2-3 Subject Tools- Catch the ball

No.	Area Name	Direction for Use
1	Press to catch the ball	Click to automatically draw a ball from the box for 20 times.
2	Catch the ball once	Click to draw a ball from the box.
3	Statistics	Display the ball drawing statistics.
4	Edit	Click to change the number of balls in the box, the specified time of drawing and the

		transparency of the box.
5	Restart	Clear the ball drawing statistics.

Table 10-2-3 Subject Tools- Catch the ball

10.2.4 Central Angle Theorem

The Central Angle tool is used for demonstrating the central angle theorem. See Fig. 10-2-5.

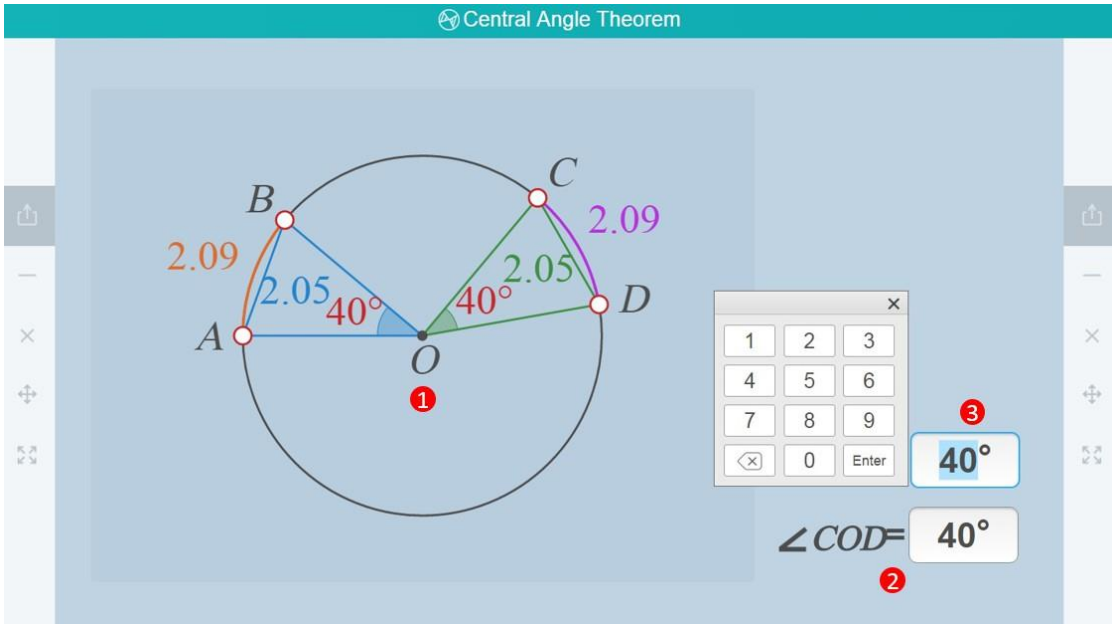


Fig. 10-2-4 Subject Tools-Central Angle Theorem

No.	Area Name	Direction for Use
1	Operation area	In this area, the angular degrees of <AOB and <COD are adjustable, with the lines in blue representing chord length and those in orange as arc length.
2	Central angle	Adjust the central angles.
3	Central angle adjustment	Enter a degree with the numeric keyboard and click the **Enter** tab to change the degree of the central angle.

Table 10-2-4 Subject Tools-Central Angle Theorem

10.2.5 Circle Area Formula

Circle Area Formula is displayed step by step, as shown in Fig. 10-2-5-1 and Fig. 10-2-6-2.

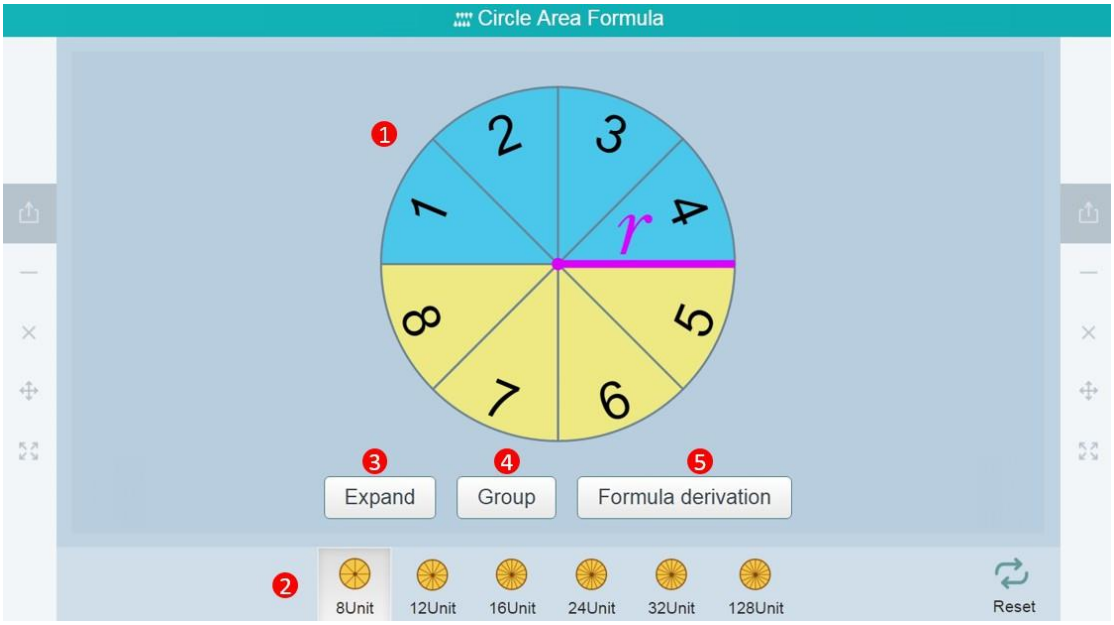


Fig. 10-2-5-1 Subject Tools-Circle Area Formula 1

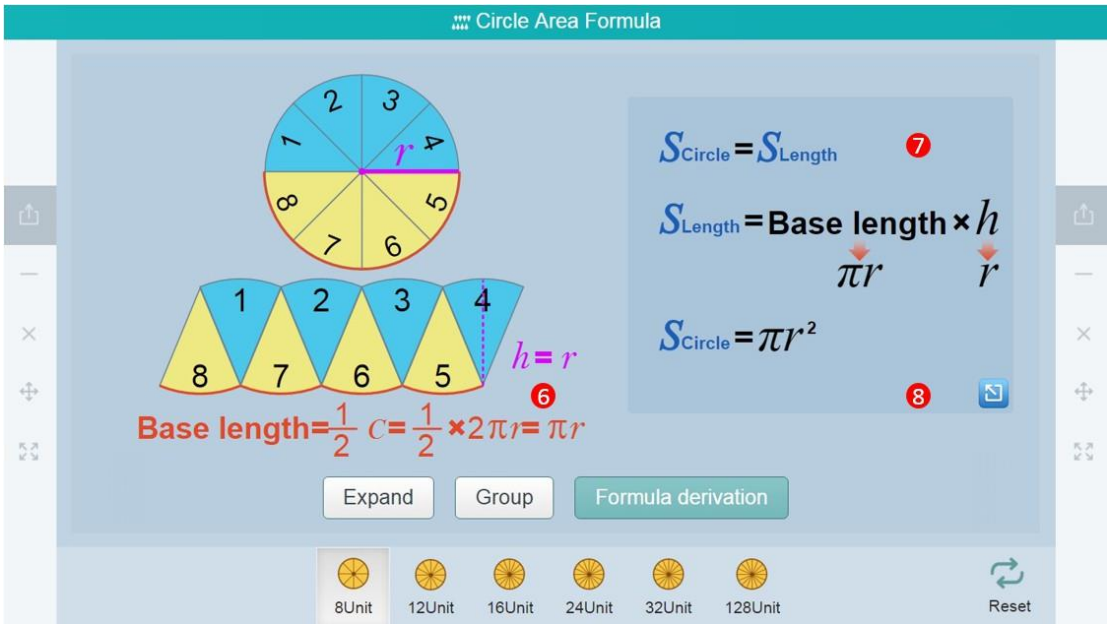


Fig. 10-2-5-2 Subject Tools-Circle Area Formula 2

No.	Area Name	Direction for Use

1	Initial state	Divide the circle into several portions.
2	Select the number of portions	Teachers can select to divide the circle into different portions.
3	Expand	Click to view the development process.
4	Group	Click to view the combination process.
5	Formula derivation	Click to start the derivation process.
6	Derivation figures	Display the derivation process and steps of figures.
7	Formula figures	Display the derivation process and steps of formula.
8	Reinteprete	Reinterpret the steps of formula calculation.

Table 10-2-5 Subject Tools-Circle Area Formula

10.2.6 Radius Measurement

The radius measurement tool demonstrates how to measure the radius of a circle. See Fig. 10-2-6.

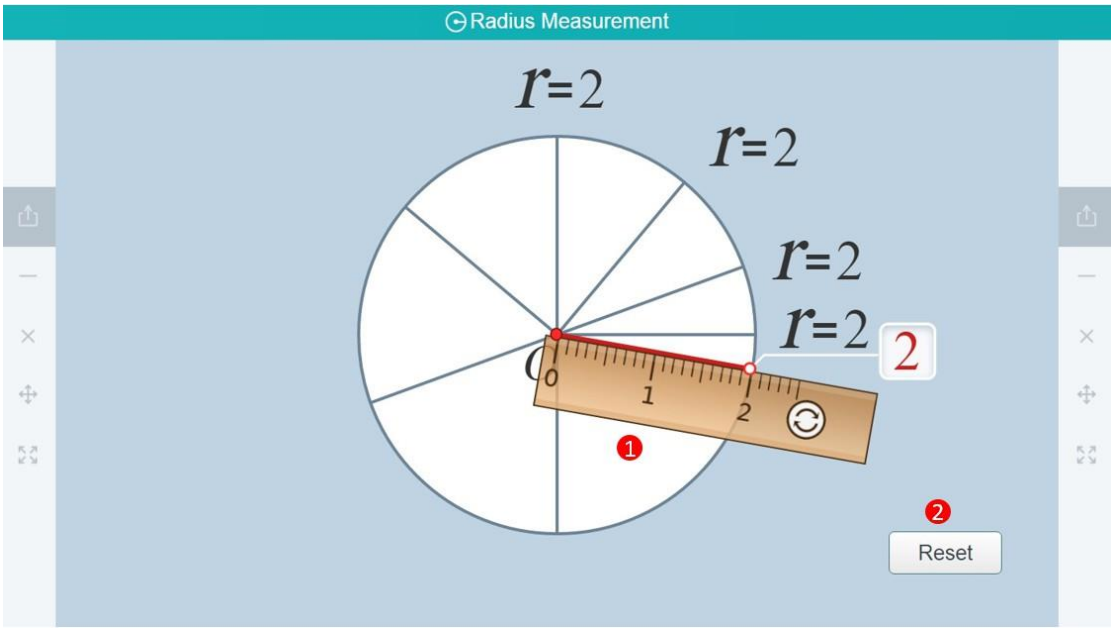


Fig. 10-2-7 Subject Tools-Radius Measurement

No.	Area Name	Direction for Use
1	Operation area	Drag the **Rotation** button to rotate the straightedge until it overlaps a radius and the radius value is shown on the interface.
2	Reset	Reset to the initial state.

Table 10-2-6 Subject Tools-Radius Measurement

10.2.7 Circle Angle Theorem

The radius measurement tool demonstrates how to measure the radius of a circle. See Fig. 10-2-7.

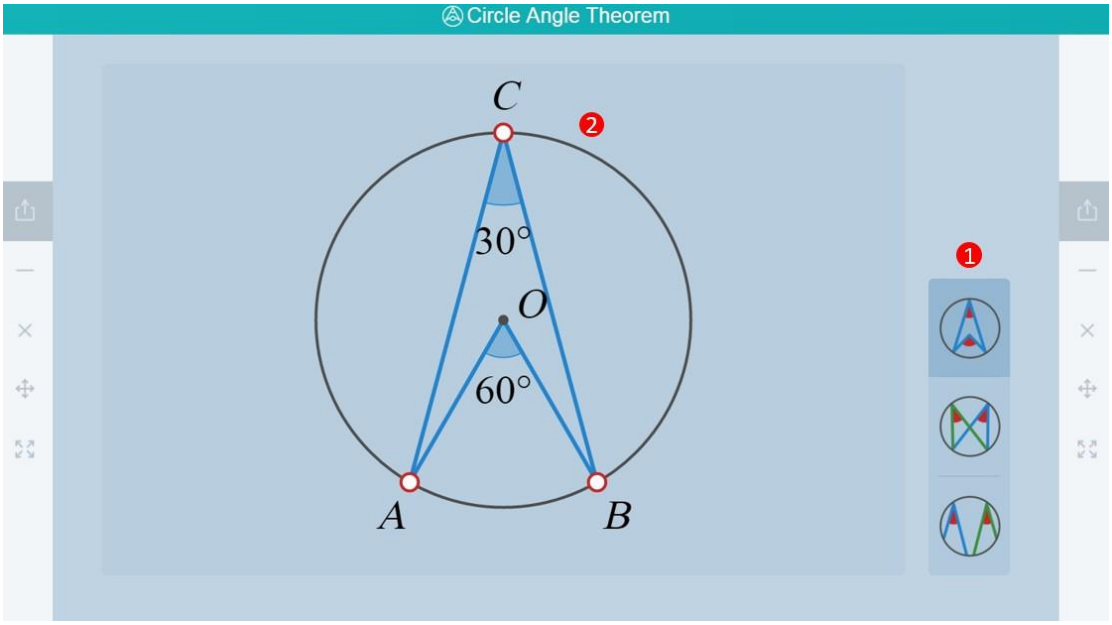


Fig. 10-2-7 Subject Tools-Circle Angle Theorem

No.	Area Name	Direction for Use
1	Figure selection	Three types of default figures are available
2	Control	The inscribed angles corresponding to different default figures remain the same despite movement of the dots on the circle and changes in arc length

Table 10-2-7 Subject Tools-Circle Angle Theorem

10.2.8 Analog Clock

The clock as shown in Fig. 10-2-8 simulates a real dial plate.

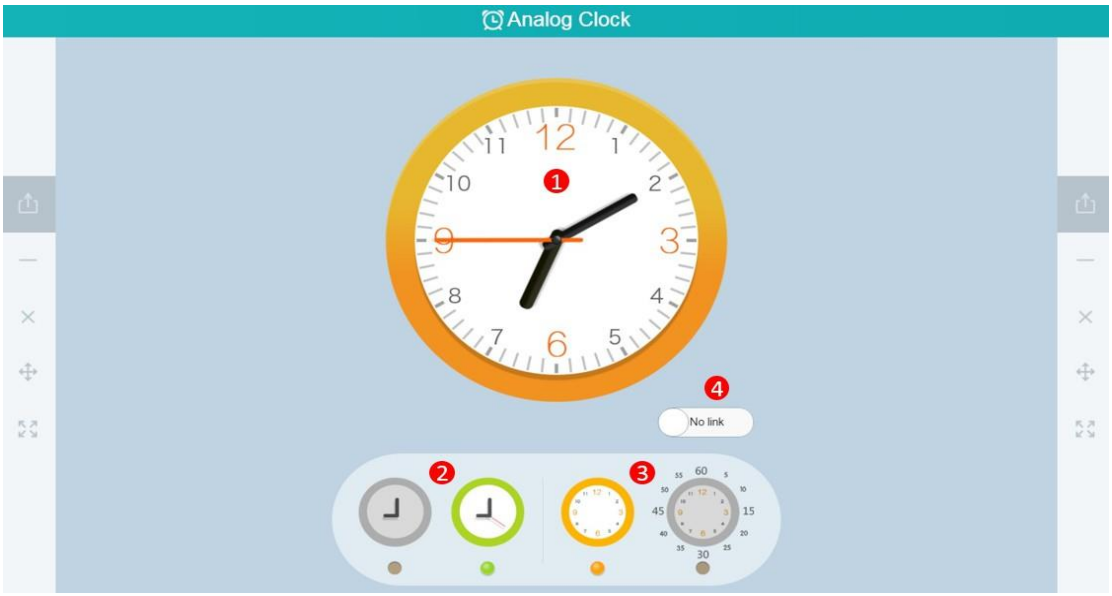


Fig. 10-2-8 Subject Tools-Analog Clock

No.	Area Name	Direction for Use
1	Clock	Drag and rotate the pointers to simulate different time
2	Display second hand	Decide whether to show the second hand of the simulation clock or not
3	Display lateral numbers	Decide whether to show numbers around the simulation clock or not
4	No link/Link	Decide whether to turn on pointer linkage, e.g., a minute hand running along with the second hand

Table 10-2-8 Subject Tools-Analog Clock

10.2.9 Counter

The Counter is a tool to help students develop numeracy. See Fig. 10-2-9.

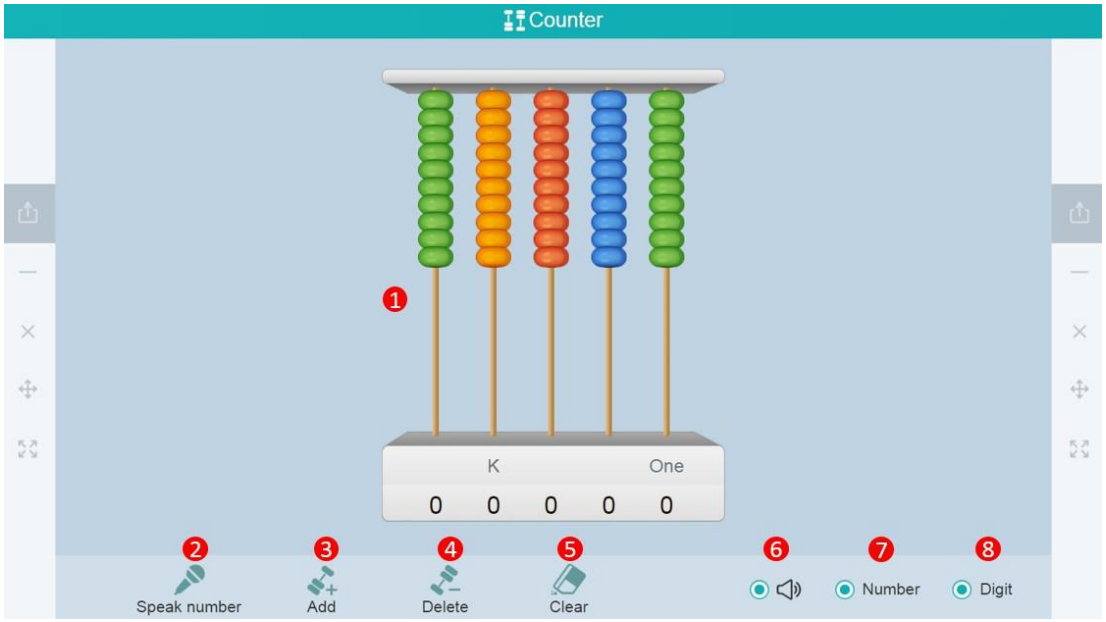


Fig. 10-2-9 Subject Tools-Counter

No.	Area Name	Direction for Use
1	Counting module	The counting module consists of a decimal counter on a scale from digits to ten thousand, with the beads for counting.
2	Speak number	Click the **Speak number** button on the left, and the system reads the number displayed by the counter.
3	Add	Click to add a column to the counter.
4	Delete	Click to remove a column from the counter.
5	Clear	Reset the counter.
6	Sound	Turn on/off the sound.
7	Number	Hide/show the number of each column.
8	Digits	Hide/show numerical digits.

Table 10-2-9 Subject Tools-Counter

10.2.10 Cylindrical Volume Formula

The tool is used to demonstrate the derivation process of the cylindrical volume formula in steps, as shown in Fig. 10-2-10-1、10-2-10-2 and 10-2-10-3.

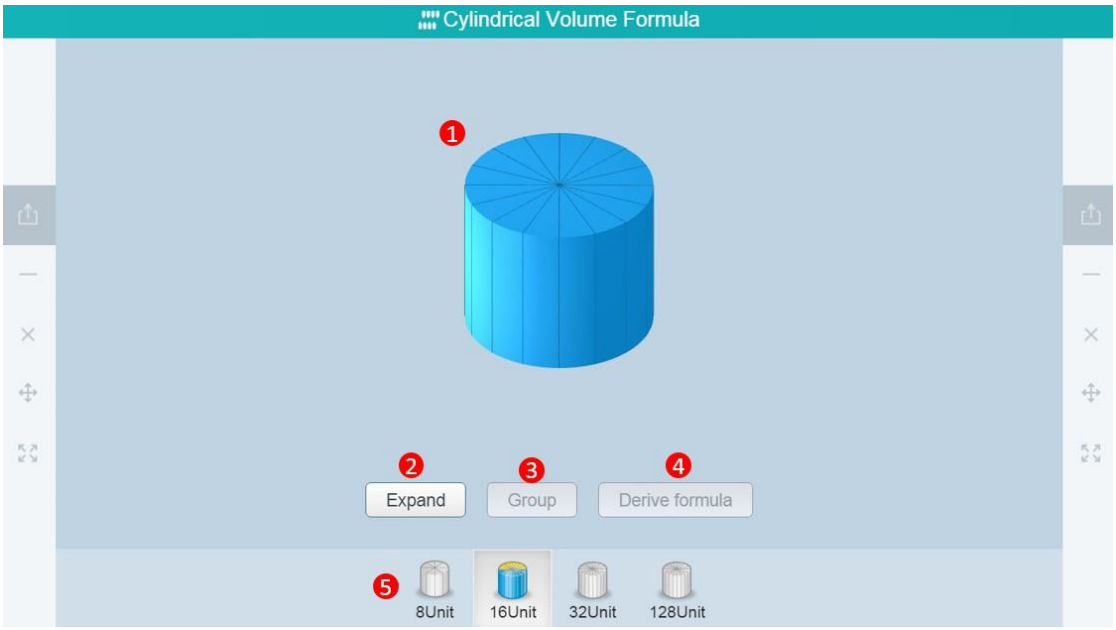


Fig. 10-2-10-1 Subject Tools-Cylindrical Volume Formula 1

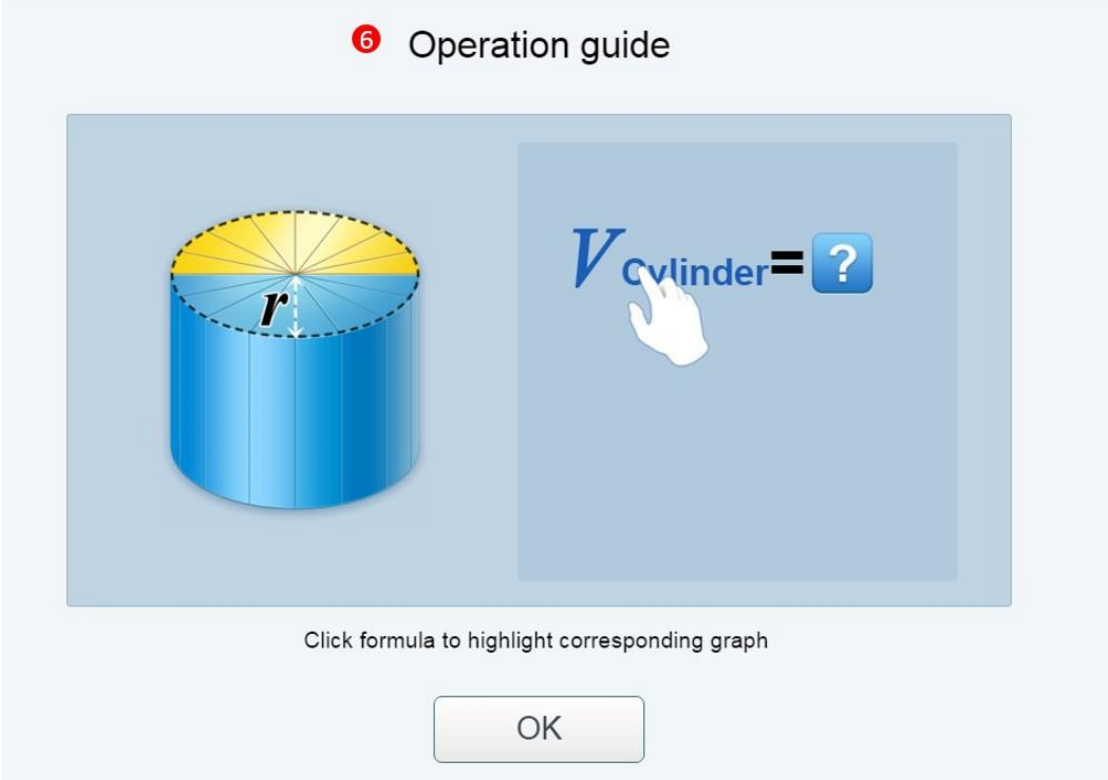


Fig. 10-2-10-2 Subject Tools-Cylindrical Volume Formula 2

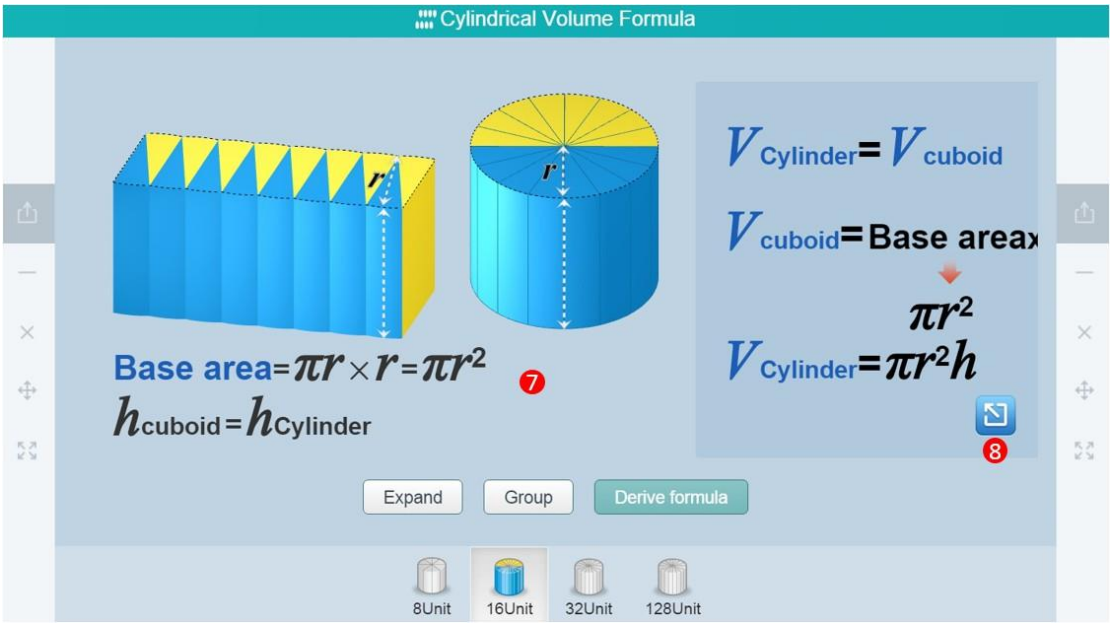


Fig. 10-2-11-3 Subject Tools-Cylindrical Volume Formula 3

No.	Area Name	Direction for Use
1	Initial state	Divide a cylinder into several parts.
2	Expand	Click to view the expansion process.
3	Group	Click to view the cylindrical combination process.
4	Derive formula	Display the derivation formulas.
5	Division options	Determine the quantity of division.
6	Operation guide	Click on a formula to highlight the corresponding figures.
7/8	Formula list	Click to display all derivation formulas or revert to the initial state.

Table 10-2-11 Subject Tools-Cylindrical Volume Formula

10.2.11 Probabilities

Ball drawing can be applied to probability problems, as shown in Fig. 10-2-11.

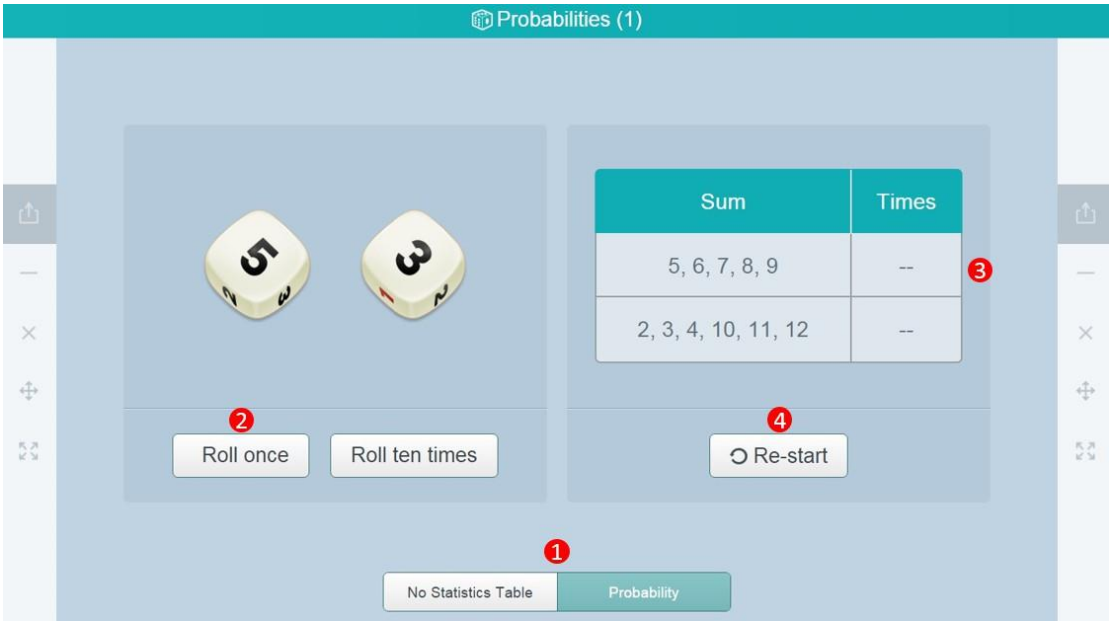


Fig. 10-2-11 Subject Tools-Probabilities

No.	Area Name	Direction for Use
1	Mode selection	Click to hide/show the statistical table (as shown in Fig. 10-2-12).
2	Roll once	Click the button to dice once.
3	Statistical table	The statistical table appears after dicing.
4	Restart	Clear the data in the statistical table.

Table 10-2-11Subject Tools-Probabilities

10.2.12 Calculating Volume

It is a subject tool that measures the volume of an object with the water displacement method. See Fig. 10-2-13.

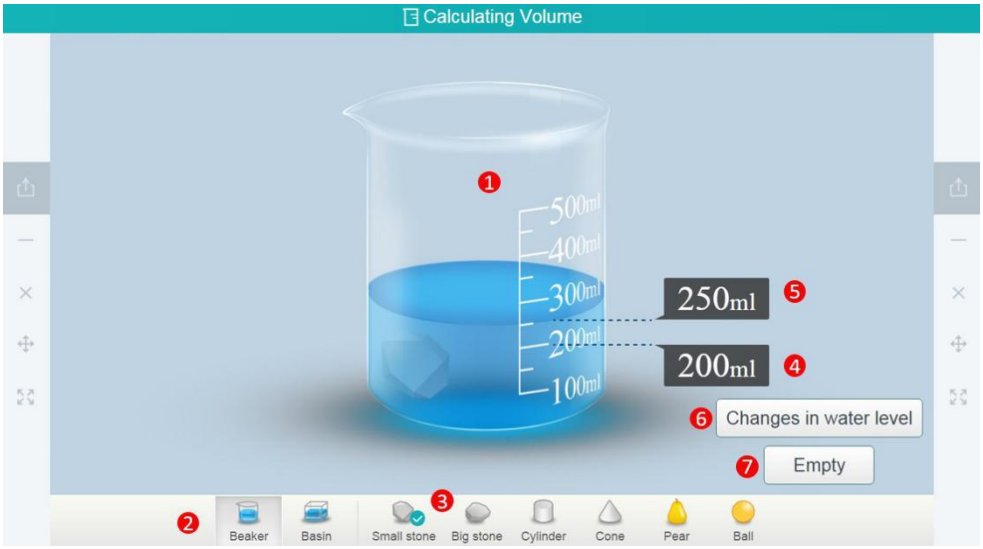


Fig. 10-2-12 Subject Tools-Calculating Volume

No.	Area Name	Direction for Use
1	Demonstration area	The demonstration area displays the change of water level when an object is added to a container with water.
2	Container selection	Beaker and Basin are available.
3	Object	Different objects, such as small or big stone, cylinder, cone, pear and ball, etc. are provided to observe the changes of water levels when adding different things to the container.
4	Initial water level	The water level before adding an object to the container.
5	Risen water level	The water level after adding an object to the container.
6	Change in water level	The highlighted part represents the change of the water level after adding an object to the container.
7	Empty	Remove the object from the container so that the water is lowered to the original level.
8	Push service	After configuring an appropriate interactive class environment, the tool will be pushed to the

		student terminals.
9	Window control	Click the buttons from the top to the bottom to minimize, close and move the window.

Table 10-2-12 Subject Tools-Calculating Volume

10.2.13 Distance and Speed

Math problems about two meeting each other involve three parameters, i.e., time, distance and rate. The known parameter(s) can be set manually to solve a problem by playing the animation and observing the movement, as shown in Fig. 10-2-14-1 and 10-2-14-2.

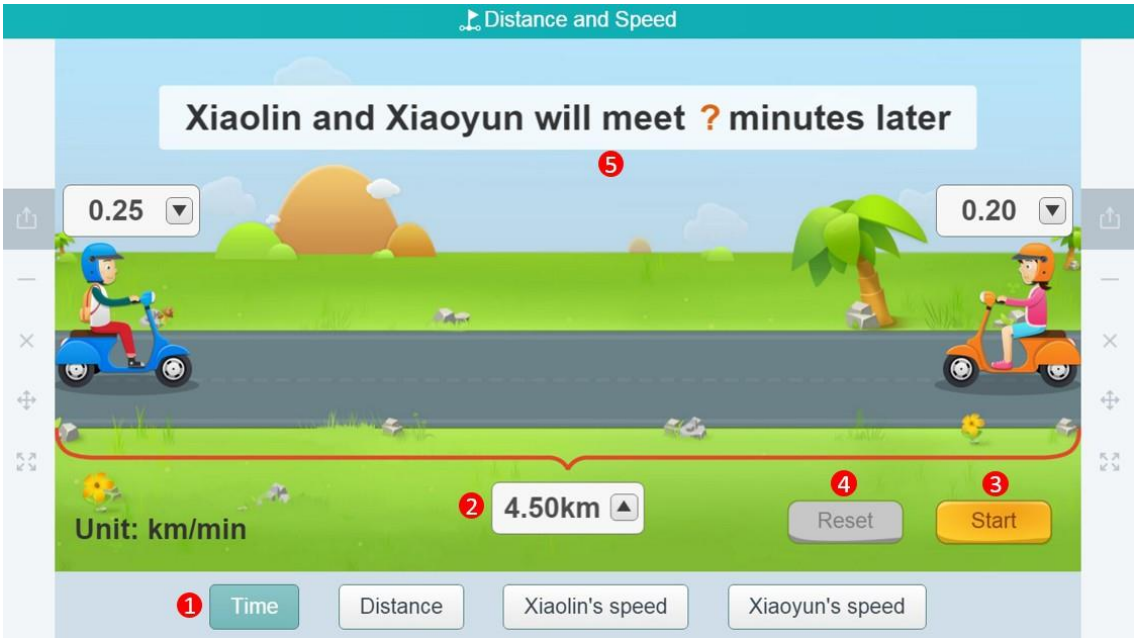


Fig. 10-2-13-1 Subject Tools-Distance and Speed 1

Fig. 10-2-13-2 Subject Tools-Distance and Speed 2

No.	Area Name	Direction for Use
1	Problem-solving model selection	Four different models are available. For instance, the encounter time model can be applied to calculate the time when Lin and Yun meet each other by entering the distance between and the velocities of them.
2	Parameter settings	The default distance between Lin and Yun is 4.5 km and custom settings are available; as shown in Fig. 10-2-14-2, click a parameter to set the distance between Lin and Yun. Likewise, other parameters are also adjustable.
3	Start	After parameter settings, click the **Start** button to play the animation; click to pause or replay if you like.
4	Reset	Click the **Reset** button and all adjustable parameters revert to the initial state.
5	Result display	Click the **Result display** button to show the answer.

Table 10-2-13 Subject Tools-Distance and Speed

10.2.14 Rectangle Area Exploration

This part discusses the influence factors of rectangular area and demonstrates the rectangular area formula. See Fig. 10-2-14.

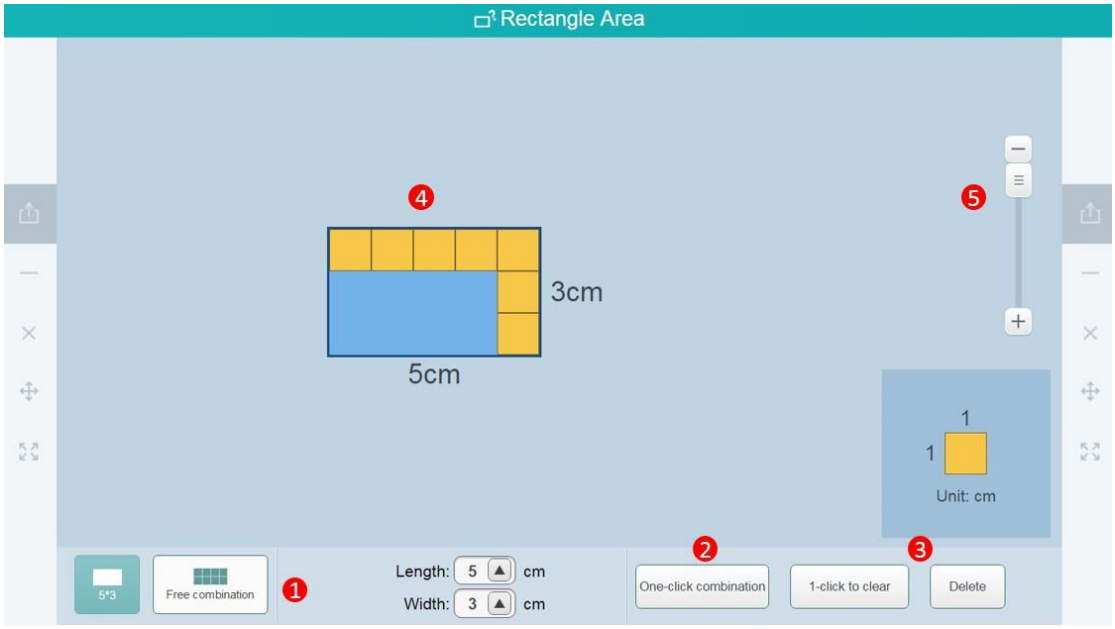


Fig. 10-2-15 Subject Tools-Rectangle Area

No.	Area Name	Direction for Use
1	Splicing mode selection	Two modes including default length and width and free splicing are available.
2	One-click combination	Click to fill the rectangle automatically with the medley figures selected.
3	One-click to clear/Delete	Click to either clear at one click or delete step by step.
4	Rectangular frame	The rectangular frame is used to discuss the size of the selected rectangle.
5	Zoom in/out shortcuts	Drag the scrollbar to zoom in or zoom out the rectangular frame.
6	Unit	Drag the square to the rectangular frame manually.

Table 10-2-14 Subject Tools-Rectangle Area

10.2.15 Figure Motion (Axial Symmetry)

Figure Motion (Axial Symmetry) is applied to illustrate the concept of axial symmetry through graphic motion. See Fig. 10-2-15-1 and 10-2-15-2.

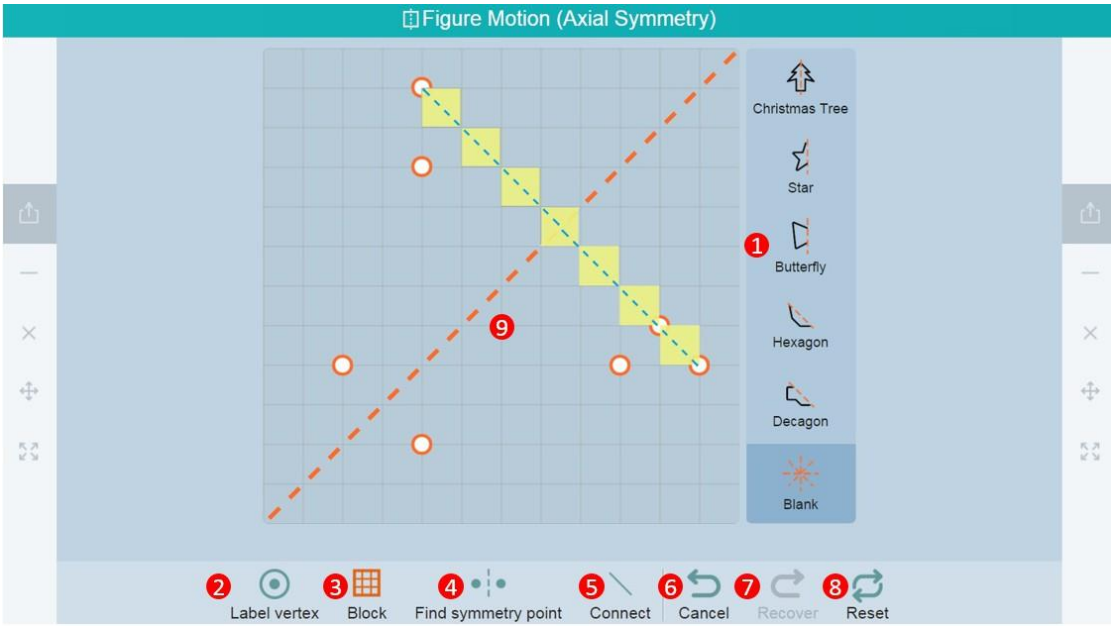


Fig. 10-2-15-1 Subject Tools-Figure Motion (Axial Symmetry) 1

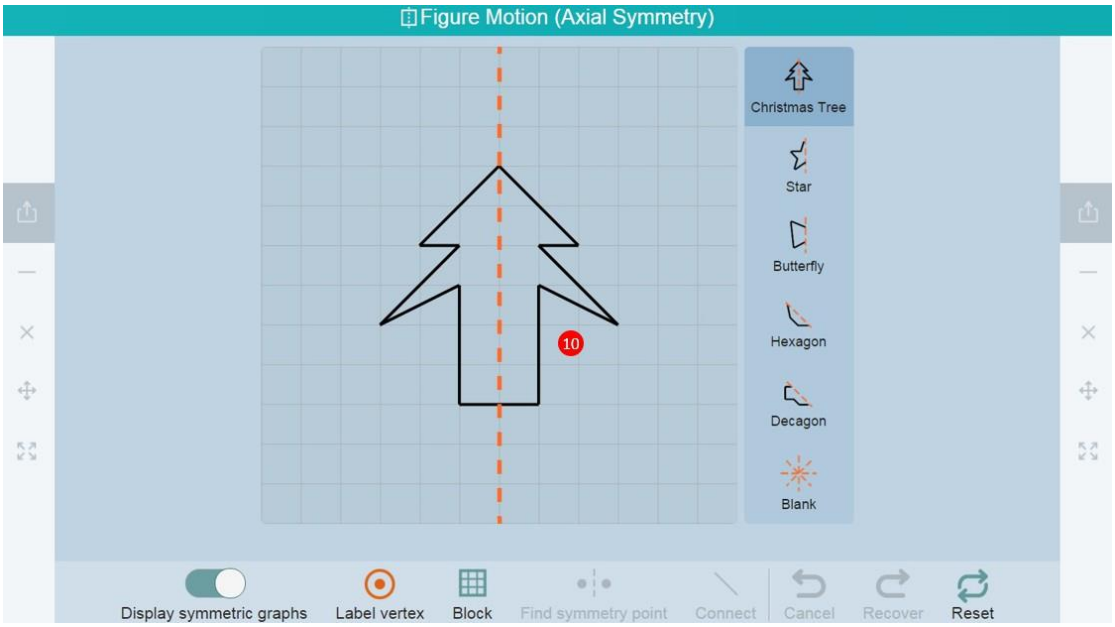


Fig. 10-2-15-2 Subject Tools-Figure Motion (Axial Symmetry) 2

No.	Area Name	Direction for Use

1	Figure selection	View the axisymmetric figure of the selected one.
2	Label Vertex	Label the vertexes of the selected figure.
3	Block	After figure selection, click a vertex of the figure to show the number of grids between the selected vertex and the symmetric axis.
4	Find symmetry point	After selecting a figure, click a vertex to display the symmetric point.
5	Connect	After figure selection, connect each vertex and its symmetric node with a line segment if you like.
6	Cancel	Cancel the previous step.
7	Recover	Recover the previous step.
8	Reset	Reset to the initial state.
9	Symmetric axis	Show the symmetric axis of the figure.
10	Demonstration area	Display the figure and relevant operation.

Table 10-2-15 Subject Tools-Figure Motion (Axial Symmetry)

10.2.16Figure Motion (Translation)

The tool is employed to demonstrate translational motion of figures, as shown in Fig. 10-2-16.

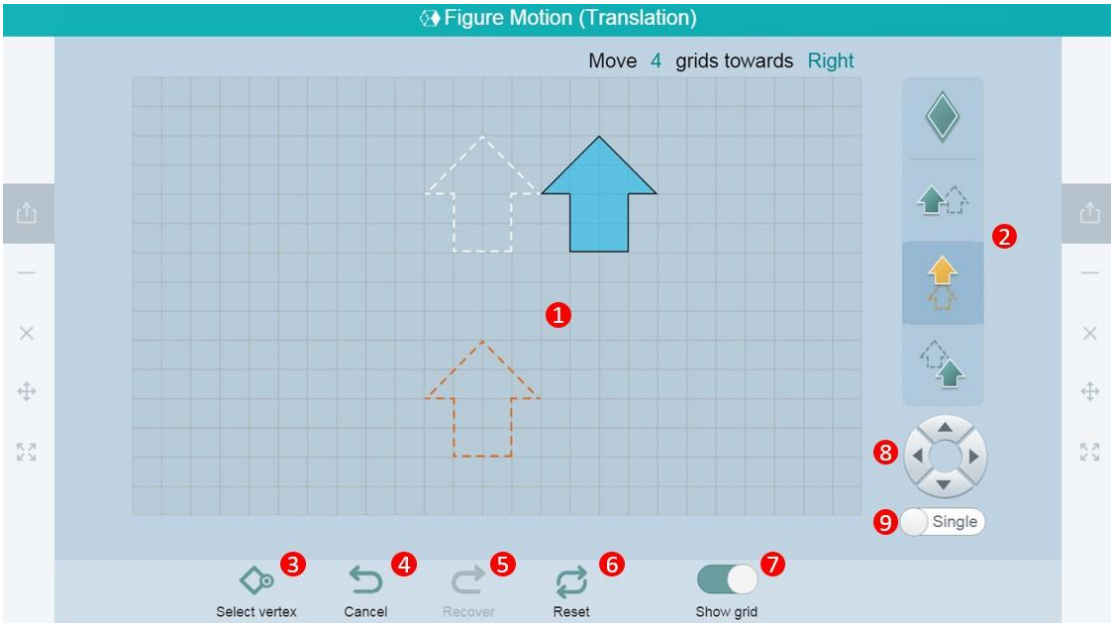


Fig. 10-2-16 Subject Tools-Figure Motion (Translation)

No.	Area Name	Direction for Use
1	Demonstration area	Display graphic motion.
2	Translation	Select a direction of graphic translation, e.g., upward or downward translation.
3	Select vertex	Select and label the vertex of a figure if you like; when the vertex before and after translation have been labeled, the system will automatically count the grids between the corresponding vertexes.
4	Cancel	Cancel the previous step.
5	Recover	Recover the previous step.
6	Reset	Revert to the initial state.
7	Show grid	Hide/show text description of grid counting.
8	Translation	Subject a figure to unidirectional translation.
9	Single	Turn on the **Single** option and click any of the **Direction** buttons until the figure moves to the boundary.

Table 10-2-16 Subject Tools-Figure Motion (Translation)

10.2.17 Shape Cutting

The tool is used for graphic segmentation and movement, as shown in Fig. 10-2-17.

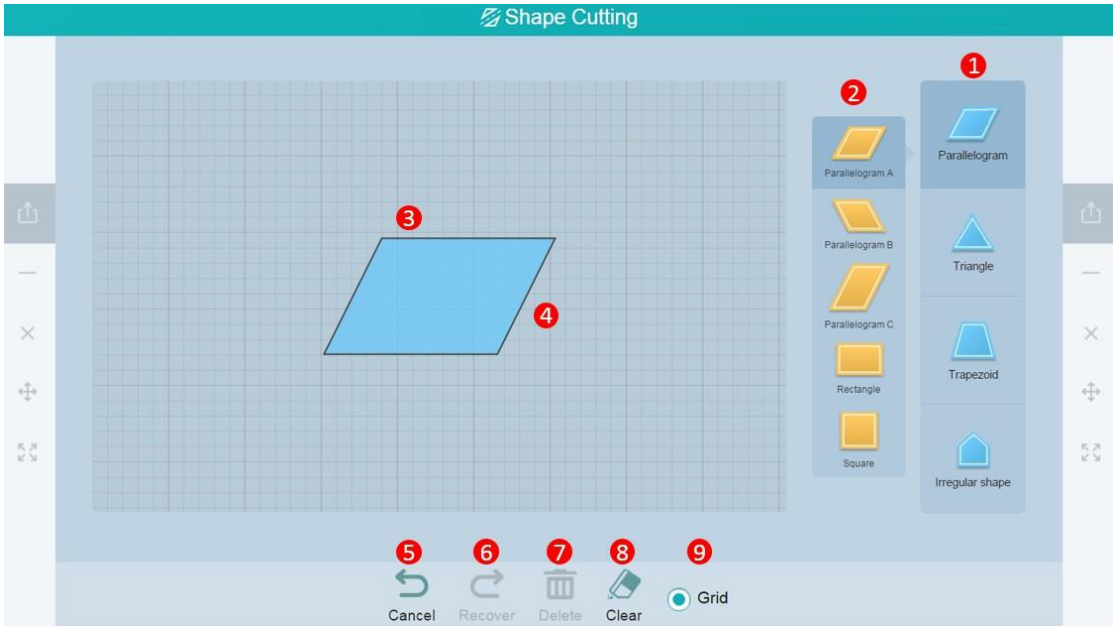


Fig. 10-2-17 Subject Tools-Shape Cutting

No.	Area Name	Direction for Use
1	Shape Cutting	Slide across a figure to segment it directly, and the figure will split up automatically.
2	Figure selection	Four types of figures as shown in Fig. 10-2-19 are provided for segmentation.
3	Demonstration Area	Display the cutting and translational process of the figure.
4	Dragging	Drag to reposition the figure in the operation area.
5	Cancel	Cancel the previous segmentation operation.
6	Recover	Recover the previous segmentation operation.
7	Delete	Delete the selected figure.
8	Clear	Clear the demonstration area.
9	Grid	Click to show/hide grids.

Table 10-2-17 Subject Tools-Shape Cutting

10.2.18 Homothetic Drawing

Show how to draw a homothetic figure based on a graph, a homothetic point and a homothetic ratio, as shown in Fig. 10-2-18.

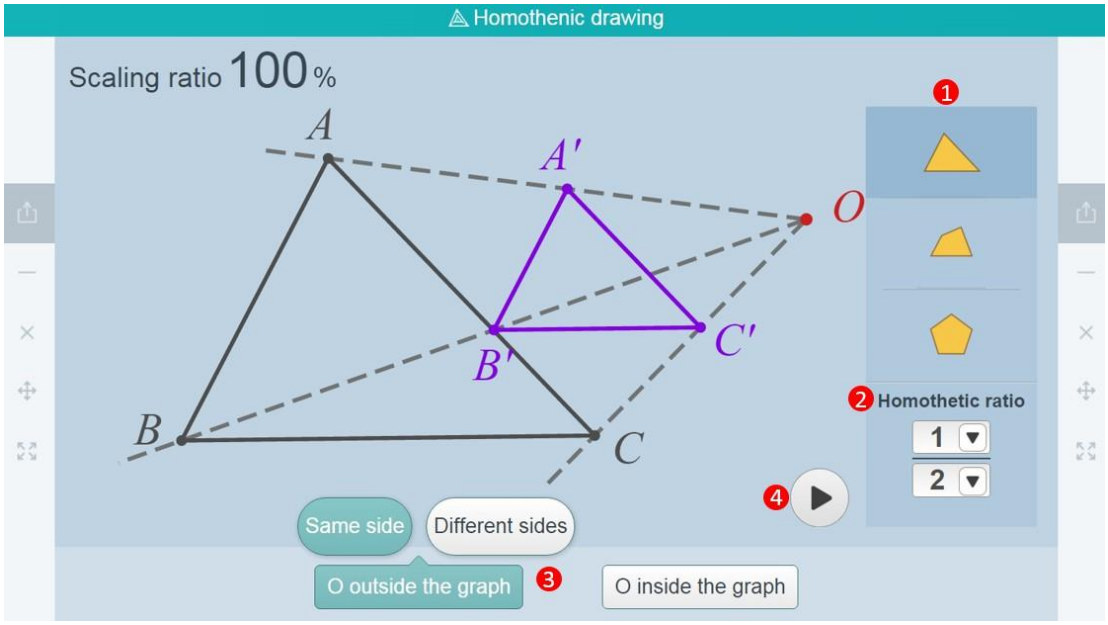


Fig. 10-2-18 Subject Tools-Homothetic Figures

No.	Area Name	Direction for Use
1	Preset a figure	Provide three figures for options.
2	Homothetic ratio	Select the homothetic ratio required.
3	Select the homothetic center	The center can be selected either outside or inside the figure. Regarding outside the figure, select the same side or both sides.
4	Play Demonstration	Click the Play button to select to automatically draw a homothetic figure.

Table 10-2-18 Subject Tools-Homothetic Figures

10.2.19 Lever Scale

The tool is used to demonstrate lever balance, as shown in Fig. 10-2-19.

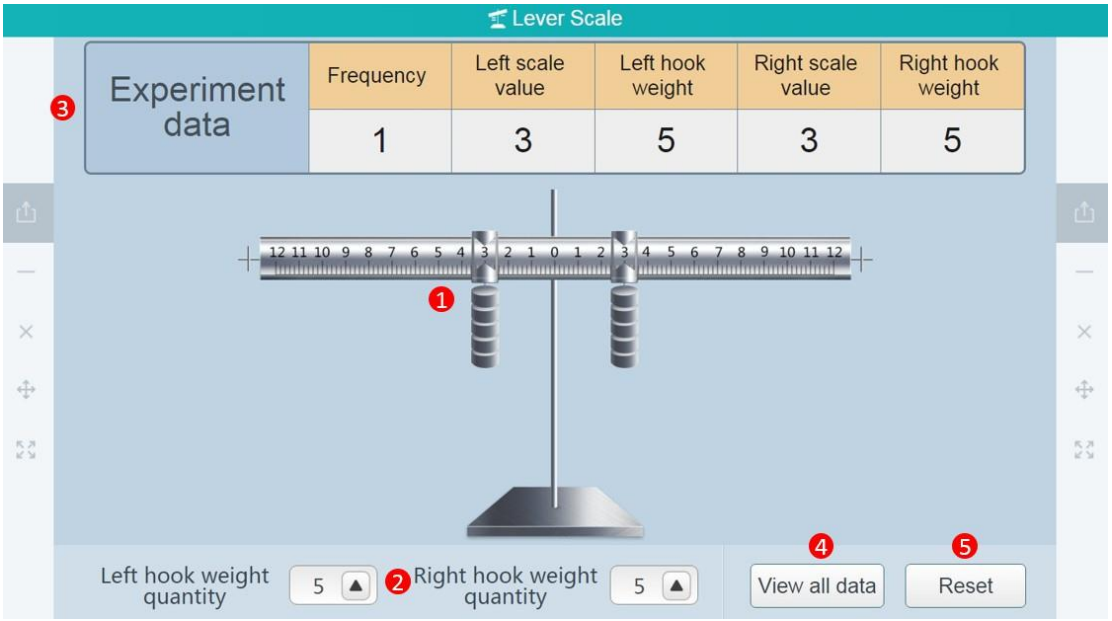


Fig. 10-2-19 Subject Tools-Leverage Balance

No.	Area Name	Direction for Use
1	Balance	Drag the slides on the balance.
2	Balance rider	Set the number of balance riders on both sides (≤12 pieces).
3	Record	Record experimental data (only when achieving balance).
4	View all data	Check all experimental data records.
5	Reset	Revert to the initial state of lever balance.

Table 10-2-19 Subject Tools-Leverage Balance

10.2.20 Line and Circle Relationship

The tool is employed to learn the positional relationship between the line and the circle through dynamically demonstrating the continuous and dynamic change of the positional relationship between the line and the circle in real time, as shown in Fig. 10-2-20-1.

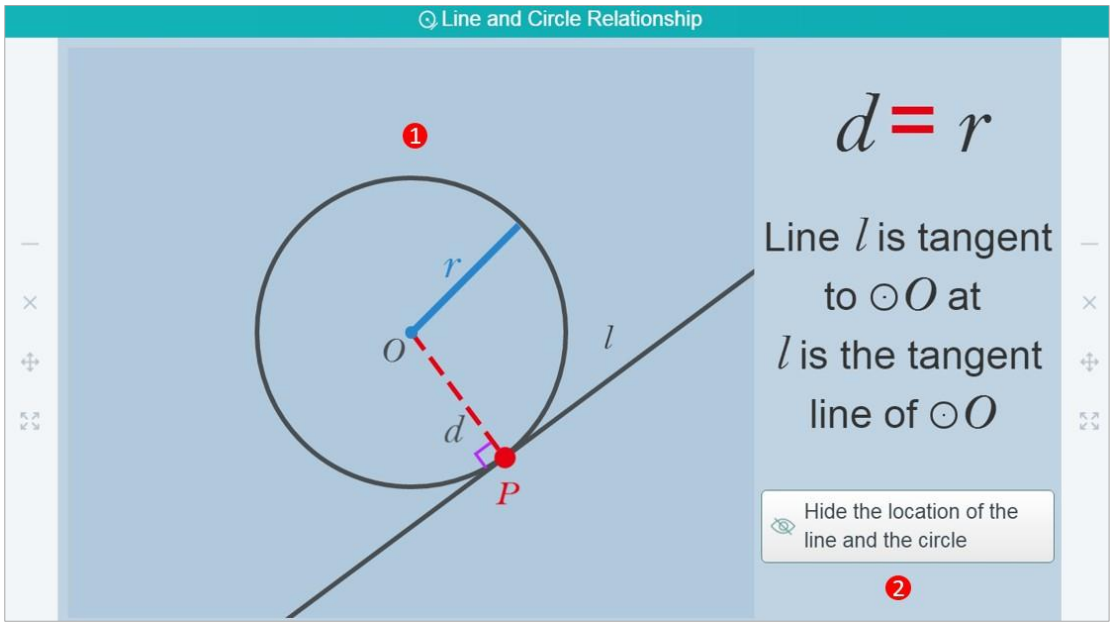


Fig. 10-2-20-1 Subject Tools-Line and Circle Relationship

No.	Area Name	Direction for Use
1	Demonstration Area	Move the line to observe the relationship between the line and the circle.
2	Explanation	Show/ hide the positional relationship between the line and the circle. For example, when d=r, the line is tangent to the circle; when d<r, the line is intersected with the circle, while the line is the secant of the circle.

Table 10-2-20-1 Subject Tools-Line and Circle Relationship

10.2.21 Axis Tools

Values representation, identified interval and the solution of intersection and union of the interval can be labeled on the axis, as shown in Fig. 10-2-21-1 and Fig. 10-2-21-2.

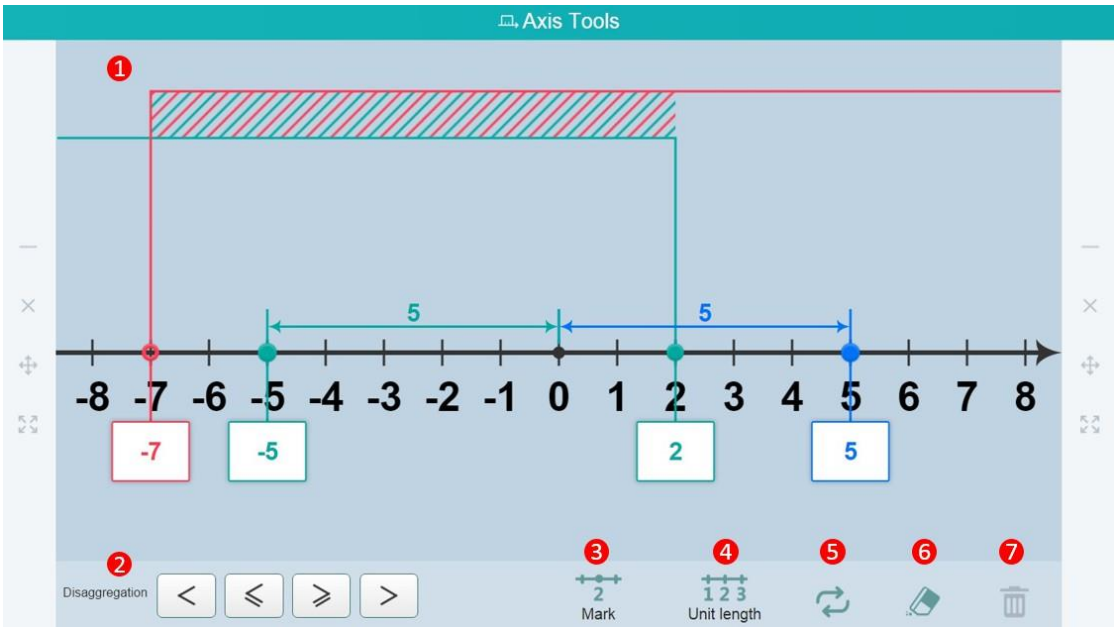


Fig. 10-2-21-1 Subject Tools-Axis Tools 1

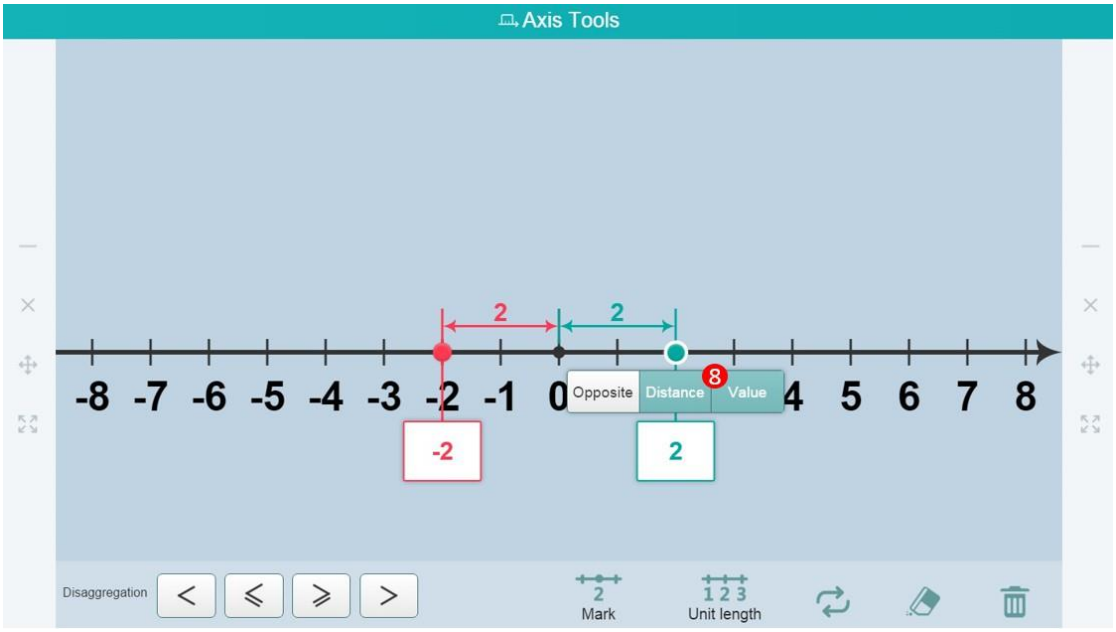


Fig. 10-2-21-2 Subject Tools-Axis Tools 2

No.	Area Name	Direction for Use
1	Axis	Display the axis.
2	Disaggregation	Click on the icon in the “Solution Set”. Corresponding intersections and unions will be

		marked by the system automatically.
3	Mark	Click the Marking Point button to add an identification point on number axis.
4	Unit length	Click to set the spacing value of the axis.
5	Reset	Click the button to restore to the initial value.
6	Clear	Clear all data on the axis.
7	Delete	Delete the selected marking point or increasing-decreasing line or interval.
8	Label numerical point	Click the axis identifying point to show the functions of [opposite number], [distance], and [number], click any corresponding identification shown.

Table 10-2-21 Subject Tools-Axis Tools

10.2.22 Pairs of Tools

It's designed for helping students to understand basic concepts of pairs coordinates, as shown in Fig. 10-2-24-1 and Figure 10-2-22-2.

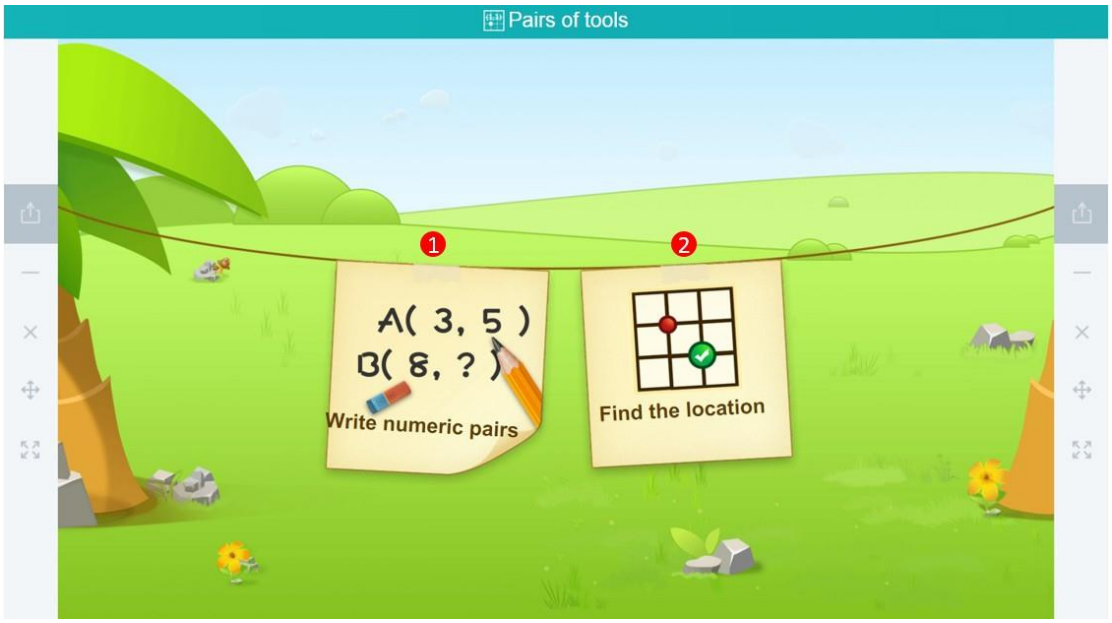


Fig. 10-2-22-1 Subject Tools-Pairs of Tools

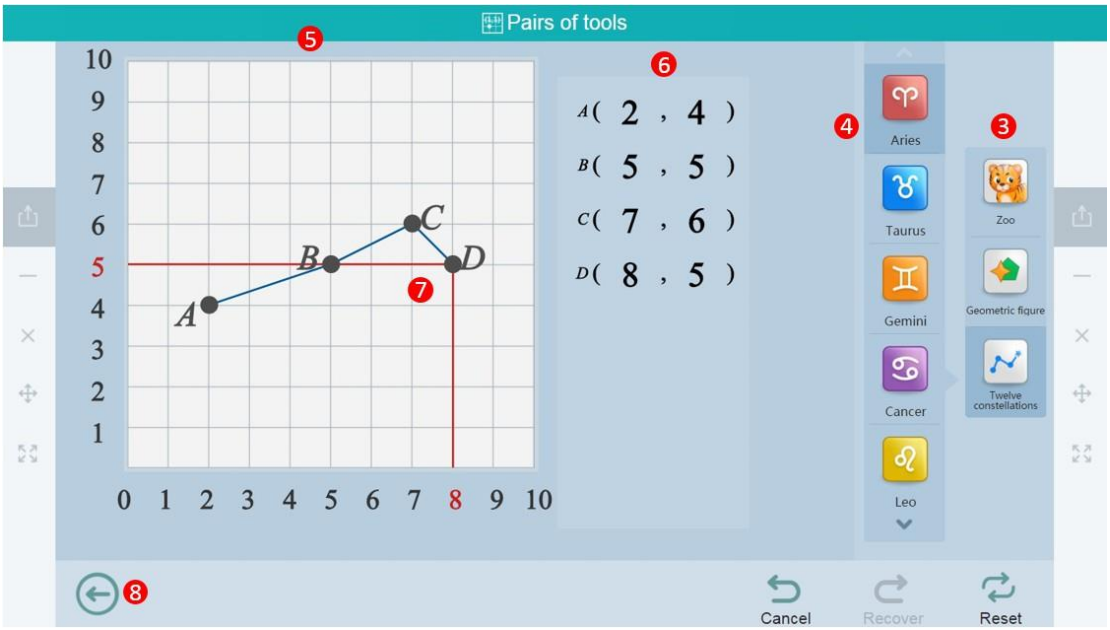


Fig. 10-2-22-2 Subject Tools-Pairs of Tools

No.	Area Name	Direction for Use
1	Write numeric pairs	Click the icon to view the number operating page through the set position.
2	Find the location	Click the icon to view the position operating page through value.
3	Create topics	Click the icon to have different types of topics.
4	Sub-series	Provide a variety of sub-series for teachers based on the topic selected.
5	Coordinate area	Coordinate position show area.
6	Position coordinate	Select the coordinate parameter value of position in sub-series.
7	Coordinate point	When the coordinate point is green, the position is to be determined. The point is turned to dark grey after clicking, the position is confirmation.
8	Back	Click to back to the previous page.

Table 10-2-22 Subject Tools-Pairs of Tools

10.2.23 Parabolic Definition Demo Tool

The definition of the parabola is shown by the image, as shown in Fig. 10-2-23.

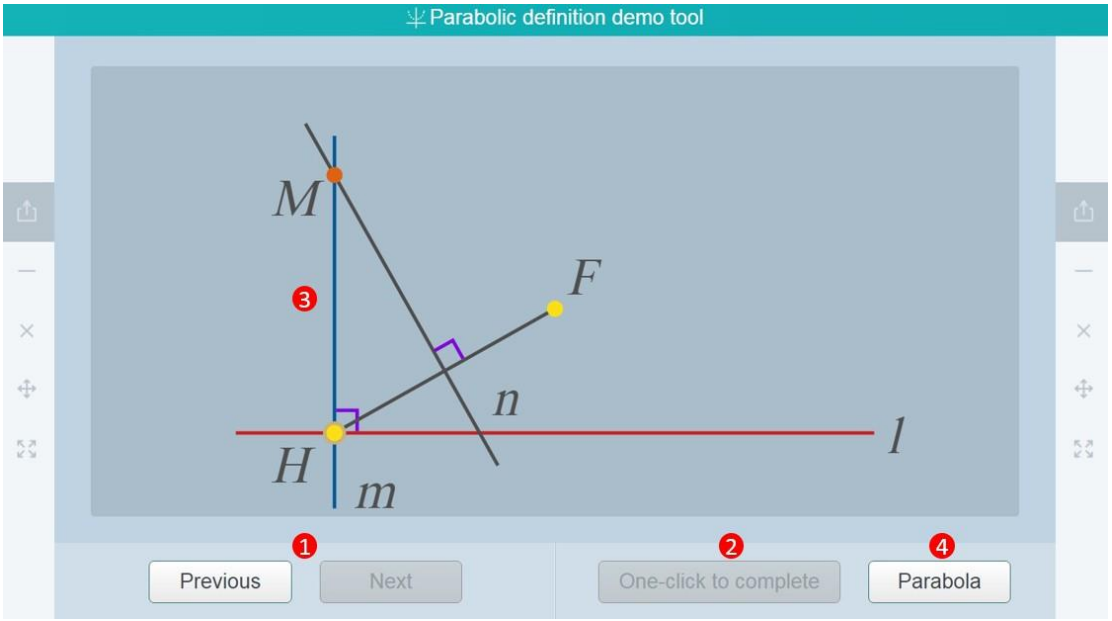


Fig. 10-2-23 Discipline Tools-Demonstration of Parabolic Definition

No.	Area Name	Direction for Use
1	Step-by-step operation	Select a point H on the straight line l upon presetting the point F and the straight line I. Click "Next" operations for several times to get the point M.
2	One-click to complete	Get the position of M at one click.
3	Display area	Drag the point H to move on the straight line, while the point M will change accordingly, forming several M points.
4	Parabola	Click the parabola to form a smooth and complete parabola based on the M point.

Table 10-2-23 Disciplinary Tools-Demonstration of Parabolic Definition

10.2.24 Parallel Line Segment

When demonstrating the position change of parallel lines, the proportionality theorem

of the parallel line segment is established, as shown in Fig. 10-2-26.

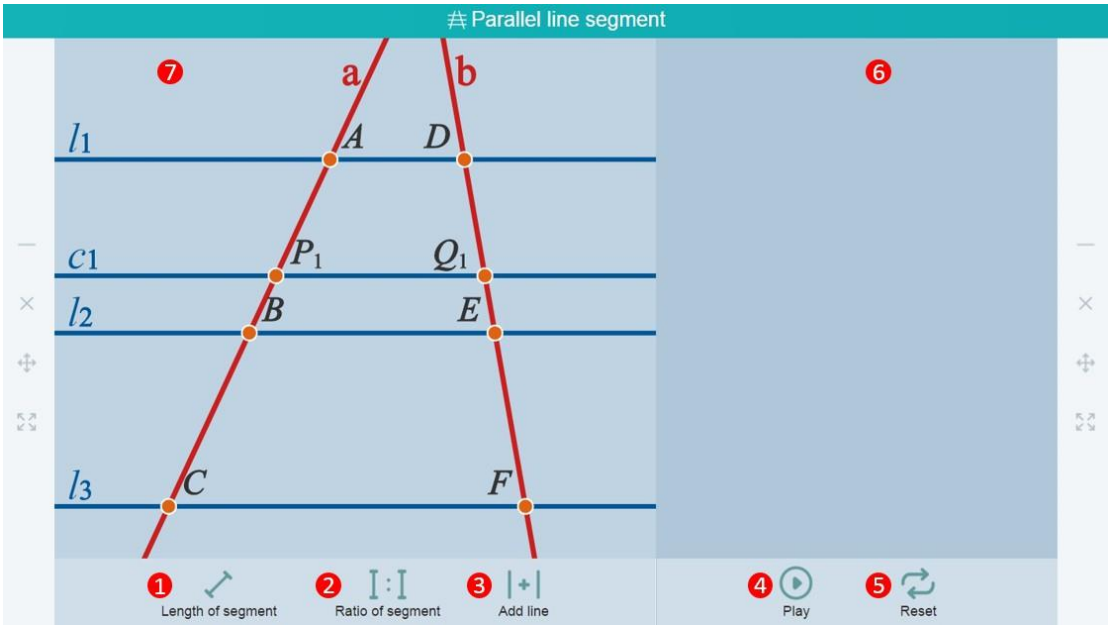


Fig. 10-2-24 Subject Tools-Parallel Line Segments

No.	Area Name	Direction for Use
1	Length of segment	Click to show/ hide the real-time length of the segment.
2	Ratio of segment	Click to show/ hide the proportional relationship of the corresponding segment.
3	Add line	Click to add a straight line that is parallel to the existing parallel line. Add one parallel line at a time. Two parallel lines are added cumulatively.
4	Play	Demonstrate changes in parallel lines dynamically and show the proportional relationship of the corresponding segment.
5	Reset	Restore to the initial state.
6	Show Demonstration	Show the text of the demonstration function in details.
7	Figure Demonstration Area	Figure demonstration area.

Table 10-2-24 Subject Tools-Parallel Line Segments

10.2.25 Division

The planting tool can help students understand relevant math problems with legends and animations as shown in Fig. 10-2-25.

Fig. 10-2-25 Subject Tools-Division

No.	Area Name	Direction for Use
1	Space setting	Drag the button to set the space between trees.
2	Distance setting	Drag the button to set the total distance of planting.
3	Planting Trees	Click the **Plant Trees** button to start planting.
4	Record	Record the planting results, e.g. planting history, distance of planting, space between trees, number of intervals and trees.

Table 10-2-25 Subject Tools-Division

10.2.26 Point and Circle Relationship

The tool displays the positional relations between a node P and a circle, i.e., in/on/out of the circle. See Fig. 10-2-26.

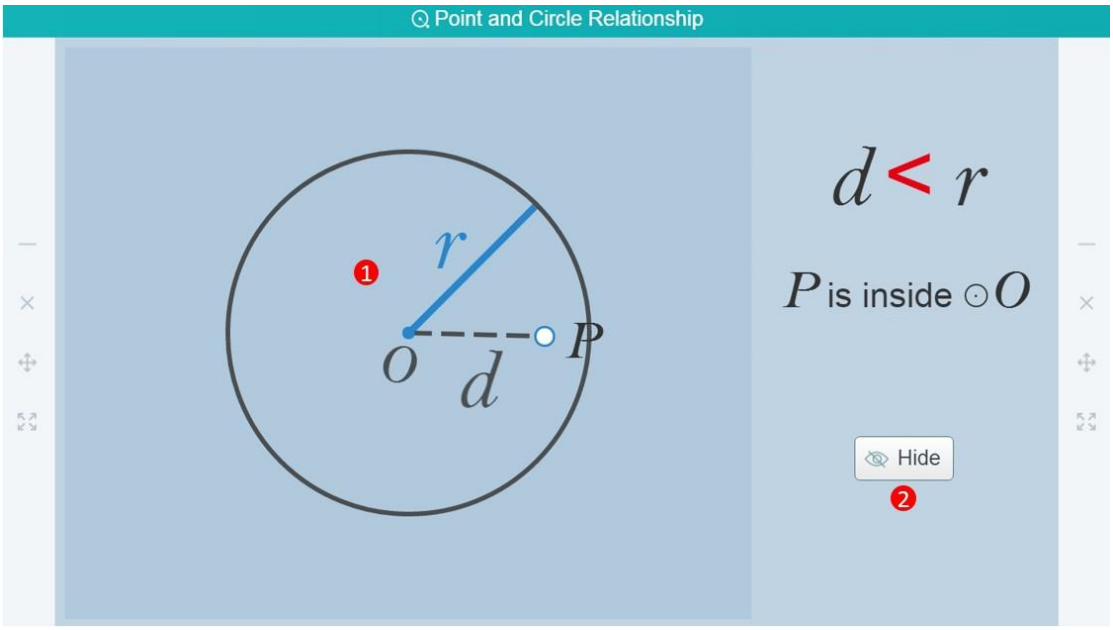


Fig. 10-2-26 Subject Tools-Point and Circle Relationship

No.	Area Name	Direction for Use
1	Demonstration area	Respectively display the situation where P is in, on and out of the circle; drag P to change the relative position if you like.
2	Description of positional relations	Click to hide/show the description of the positional relation between P and the circle.

Table 10-2-26 Subject Tools-Point and Circle Relationship

10.2.27 Polar Coordinate System

The polar coordinate system can help teachers to better understand the polar coordinates, to draw a point position with the polar coordinate in the polar coordinate system, to know the difference between the polar coordinate system and the rectangular plane coordinate system as well as to melt between the polar coordinate and the rectangular plane coordinate, as shown in Fig. 10-2-27.

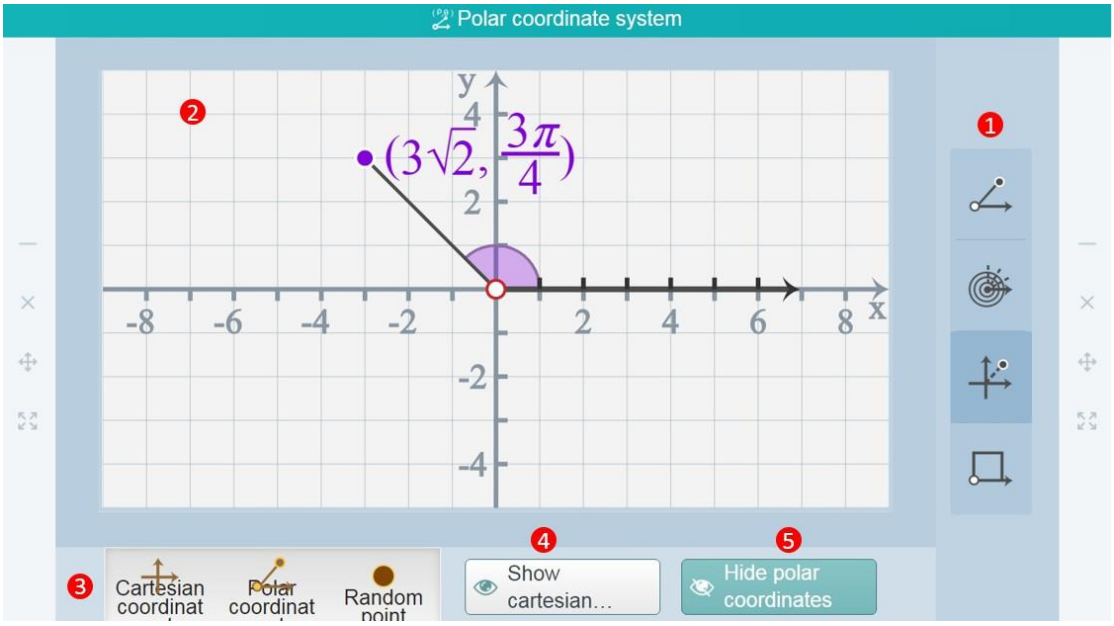


Fig. 10-2-27 Subject Tools-Polar Coordinate System

No.	Area Name	Direction for Use
1	Tool preset	Four modes are available: 1. Standard polar coordinate system; 2. Circular polar coordinate system; 3. Interchange of polar coordinates and rectangular coordinates; 4. Establishment of a polar coordinate system in an arbitrary figure.
2	Demonstration area	Drag any point freely. Select any point for deleting and showing values of polar points and angles.
3	Toolbar	Switch from "rectangular coordinate system" and "polar coordinate system" directly through selecting to add a "random point".
4	Show cartesian coordinates	Select whether a point of the rectangular coordinate value is shown.
5	Hide polar coordinate	Select whether a point of the polar coordinate value is shown.

Table 10-2-27 Subject Tools-Polar Coordinate System

10.2.28 Card Lottery

Drag a card randomly from all cards, as shown in Fig. 10-2-28.

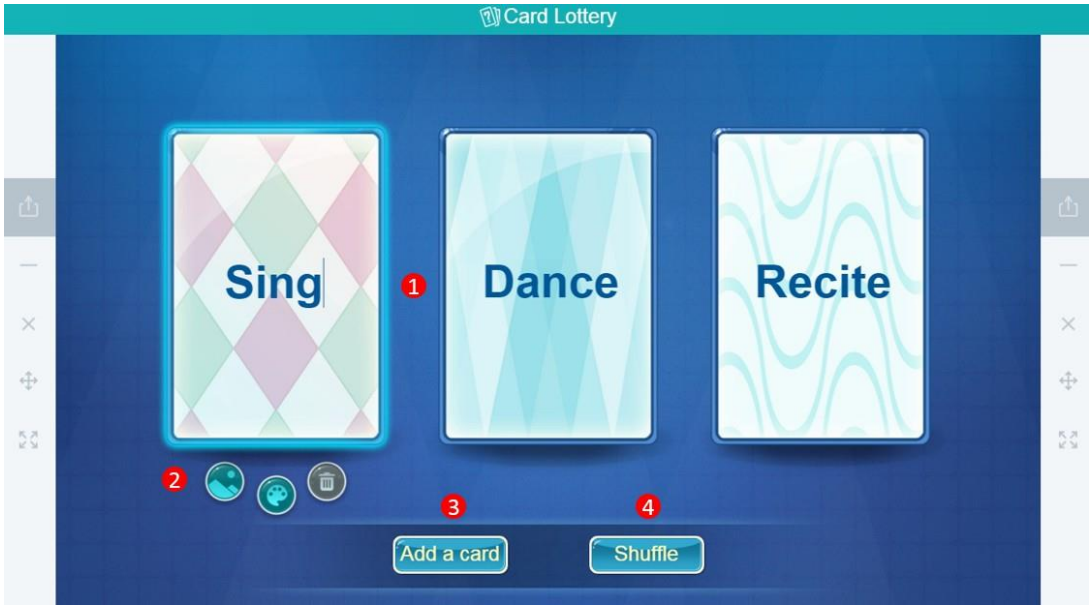


Figure 10-2-28 Subject Tools-Card Lottery

No.	Area Name	Direction for Use
1	Card demonstration area	Demonstrate the card; the reverse side of the card is upwards upon shuffling.
2	Edit	Double-click the card to start the editing state for editing the text of the card; click the button to edit the text color; click the button to edit the card background.
3	Add a card	Maximum for 6 cards.
4	Shuffle	Put the reverse side of cards upwards to shuffle the order.

Table 10-2-28 Subject Tools-Card Lottery

10.2.29 Parallel Line Properties

It's designed for deriving three properties of parallel lines gradually via triggering to

form different angles with the two preset parallel lines and the third straight line intersected, as shown in Fig. 10-2-29.

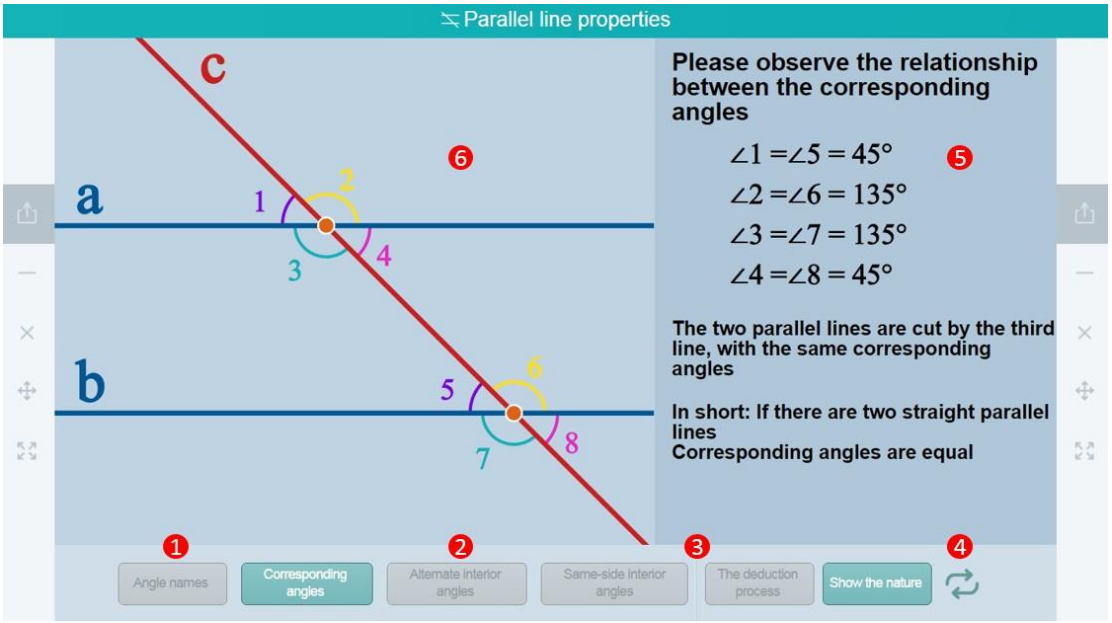


Fig. 10-2-29 Subject Tool-Property of Parallel Lines

No.	Area Name	Direction for Use
1	Angle name	Show/hide eight angle names and degrees of parallel lines and straight lines.
2	Angular relationship toolbar	Click the "Corresponding Angles", "Alternate Interior Angle" and "Consecutive Interior Angles" to activate the explanation mode of corresponding properties.
3	Property	Display the property of the corresponding angular relationship, such as two straight lines parallel and consistent corresponding angles.
4	Reset	Restore to the initial preset state.
5	Property demonstration area	Display the detailed property of the angular relationship.
6	Figure demonstration area	Display the graphical relationship among

		parallel lines, lines and angles.

Table 10-2-29 Subject Tools - Property of Parallel Lines

10.2.30 Rotation Symmetry

The rotational symmetry tool is designed for exploring the symmetric rules of rotation figures. See Fig. 10-2-30.

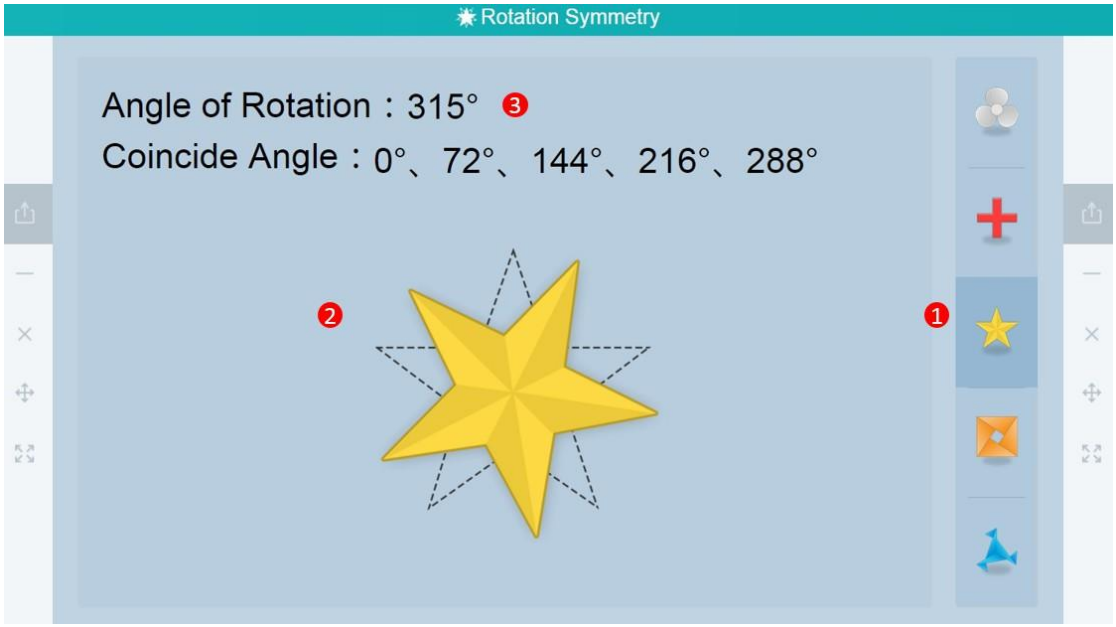


Fig. 10-2-30 Subject Tools-Rotation Symmetry

No.	Area Name	Direction for Use
1	Figure selection	Five symmetric shapes are provided.
2	Rotation area	The rotation of a shape is subject to user's control, with clockwise and anticlockwise rotation available.
3	Statistical analysis	Display data and statistics to identify rules.

Table 10-2-30 Subject Tools-Rotation Symmetry

10.2.31 Rotate Indicator

The rotating pointer can rotate 360 degrees in the clockwise or anticlockwise direction and provide corresponding rotary marks. See Fig. 10-2-31.

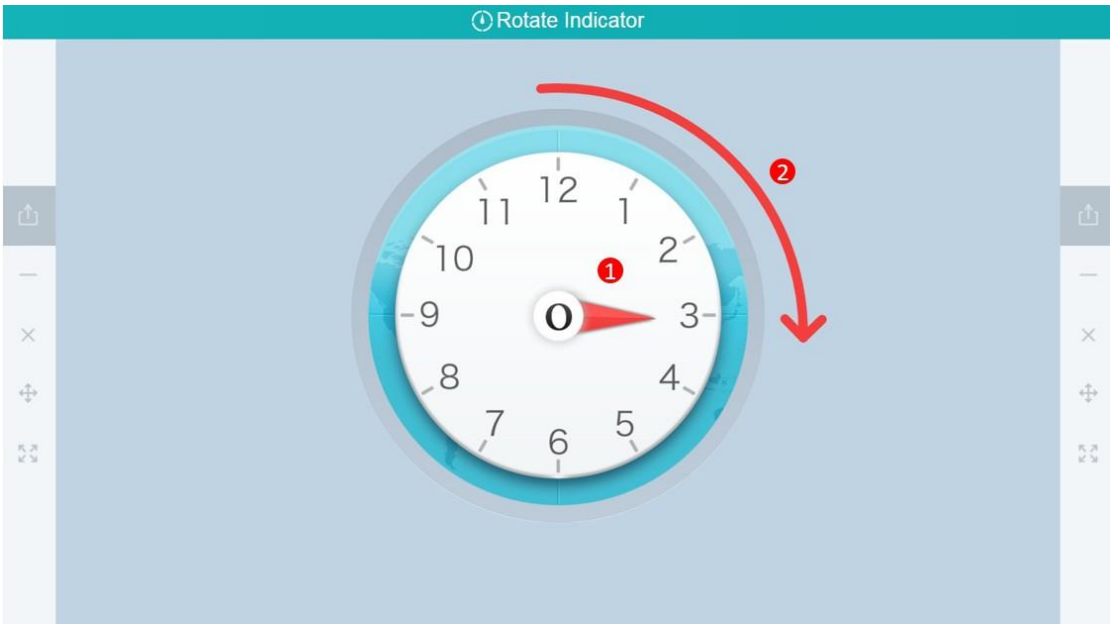


Fig. 10-2-31 Subject Tools-Rotate Indicator

No.	Area Name	Direction for Use
1	Rotating pointer	Drag the pointer in clockwise or anticlockwise direction.
2	Direction line	Indicate the direction of rotation of the pointer.

Table 10-2-31 Subject Tools-Rotate Indicator

10.2.32 Shortest Path

The shortest path is designed for helping students to understand and grasp the determination of the position where the sum of two points at the same side of the straight line in the plane to a certain point on the straight line is the minimum point. Axisymmetric translation can be used for solving the question of the shortest path in actuality, as shown in Fig. 10-2-32.

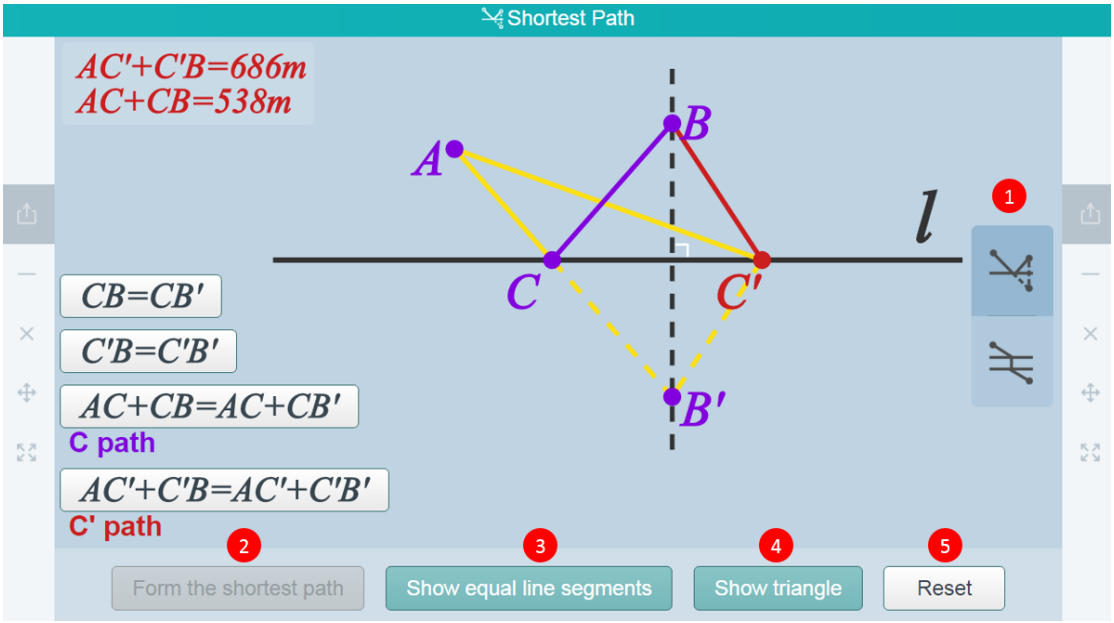


Fig. 10-2-32 Subject Tools-Shortest Path

No.	Area Name	Direction for Use
1	Preset tool	Demonstrate the shortest path problem for two models, i.e., “the problem of horse drinking" and "bridge building site selection problem".
2	Form the shortest path	Display the animation process of finding the point with the shortest path.
3	Show equal line segments	Display equal segment groups to convert questions.
4	Show triangle	Highlight the triangle that should be proved.
5	Reset	Clear all data and reset to initial state.

Table 10-2-32 Subject Tools-Shortest Path

10.2.33 Statistics Diagram

Statistical graphs help users observe trends of data and intuitively reflect the statistics and changes of things, as shown in Fig. 10-2-33.

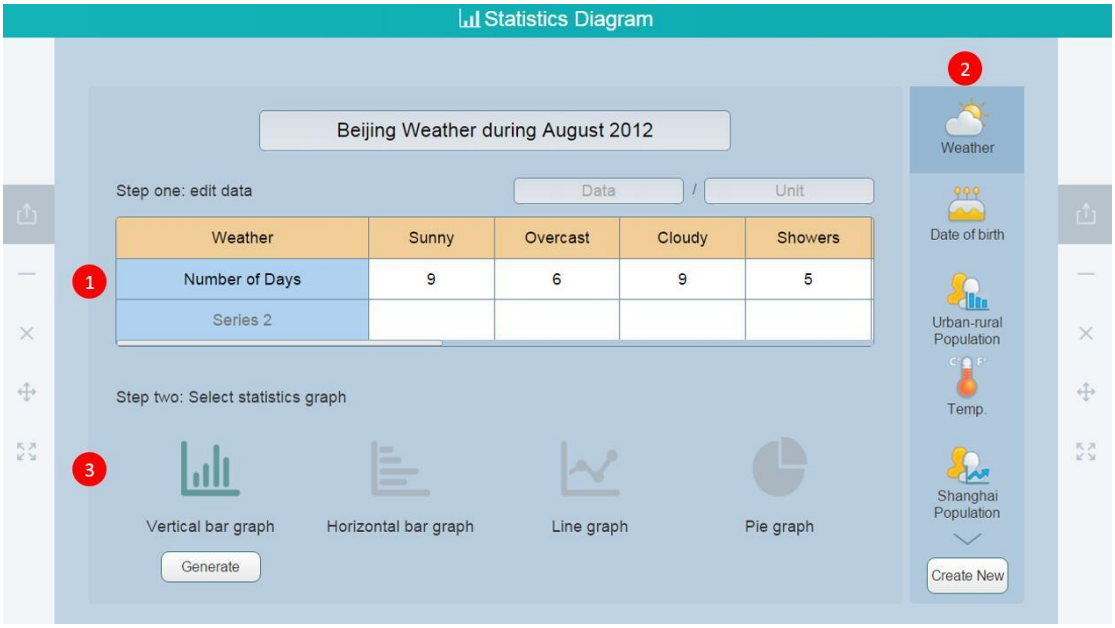


Fig. 10-2-33-1 Subject Tools-Statistics Diagram 1

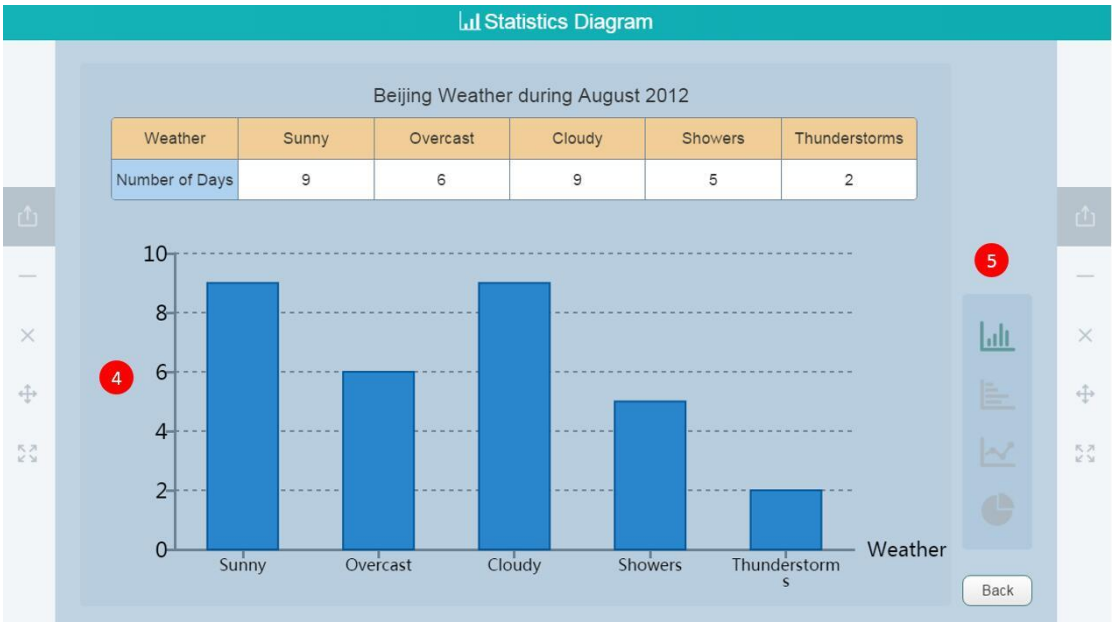


Fig. 10-2-33-2 Subject Tools-Statistics Diagram 2

No.	Area Name	Direction for Use
1	Data collection	Fill in the table with categories and data.
2	Type of statistics	Multiple types of statistics are available for users to create statistical graphs.
3	Select a statistical graph	Select and click to generate a statistical graph.

4	Statistical graph	Display data information with graphics.
5	Switch statistical graph	Click to switch from one type of statistical graph to another.

Table 10-2-33 Subject Tools-Statistics Diagram

10.2.34 Figure Stability

The graphic stability tool allows users to customize their figures, and drag the figures to observe graphic stability. See Fig. 10-2-34.

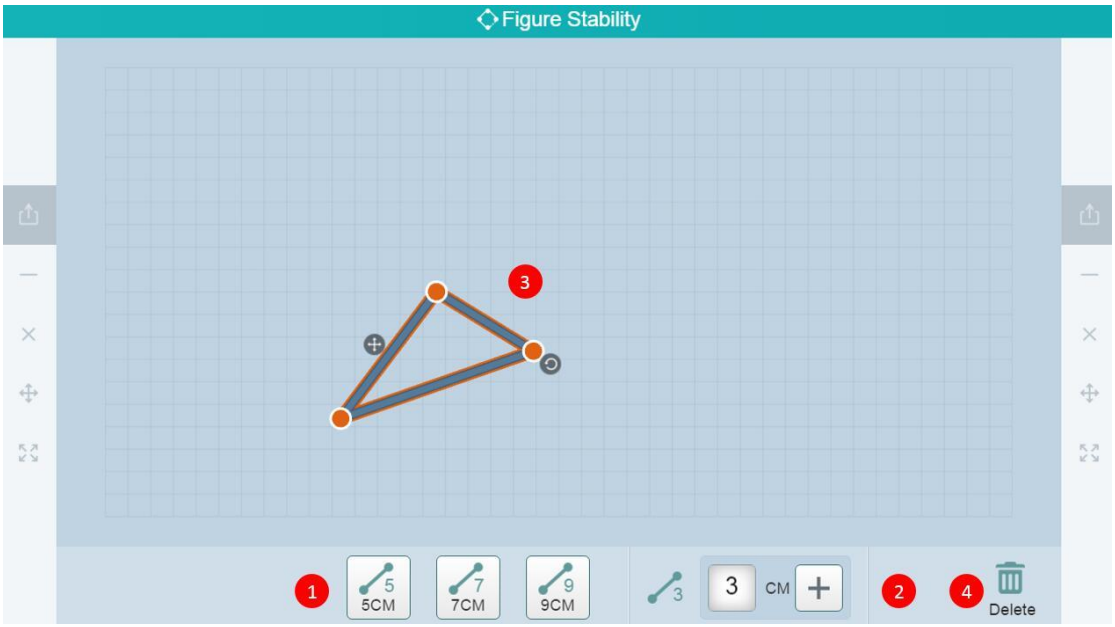


Fig. 10-2-34 Subject Tools-Figure Stability

No.	Area Name	Direction for Use
1	Choose a stick size	Three types of sticks of different length are available.
2	Custom stick size	The length of sticks can be defined by users; after self-defining, drag the line segments to the demonstration area.
3	Image construction	Click and connect the ends of two sticks.
4	Delete	Delete the selected stick or image.

Table 10-2-34 Subject Tools-Figure Stability

10.2.35 Fraction

Corresponding relationship between the figure and the fraction can be established through evenly dividing physical objects and geometric figures to facilitate students to understand the meaning of the fraction. There are "Understand the fraction", "Compare fraction sizes" and "Calculate fraction" set in the tool, as shown in Fig. 10-2-35-1, Fig. 10-2-35-2, Fig. 10-2-35- 3. Fig. 10-2-35-4, Fig. 10-2-35-5 and Fig. 10-2-35-6.

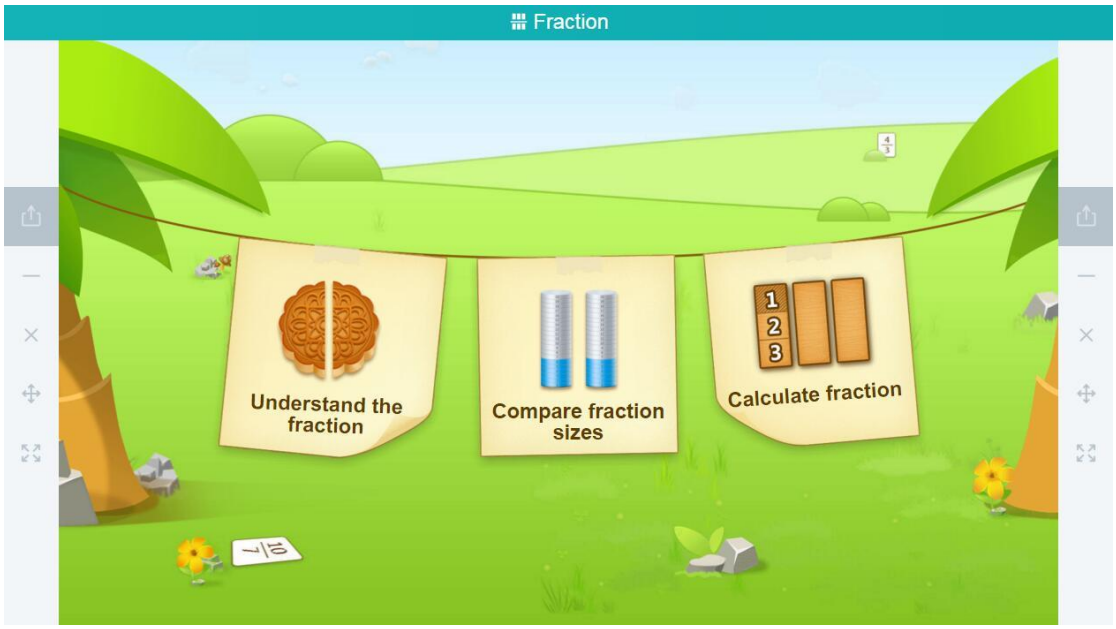


Fig. 10-2-35-1 Subject Tools-Fraction

■ **Fraction Recognition**

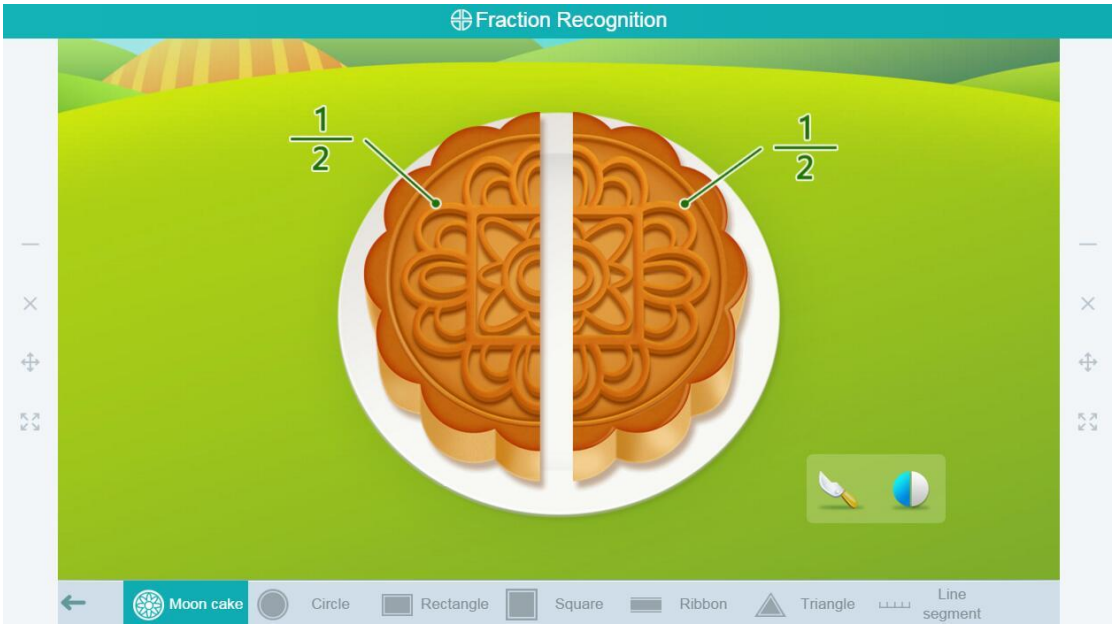


Fig. 10-2-35-2 Subject Tools-Fraction Recognition

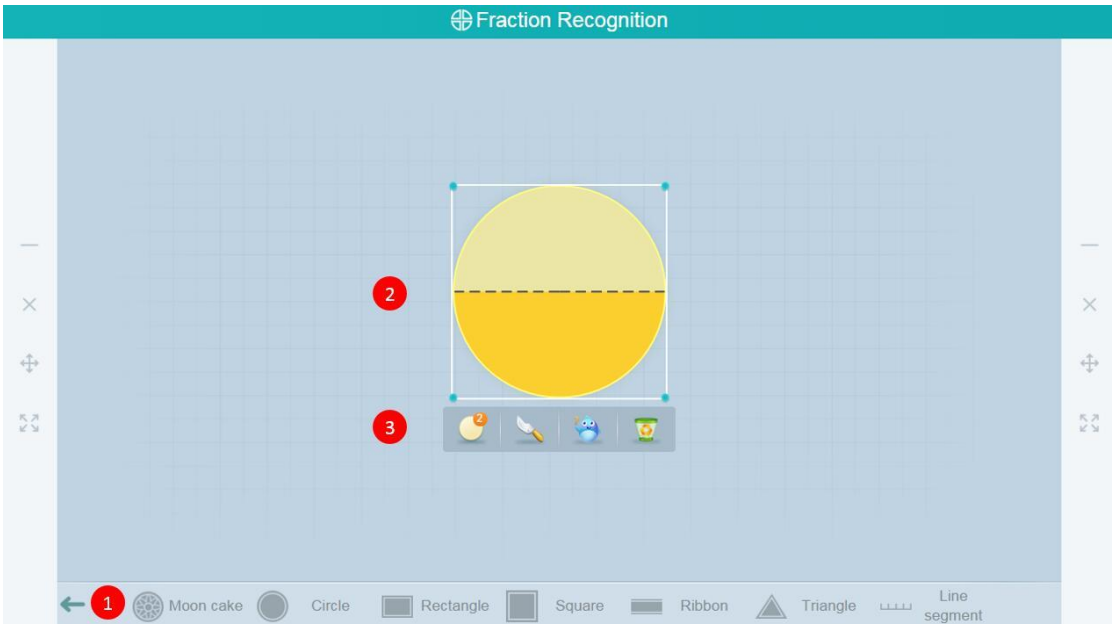


Fig. 10-2-35-3 Subject Tools-Fraction Recognition

No.	Area Name	Direction for Use
1	Figure Selection	Select the figure that should be evenly divided.
2	Display Area	Display the picture.
3	Functional Area	Select the needed function.

Table 10-2-35-1 Subject Tools-Fraction Recognition

■ Compare Fraction

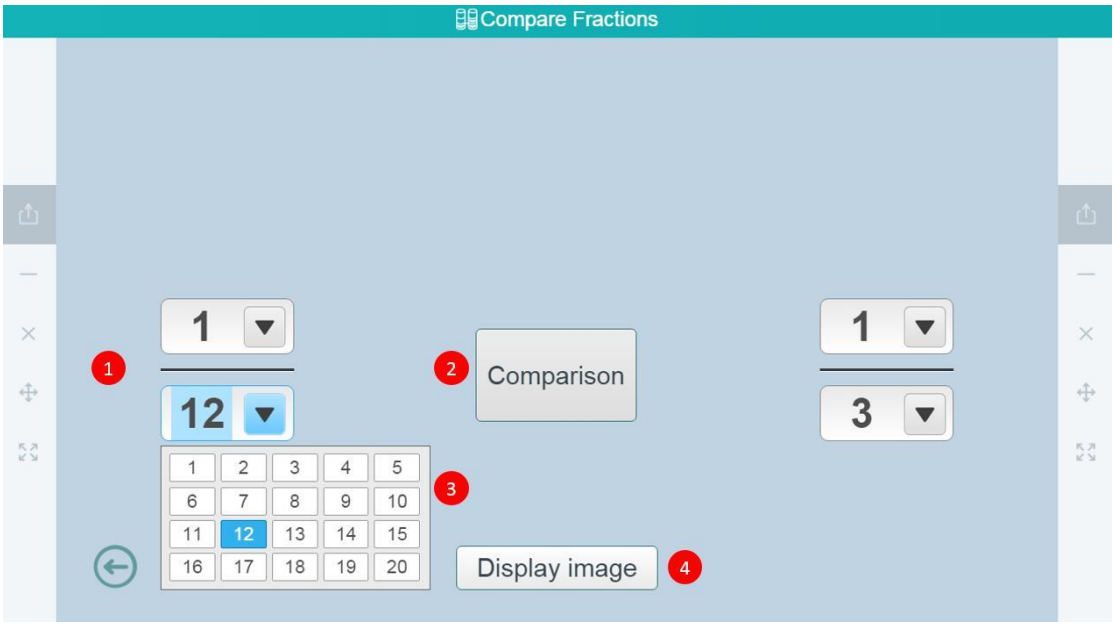


Fig. 10-2-35-4 Subject Tools-Compare Fraction

No.	Area Name	Direction for Use
1	Display fraction	Set the fraction to be compared.
2	Comparison	Click to view the comparison results.
3	Set a fraction	Select a value to set the member or molecular.
4	Display image	Click to show or hide the relationship between the fractions on both sides. Auxiliary dotted line are presented at the same time when fraction relationship is presented.

Table 10-2-35-4 Subject Tools-Compare Fraction

■ Calculate Fraction

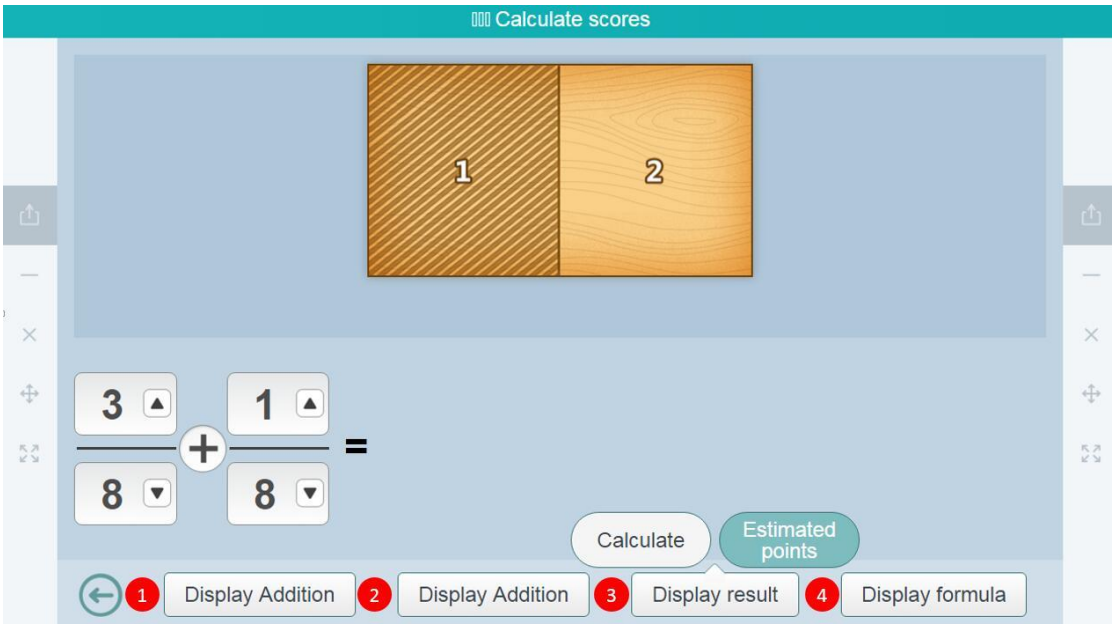


Fig. 10-2-35-6 Subject Tools-Calculate Fraction

No.	Area Name	Direction for Use
1	Display addition	Play the animation of the set augend.
2	Display addition	Play the animation of the set addend.
3	Display results	Click to select "Calculation" or "Reduction" in the image animation process of calculation corresponding to the fraction calculation expression".
4	Display formula	Display the expression process of fraction calculation.

Table 10-2-35-7 Subject Tools-Calculate Fraction

10.2.36 3D Shapes Expansion and Reduction

The dynamic expansion and reduction tool helps students obtain an intuitive understanding of relevant basic knowledge with 3D models and expanded views as shown in Fig. 10-2-36.

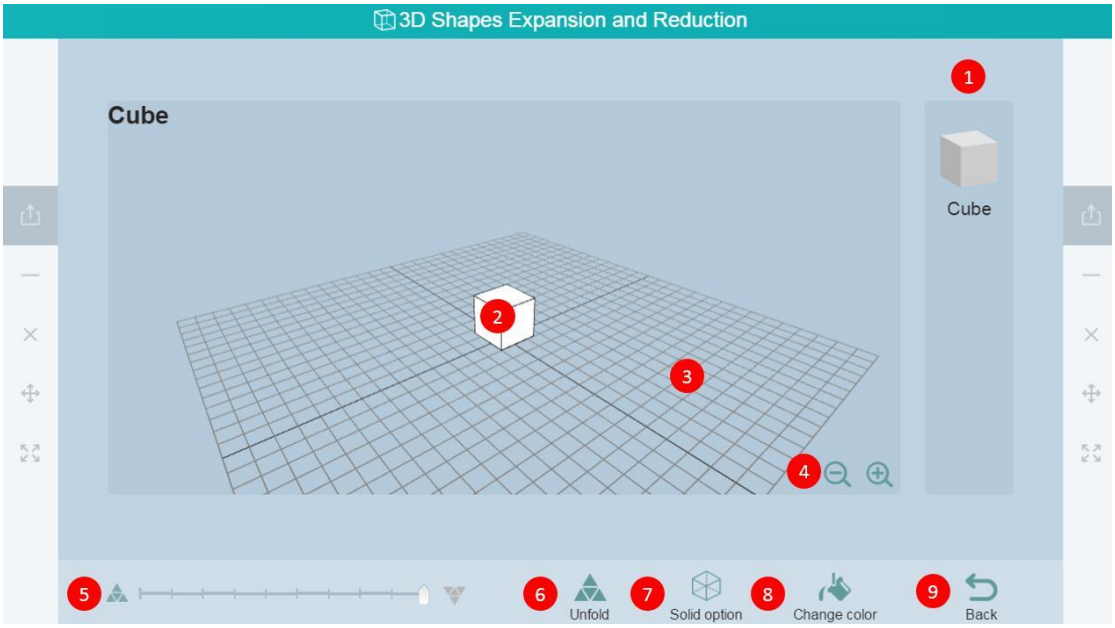
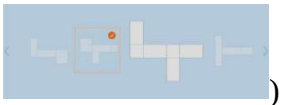
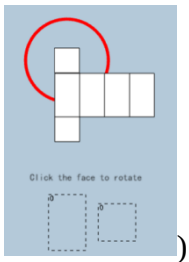


Fig. 10-2-36 Subject Tools-3D Shapes Expansion and Reduction

No.	Area Name	Direction for Use
1	Shape selection	Select and display a shape (cube/cuboid/quadrilateral prism).
2	Display area	Expand or reduce the shape in the area.
3	Rotation	Press and drag the grids to change your viewing angle.
4	Zoom in/out	Zoom in/out the shape in the middle.
5	Expansion/reduction	Drag or click to control the degree of expansion or reduction.
6	Unfold	Multiple stretched-out forms (e.g. ) or self-defining expanded views (e.g. ) are available.

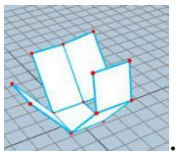
7	Solid options	Highlight the vertexes, edges or planes of the cube to help students gain a comprehensive understanding of the cube's structure, e.g.  .
8	Change color	Five colors are provided and you may change the color if you like.
9	Back	Return to the previous page.

Table 10-2-36 Subject Tools-3D Shapes Expansion and Reduction

10.2.37 Cube Tower

The cube tower is used to intuitively display different angles of view of an object, as shown in Fig. 10-2-39.

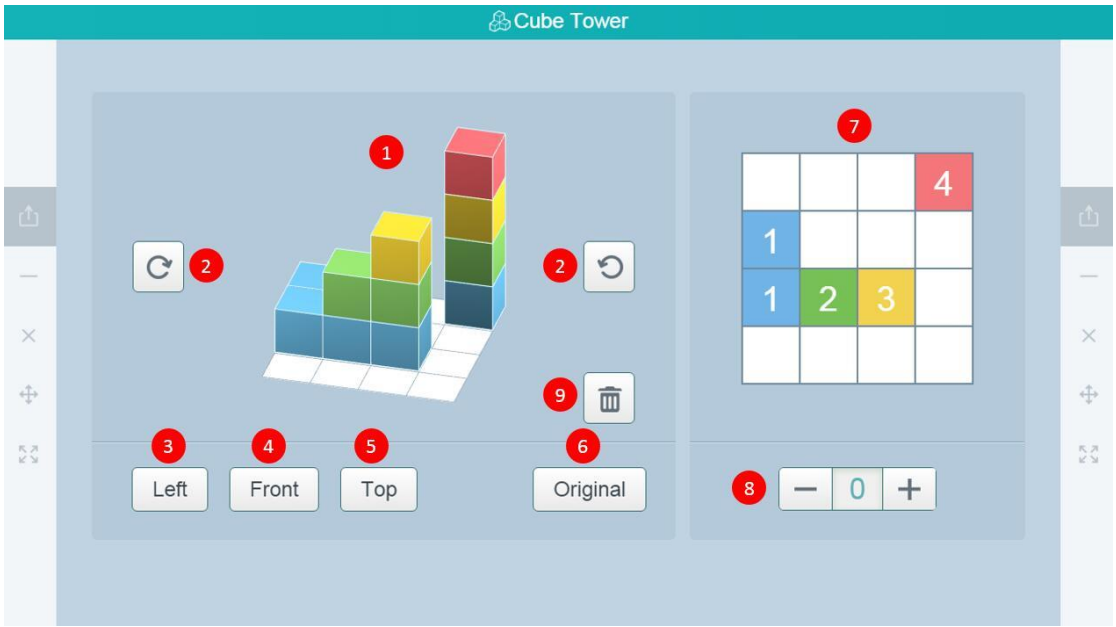


Fig. 10-2-37 Subject Tools-Cube Tower

No.	Area Name	Direction for Use
1	Cube tower	A cube tower display area.
2	Clockwise/anticlockwise	Click the corresponding button to rotate the cube tower in the clockwise or anticlockwise

	rotation	direction.
3	Left viewing angle	Observe the cube tower from the left, e.g.
4	Front viewing angle	Observe the cube tower from the front, e.g.
5	Top viewing angle	Observe the cube tower from above, e.g.
6	Original viewing angle	Click and revert to the initial viewing angle.
7	Quantity	Show the layout of the cube tower and the quantity of cubes from the vertical viewing angle; click an area to add cubes.
8	Quantity	After selecting a cube tower template, click "+" to add cubes (no more than 4 pieces) and click "-" to reduce cubes.

Table 10-2-37 Subject Tools-Cube Tower

10.2.38 Mind Map

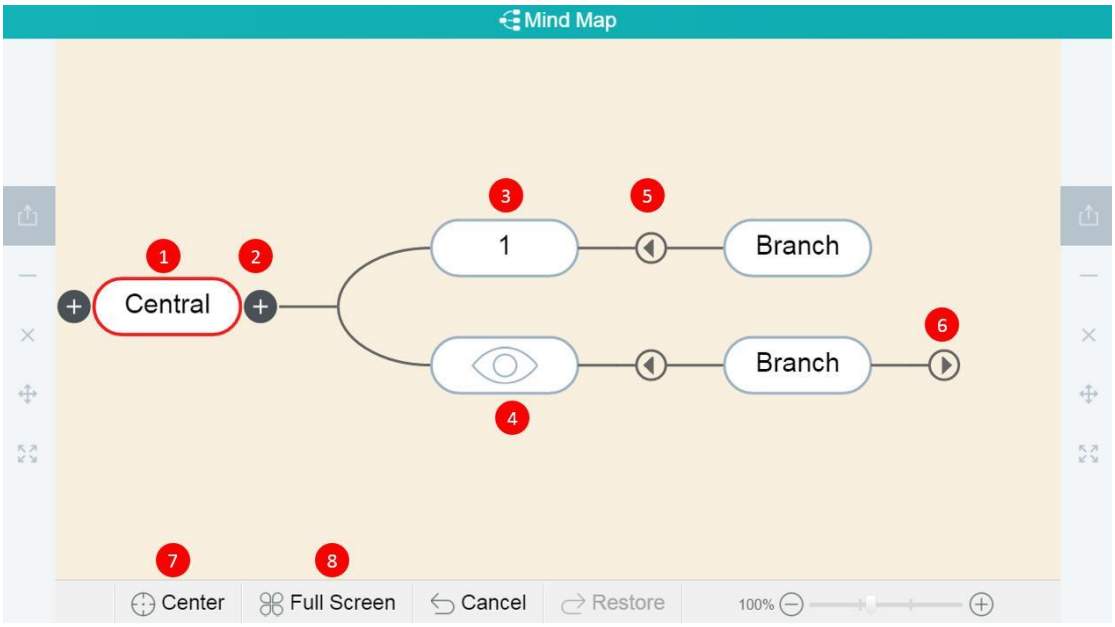


Fig.10-2-38 Subject Tools-Mind Map

No.	Area Name	Direction for Use

1	Central topic	Click to select a central topic, and click the “+” button on either side of the central topic to add subordinate topics.
2	Add subordinate topics	Add subordinate topics.
3	Edit topic name	Double click to edit the topic, e.g.
4	Show/hide content	Double click to show/hide the content, e.g.
5	Collapse topic branch	Click to collapse the topic branch.
6	Expand topic branch	Click to expand the topic branch.
7	Center	Click the **Center** button to display the mind map with the central topic in the middle.
8	Full screen	Click to display the mind map in the full screen mode.

Table 10-2-38 Subject Tools-Mind Map

10.2.39 Acceleration

The tool can help students to understand the physical meaning of acceleration and understand that acceleration is vector. The concept and expression of the rate of change are learnt further through analyzing the examples of acceleration in daily life. To understand the meaning of uniformly variable motion, the v-t image can be used to present the rectilinear motion with constant acceleration and to determine the acceleration through the image, as shown in Fig. 10-2-39.

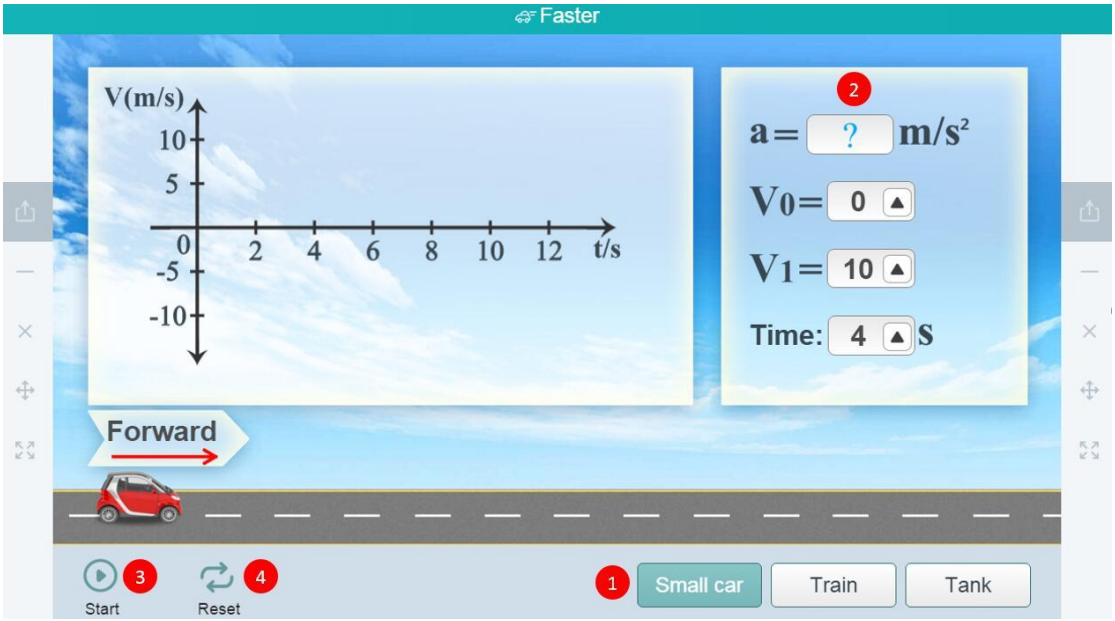


Fig.10-2-39 Subject Tools-Acceleration Tools

No.	Area Name	Direction for Use
1	Default tool	Select three different scenes (small car, train, and tank).
2	Parameter setting	Parameters such as initial speed, end speed and time can be set autonomously.
3	Start/ Pause/ Replay	The object starts to move according to the preset parameters, and the button becomes a pause button during playback. After the end of the animation, the button becomes a replay button.
4	Reset	Clear all data and reset to the initial state.

Table 10-2-39 Subject Tools-Acceleration Tools

10.2.40 Lever Balance Bar

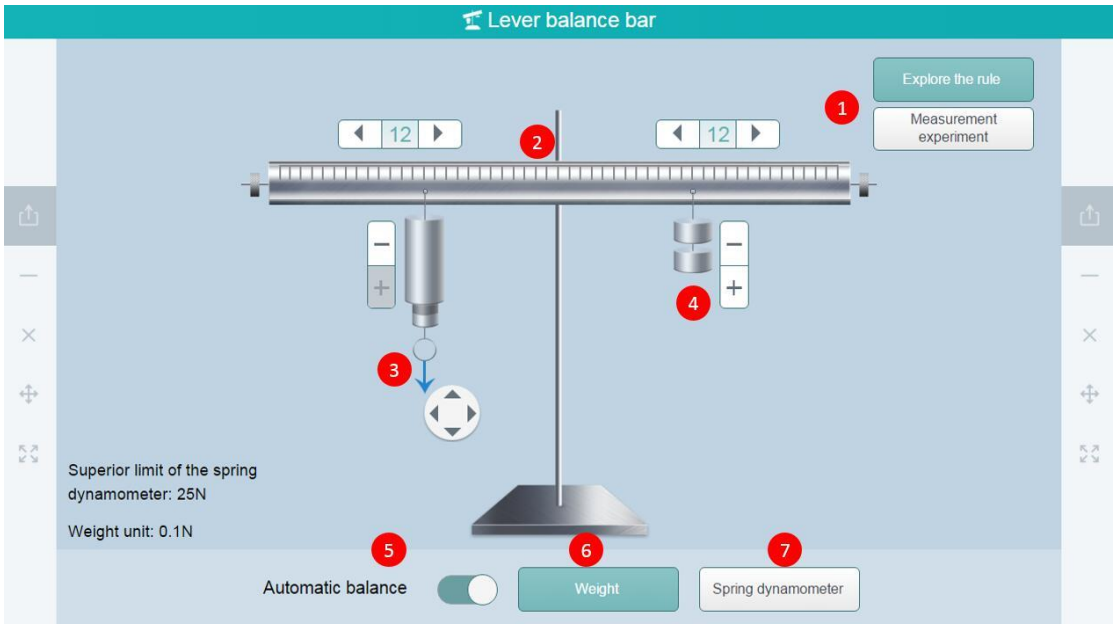


Fig. 10-2-40-1 Subject Tools-Lever Balance Ruler

No.	Area Name	Direction for Use
1	Select a teaching scene	The scene includes “Law Exploration” and “Measuring Experiment” (As shown in Fig. 10-2-42-1).
2	Power Arm	Click the "◀ 12 ▶" left/right symbols to adjust the distance.
3	Spring-Loaded Thrust Meter	Plot a rectilinear wire in the drawing area.
4	Adjustment	Click to select the tool to be moved.
5	Automatic balance	Click on the components to be deleted for deleting.
6	Option	Show/hide letter hints of the components.
7	Spring dynamometer	Drag electrical components or symbols to the drawing area.

Table 10-2-40-1 Subject Tools-Lever Balance Ruler

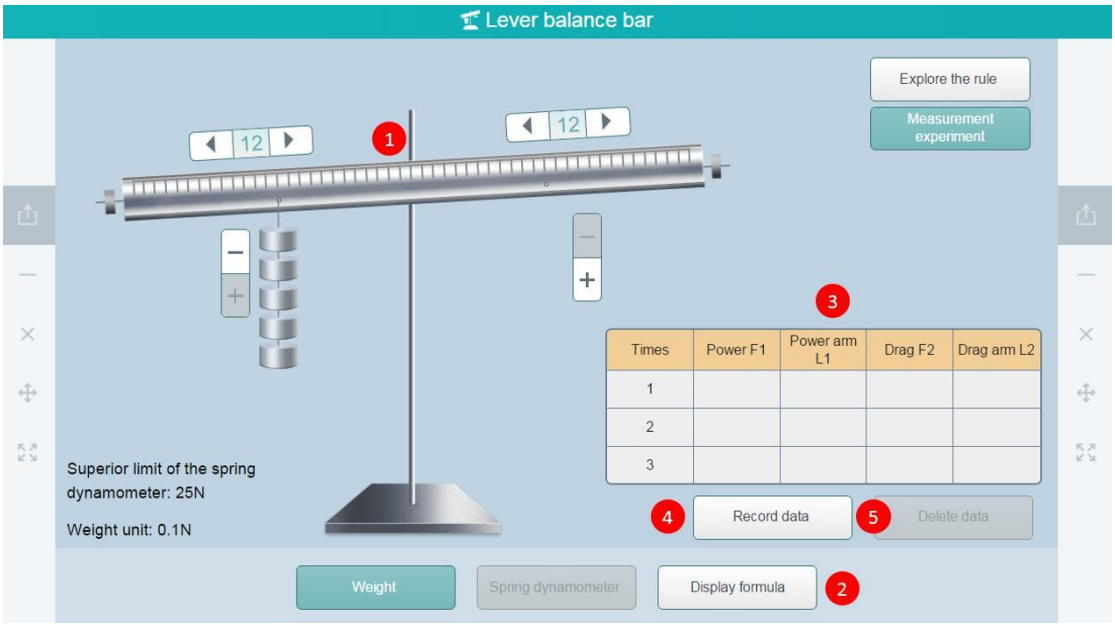


Fig. 10-2-40-2 Disciplinary Tools-Lever Balance Ruler

No.	Area Name	Direction for Use
1	Balance ruler	Display the lever operating area (including power arm adjustment, hook weight increasing and decreasing).
2	Toolbar	Tools available in the measuring experiment environment: hook weight, expression display.
3	Data sheet	Measuring experimental data records.
4	Record data	After clicking the button, the operating data are displayed in the table.
5	Delete data	Click the button to delete primary data in the data table.

Table 10-2-40-2 Disciplinary Tools - Lever Balance Ruler

10.2.41 Buoyancy Tools

Through experimental exploration, students can understand weight method, a method of understanding buoyancy and measuring buoyancy and know the Archimedes principle. Students can know their principles through experiencing the qualitative and quantitative experimental processes of factors affecting buoyancy.

"Measuring the buoyancy of the aluminum block immersed in water" is taken as an example.

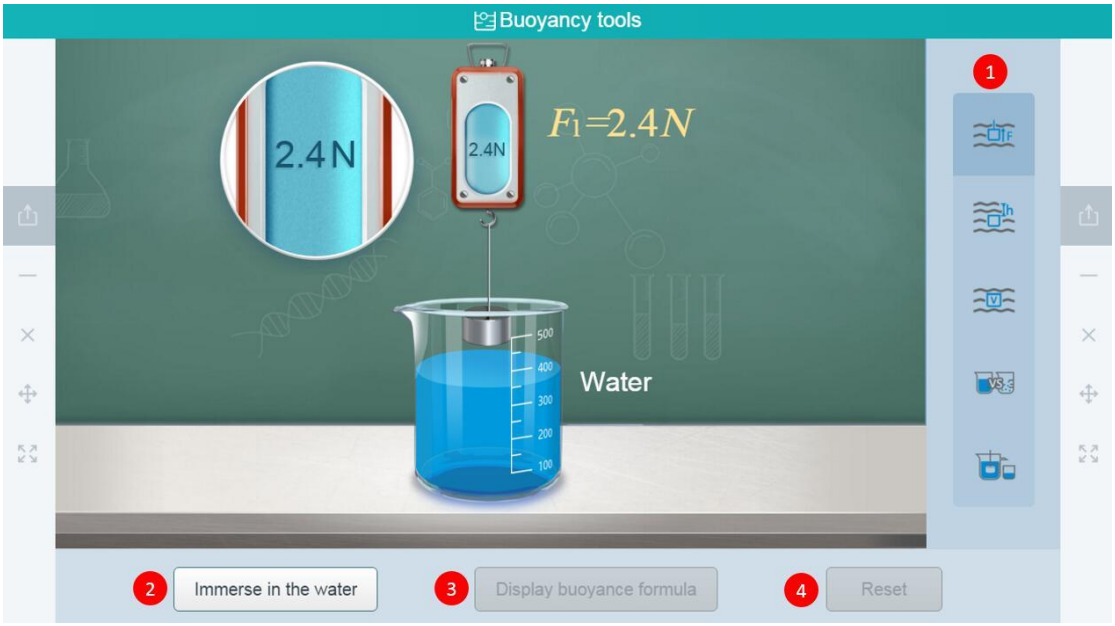


Fig. 10-2-41 Subject Tools-Buoyancy Tools

No.	Area Name	Direction for Use
1	Default tool	Select 5 demonstration modes including “Measure the buoyancy of the aluminum block immersed in water”, “Explore factors determining the size of the buoyancy (the depth of immersion, the volume of the object immersed in the liquid, the type of liquid)” and “Explore the relationship between the size of the buoyancy and the gravity borne by the discharge liquid”, etc.
2	Immersion in the water	Display the animation process of immersing objects suspended in a spring-loaded thrust meter in a beaker filled with water.
3	Display buoyance formula	Display the expression of the buoyancy of the object.
4	Reset	Reset the tool to the initial state.

Table 10-2-41 Subject Tools-Buoyancy Tools

10.2.42 Motion of Charged Particles in a Uniform Magnetic Field

This tool helps students to understand the motion of charged particles in a uniform magnetic field when the initial velocity direction of charged particles is perpendicular to the intensity direction of magnetic induction. The radius, period formula and affecting factors of the uniform circular motion of charged particles in a uniform magnetic field are derived.

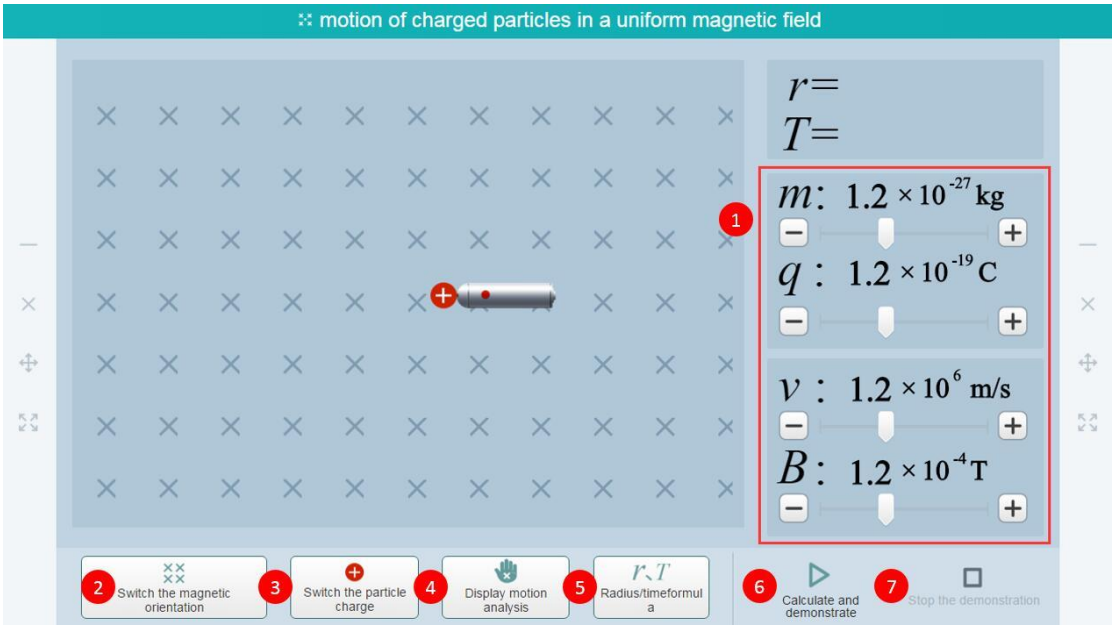


Fig. 10-2-42 Subject Tools - Motion of Charged Particles in a Uniform Magnetic Field

No.	Area Name	Direction for Use
1	Preset parameters	Click to adjust initial velocity of the charged particles, the strength of the magnetic field, the mass of the particles and the amount of charge of the particles.
2	Switch the magnetic orientation	Click to switch the direction of the magnetic field.
3	Switch the particle charge	Select to switch the charge properties of the particles.

4	Display motion analysis	Display the left-hand rule before particle motion.
5	Radius/period formula	Click to view the formulas of radius and period.
6	Calculate and demonstrate	Click to play the motion of particles in a uniform magnetic field.
7	Stop the demonstration	Stop the demonstration and restore to the initial state.

Table 10-2-42 Subject Tools-Motion of Charged Particles in a Uniform Magnetic Field

10.2.43 Circuit Diagram

The tool allows users to draw circuit diagrams with straight and custom wires and displays the circuit diagram drawing process step by step.

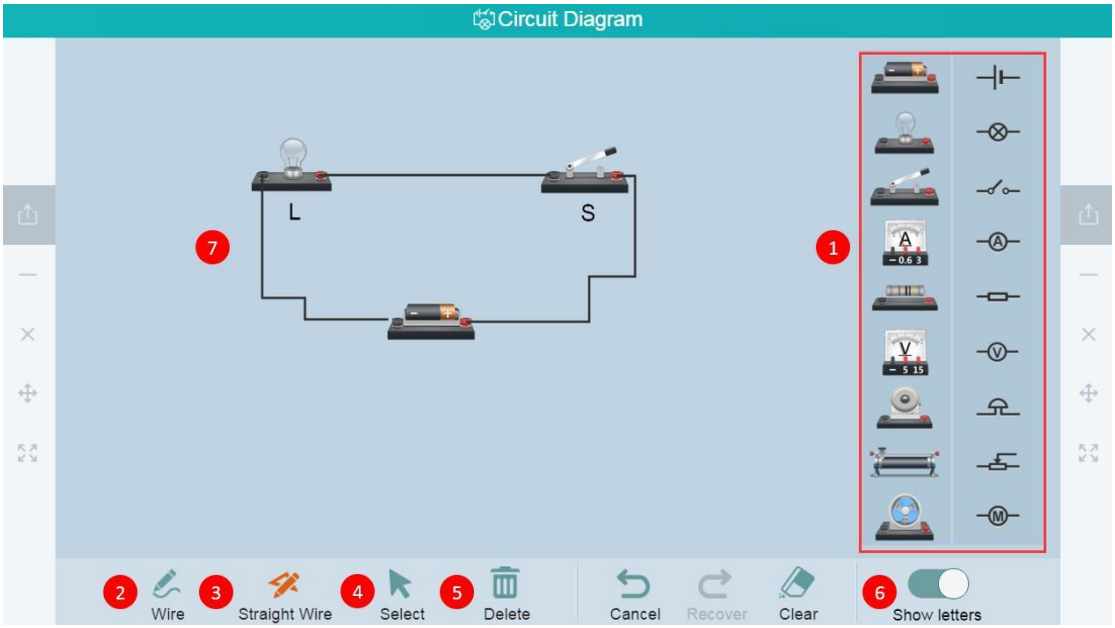


Fig. 10-2-43 Subject Tools-Circuit Diagram

No.	Area Name	Direction for Use
1	Preset tools	Preset electric elements (including simulation graphics and icons).

2	Wire	Draw wires in the plotting area.
3	Straight wire	Draw straight wires in the plotting area.
4	Select	Click and move any of the tools.
5	Delete	Click and delete any of the elements.
6	Show letters	Click to hide/show letters representing elements.
7	Plotting area	Drag electric elements or icons to the plotting area.

Table 10-2-43 Subject Tools-Circuit Diagram

10.2.44 Collision

This tool is for students to understand the nature of collisions—Elastic, completely inelastic, central and non-central. To understand the laws and applications of conservation of momentum and mechanical energy.

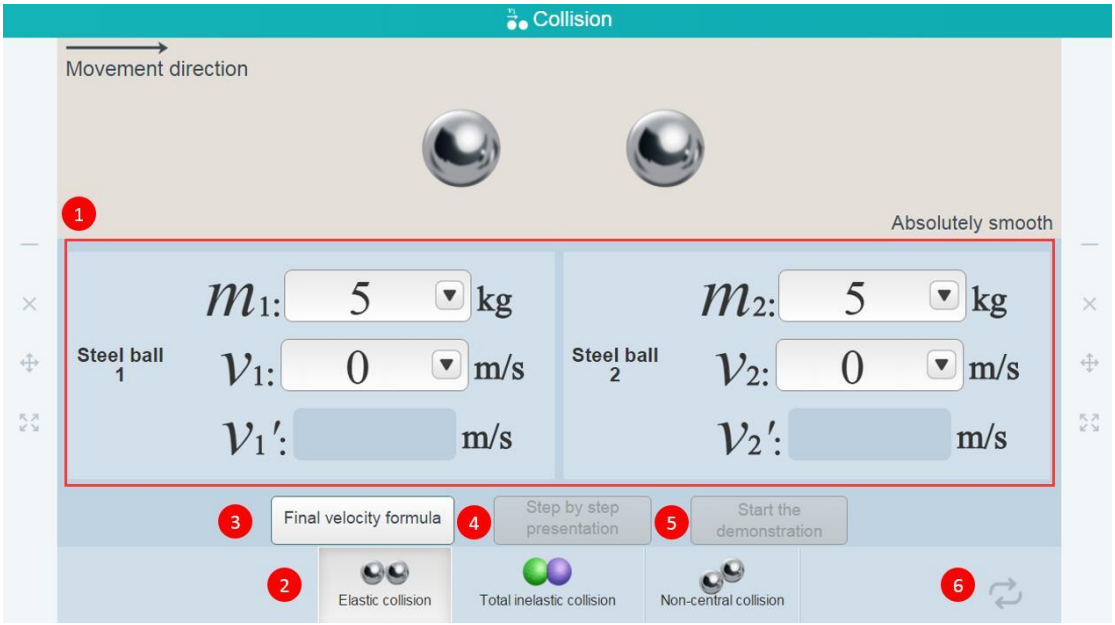


Fig. 10-2-44 Subject Tools - Collision

No.	Area Name	Direction for Use
1	Preset Parameters	Set the speed and mass of two objects as well as the direction of the initial motion autonomously.
2	Default tool	Click to simulate various collisions such as elastic

		collision, inelastic collision, central collision and non-central collision.
3	Final velocity formula	View the formula for "End Speed" in the current mode.
4	Step by step presentation	Demonstrate the animation process step by step. The complete animation process will be played at a time by default.
5	Star the demonstration	Re-presenting the animation process.
6	Reset	Reset the tool to the initial state.

Table 10-2-44 Subject Tools-Collision

10.2.45 Echo Principle

Explain the effect of distance on time it takes an echo to be heard as shown in Fig. 10-2-47.

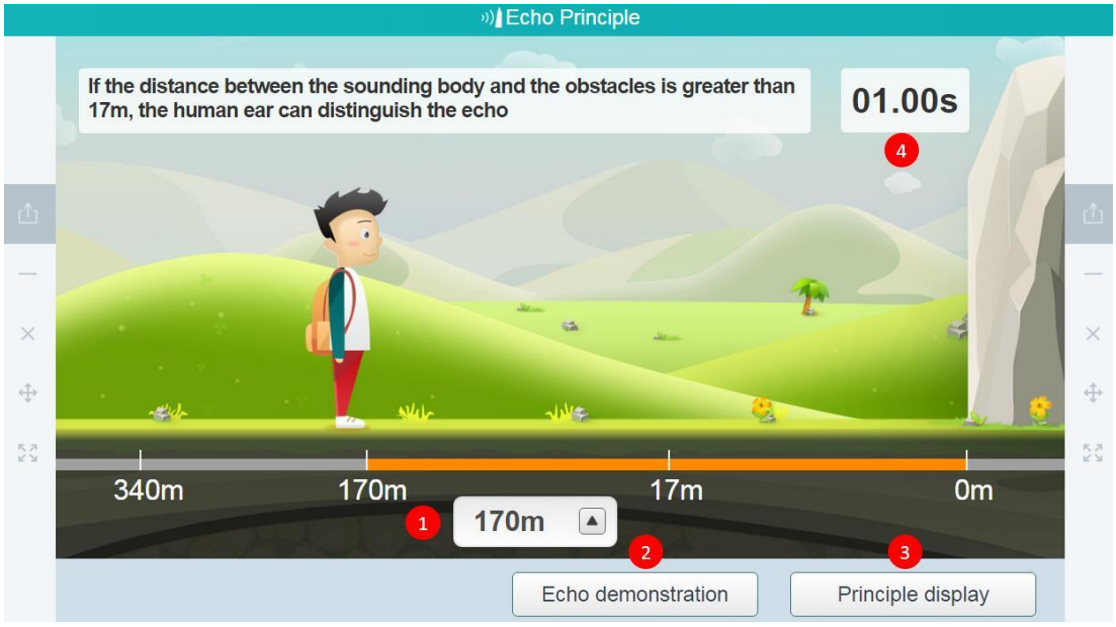


Fig. 10-2-45 Subject Tools - Echo Principle

No.	Area Name	Direction for Use
1	Set Distance	Set the distance between the child and the mountain, or set the distance through moving the

		child.
2	Echo demonstration	Demonstrate echo based on the set distance.
3	Principle display	The principle of echo is the reflection of sound.
4	Time	The time required for the kid to hear the sound.

Table 10-2-45 Subject Tools - Echo Principle

10.2.46 Factors that Influence Elastic Potential Energy

This tool is designed to help students understand elastic potential energy, and teach them how to calculate force. This is to develop the scientific evaluation abilities in students.

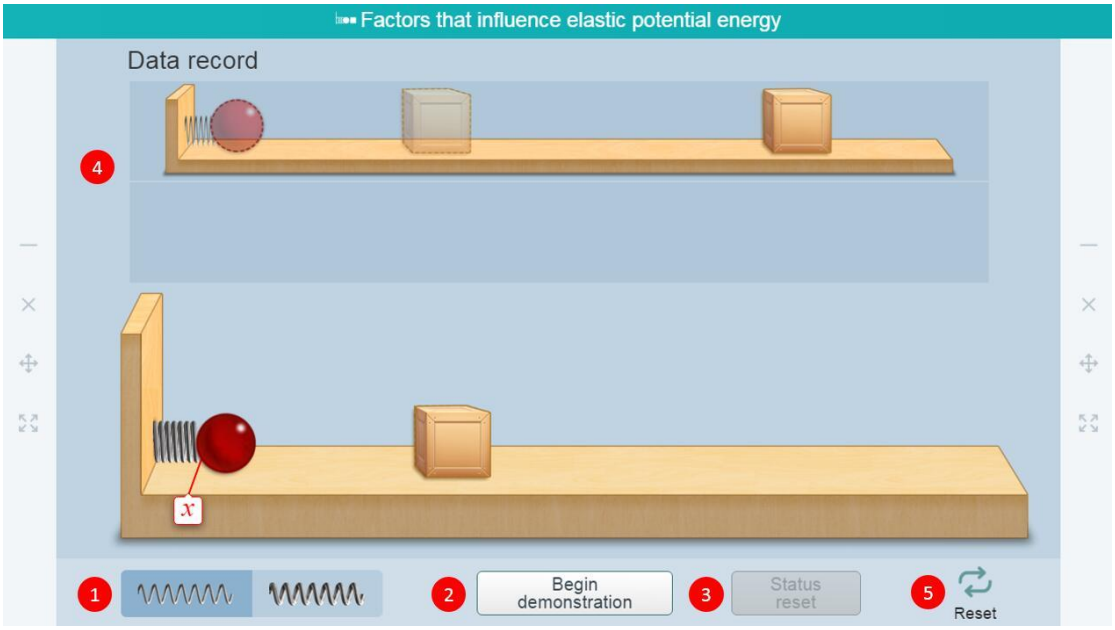


Figure 10-2-46 Subject Tools-Factors that Influence Elastic Potential Energy

No.	Area Name	Direction for Use
1	Tool preset	Set springs with different stiffness coefficients.
2	Start demonstration	The ball will be pushed towards the wooden block by the compressed spring.
3	Status reset	Click to reset the demonstration conditions, displacement and other experimental data.

4	Data record	Display multiple demonstration data at the same time.
5	Reset	Clear all data and reset to the initial state.

Table 10-2-46 Subject Tools - Factors that Influence Elastic Potential Energy

10.2.47 Friction Force

A physical object is used for demonstrating the motion figure of the generation of sliding friction in an ideal state.

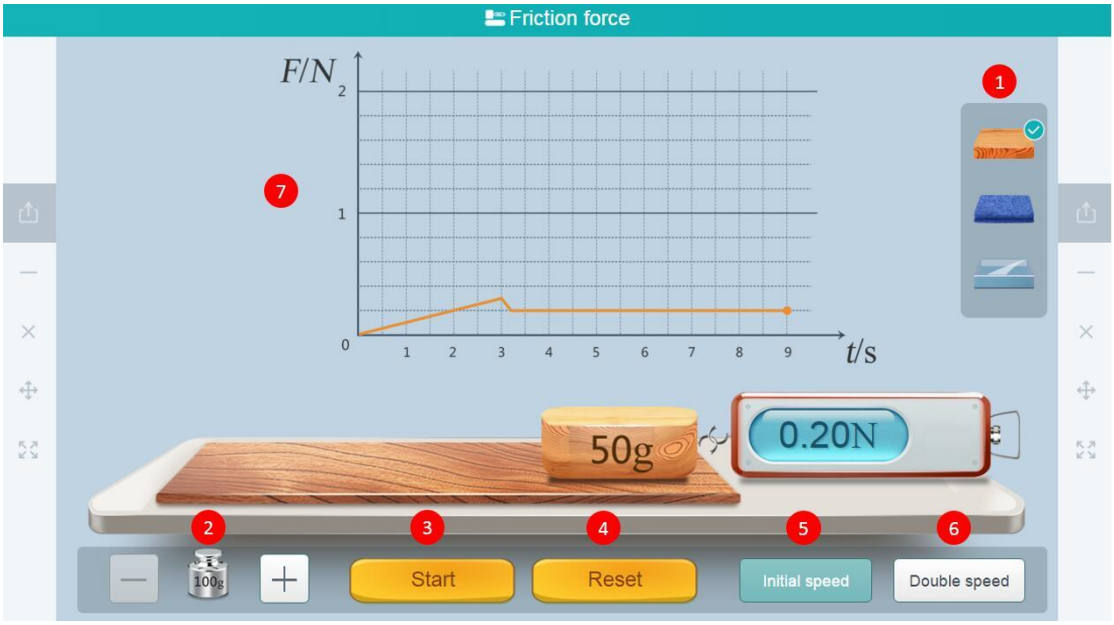


Fig. 10-2-47 Subject Tool-Friction Force

No.	Area Name	Direction for Use
1	Tool preset	Preset three different contact surfaces.
2	Weight	Weights can be added to the wooden block. Two weights of 100 g can be added per time.
3	Start	The dynamometer starts to pull the wooden block to make a uniform linear motion according to the set parameters.
4	Reset	Restore the tool to the initial state.
5	Initial speed	By default, uniform linear motion is performed at the

		initial speed.
6	Double speed	By default, uniform linear motion is performed at the speed as two times as the default speed.
7	Image display	Observe the effect of velocity on friction force.

Table 10-2-47 Subject Tools-Friction Force

10.2.48 Galileo Bevel

Demonstrate the Galilean obliquity experiment with the demonstration tool of Galilean obliquity.

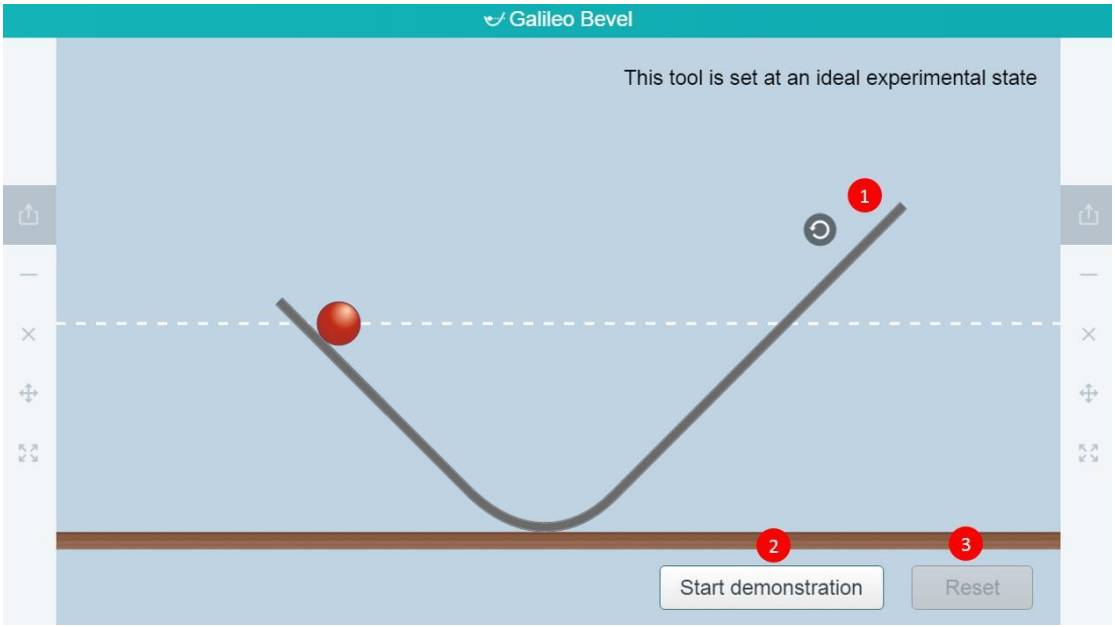


Fig. 10-2-48 Subject Tools-Galilean Obliquity Demonstration

No.	Area Name	Direction for Use
1	Adjusting button	Click to adjust the slope angle.
2	Start demonstration	The tool presets a V-shaped slope. Click the Start Demonstration button. The tool begins to demonstrate the Galilean experiment in an ideal state. Click the Pause button at any time to pause the demo.
3	Reset	Restore to the initial state.

Table 10-2-48 Subject Tools-Galilean Obliquity Demonstration

10.2.49 Kinetic Energy Factors

Demonstrate the effects of mass and drop height on the kinetic energy in respect to the control variate method.

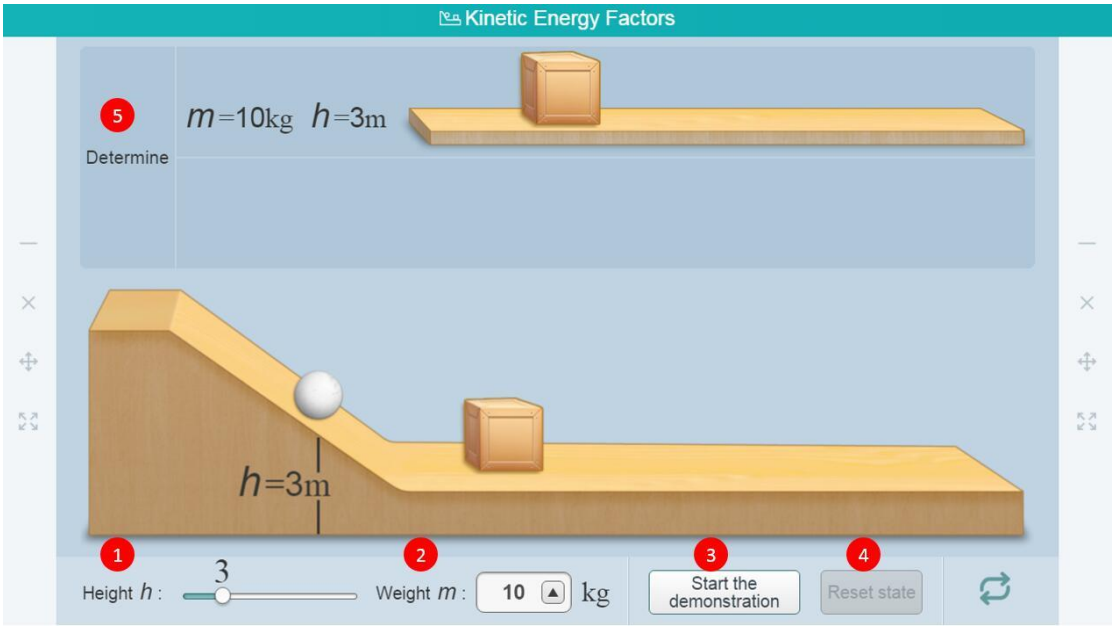


Fig. 10-2-49 Subject Tools-Factors Affecting Kinetic Energy

No.	Area Name	Direction for Use
1	Height	Set height of ball.
2	Weight	Five different masses are provided.
3	Start the demonstration	Click the Start Demo button. The small ball will roll down from the slope to push the small wooden block forward.
4	Reset state	The ball and wooden block are automatically restored to the starting point of last demonstration.
5	Data recording	Record the height, mass and position where the small wooden block moved each time.

Table 10-2-49 Subject Tools-Factors Affecting Kinetic Energy

10.2.50 Light Polarization

The light polarization tool demonstrates the dynamic change process of light intensity in real time by plotting multiple reflective and refracting light paths.

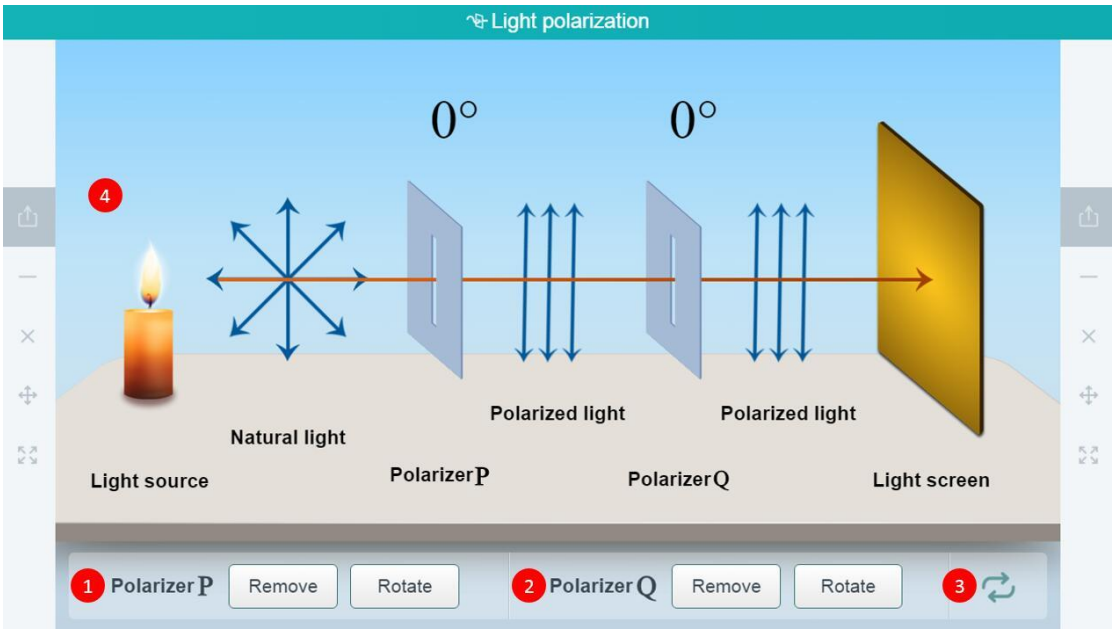


Fig. 10-2-50 Subject Tools-Light Polarization

No.	Area Name	Direction for Use
1	Polarizer P	Click to place or remove the polarizing film P for rotated placement.
2	Polarizer Q	Click to place or remove the polarizing film Q for rotated placement.
3	Reset	Restore the tool to the initial state.
4	Display area	View the change process of the optical screen according to the placement of the polarizing film.

Table 10-2-50 Subject Tools-Light Polarization

10.2.51 Magnetic Line Simulator

Demonstrate the magnetic induction line simulator to know directions of different magnetic induction lines.

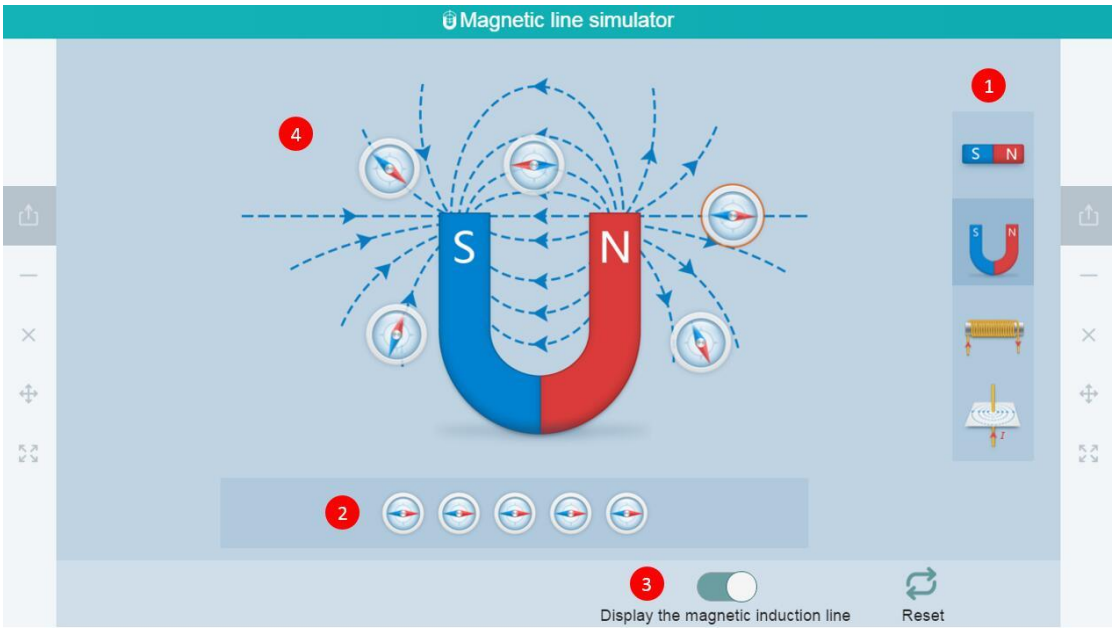


Fig. 10-2-51 Subject Tools-Magnetic Line Simulator

No.	Area Name	Direction for Use
1	Tool preset	Four preset tools are provided.
2	Compass tool	Drag the compass to the tool window; the direction of the compass can be changed according to the direction of the magnetic line.
3	Display the magnetic induction line	Click to open/close the function of magnetic induction line.
4	Tool window	Window of demonstration tools.

Table 10-2-51 Subject Tools-Magnetic Line Simulator

10.2.52 Magnetic Induction & Ampere Force

Demonstrate the usage of the left-hand rule and the change of the Ampere force along with the angle between the magnetic induction and the current direction.

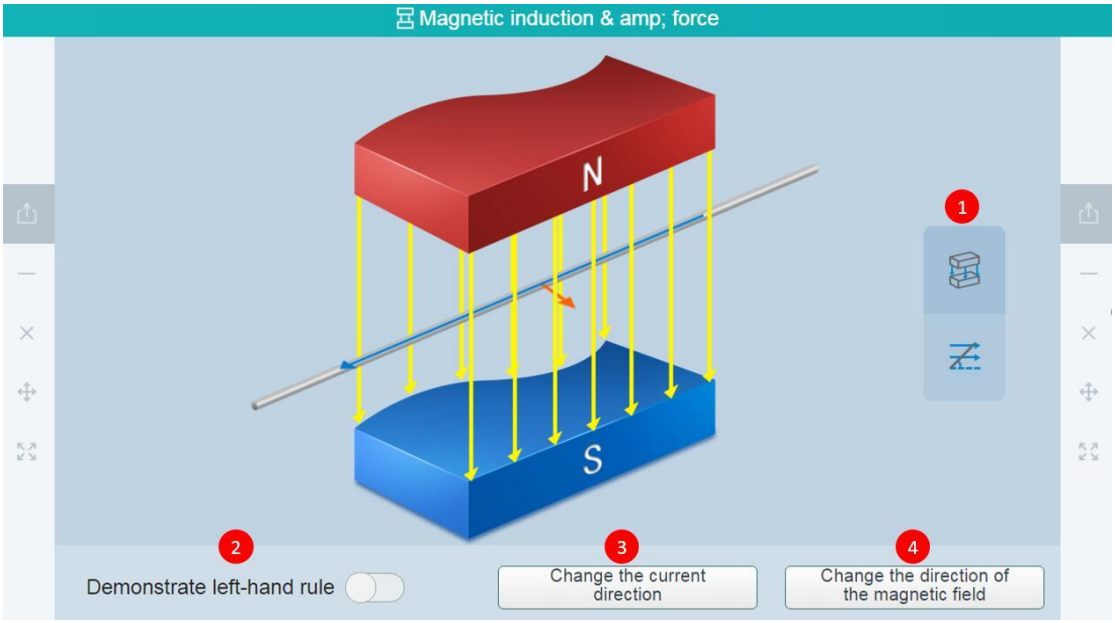


Fig. 10-2-52 Subject Tools-Magnetic Induction & Ampere Force

No.	Area Name	Direction for Use
1	Tool preset	Preset two tools, teaching tool of the left-hand rule and effective length of energized conductor.
2	Demonstrate left-hand rule	After opening the left-hand rule, a hand will be presented on the tool to simulate the correct use effect of the left-hand rule in this state.
3	Change the current direction	Modify the direction of the current.
4	Change the direction of the magnetic field	Modify the direction of the magnetic field.

Table 10-2-52 Subject Tools-Magnetic Induction & Ampere Force

10.2.53 Gravity Test-Hanging Method

The tool demonstrates the procedures of using the suspension method to test the center of gravity of an object.

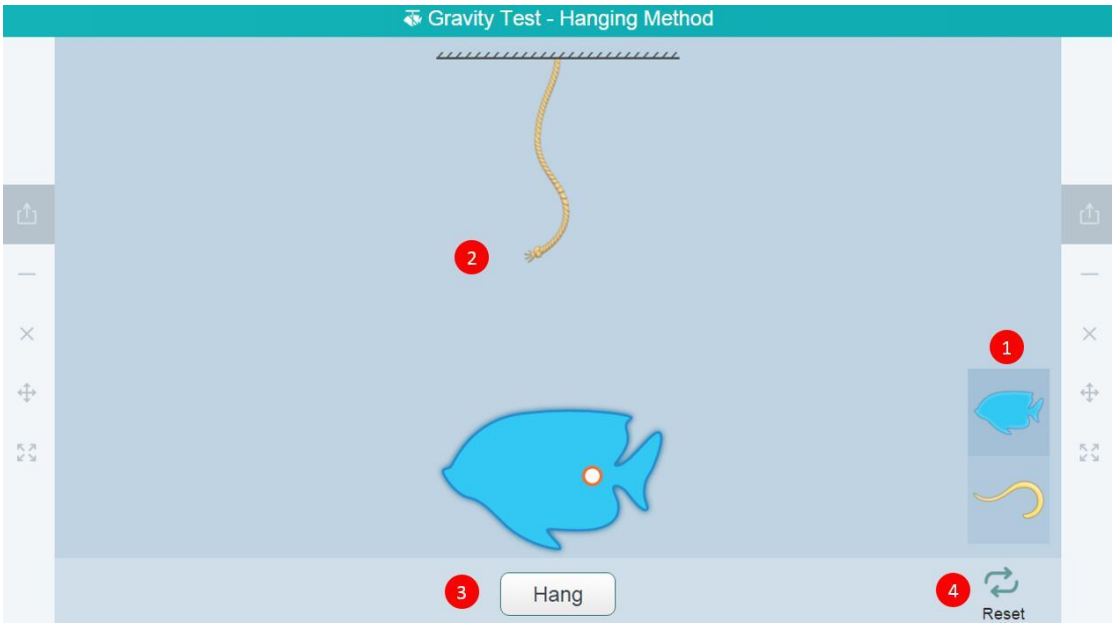


Fig. 10-2-53 Subject Tools-Gravity Test-Hanging Method

No.	Area Name	Direction for Use
1	Preset tools	Two objects in irregular shapes are provided.
2	Operation area	Select any object and it will appear below a string.
3	Hang	Click on the object randomly and it will be hung with the string accordingly.
4	Reset	Revert to the initial state.

Table 10-2-53 Subject Tools-Gravity Test-Hanging Method

10.2.54 Wave Formation and Dissemination

The tool help demonstrate the wave formation and dissemination.

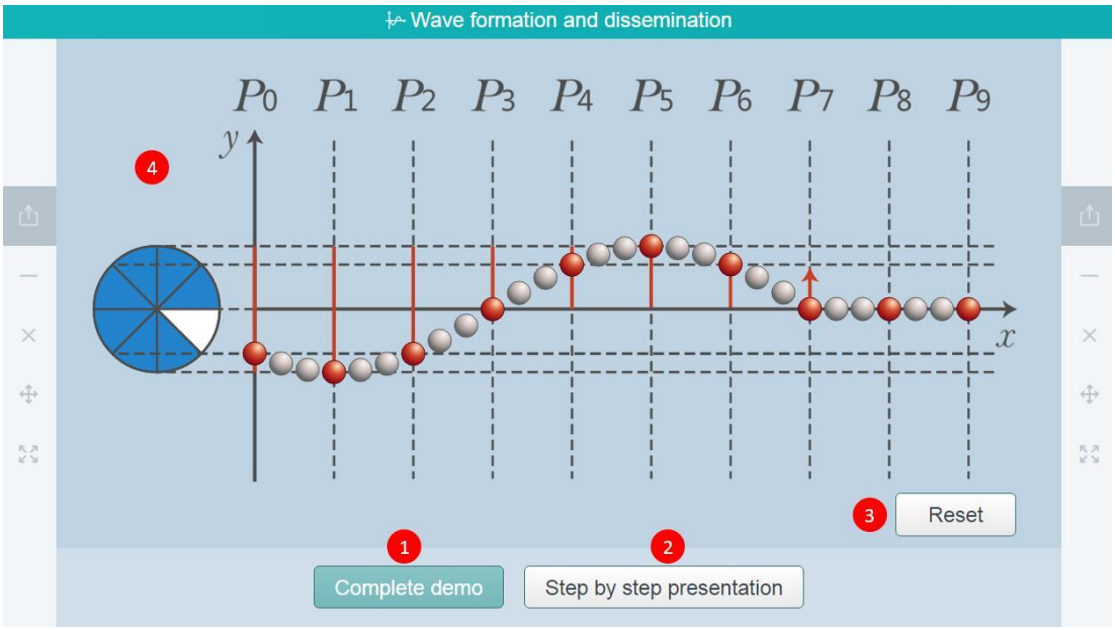


Fig. 10-2-54 Subject Tools-Wave Formation and Dissemination

No.	Area Name	Direction for Use
1	Complete demo	Clicking the Complete demo button to present the process of wave formation and the direction of the force of particle vibration in circulation. Meanwhile, the wave period corresponding to the moment is presented on the left side of the wave.
2	Step by step presentation	Provides periodic nodes from 0 to 9/8T and step-by-step demonstrate the motion form of waves within every 1/8T period.
3	Reset	Restore the tool to the initial state.
4	Demonstration area	Dynamically demonstrate the wave formation and spread.

Table 10-2-54 Subject Tools-Wave Formation and Dissemination

10.2.55 Micrometer Caliper

Explain the structure, usage, degree method and precautions of the micrometer caliper.

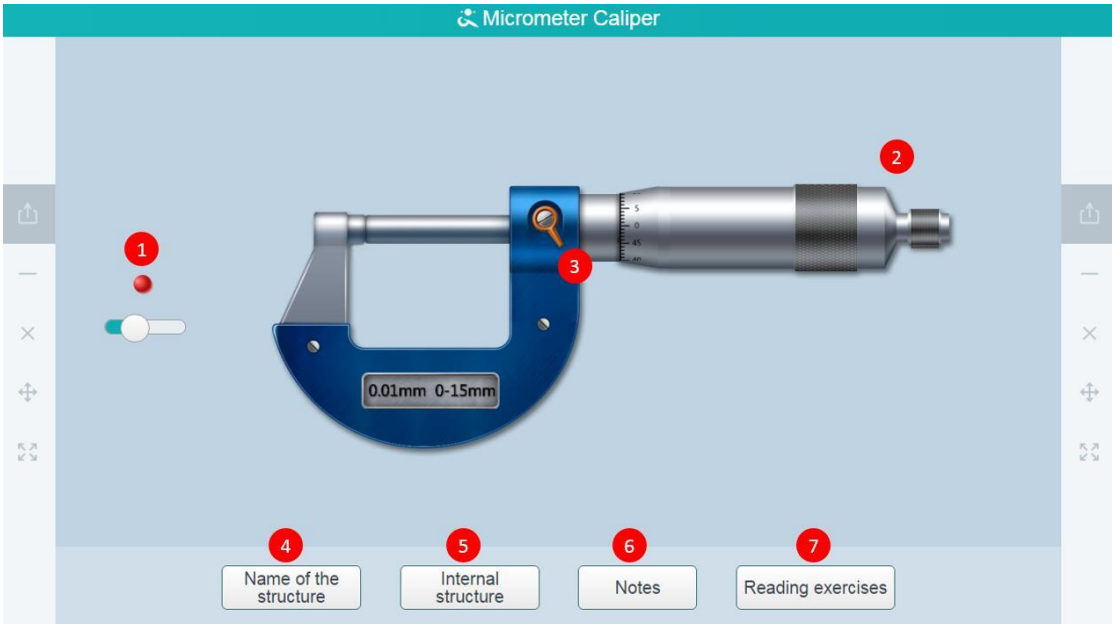


Fig. 10-2-55 Subject Tools-Micrometer Caliper

No.	Area Name	Direction for Use
1	Small ball	The size of the ball can be adjusted by the button under the ball.
2	Rotary knob	The black area adjusts the Micrometer Caliper to move backwards (or forwards).
3	Check the reading	View the readings for the current scale.
4	Name of the structure	View the names of the structures of the Micrometer Caliper.
5	Internal structure	View the spiral structure inside the Micrometer Caliper.
6	Notes	Check out the precautions when using the Micrometer Caliper.
7	Reading exercises	Automatically generate a random reading for students to use for reading exercises.

Table 10-2-55 Subject Tools-Micrometer Caliper

10.2.56 Momentum Conservation Law

This tool is to help students understand the momentum conservation law. Through

experiments, students learn to understand the applications of induction and deduction.

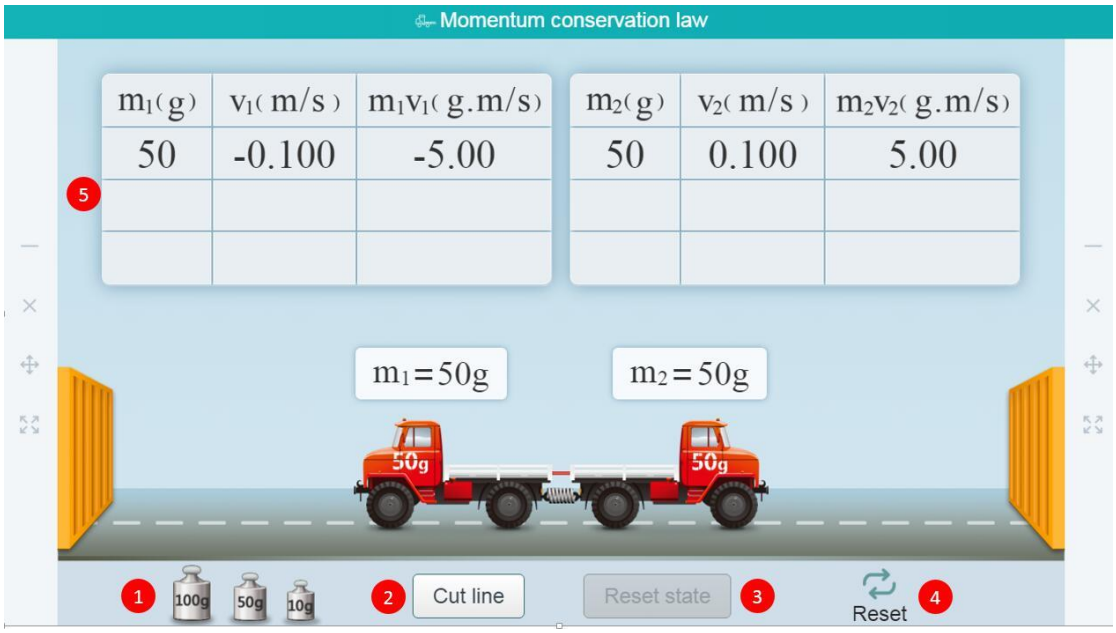


Fig. 10-2-56 Subject Tools-Momentum Conservation Law

No.	Area Name	Direction for Use
1	Tool preset	Click to add weight to the car and change the mass m.
2	Cut line	The two cars are bounce towards left and right automatically.
3	Reset state	Reset the car position to re-connect the string.
4	Reset	Clear all data and reset to the initial state.
5	Data recording	Multiple demonstration data are displayed at the same time, including the product of mass, the respective velocity of the two cars hitting the baffle, mass m and corresponding velocity v.

Table 10-2-56 Subject Tools-Momentum Conservation Law

10.2.57 Physical Resultant Force

The tool is used for introducing resultant force by efficiently displaying relations and changes of forces in different directions. See Fig. 10-2-57.

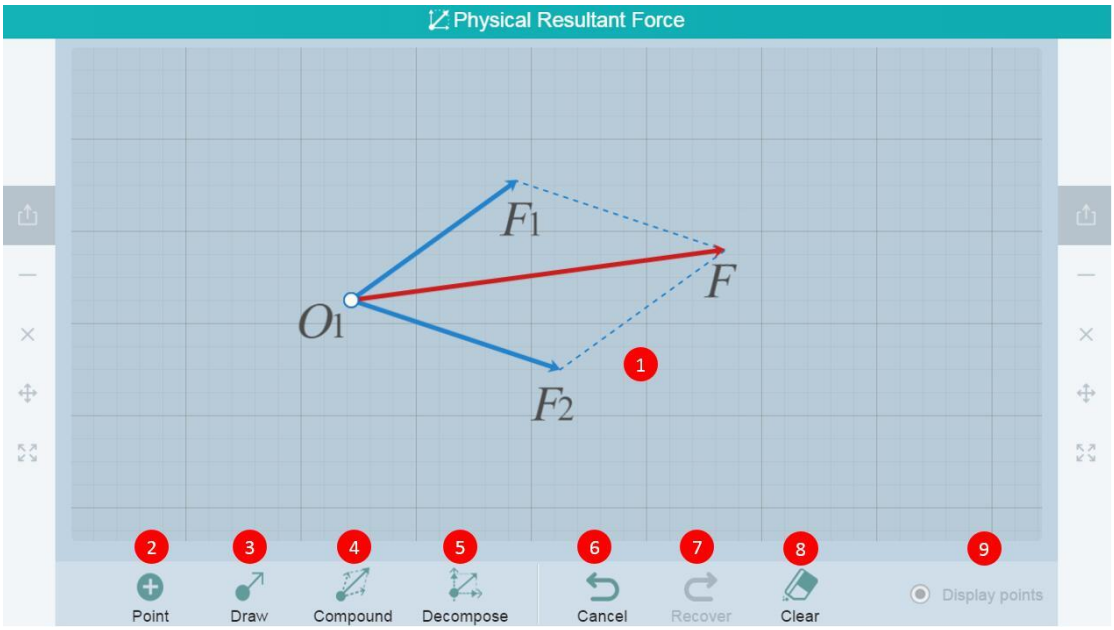


Fig. 10-2-57 Subject Tools-Physical Resultant Force

No.	Area Name	Direction for Use
1	Display forces	Click a force or its action spot to select the force in the display area.
2	Point	Select Point and draw an action spot.
3	Draw	Select Draw and drag to draw a force.
4	Compound	Select forces and click the Compound button.
5	Decompose	Select a force and click the Decompose button.
6	Cancel	Cancel the previous step.
7	Recover	Recover the previous step.
8	Clear	Clear the plotting area.
9	Display points	Click to hide/show the action spot.

Table 10-2-57 Subject Tools-Physical Resultant Force

10.2.58 Static Electricity Work and Potential Energy Changes

The tool is designed for helping students to understand the characteristics of electrostatic work and the concept of potential energy, and the relationship between

potential energy and electric field work.

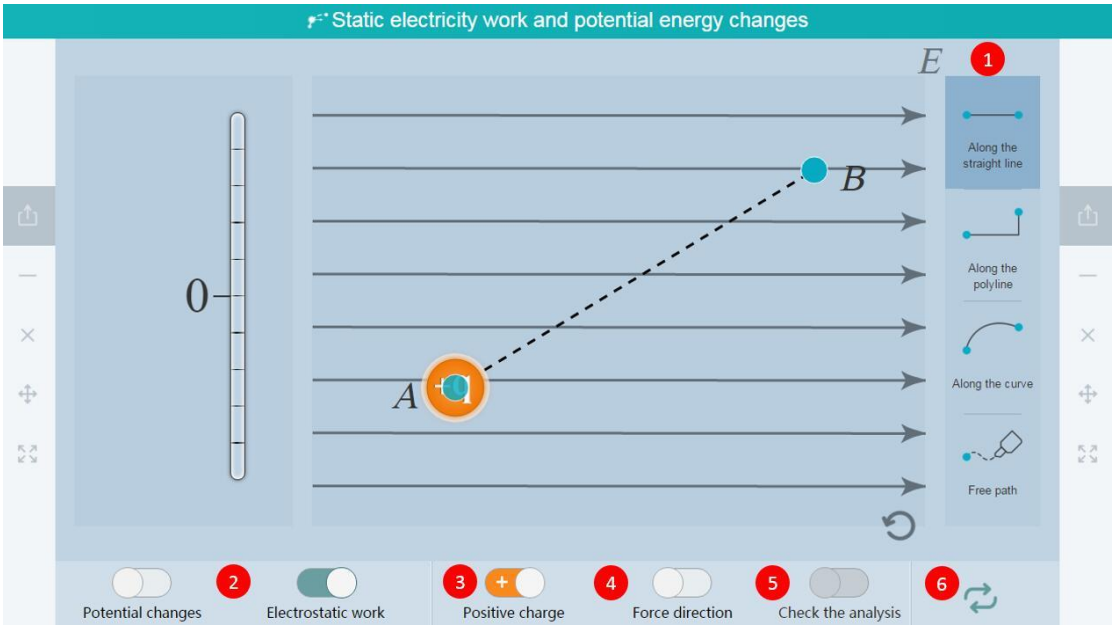


Fig. 10-2-58 Subject Tools-Static Electricity Work and Potential Energy Changes

No.	Area Name	Direction for Use
1	Tool preset	Select Charge Motion Path.
2	Electricity work	Click to show/ hide the dynamic process of static electricity work and potential energy when charge moves in different directions and paths.
3	Positive charge	Select to switch positive or negative charges to move in the electric field.
4	Force direction	Show/hide the force direction of charge.
5	Check the analysis	Click to check/close the analysis after the charge reaches point B (the button is displayed in gray before the charge reaching the point B).
6	Reset	Clear all data and reset to the initial state.

Table 10-2-58 Subject Tools-Static Electricity Work and Potential Energy Changes

10.2.59 Superposition Principle

The tool accurately displays the superposition effect of the field strength of any point

of action in the electric field.

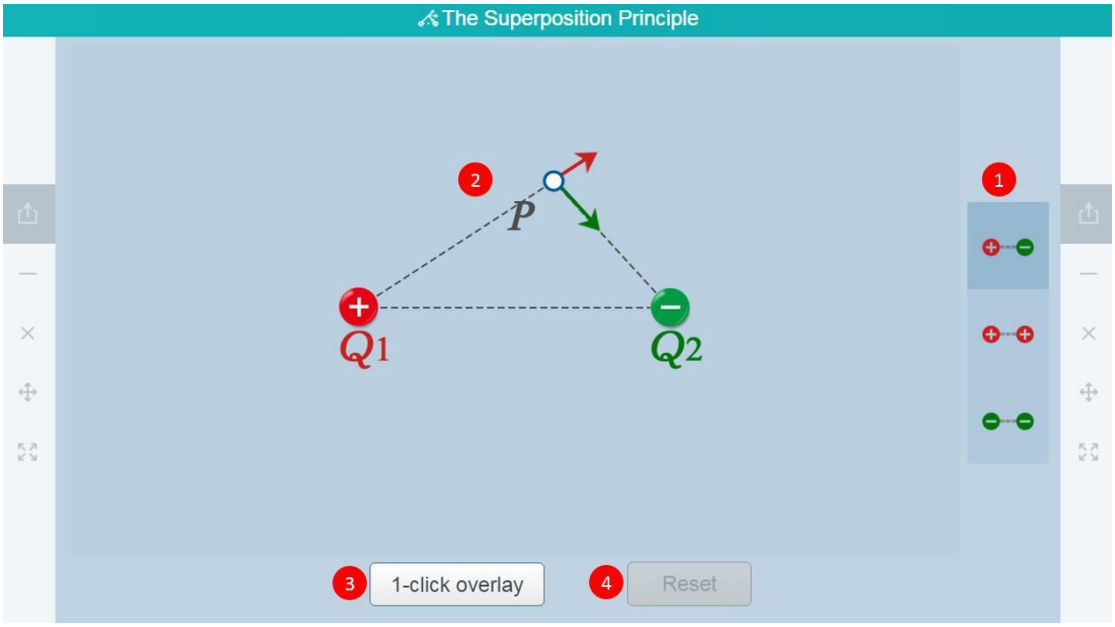


Fig. 10-2-59 Subject Tools-Superposition Principle

No.	Area Name	Direction for Use
1	Tool preset	Preset three different charge types.
2	Operating Area	Move the point P manually to display the effect of field strength superposition received by the point P in real time.
3	One-click overlay	The field strength of the two charges acting at the point P will be automatically superimposed to display the result.
4	Reset	Restore the state under the current charge type to the initial state.

Table 10-2-59 Subject Tools-Superposition Principle

10.2.60 Light Reflection Diagram

The demonstration of reflection of light generally includes drawing paths of reflected light and the laws of changes in light paths after reflection or rotation.

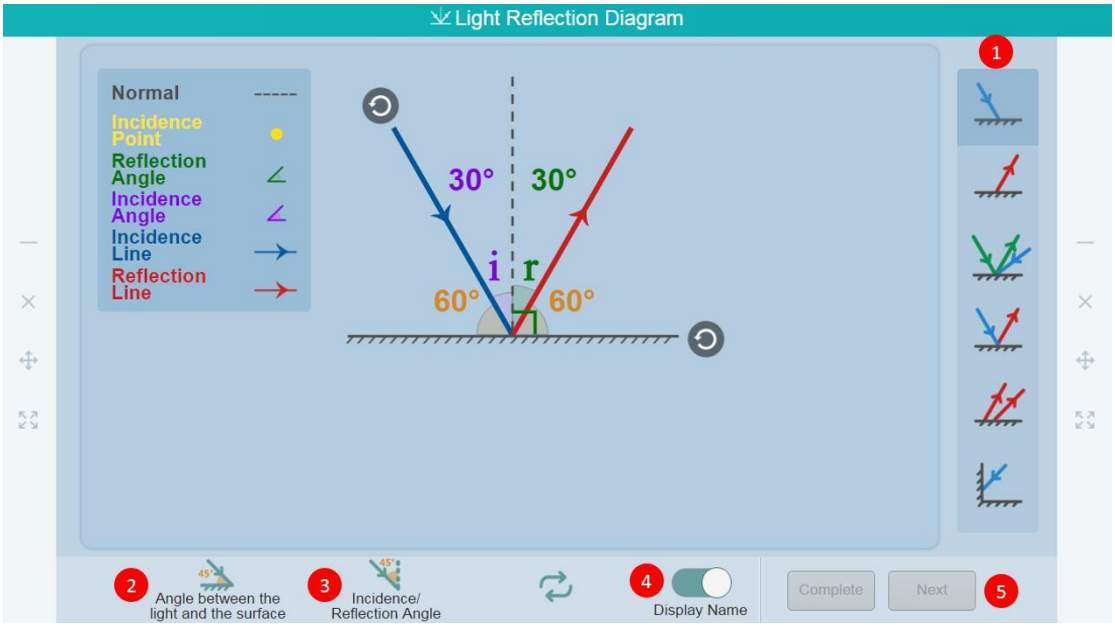


Fig. 10-2-60 Subject Tools-Light Reflection Diagram

No.	Area Name	Direction for Use
1	Preset tools	Five preset reflected light paths are available.
2	Angle between the light and surface	Display/hide light and face angle tips.
3	Incidence/ reflection angle	Display/hide in/reflect angle tips.
4	Display name	Display/hide the top left corner name display.
5	Demonstration procedures	Click the Skip to Results button to display all reflected light paths in the preset state; click Next repeatedly to gradually display the construction process of the reflected light paths in the current state.

Table 10-2-60 Subject Tools-Light Reflection Diagram

10.2.61 Light Refraction Diagram

Under different circumstances, a refraction path of light varies according to the angle of incidence.

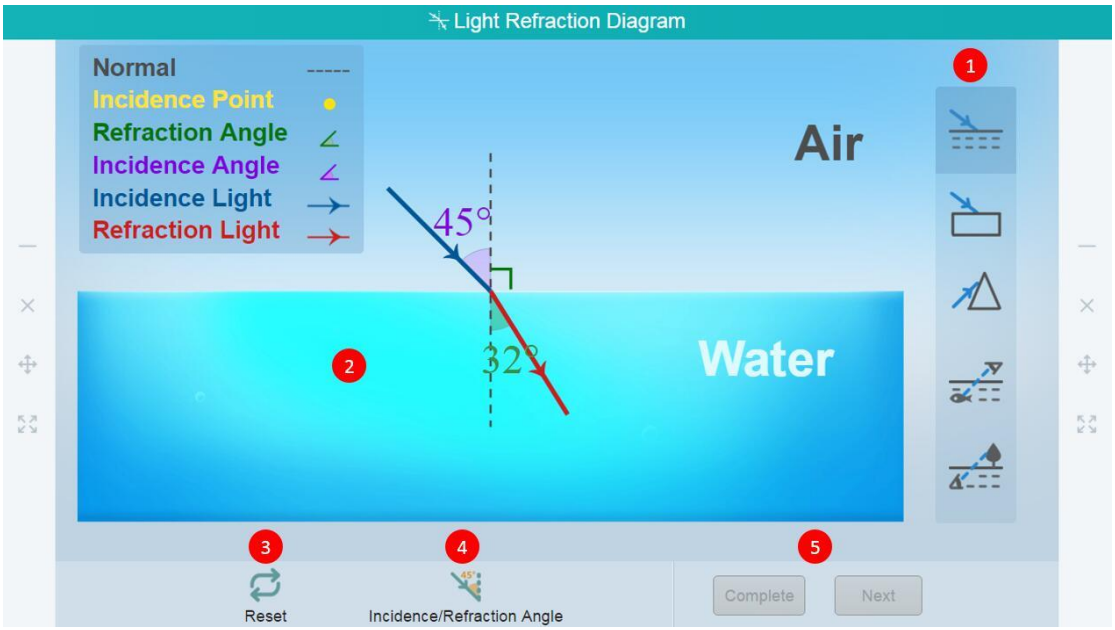


Fig. 10-2-61 Subject Tools-Light Refraction Diagram

No.	Area Name	Direction for Use
1	Preset scenario	Five preset scenarios are available.
2	Operation area	Click to select an incident light, and press and drag the **Rotation** button to change the angle of incidence and observe the changes in the path of light.
3	Reset	Revert to the initial state.
4	Incidence/refraction angle	Click to hide/show the angles of incidence and refraction.
5	Operating steps	Click the **Complete** button to skip the procedures and view the results; click the **Next** button repeatedly to observe every step.

Table 10-2-61 Subject Tools-Light Refraction Diagram

10.2.62 Shifting Tool

The shifting tool is used for verifying that the displacement of the uniform linear motion is the area of the trapezoidal shape enclosed by the figure of velocity and time image and the horizontal and vertical coordinates.

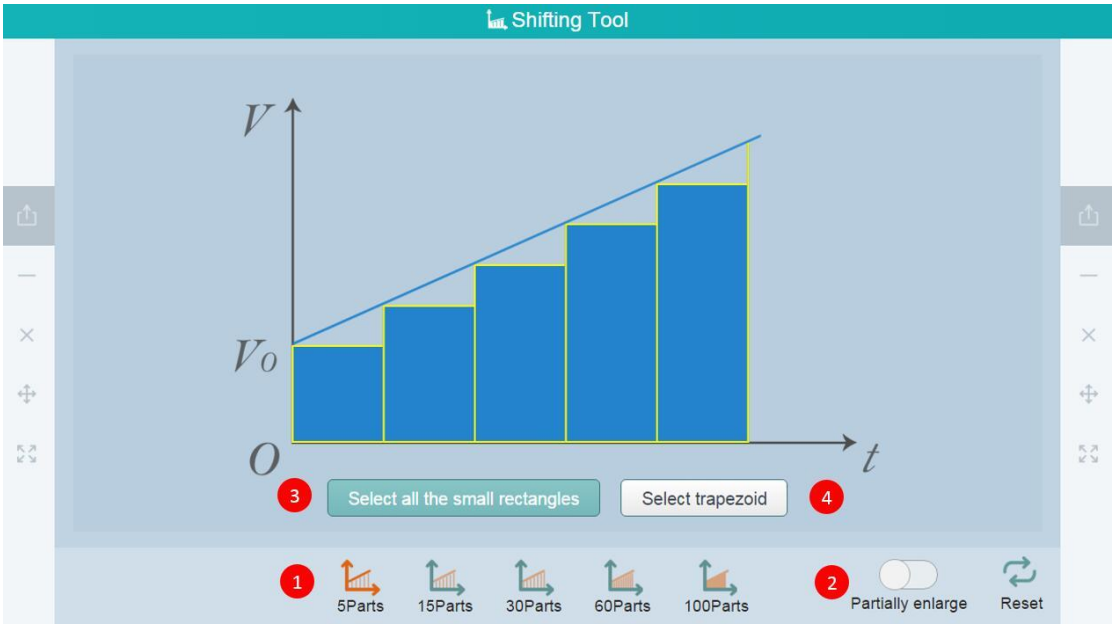


Fig. 10-2-62 Subject Tools-Shifting Tool

No.	Area Name	Direction for Use
1	Preset tool	Preset five sets of timelines in equal portion.
2	Partially enlarge	Zoom in the small triangle at the top of the small rectangle.
3	Select the small rectangles	Select all small rectangles in the image.
4	Select trapezoid	Select and highlight all trapezoids in the image selected.

Table 10-2-62 Subject Tools-Shifting Tool

10.2.63 Spring Oscillator

The spring oscillator is a simulation tool to demonstrate the steps and methods of the simple harmonic motion.

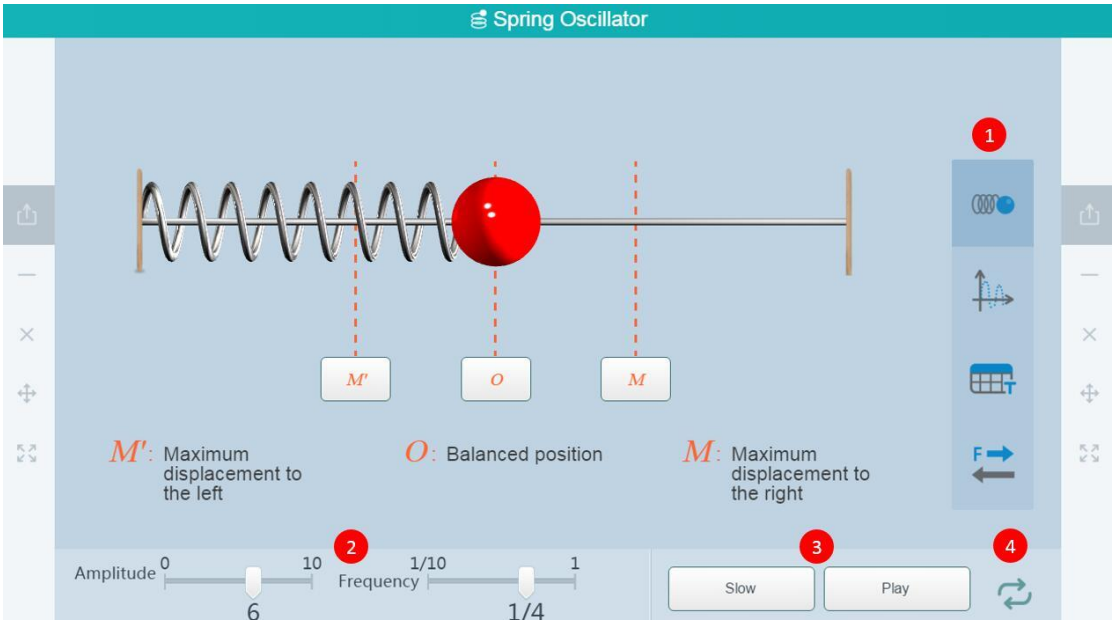


Fig. 10-2-63 Subject Tools-Spring Oscillator

No.	Area Name	Direction for Use
1	Tool preset	Four modules are preset.
2	Setting area	Amplitude and frequency can be set.
3	Play	After clicking to play, the ball starts to vibrate in accordance with the initial preset amplitude and frequency. At this time, the state of the Play button is switched to the Pause function; after clicking the Pause button, the ball stops immediately to the position where it's paused.
4	Reset	Undo all previous operations and return the tool to its original state.

Table 10-2-63 Subject Tools-Spring Oscillator

10.2.64 Total Internal Reflection

The tool can be used for observing the real-time changes in the intensity and angle of reflected and refracted light as well as the occurrence of complete reflection.

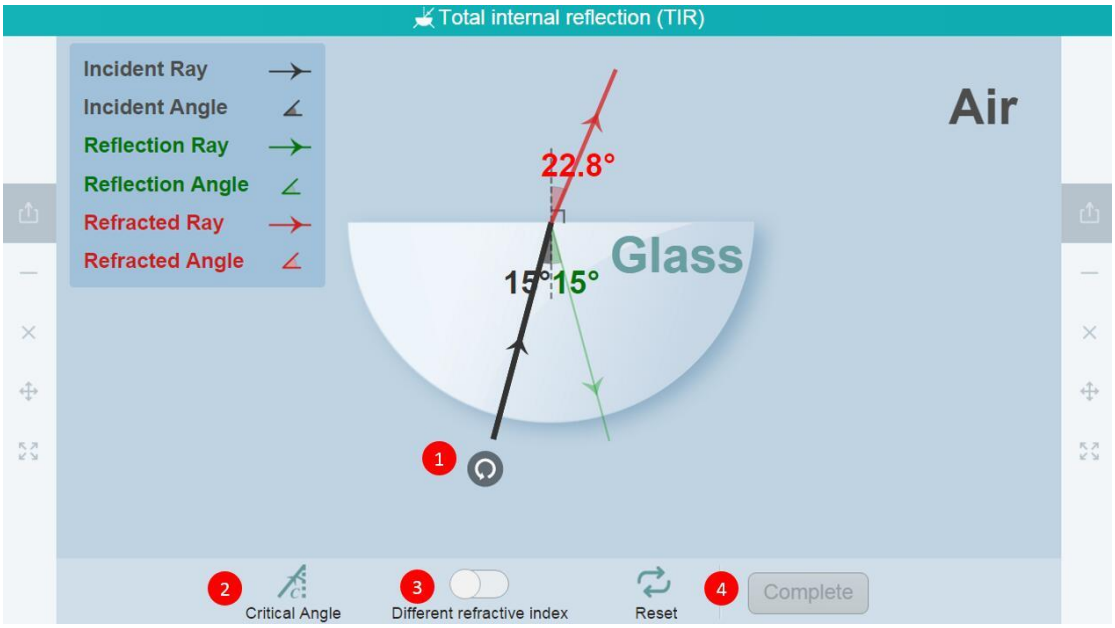


Fig. 10-2-64 Subject Tools-Complete Reflection

No.	Area Name	Direction for Use
1	Rotate	Adjust the angle of the incident light.
2	Critical angle	The angle of occurring complete reflection.
3	Different refractive index	Turn on different refractive indexes to view corresponding light paths generated by incident lights of the same incident angle of three media (water, glass, diamond) to beam at each medium.
4	Complete	Plot the reflected and refracted light paths of the incident light.

Table 10-2-64 Subject Tools-Complete Reflection

10.2.65 Double Vent Interference

The phenomenon of double-vent interference are demonstrated under different conditions.

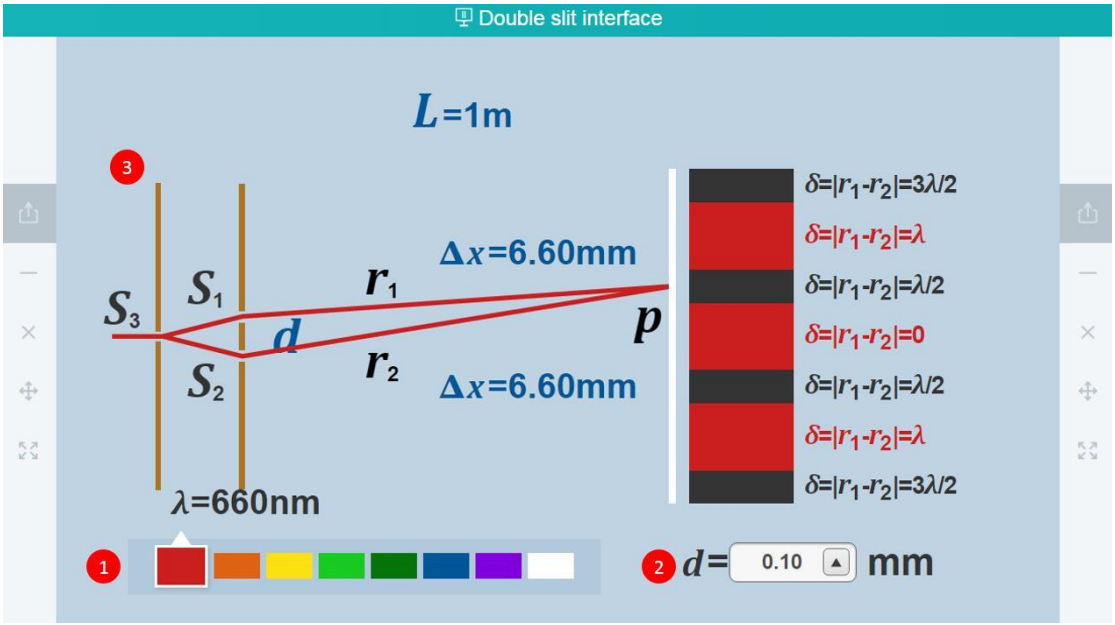


Fig. 10-2-65 Subject Tools-Double Vent Interference

No.	Area Name	Direction for Use
1	Wavelength setting	Preset eight groups of colors; click different colors to change the wavelength.
2	Double vent spacing	The double vent spacing is set from 0.10 to 0.99 manually.
3	Display area	Display changes according to different wavelengths and double vent spacing.

Table 10-2-65 Subject Tools-Double Vent Interference

10.2.66 Diffraction of Wave

The diffraction of the wave demonstrates the diffraction of the wave when encountering obstacles and slits.

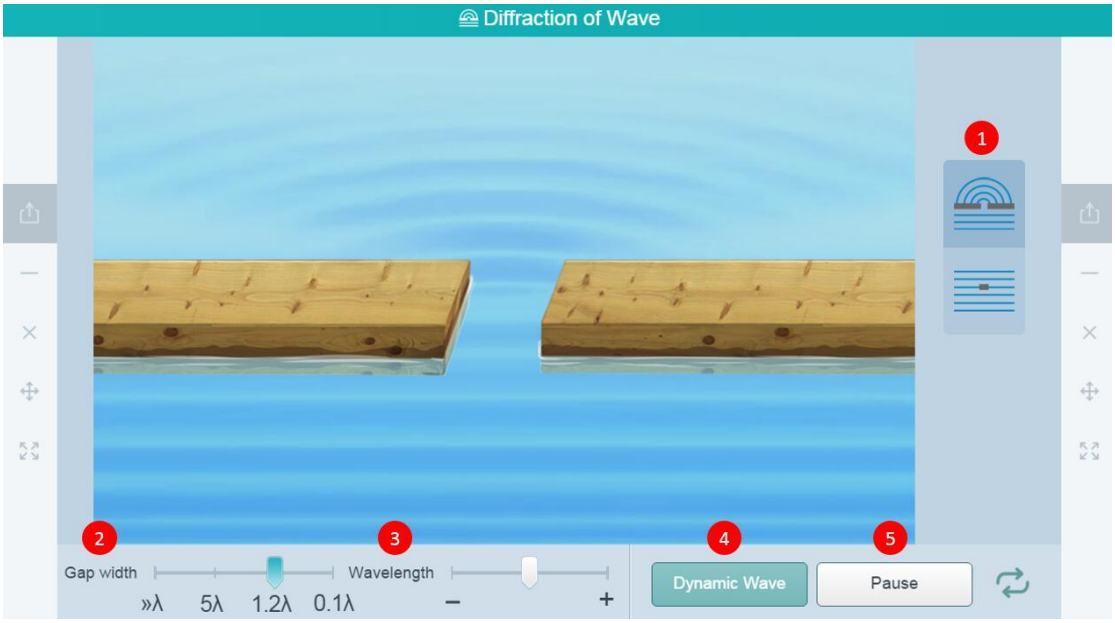


Fig. 10-2-66 Subject Tools - Diffraction of Wave

No.	Area Name	Direction for Use
1	Tool preset	Two diffraction modes are preset in the tool.
2	Gap width	Click to modify the vent width.
3	Wavelength	Click to modify the wavelength.
4	Dynamic wave	Click to observe the diffraction mode of dynamic waves.
5	Pause	Click to pause the observation of static diffraction images.

Table 10-2-66 Subject Tools-Diffraction of Wave

10.2.67 Superposition of Wave

Superposition of Wave demonstrates the scene where two waves meet and overlap under different conditions. The superposition of wave and vector overlapping situation are displayed through the animation.

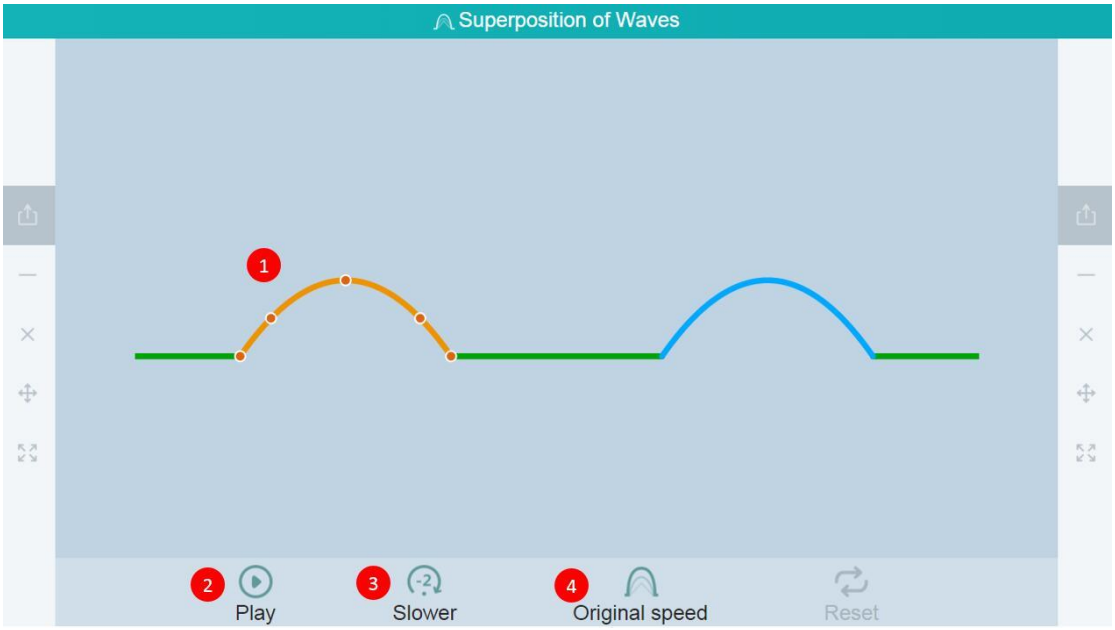


Fig. 10-2-67 Subject tools-Superposition of Wave

No.	Area Name	Direction for Use
1	Waveform setting	Click the preset waveform to edit and change the waveform.
2	Play	Start demonstrating the process of wave superposition.
3	Slower	Decelerate the motion speed of the wave.
4	Original speed	Display the original waves of two columns of waves.

Table 10-2-69 Subject Tools-Superposition of Wave

10.3 Interactive Tools (available without connection to pads)

The Interactive tool is located in the side toolbar on the both sides of the interface, appearing in the play state (by default, the toolbar pops up on the right side). After the user calls the side toolbar, if there is no operation within 5 seconds, the display of the toolbar will be faded automatically, as shown in Fig. 10-3.

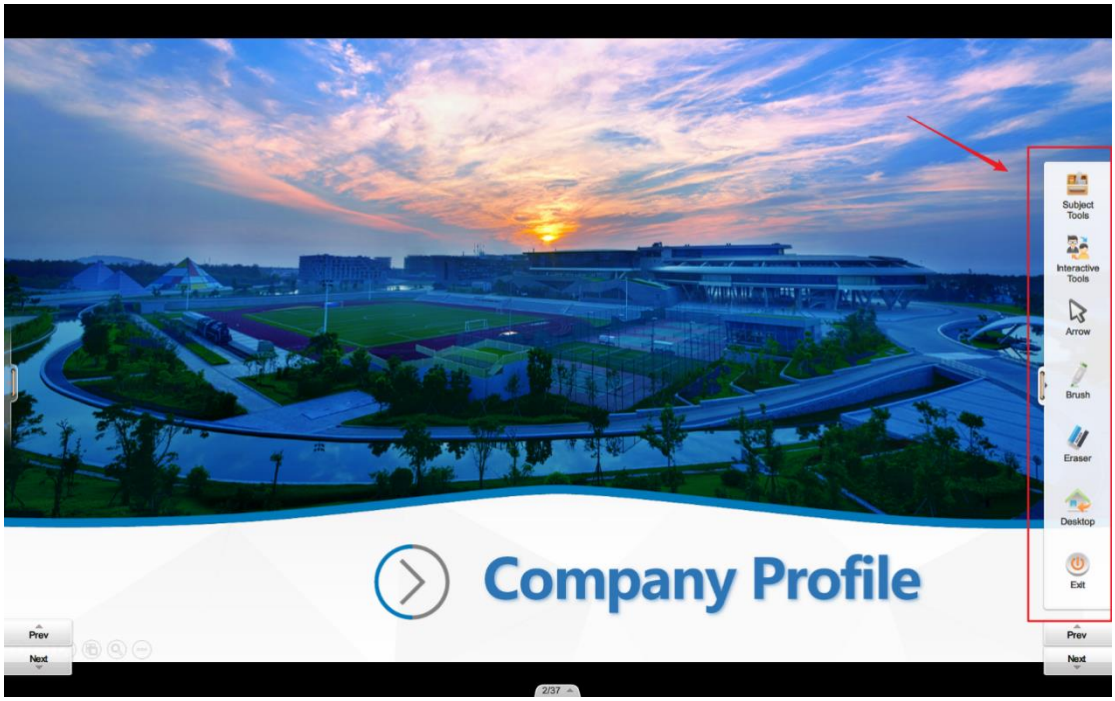


Fig. 10-3 Fade Display of Toolbar

10.3.1 Magnifier

The Magnifier is used to zoom in part of a courseware page so that students can have a clearer view of the details. The enlarged content can be moved to view different parts of the page. Turn off the Magnifier after use and return to the courseware page, as shown in Fig. 10-3-1 and 10-3-2:

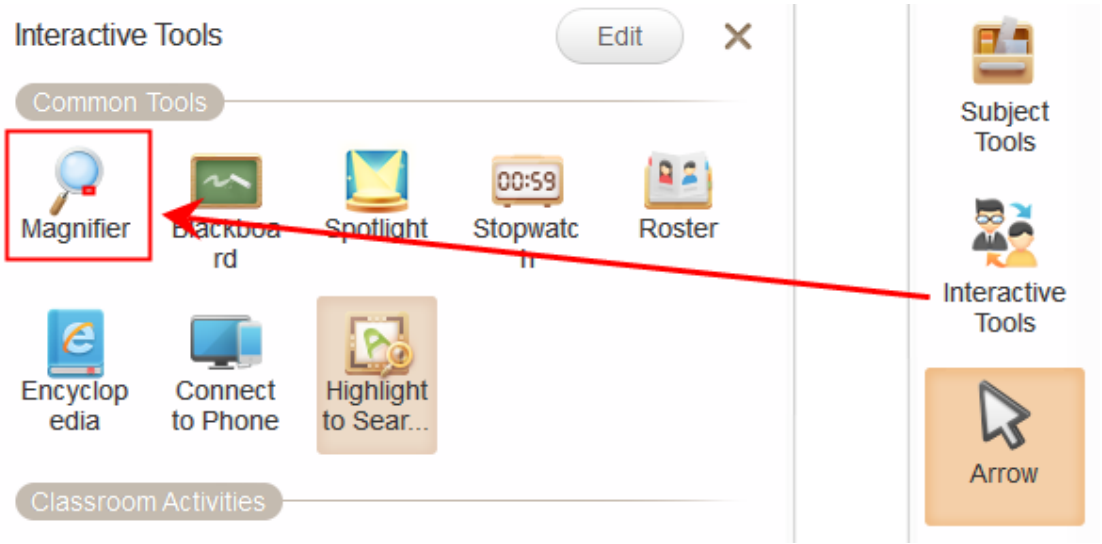


Fig. 10-3-1-1 Interactive Tools-Magnifier

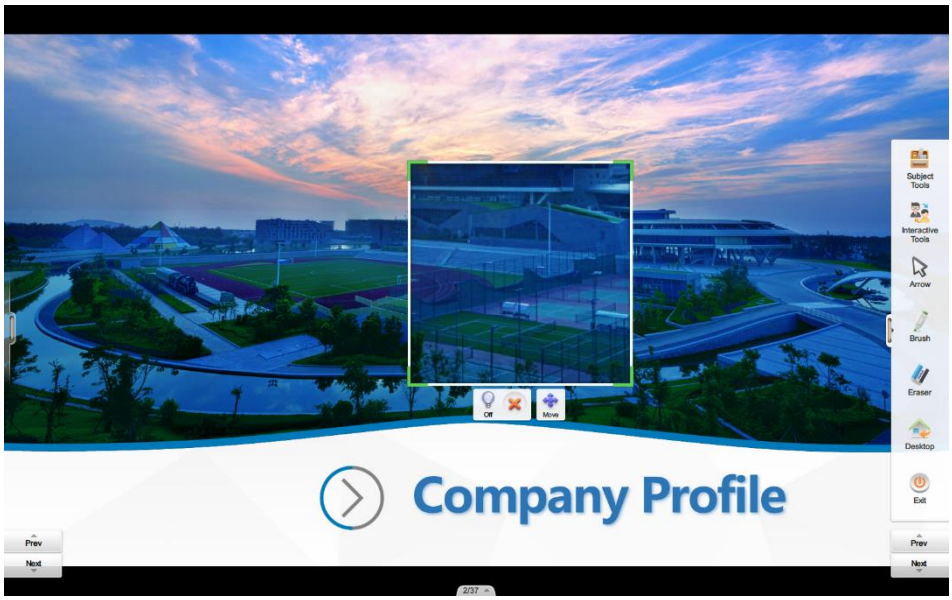


Fig. 10-3-1-2 Interactive Tools-Magnifying effects

How to use the Magnifier:

(1) Click the Arrow button on either side of the Slideshow to open the Toolbar window;

(2) Search and click the **Interactive Tools** icon to open the Interactive Tools window;

(3) Search the **Magnifier** icon and click to activate the range selection state;

(4) Long press and drag to select an area for magnification in the Slideshow state as prompted;

(5) Move the enlarged area if you like;

(6) After use, click the **Close** button on the upper right corner and return to the courseware page.

10.3.2 Blackboard

The Blackboard is mainly used for presenting supplementary information of courseware, such as notes, graphics and drawings, to meet teaching needs. Following function can be activated. As shown in Fig. 10-3-1 and 10-3-2:

(1) When the Blackboard has been filled up, click **Icon 1** to delete the page;

(2) When the Blackboard has been filled up, click **Icon 2** to create a new page;

(3) Click **Icon 3** to go to the previous or next page;

(4) Click **Icon 4** to insert a predefined template on the blackboard as a tool for teaching support;

(5) Click **Icon 5** to minimize the template and return to the courseware;

(6) When not in use, click **Icon 6** to close the Blackboard.

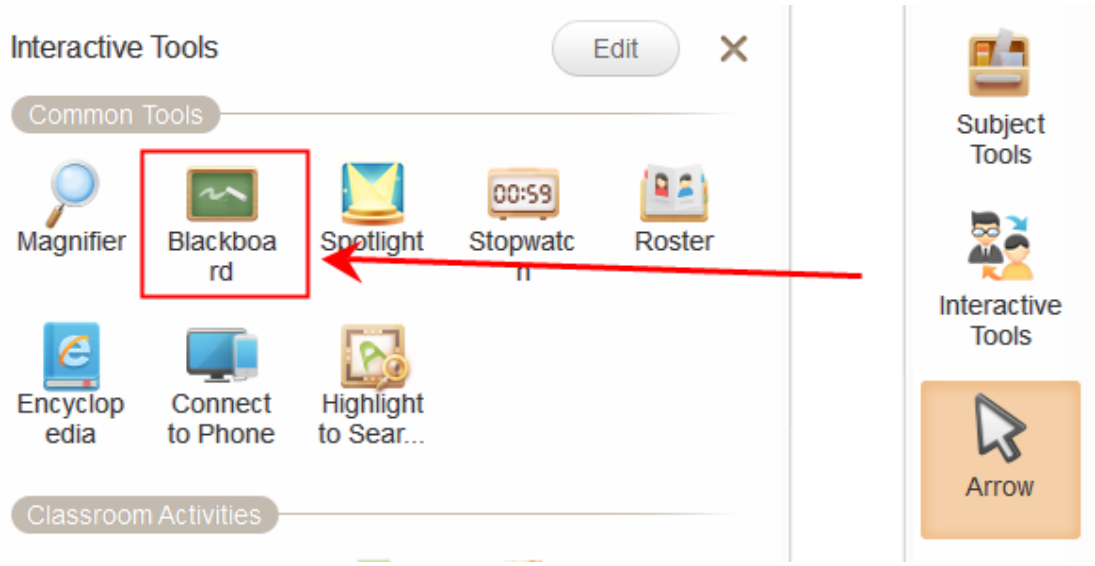


Fig. 10-3-1 Interactive Tools-Blackboard 1

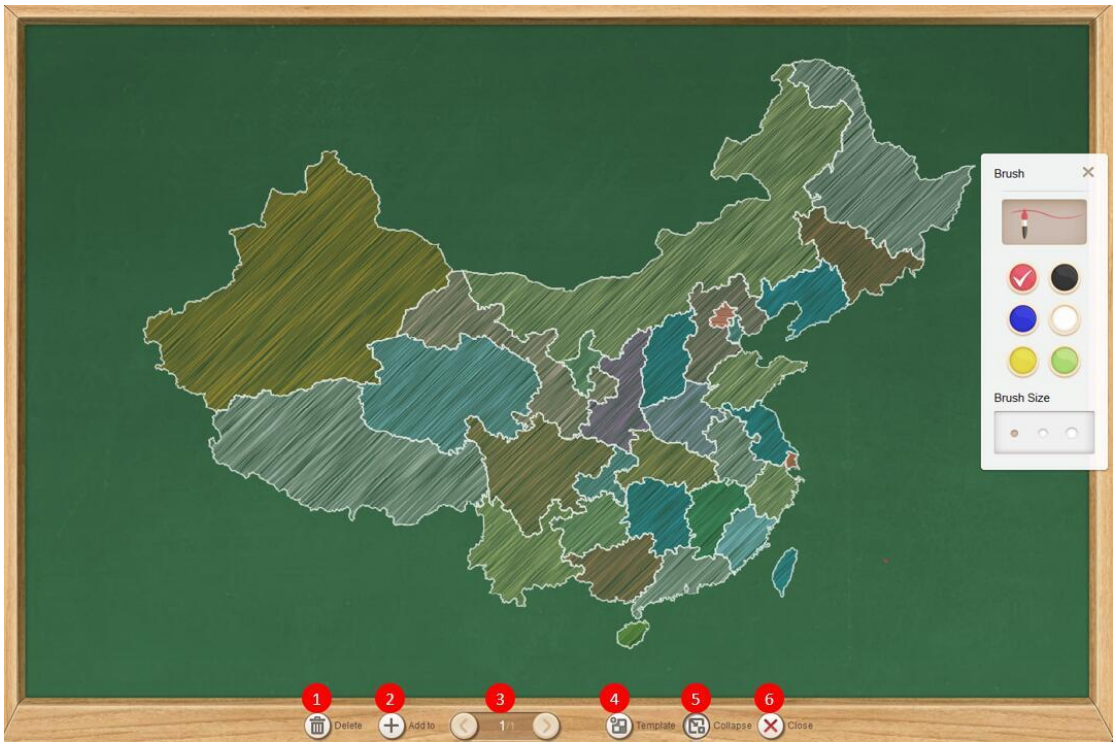


Fig. 10-3-2 Interactive Tools-Blackboard 2

How to use the Blackboard:

(1) Click the **Arrow** button on either side of the Slideshow state to open the Toolbar window;

(2) Search and click the **Interactive Tools** icon to open the Interactive Tools window;

(3) Search and click the **Blackboard** icon to open the Blackboard;

(4) Write on the Blackboard, add or delete pages, turn pages or insert a template if you like;

(5) After use, minimize the Blackboard.

10.3.3 Spotlight

The Spotlight is designed for highlighting a specific part of a page so that students can focus on it when their teacher elaborates on the subject. When you turn on the Spotlight, following function can be activated as shown in Fig. 10-3-1 and 10-3-2:

(1) Rectangle/Circle: Adjust the shape (circle or rectangle) of the Spotlight;

(2) Turn on/off light: Adjust the surroundings (semitransparent or dark) of the Spotlight;

(3) Adjust the Spotlight to show the focused area completely (Tip: The Spotlight area is adjustable by dragging its frame or the green dot on the frame);

(4) Position the Spotlight to highlight a specific area (Tip: The Spotlight can be positioned by dragging the exterior area).

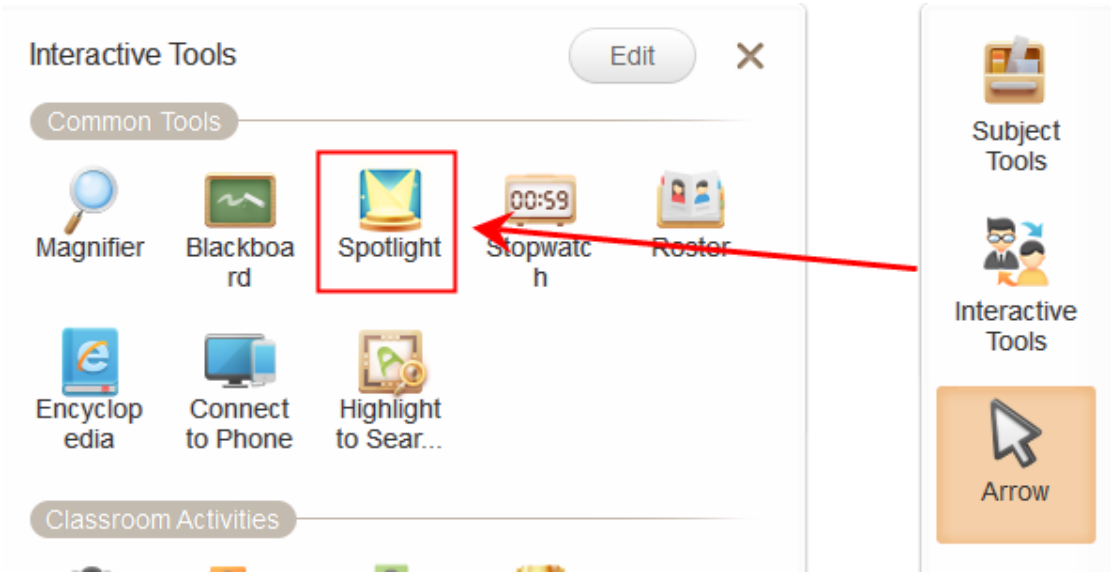


Fig. 10-3-1 Interactive Tools-Spotlight

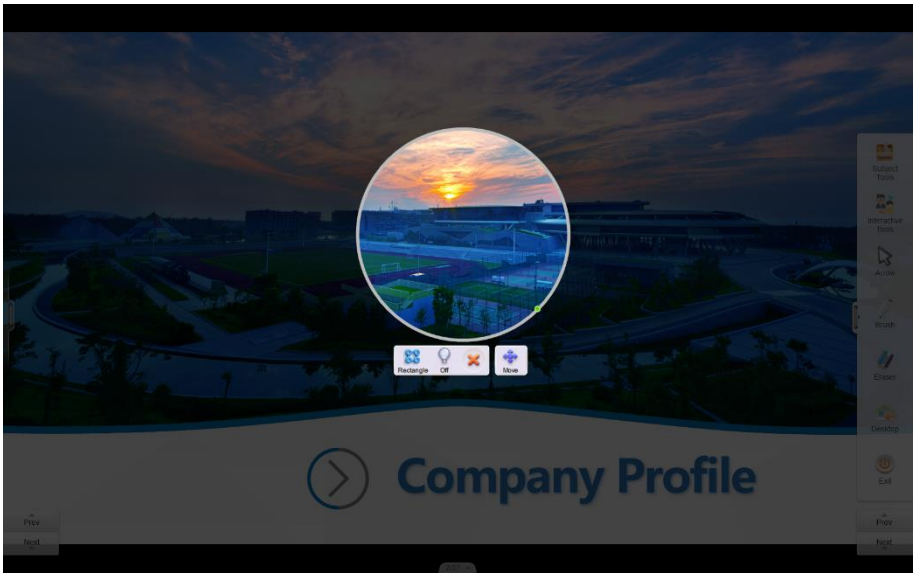


Fig. 10-3-2 Interactive Tools-Spotlight

10.3.4 Stopwatch

The Stopwatch is used to realize time control over a specific teaching activity. Timers means counting of numbers in reverse order from a specific time point. The Stopwatch can be magnified for students' convenience.

As shown in Fig. 10-7-1, 10-7-2 and 10-7-3:

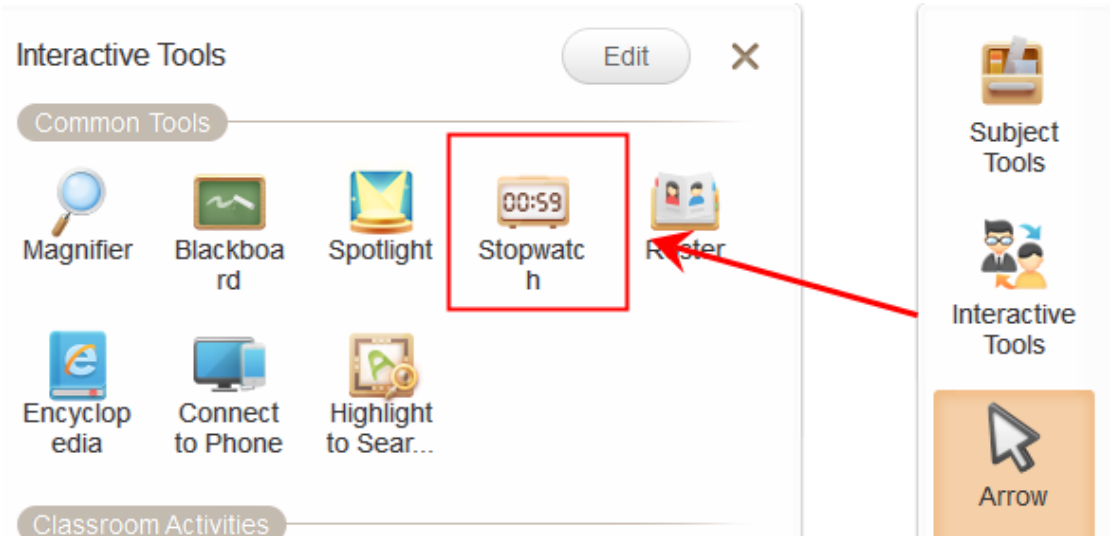


Fig. 10-3-4 Interactive Tools-Timer

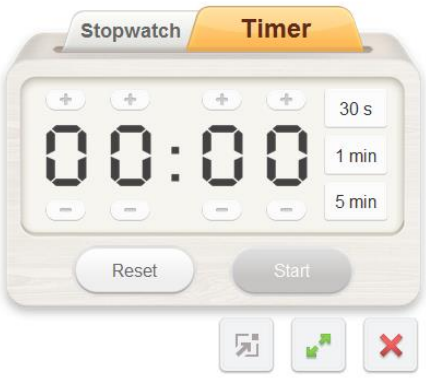


Fig. 10-3-4 Interactive Tools-Stopwatch Fig. 10-3-4 Interactive Tools-Timer

The button below is a minimalist mode. In the minimalist mode, the timer hides unnecessary interface elements (incl. buttons and frames, etc.) and displays time

only. Moreover, teachers can drag the frame on the lower right corner to change the tools size with the mouse in the minimalist mode. In this way, teachers can use the tool without shading from the contents of the courseware, as shown in Fig. 10-7-4.

Fig. 10-3-4 Interactive Tools-Minimalist mode

How to use the Timer:

(1) Click the Arrow button on either side of the Slideshow state to open the Toolbar window;

(2) Search and click the Interactive Tools icon to open the Interactive Tools window;

(3) Search and click the Timer icon to turn on the Timer;

(4) Select a timer mode, set the time, complete the display settings and start timing;

(5) After use, click the Close button to turn off the Timer.

10.3.5 Encyclopedia

Open the Encyclopedia as shown in Fig. 10-3-5 and 10-3-6:

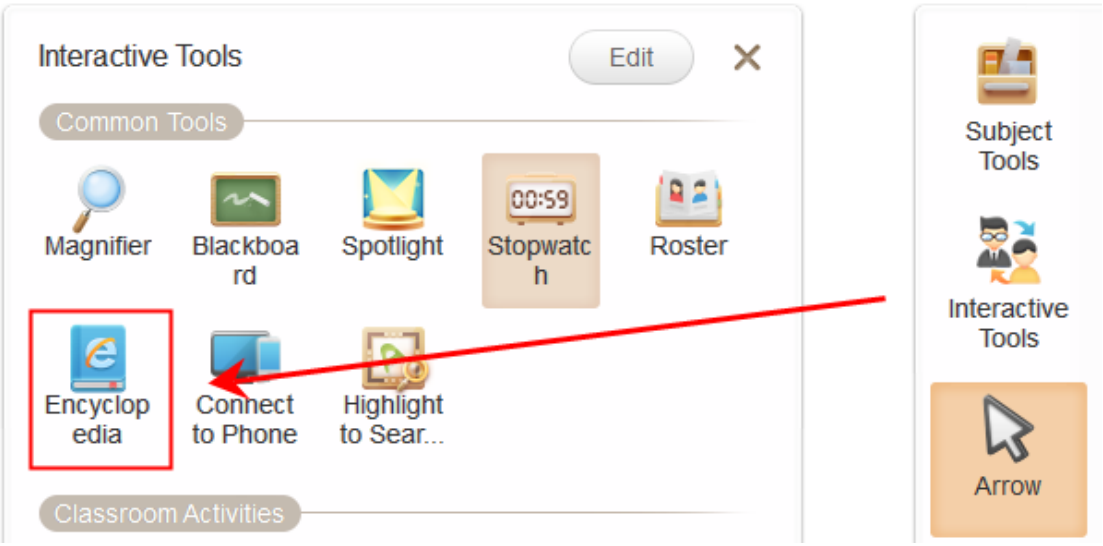


Fig. 10-3-5 Interactive Tools-Encyclopedia

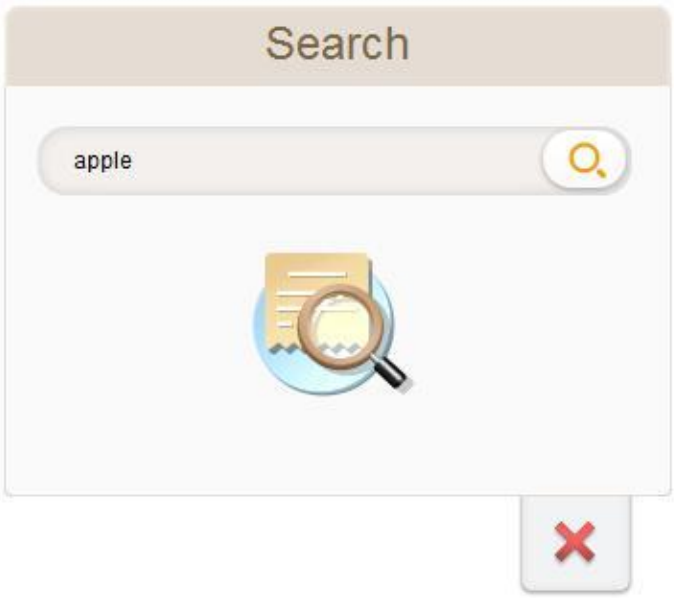


Fig. 10-3-6 Interactive Tools-Encyclopedia

Fig. 10-3-7 Interactive Tools-Encyclopedia

How to use the Encyclopedia:

(1) Click the **Arrow** button on either side of the Slideshow state to open the Toolbar window;

(2) Search and click the **Interactive Tools** icon to open the Interactive Tools window;

(3) Search and click the **Encyclopedia** icon to open the Encyclopedia;

(4) Type a keyword in the input field and click the **Search** icon to see the information containing the input keyword in the Encyclopedia.

10.3.6 Document Camera

The Document Camera is a device connected externally to the Edmodo Classroom host, which can quickly capture documents and objects as well as save them in the computer. Meanwhile, shooting contents can be shared to students in real time, making it easier for teachers to teach and prepare lessons. Turn on the document

camera to select the device, as shown in Fig. 10-3-6-1, Fig. 10-3-6-2, and Fig. 10-3-6-3.

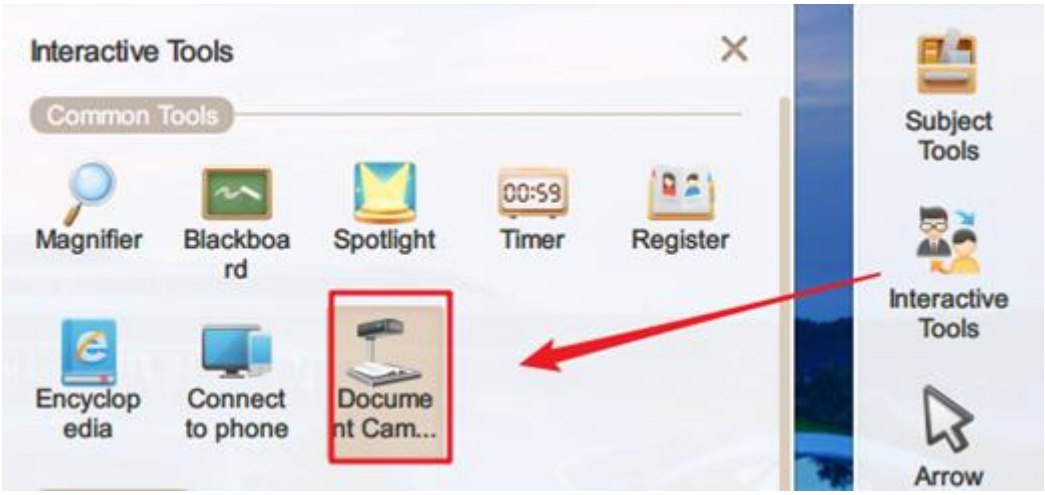


Fig. 10-3-6-1 Interactive Tools-Document Camera

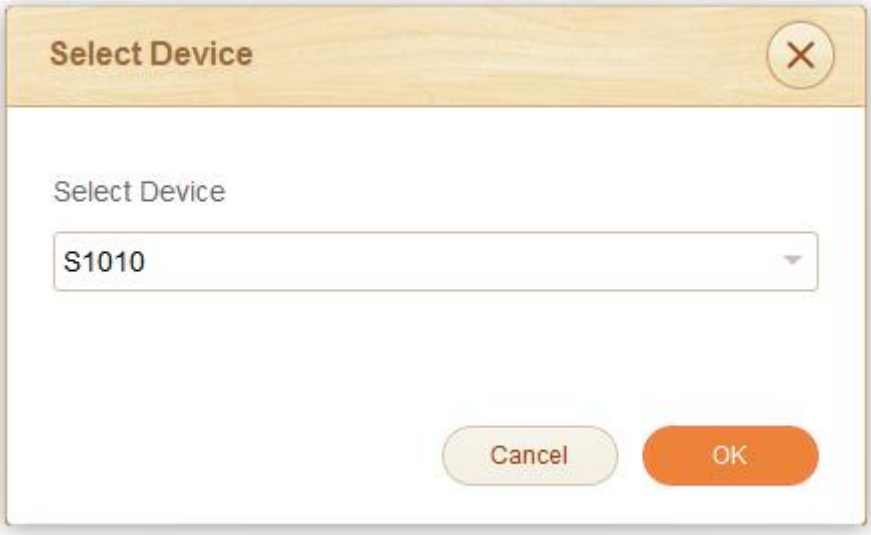


Fig. 10-3-6-2 Interactive Tools-Select Device

Fig. 10-3-6-3 Interactive Tools-Display Document Camera

No.	Area Name	Direction for Use
1	Take a picture	Click to take a picture which is in fixed demonstration. Other functions can be used only after taking a picture.
2	Anticlockwise rotation	Click the image to rotate 90° counterclockwise.
3	Clockwise rotation	Click the image to rotate 90° clockwise.
4	Zoom in/ out	Zoom in/out the image.
5	Brightness	Click to adjust image brightness.
6	Save	Click to save the image to the network drive or local drive.
7	Resolution	Click to modify the resolution.
8	HD/SD	Switch the image save format.

Table 10-3-6-4 Interactive Tools-Document Camera

10.3.7 Grouping

Grouping can select up to 20 groups with 20 members in each group. Meanwhile, gender and team leader functions can be selected randomly, as shown in Fig. 10-3-7-1.

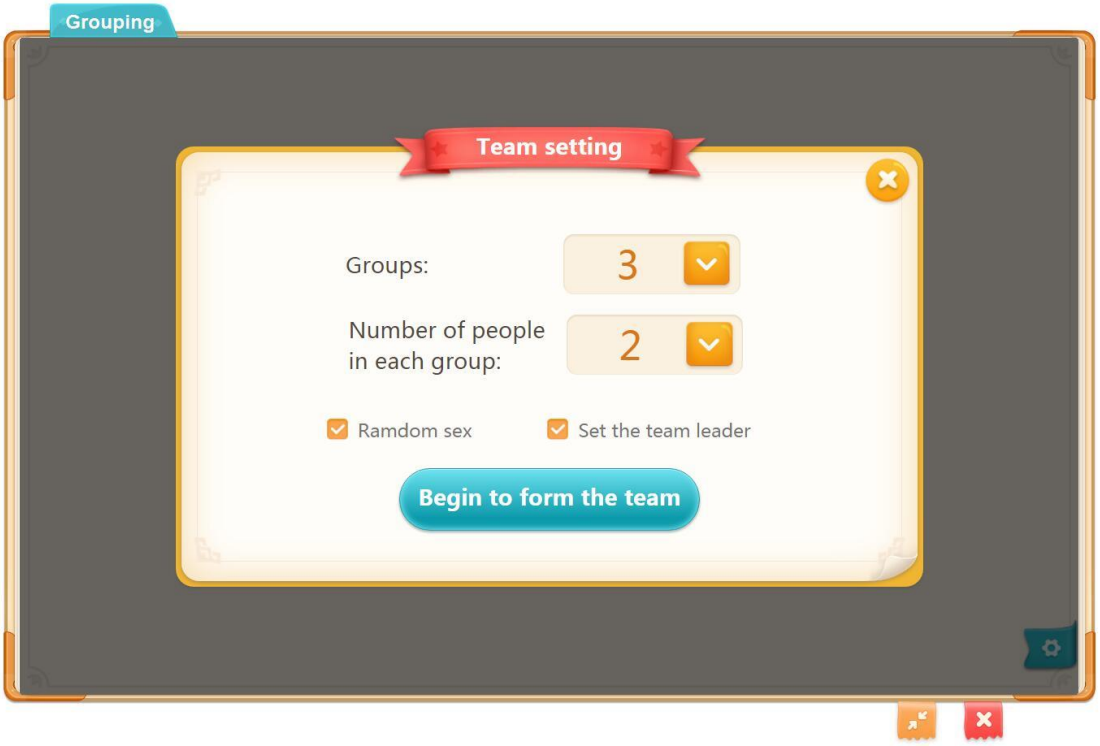


Fig. 10-3-7-1 Interactive Tools-Grouping

Fig. 10-3-7-2 Interactive Tools-Grouping

No.	Area Name	Direction for Use
1	Team	Display the team logo and the name of the leader.
2	Encourage	Click to send encouragement to all team members.
3	Team member area	Display all the team members.
4	Page turning	Click to select the previous or next team.
5	Display team distribution area	Click to select any team for displaying.
6	Setting	Click to re-set the grouping.
7	Minimize window	Click to minimize the “Grouping” to the lower right corner of the courseware (as shown in Fig. 10-9-1-3). And other operations such as courseware presenting can be continued.
8	Close	Click to close the "Solitaire Activity" tool.

Table 10-3-7-2 Interactive Tools-Grouping

Fig. 10-3-7-3 Interactive Tools-Grouping

10.3.8 Solitaire

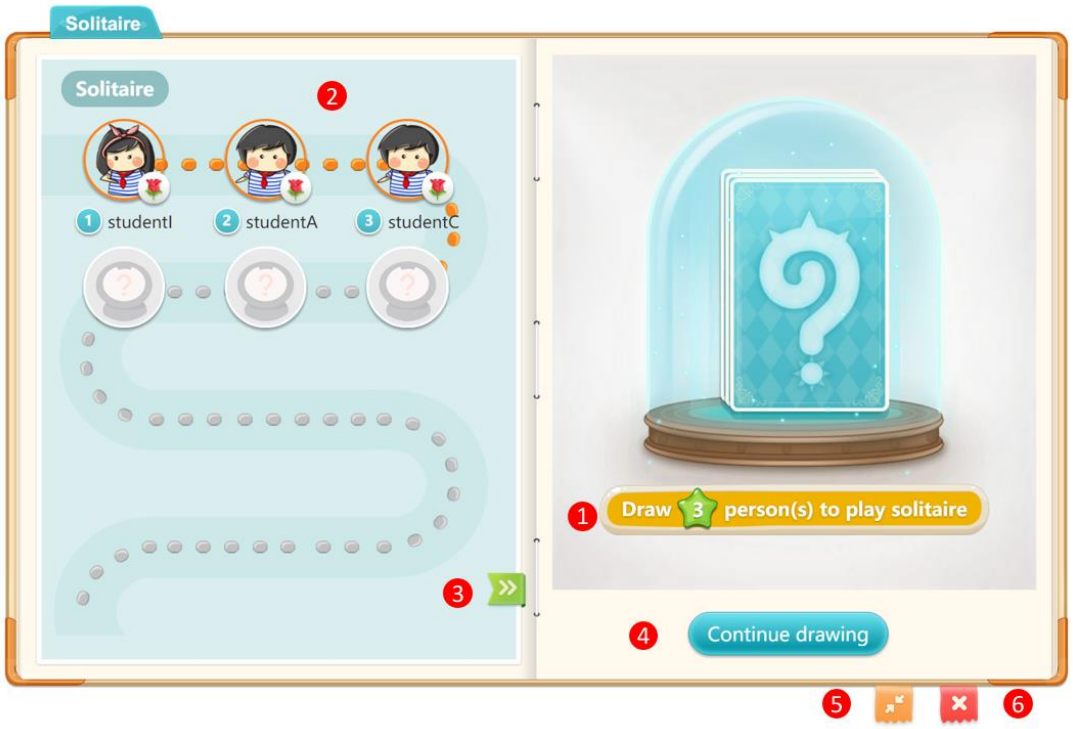


Fig. 10-3-8-1 Interactive Tools-Solitaire

Fig. 10-3-8-2 Interactive Tools-Solitaire Fig. 10-3-8-3 Interactive Tools-Solitaire

No.	Area Name	Direction for Use
1	Set the drawing number	Click to set the number of single extractions with a range from 1 to 6 persons (the default number of person is 1), as shown in the figure.
2	Solitaire queue	Corresponding students who have been selected by the Solitaire are displayed here. Meanwhile, click the bottom right of the avatar to encourage through sending flowers.
3	Expand area	Click to expand the display of the Solitaire queue drawn.
4	Continue drawing	Click to start or continue to draw students in the Register with equal probability. After the drawing, display drawn students (as shown in Fig. 10-3-8-3. Click the Redo button to replace the selected students. If the number of drawn students is insufficient, click to continue the drawing.
5	Minimize window	Click to minimize the “Solitaire activity” to the lower right corner of the courseware (as shown

		in Fig. 10-3-8-1). And other operations such as courseware presenting can be continued.
6	Close	Click to close the "Solitaire activity" tool.

Table 10-3-8-1 Interactive Tools-Solitaire Activity

10.3.9 Roster

In Roster teachers can arrange the students by numerical (using a student number) or alphabetical order. This will help teachers to find the corresponding students rapidly. As shown in Fig. 10-3-9:

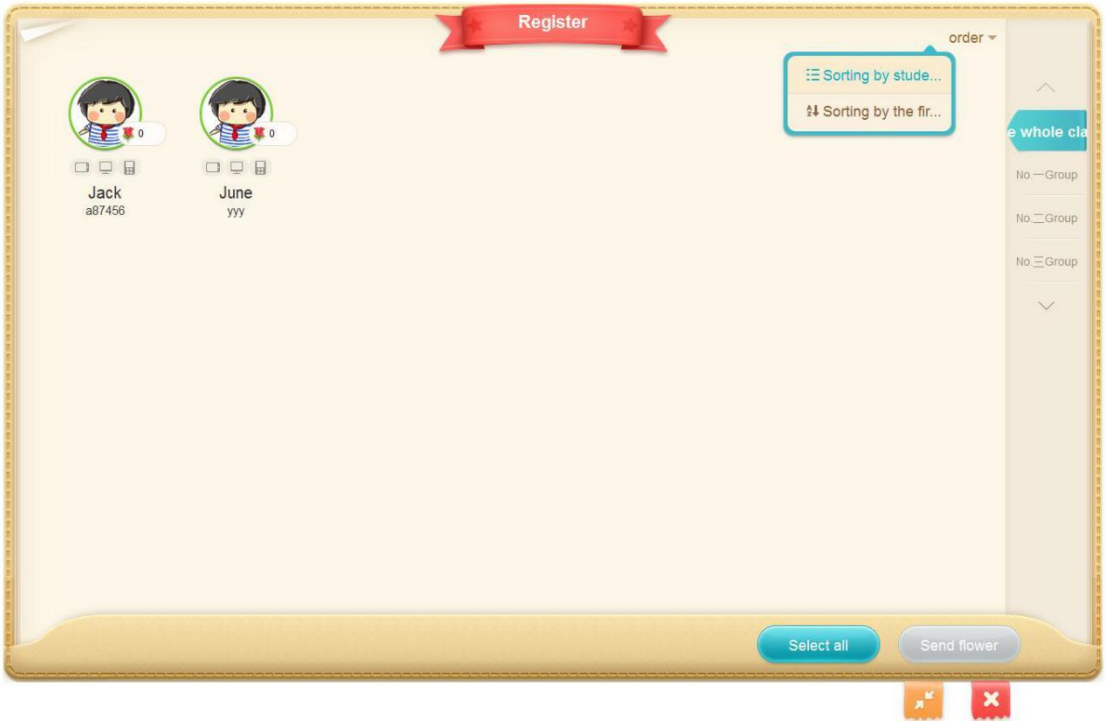


Fig. 10-3-9 Interactive Tools-Roster

10.3.10 Random Roll Call

The function of random roll call help teachers to have a roll call randomly when interacting with the whole class or online students. The number of persons drawn can be changed from 1 to 6 persons, as shown in Fig. 10-3-10-1 and Fig. 10-3-10-2.

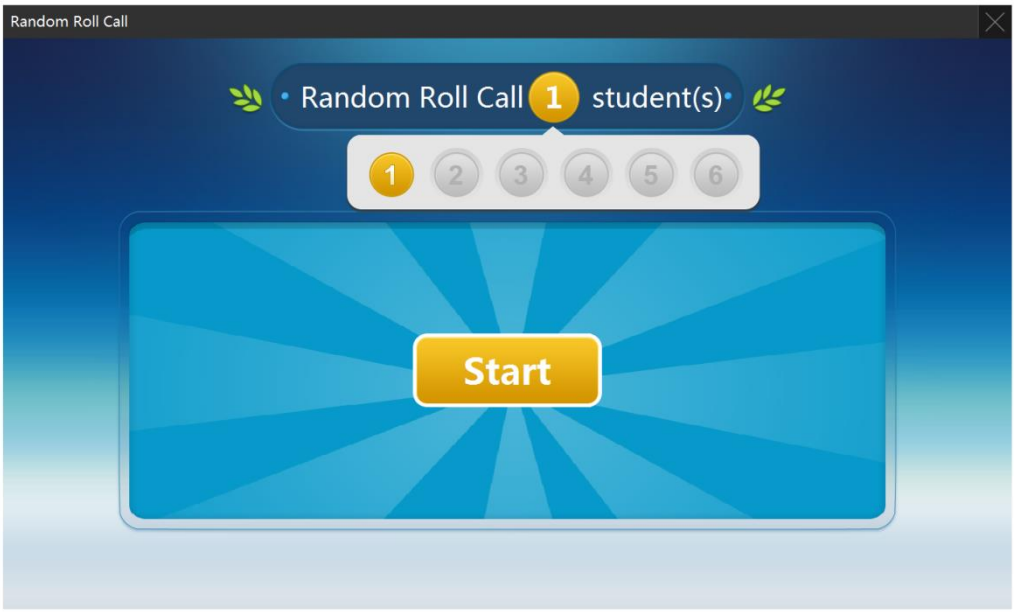


Fig. 10-3-10-1 Interactive Tools - Random Roll Call

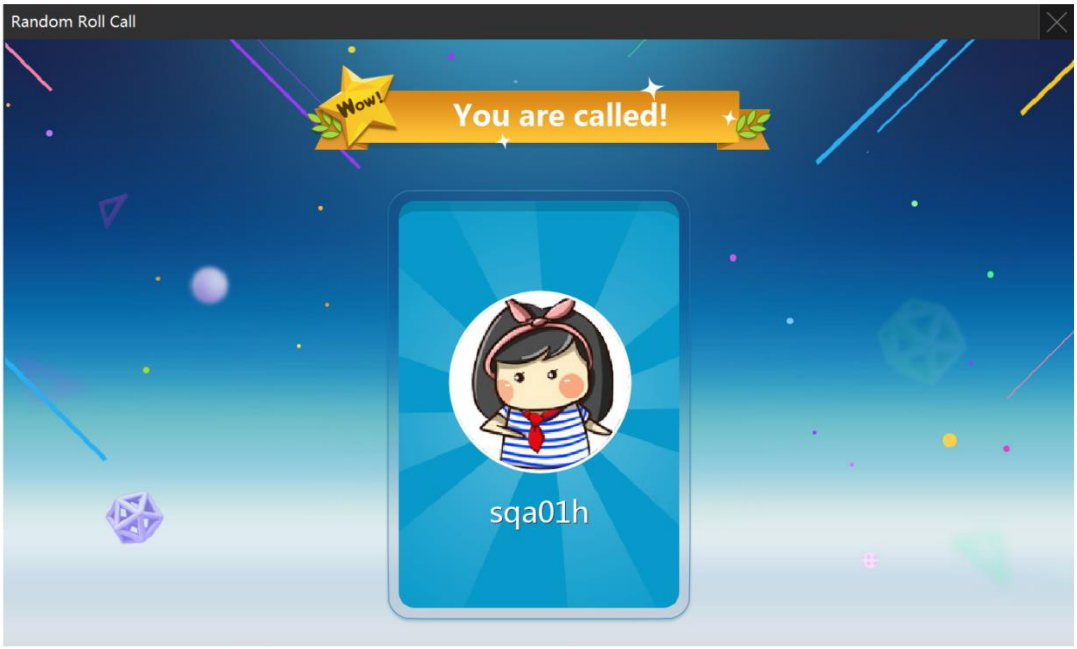


Fig. 10-3-10-2 Interactive Tools - Random Roll Call

10.3.11 Class Summary (exclusive for smart class)

After students completing the answer, the teacher clicks the class summary to view exercise statistics and flower statistics. Exercise statistics include the details and the overview of the answer, as shown in Fig. 10-3-11.

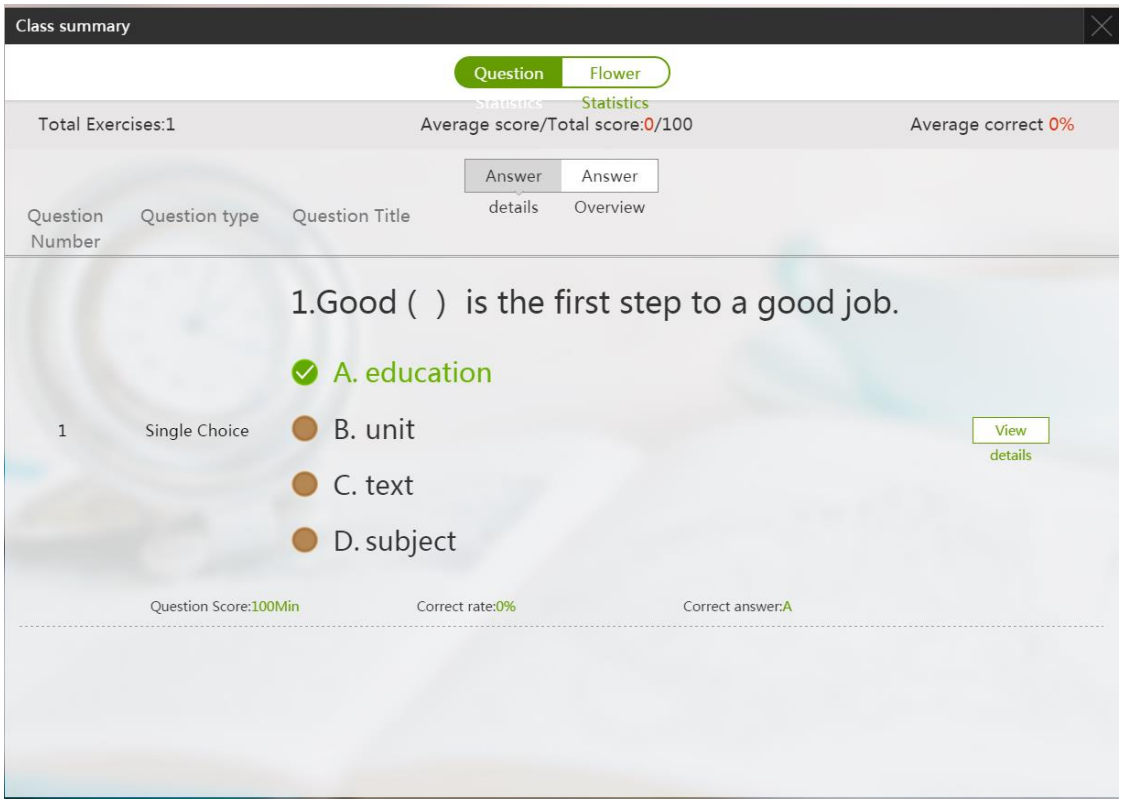


Fig. 10-3-11 Interactive Tools-Class Summary

10.3.12 Team Competition

Team Competition is a classroom interactive tool that is popular among teachers. Teachers can change the team's avatar and skin according to the students' cognition of different grades and make students' attention more quickly attracted and focused on the teaching interaction in the details. Specific operation is shown in Fig. 10-3-12-1.

Fig. 10-3-12-1 Interactive Tools-Team Competition 1

No.	Area Name	Direction for Use
1	Score display column	Display the scores of the competition and the corresponding symbol.
2	Avatar	Click to change the display of the team's avatar.

3	Addition and deduction	Addition or deduction can be conducted.
4	Add team	Click to increase the group. The default is three groups and up to twenty groups.
5	Delete team	Click to reduce the group, at least two groups.
6	Score	The points can be accumulated in the selected unit base. The default is 1 point.
7	Symbol	Click to replace the score symbol. The default is star.

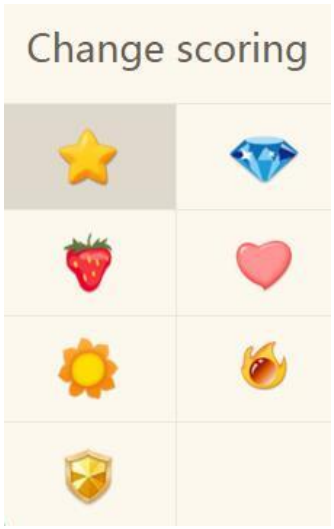
		
8	Change skin	Click to replace the background skin.
9	End competition	Click to end the competition.
10	Minimize window	Click to minimize the tool. No operation is allowed after minimizing. Click the icon to zoom in it.
11	Close	Click to close the tool.

Table 10-3-12-1 Interactive Tools-Team Competition

After clicking the “End competition” button, the page will prompt the winning team; and flowers will be sent to each team, as shown in Fig. 10-3-12-2.

Fig. 10-3-12-2 Interactive Tools-Team Competition 2

10.3.13 Class Evaluation

The function can only be used after the teacher logging in the account. With this tool, the teacher can give praise or correction to students. Meanwhile, it helps teachers and the teaching group to summarize the teaching process after the class. Specific operations are shown in Fig. 10-3-13-1.

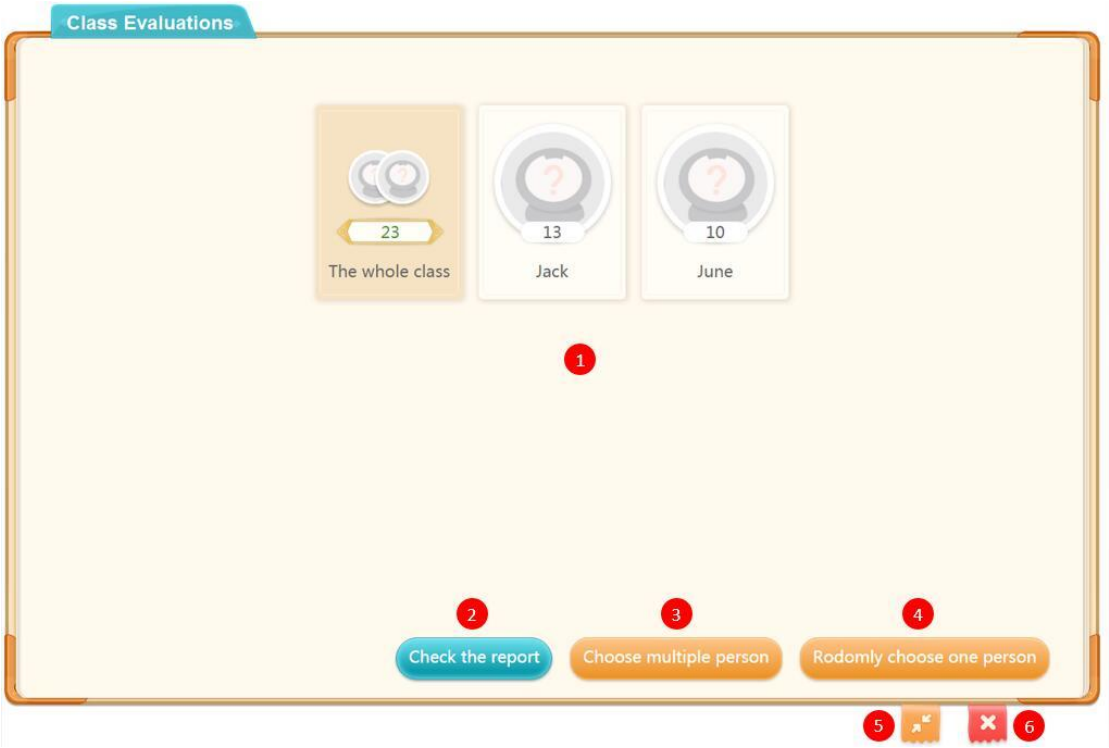


Fig. 10-3-13-1 Interactive Tools-Class Evaluation 1

No.	Area Name	Direction for Use
1	Filter column	Click to select students or groups for evaluation
2	Display column	Display the student and group list. Click the avatar for evaluation
3	Check the report	Click to view the performance of individual students or the entire class
4	Choose multiple persons	Click to select multiple students for evaluation

5	Choose one person randomly	The system selects a student randomly for evaluation
6	Minimize window	Click to minimize the tool. No operation is allowed after minimizing. Click the icon to zoom in it.
7	Close	Click to close the tool

Table 10-3-13-1 Interactive Tools-Class Evaluation

During the evaluation, the teacher can filter the required praise behavior or corrective behavior on that page as well as add or edit the evaluation, as shown in Fig. 10-3-13-2.

Fig. 10-3-13-2 Interactive Tools-Class Evaluation 2

10.3.14 Applaud, streamer and confetti

To encourage students in class, click to choose any of the interactive effects and present the corresponding animations on the courseware. As shown in Fig. 10-3-14-1 and 10-3-14-2.

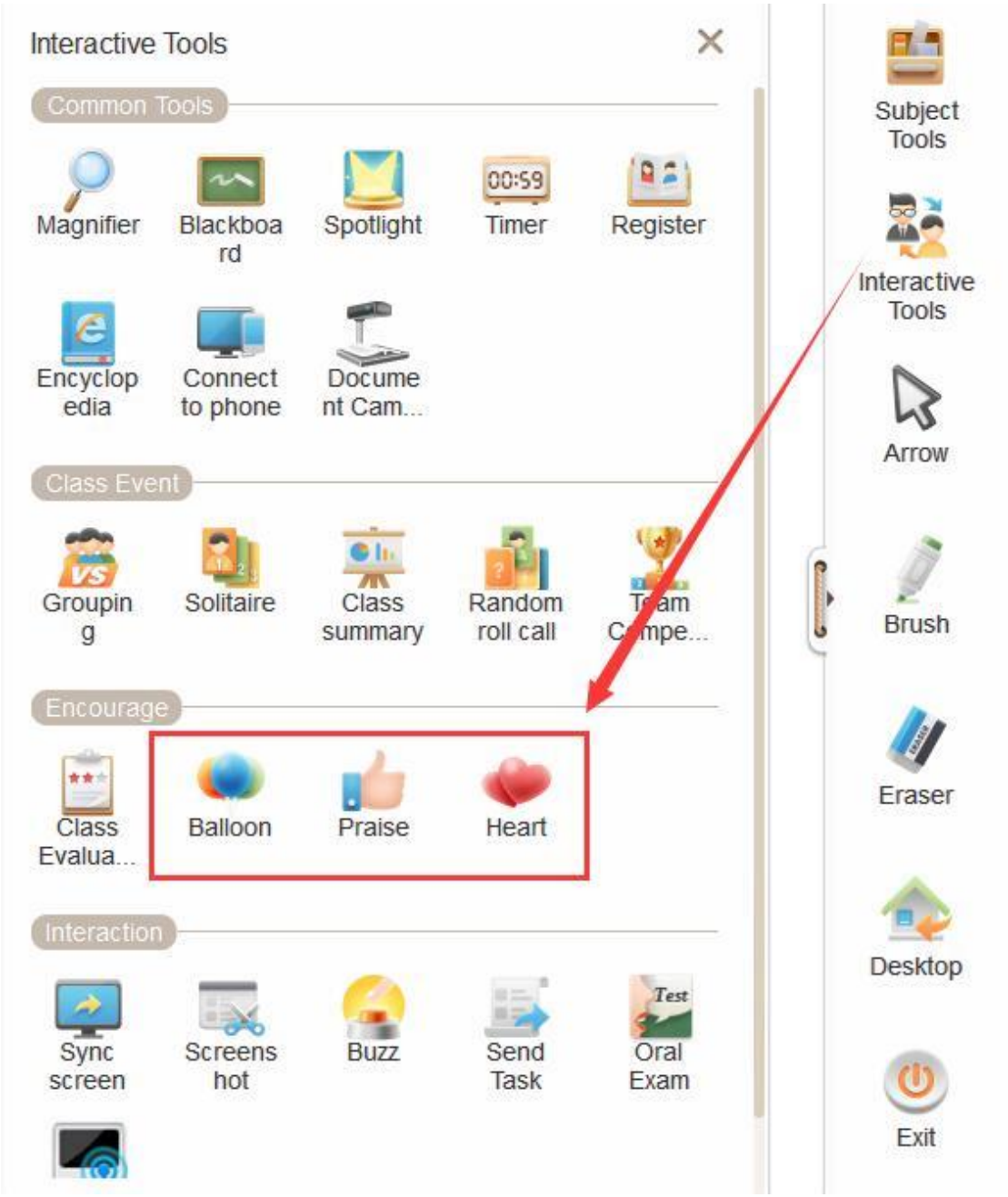


Fig. 10-3-14-1 Interactive Tools-Encourage

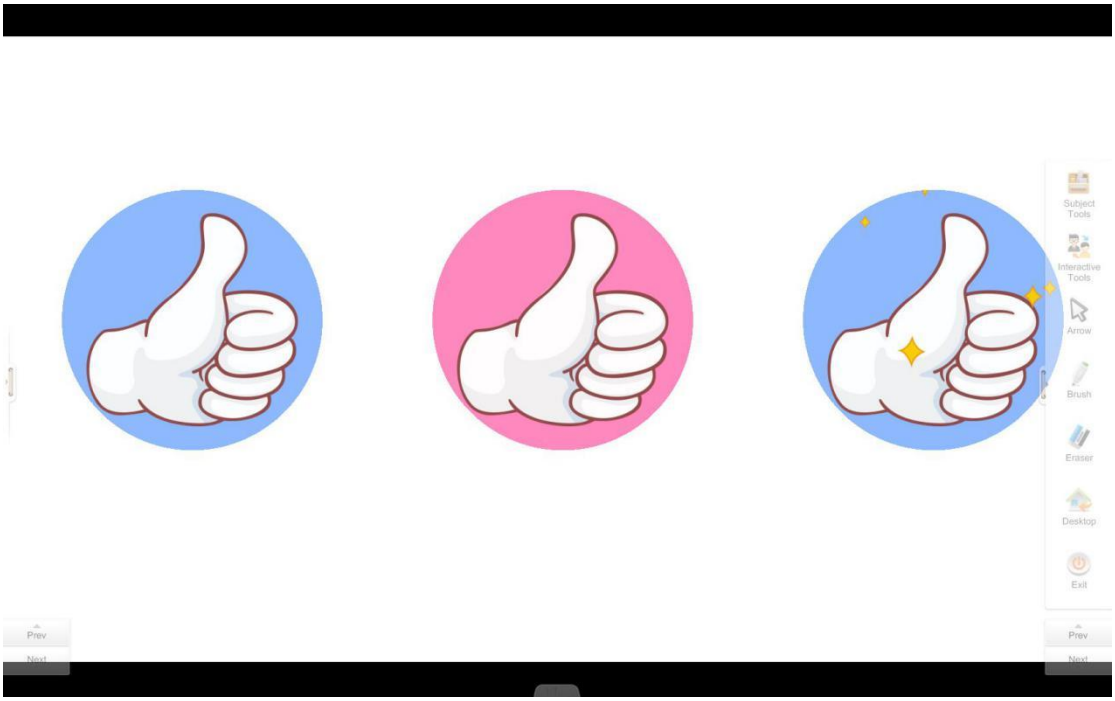


Fig. 10-3-14-2 Interactive Tools-Praise

10.3.15 Screenshoot (Exclusive for smart class)

Set the question type after selecting the screenshoot range by left click of the mouse. Now, only single choice, multiple choice, handwriting and subjective questions are supported. Click Send to send it to the student end after selecting, as shown in Fig. 10-3-15.

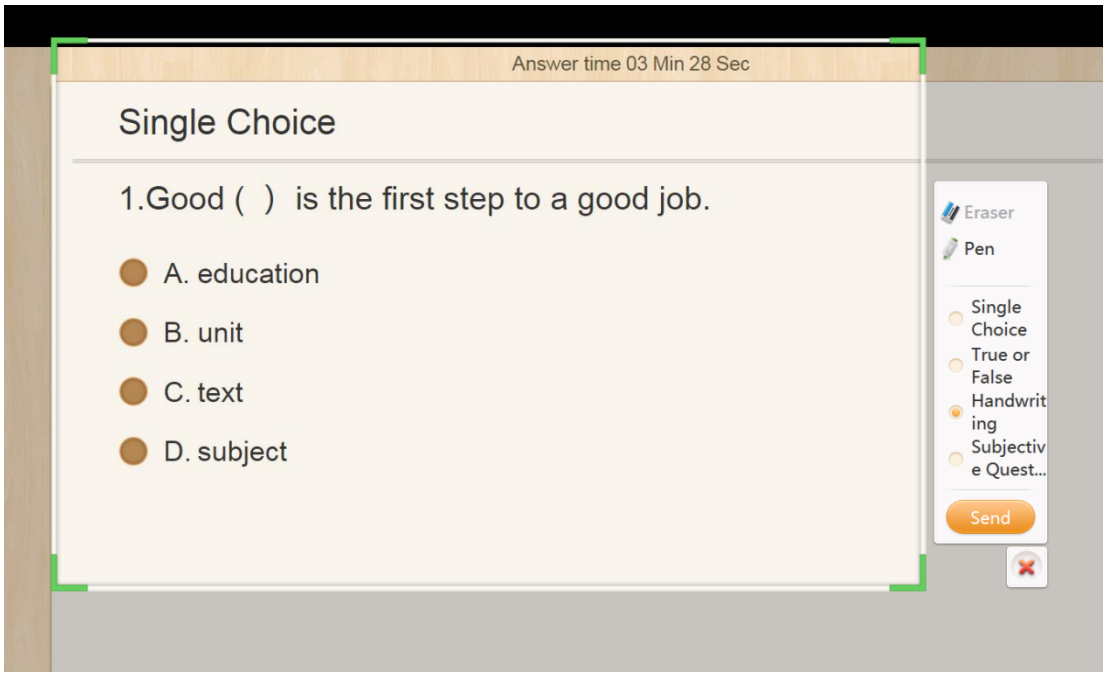


Fig. 10-3-15 Interactive tools-Screenshot

10.3.16 Buzz (Exclusive for smart class)

Clicking the Buzz to enter the 3-second countdown; students tap the button on the Pad to join the Buzz. The order of quick response will be prompted on the right side of the screen of the teacher end after the end of Buzz. As shown in Fig. 10-3-16-1 and Fig. 10-3-16-2.

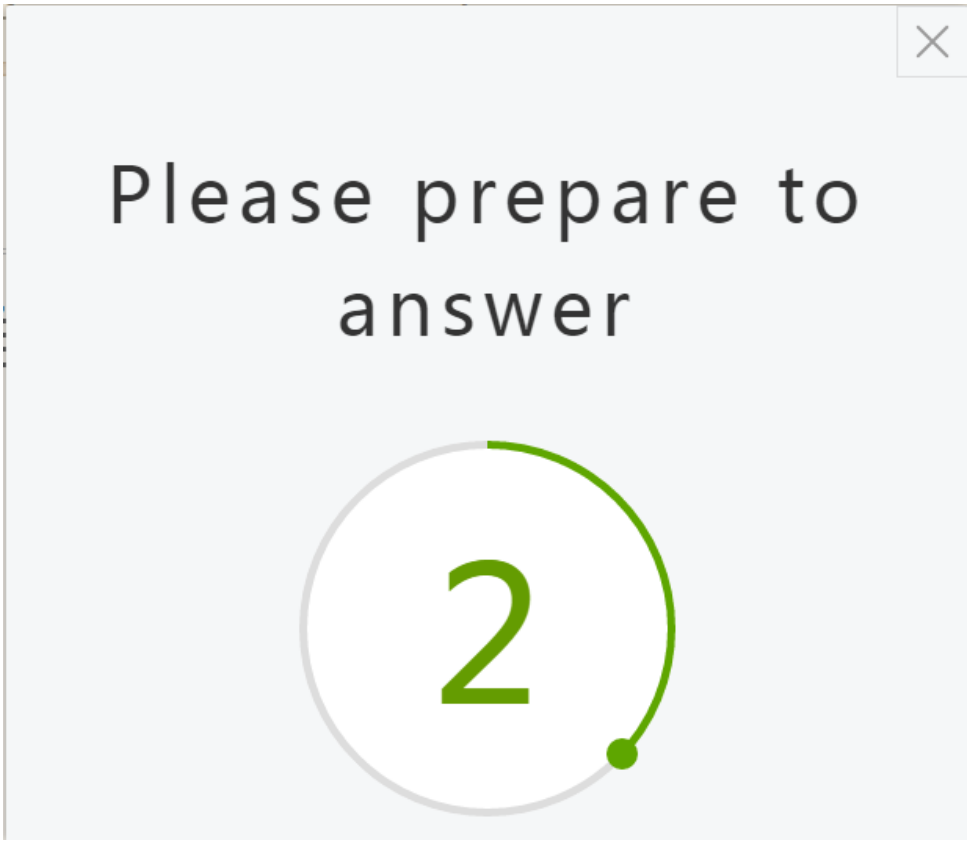


Fig. 10-3-16-1 Interactive Tools-Buzz

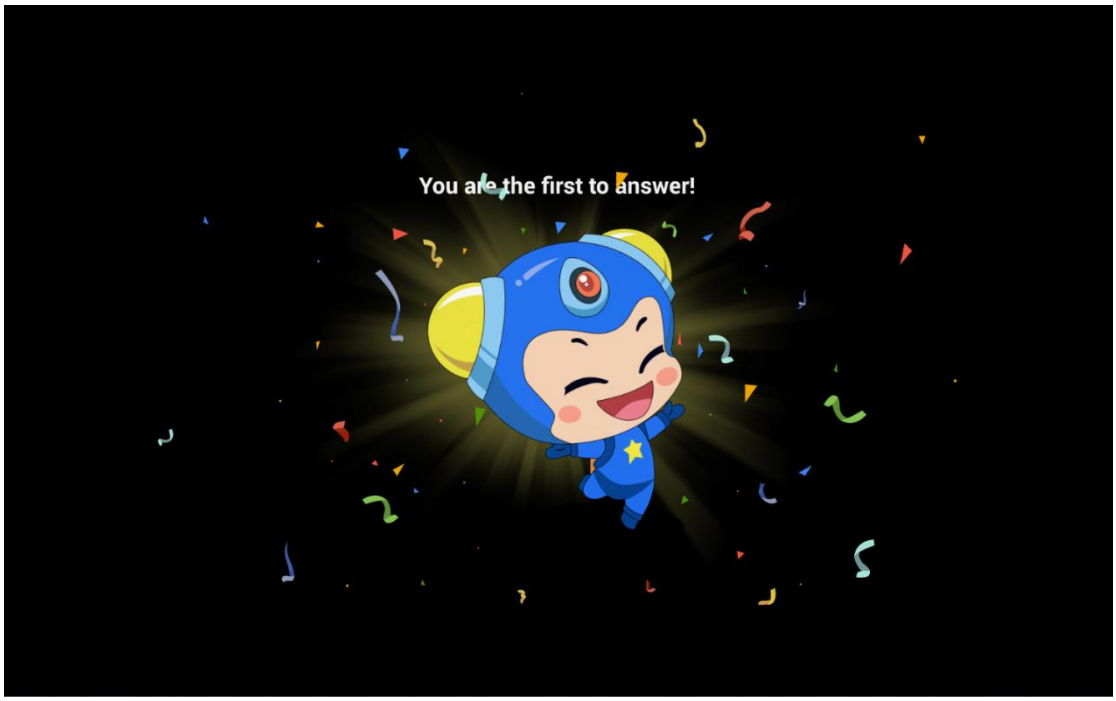


Fig. 10-3-16-2 Interactive Tools-Buzz

10.3.17 Sending Task (Exclusive for smart class)

Click Sending Task to send test questions to all students. Students answer it on the Pad after receiving. During the answering process, students can click the draft function in the upper left corner to call the draft interface. After the answer is completed, click the upper right corner to submit. Students can click Modify to modify the answer and resubmit before the teacher click the end of answering. As shown in Figure 10-3-17-1 and Fig. 10-3-17-2.

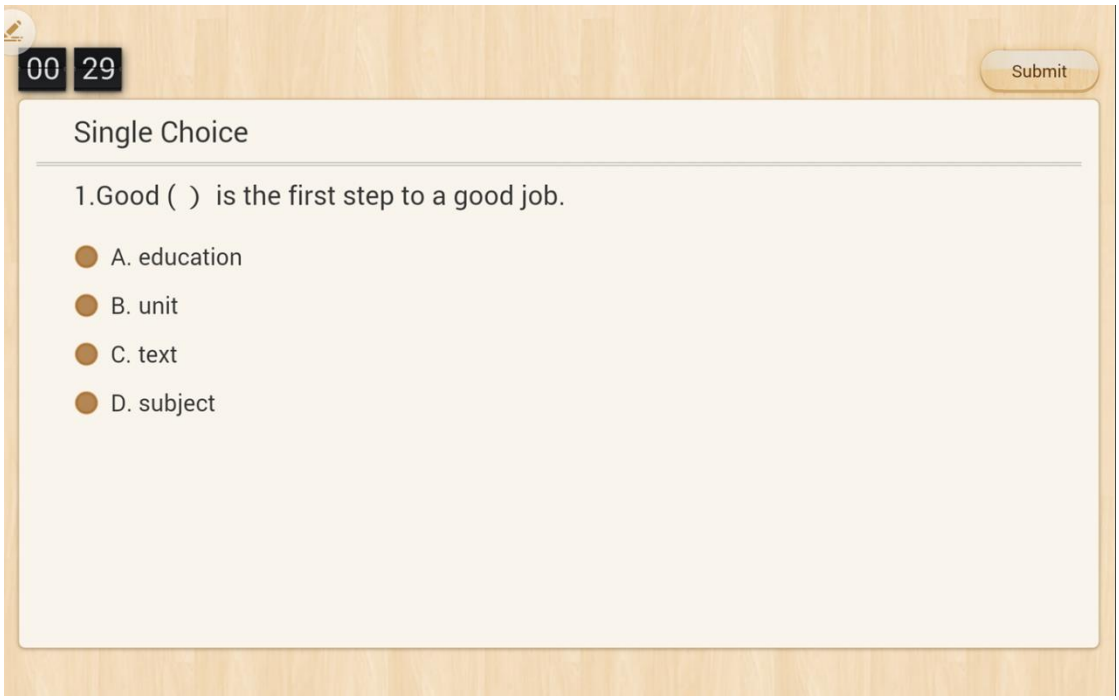


Fig. 10-3-17-1 Interactive Tools-Sending Task

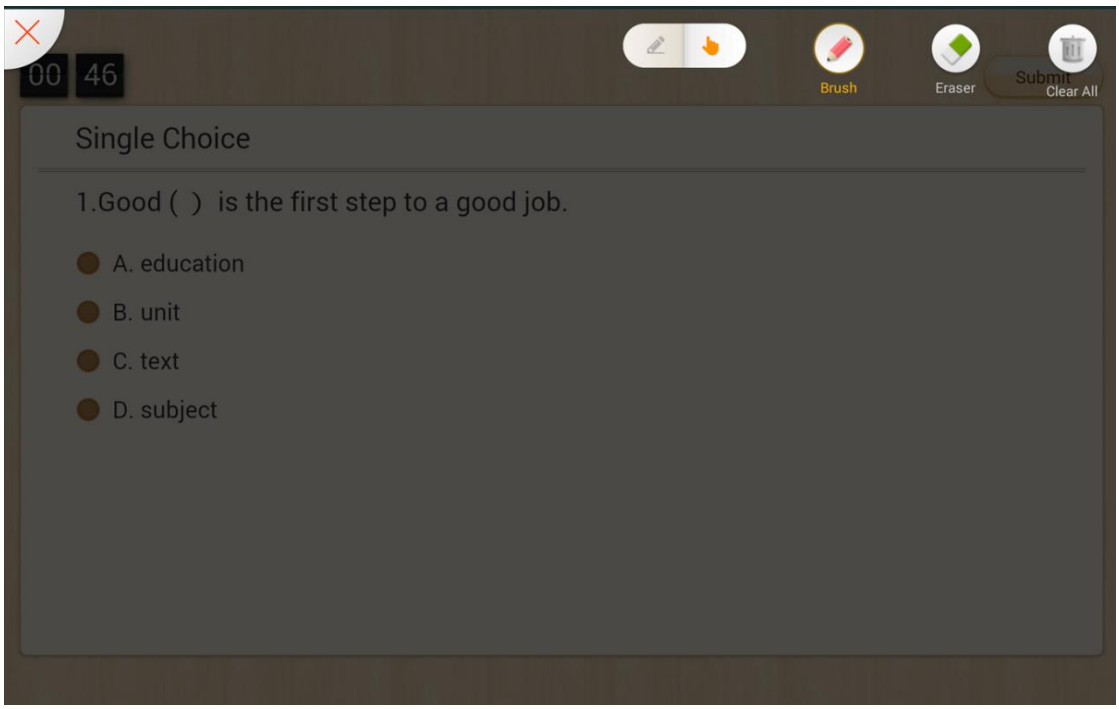


Fig. 10-3-17-2 Interactive Tools-Sending Task (Draft)

10.3.18 Oral Questions (Exclusive for smart class)

Teachers can temporarily or verbally arrange exercises in the class; and the students answer them on the Pad end at the same time. Now, optional questions contain “Single Choice”, “Multiple Choice” and “True or False”. The exercise will be minimized automatically at the beginning of quick response; results can be counted immediately after the completion of answering, as shown in Fig. 10-3-18-1 and Fig. 10-3-18-2.

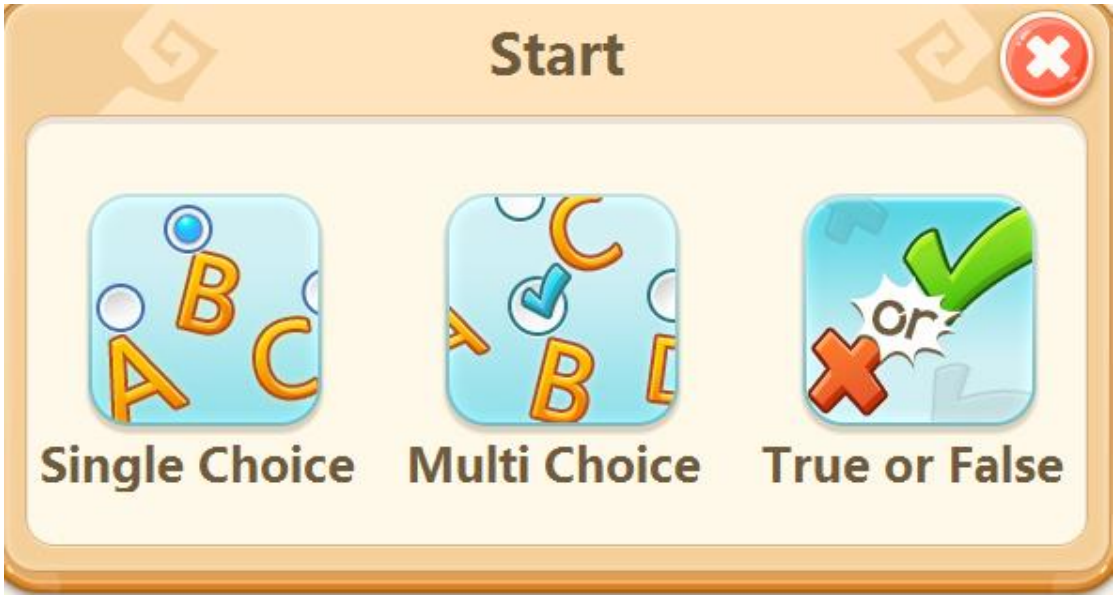


Fig. 10-3-18-1 Interactive Tools-Oral Questions-Initiate Answers

Fig. 10-3-18-2 Interactive Tools - Oral Questions-Under the Answer Status

No.	Area Name	Direction for Use
1	Display area of answer state	Display information of the students currently joining the answer, the answering time and the submitted progress (submitted,

		answering, not online).
2	End of answering	After the end of answering, answers on the student end are automatically submitted.
3	Minimize	The “Minimize” button is on both sides of the page. After clicking, the answer status is minimized.

Table 10-3-18-2 Interactive Tools - Oral Questions-Answering Status

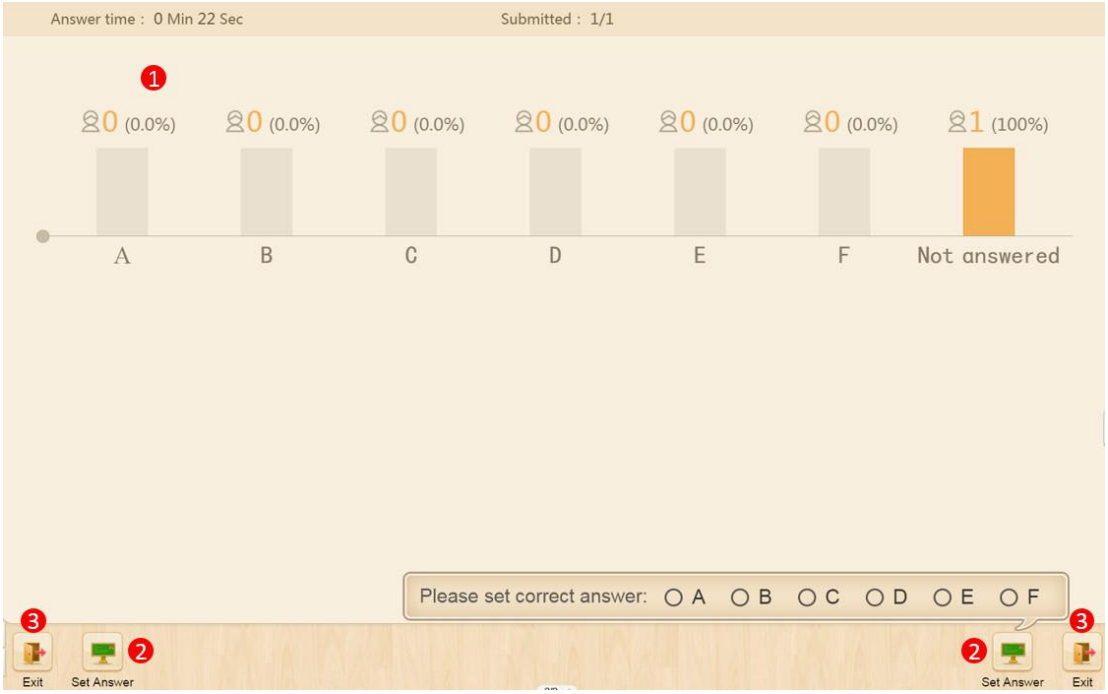


Fig. 10-3-18-3 Interactive Tools-Oral Questions-End

No.	Area Name	Direction for Use
1	Answer Statistics Area	After the end of the answer, the answer statistics will be displayed on the teacher end, that is, the proportion of each option will be displayed. After setting the answer, the correct answer will be displayed in green, while the wrong answer will be in orange in the statistical column.

2	Set and publish correct answers	Click the "Set Answer" button to set the correct answer for the current question; After completing, the “Set Answer” button is turned to the “Publish Answer” button. After selecting the “Publish Answer” button, the statistical chart will be changed accordingly, while the student end will receive the corresponding answer feedback.
3	Exit this question	Click “Exit” to exit after completing the answer.

Table 10-3-18-3 Interactive Tools - Interactive Tools-Oral Questions-End

The student end is demonstrated (taking multiple choice as an example), as shown in Fig. 10-3-18-4.

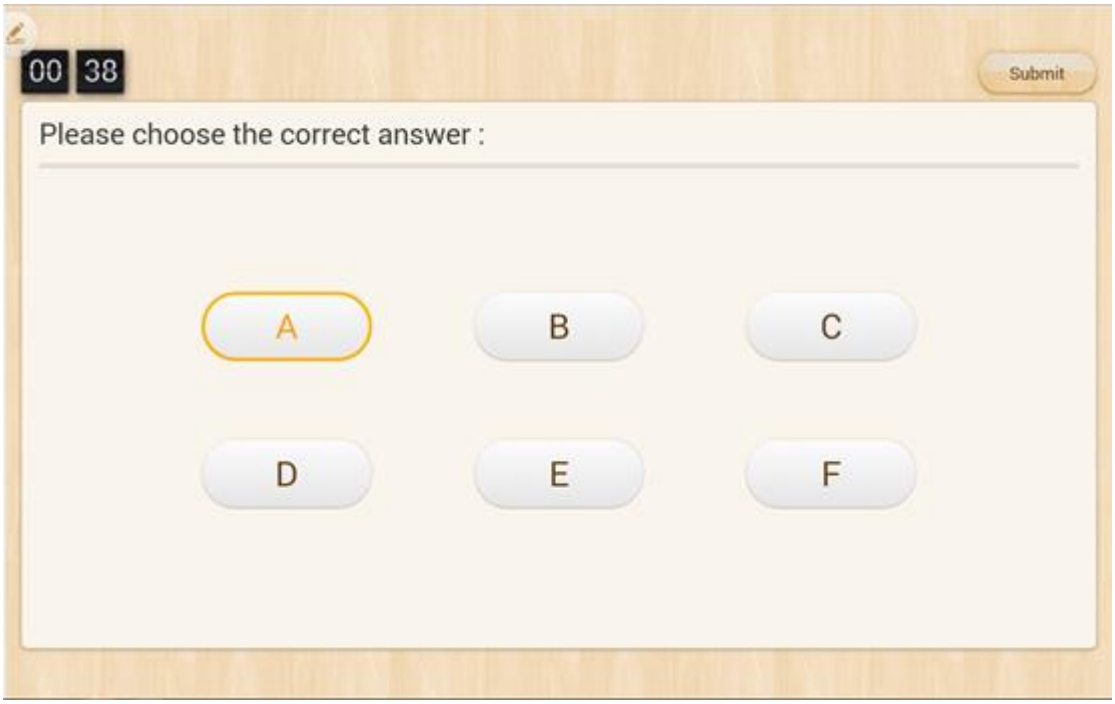


Fig. 10-3-18-4 Interactive Tools - Oral Questions-Student End Demonstration

10.3.19 Push Service (Exclusive for smart class)

The current page of the PC end can be pushed to the student end after clicking. No

other operation is allowed in the student end except seeing the current page, as shown in Fig. 10-3-19.

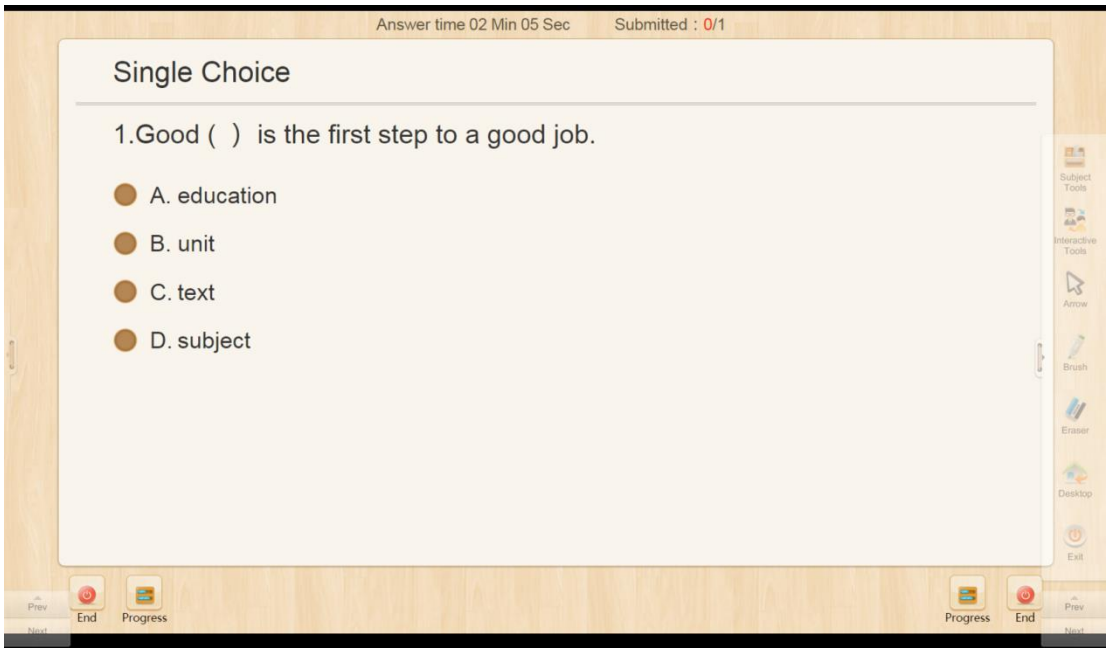


Fig. 10-3-19 Interactive Tools-Push Service-Student End Demonstration

10.3.20 Screen Broadcast (exclusive for smart class)

The page on the teacher end will be synchronized to the student end after clicking. The student can see the current page of the teacher end and the teacher's operating process, as shown in Fig. 10-3-20.

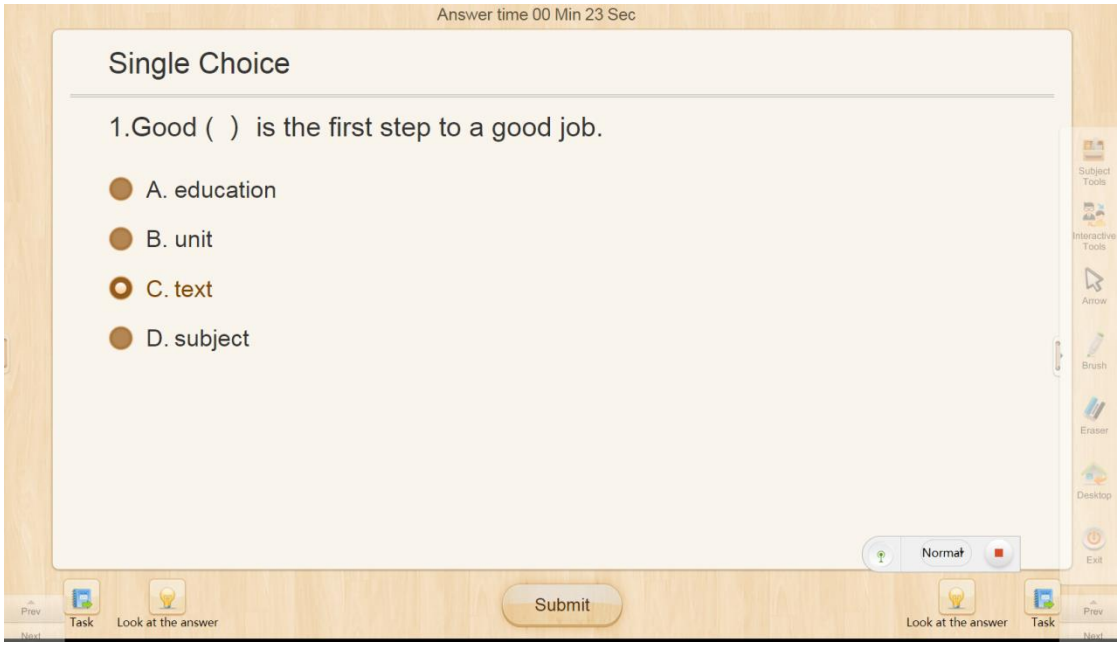


Fig. 10-3-20 Interactive Tools-Screen Broadcast-Student End Demonstration

10.3.21 Arrow

The Arrow is turned on by default when Edmodo Classroom enters the Slideshow interface and is used for turning pages and positioning. When using the Brush or Eraser, click the Arrow icon to stop and switch to the default arrow state for turning pages and positioning. See Fig. 10-3-21:

Fig. 10-3-21 Arrow

10.3.22 Brush

The Brush is a tool for writing such as annotations, scrawls and highlights in the following scenarios:

(1) Provide supplementary explanations about courseware;

(2) Draw simple patterns and graphs;

(3) Underline, circle or check important information of courseware;

(4) Six different colors including red, black, blue, white, yellow and green are provided for writing. At the same time, the brush size is adjustable (small/medium/large).

See Fig. 10-3-22-1 and 10-3-22-2:

Fig. 10-3-22-1 Brush

Fig. 10-3-22-2 Brush

10.3.23 Eraser

The Eraser is used to wipe off writing with the Brush so that a teacher can avoid rewriting and correct writing errors in a more efficient way; additionally, the entire page can be “refreshed” by clicking the **Clear Screen** icon. See Fig. 10-3-23.

Fig. 10-3-23 Eraser

10.3.24 Desktop

The **Desktop** tab allows users to minimize the Edmodo Classroom Slideshow interface and the editing interface and go to the desktop of the operating system or other software interfaces. It is mainly used for switching between Edmodo Classroom and other teaching materials in class so that diverse teaching materials can be employed flexibly. After clicking the **Desktop** tab, the Brush, Eraser and other tools are still available to facilitate in-class teaching with other teaching materials. The

Toolbar can be collapsed if it blocks any teaching materials. After using other teaching materials, tap the **Edmodo Classroom** button and return to the Slideshow interface to continue the courseware teaching. See Fig. 10-3-24-1.

Fig. 10-3-24-1 Desktop

In addition, it's also possible to use the "Desktop" button to perform "Push Service" and "Screen-shot Questions". Moreover, the toolbar can be hidden or displayed through clicking the button at the bottom of the toolbar for convenient teaching, as shown in Fig. 10-3-24-2.

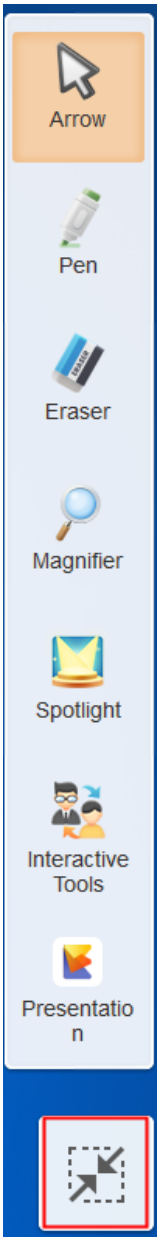


Fig. 10-3-24-2 Desktop

The above is all contents of the Operating Manual for Edmodo Classroom. The manual is subject to change without prior notice. Thank you again for choosing our

products. Our Email is customerservice@101.com.