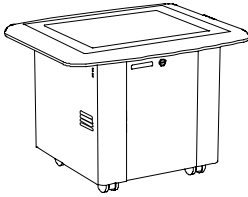# SMART Table 230i
User's Guide

Extraordinary made simple™ | **SMART**™

Product Registration

If you register your SMART product, we'll notify you of new features and software upgrades.

Register online at www.smarttech.com/registration.

Keep the following information available in case you need to contact SMART Technical Support.

Serial Number: _____

Date of Purchase: _____

Important Information

⚠ WARNING

- Failure to follow the installation instructions shipped with your SMART Table could result in personal injury and damage to the product.

- Ensure that any cables extending across the floor to your SMART Table are properly bundled and marked to prevent a tripping hazard.

- Make sure an electrical socket is near your SMART Table and remains easily accessible during use.

- Lock the casters before allowing children to use your SMART Table.

- Do not climb (or allow children to climb) on your SMART Table. Climbing on your SMART Table could result in personal injury or product damage.

- To reduce the risk of fire or electric shock, do not expose your SMART Table to rain or moisture.

- Refer to the safety warnings and precautions published by the projector manufacturer.

- Do not stare (or allow children to stare) directly into the projector's beam of light.

- Do not attempt to service the projector other than performing routine lamp replacement. Only an authorized service provider should provide service. Aside from the lamp module, there are no user serviceable parts inside the unit.

- Do not remove any screws other than those specified in the lamp replacement instructions.

- Do not touch or replace the projector lamp (which will be very hot) for at least an hour after shutdown. Failure to do so can cause severe burns.

- Do not puncture, crush, heat or disassemble the remote control battery, expose it to fire or any liquid, short its terminals, or abuse the battery in any other way because this may cause the battery to explode or ignite, and could cause a fire or personal injury.

- If the remote control battery leaks, ensure that you do not get battery fluid in your eye. If you do, immediately rinse the affected eye with water and seek medical attention.

- Do not install the remote control battery backwards or reverse its polarity. Do not install battery types other than the one specified in the documentation. Both of these actions can cause damage to the remote control and can cause a fire or personal injury.

⚠ CAUTION

- Disconnect the power cable or turn off the power bar only after you shut down the table as documented in this guide and the indicator lights and fans turn off. Disconnecting the power cable or turning off the power bar at any other time can cause projector failure and voids the warranty.

- Do not place cords, boxes or other items on the surface of your SMART Table. Doing so can scratch the surface.

- SMART Technologies recommends that you use the remote control to complete only the procedures documented in this guide. Using the remote control for other purposes may change the projector's settings, which were specifically configured for the SMART Table.

☞ IMPORTANT

- Do not operate your SMART Table's projector in environments that are higher than 10,000' (3000 m) above sea level.

- Your SMART Table is sensitive to infrared radiation. Therefore, turn off or remove any pot lights or other incandescent lighting in the room and close any open blinds or curtains before turning on your SMART Table.

- Your SMART Table's surface does not respond to touch until the computer completes its startup process. Therefore, wait 30 to 60 seconds after turning on your SMART Table before touching the surface.

- Before you clean your SMART Table, turn it off so that you don't inadvertently start applications when you wipe the surface.

- Do not place keyboards, mouse devices or other objects on the touch surface. The camera may interpret these objects as touches if they are placed on the touch surface.

- This product contains lithium button cell batteries in the computer and the remote control (perchlorate material—special handling may apply).

Contents

Chapter 1
Overview

The SMART Table 230i is an interactive learning center designed for young students.

This guide is intended for teachers and support staff. It introduces you to the SMART Table and explains how to use and customize it after the initial setup.

ℹ NOTE

For information on setting up your SMART Table, see the *SMART Table 230i Installation Instructions* (document 131863) included with the table.

About Your SMART Table

Your SMART Table is an interactive learning center with a touch-sensitive surface. By touching the surface, students can create, select, move and resize digital objects. More than one student can touch the surface at a time. This encourages collaboration and cooperation as students learn and play together.

The software on your SMART Table includes interactive applications, learning activities and educational games. You can customize the activities using the SMART Table Toolkit. Install and run the toolkit on your computer and then transfer your changes to the SMART Table using the USB storage device bracelet (see page 13).

You can use your SMART Table with other SMART products as part of an overall learning solution. For example, you can introduce a new concept to students on a SMART Board™ interactive whiteboard and then ask the students to explore the idea in detail using the SMART Table.
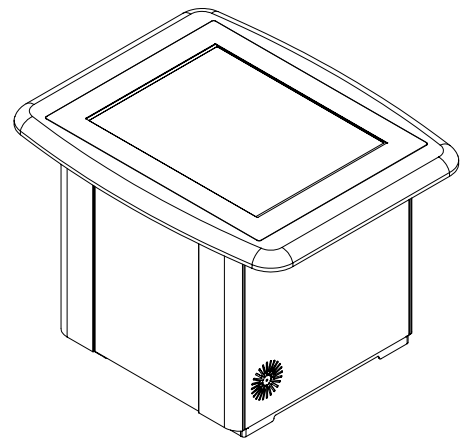
How Your SMART Table Works

Your SMART Table contains five main technological components:

- Computer

- Projector

- Speakers

- Camera

- Surface

The computer runs the SMART Table software, the projector projects the computer's display onto the surface, the speakers play the computer's audio and the camera detects students' touch on the surface. Combined, these five components allow students to interact with the SMART Table software.

The computer, projector, speakers and camera are inside the SMART Table's cabinet, while the surface is on the SMART Table's top.

Your SMART Table uses technology based on DViT™ (Digital Vision Touch) technology to detect multiple students' touches. Other SMART products use DViT technology, including select SMART Board interactive whiteboards, SMART Board interactive display frames and Sympodium™ interactive pen displays. For more information on DViT technology, see the SMART Technologies website.

Standard Accessories

Your SMART Table comes with the following accessories:

- USB storage device bracelet

- Power cable

- Keys

USB Storage Device Bracelet

The USB storage device bracelet contains the SMART Table software as well as a PDF copy of this guide, which you can view with Adobe® Reader. You use the bracelet to install the software when you first set up your SMART Table. Afterward, you can use it to do the following:

- Install the SMART Table Toolkit on a Windows® or Mac OS computer (see page 15)

- Install new activity packs and applications on your SMART Table (see page 31)

- Update the SMART Table software (see page 35)

ℹ NOTE

The USB storage device bracelet can store up to 1 GB of files.

Power Cable

The power cable provided with your SMART Table is specific to your region and should work with outlets in your school.
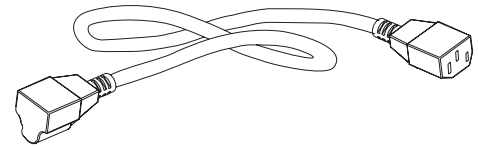
Connect the power cable to the SMART Table following the instructions in the *SMART Table 230i Installation Instructions* (document 131863).

💡 TIP

When connecting the power cable to the SMART Table, tilt the computer to access the power bar inside the table's cabinet.

If you must extend the power cable across the floor, ensure it is properly marked to prevent a trip hazard. In addition, SMART Technologies recommends that you connect the power cable to a power bar rather than directly to an outlet.

Keys

The keys allow you to lock the cabinet to prevent unwanted access to the computer and projector. Store the keys in a convenient but safe location when not in use.
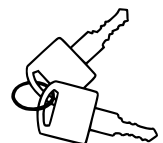
Chapter 2
Using Your SMART Table

After setting up your SMART Table as documented in the *SMART Table 230i Installation Instructions* ([document 131863](#)), you can use it on a regular basis.

Turning Your SMART Table On and Off

After you set up your SMART Table, you can turn it on or off by following the procedures in this guide.

👉 **IMPORTANT**

Your SMART Table is sensitive to infrared radiation. Therefore, turn off or remove any pot lights or other incandescent lighting in the room and close any open blinds or curtains before turning on your SMART Table.

To turn on your SMART Table

Connect the power cable to a power bar, and then turn on the power bar.

OR

Connect the power cable to an outlet.

👉 **IMPORTANT**

Your SMART Table's surface does not respond to touch until the computer completes its startup process. Therefore, wait 30 to 60 seconds after turning on your SMART Table before touching the surface.

Your SMART Table's computer and projector turn on. The computer completes its startup process, and the SMART Table Activities software appears.

For more information on the SMART Table Activities software, see page 7.

To turn off your SMART Table

1. Display the SMART Table Activities menu (see page 7), and then press ⊘.

    The ⊘ button moves to another corner.

2. Repeat step 1 for each student.

    A message appears, informing you that the computer shutdown process will begin in 30 seconds.
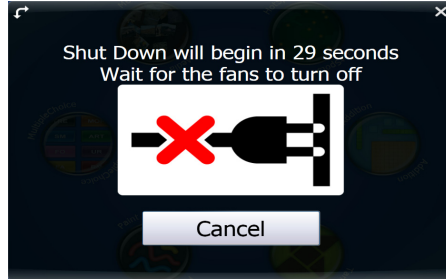
    💡 **TIP**

    A chime sound plays when the message first appears. This is useful in situations where you're away from the SMART Table and the students accidently press ⊘.

    Press **Cancel** if you pressed ⊘ by mistake.

    🔺 **CAUTION**

    Do not disconnect the power cable or turn off the power bar until after the fans turn off. Disconnecting the power cable or turning off the power bar at any other time can cause projector failure and voids the warranty.

Navigating SMART Table Activities

SMART Table Activities is your SMART Table's primary software. It starts automatically when you turn on the table.

The SMART Table Activities menu has two modes:

• **Student** mode is the default mode. It allows students to start applications specifically designed for children in early primary grades.

• **Teacher** mode appears when you connect the USB storage device bracelet to your SMART Table. It allows you to set the number of students, orient the surface, synchronize activity packs and applications and complete other configuration tasks as documented in this guide.

Specifying the Number of Students

Your SMART Table can support and respond to input from up to eight students. Before using your SMART Table, specify the number of students. Doing so changes several options in the SMART Table Activities software. For example, if you specify three students, Multiple Choice may require three responses to each question depending on the current activity pack (see page 10).

To specify the number of students

1. Connect the USB storage device bracelet to your SMART Table.

   The menu changes from **Student** mode to **Teacher** mode.

2. In the **Total Learners** control:

   – Press **+** to increase the number of students.

   – Press **-** to decrease the number of students.

3. Disconnect the USB storage device bracelet.

   The menu changes from **Teacher** mode to **Student** mode.

Starting and Closing Applications

To start an application

While in **Student** mode, press an application icon.

The application appears.

To close an application and return to the menu

1. Press .

   The button moves to another corner.

2. Repeat step 1 for each student you specified.

   For example, if you specified four students, you must press four times.

Applications

The SMART Table Activities software consists of the following applications:

- Paint
- Media
- Multiple Choice
- Hot Spots

- Addition
- Addition Plus
- Hot Spaces
- Puzzle

You can customize these applications and add other applications using the SMART Table Toolkit (see page 13).

Paint

Paint is a virtual finger painting application. Students paint with their fingers by selecting colors and effects from the palette.

There are up to four palettes with each palette located in a different corner of the surface. To open a palette, press it. The controls in the palette allow students to select colors, select line effects, clear the screen and close Paint.
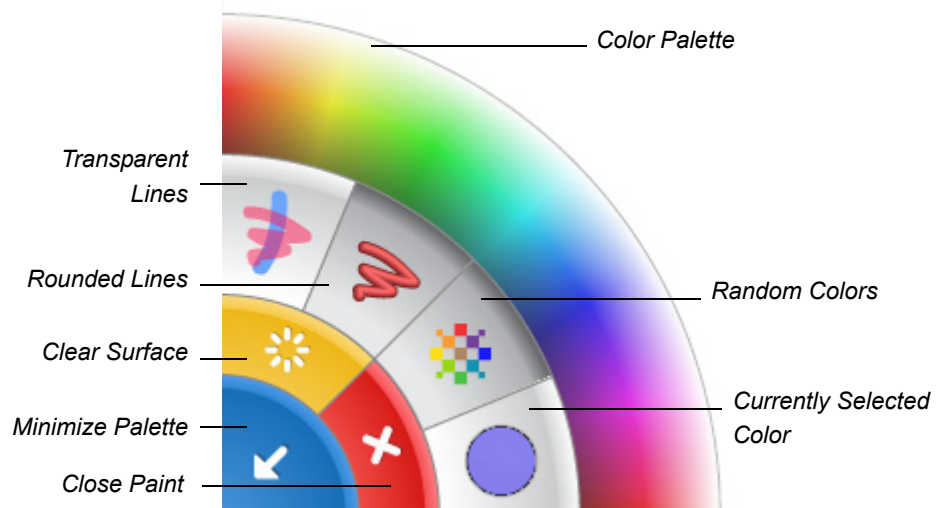
TIPS

- Each student must click ✳ **Clear Surface** to clear the entire surface.

- Similarly, each student must click ✖ **Close Paint** to close Paint.

- When one student selects a color or other option in a palette, that selection applies to all students.

- To erase, students can press and hold, and then drag their fingers over the areas that they want to erase.

Media

Media displays a set of pictures and videos. Students discuss and learn by dragging and resizing photos and videos. Students can also resize the picture or video by placing their fingers in opposite corners and dragging out to increase the size or dragging in to reduce the size. Media comes with a standard set of pictures. You can add your own pictures and videos using the SMART Table Toolkit (see page 19).

💡 TIP
To play a video in Media, press ▶ .

Multiple Choice

In Multiple Choice, students work as a team to answer questions by dragging the answers to the middle of the table's surface.

ℹ️ NOTE
You can create custom questions that complement your class curriculum (see page 21).

Each question appears in the center of the surface, and the possible answers to it are arranged in a circle around it. Students can select an answer by pressing and dragging it to the question. Depending on the activity:

- Students may need to answer the question correctly to proceed to the next question.

- All students, a majority of students or the first student to pick an answer must answer the question correctly to proceed to the next question.
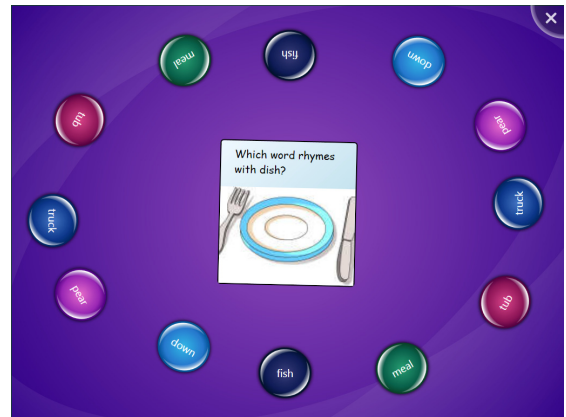
Hot Spots

Hot Spots presents students with diagrams. Students then match words and images by moving the labels to the correct spot identified by yellow dots on the diagram. (If the label matches, it changes from black to green when placed over the yellow dot.) After the students correctly identify all the parts of the diagram, Hot Spots presents the next diagram to solve.
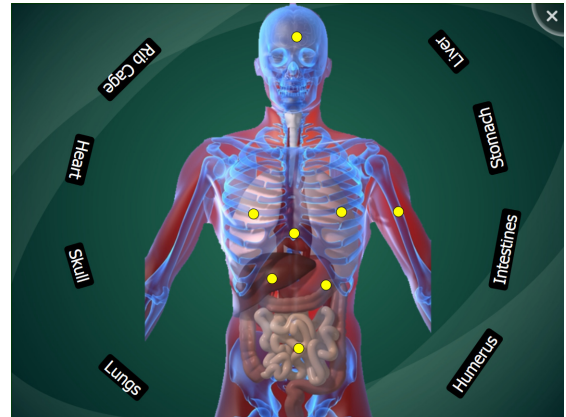
Addition

Addition displays a random math problem (for example, 25 + 3) and students work together to solve the problem visually by placing visual objects, such as blocks or coins, into the center of the surface or by pressing the surface with their fingers for a few seconds. Students can move a block or coin by pressing and dragging it across the surface, or they can rotate it by placing two fingers on opposite sides. When students solve the math problem correctly, Addition presents the next math problem.
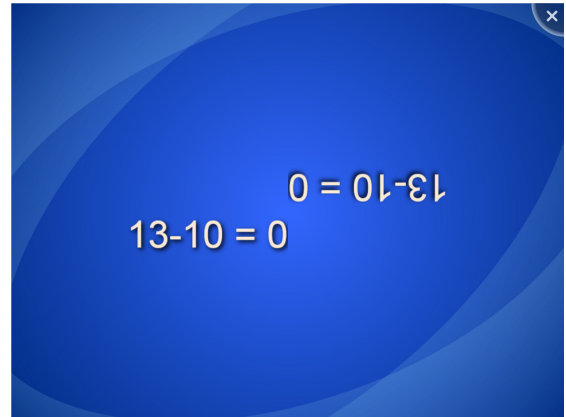
Addition Plus

In Addition Plus, students answer defined sets of math questions using visual objects. Students can move a block or coin by pressing and dragging it across the surface. When students solve the math problem correctly, Addition Plus presents the next math problem.

Hot Spaces

In Hot Spaces, students sort words and images by moving them to the correct area. Students must identify a location on the diagram, and then press and drag the labels to the correct area. If the label matches, the area turns green. After the students place all the labels and images on the correct areas, Hot Spaces presents the next diagram to solve.
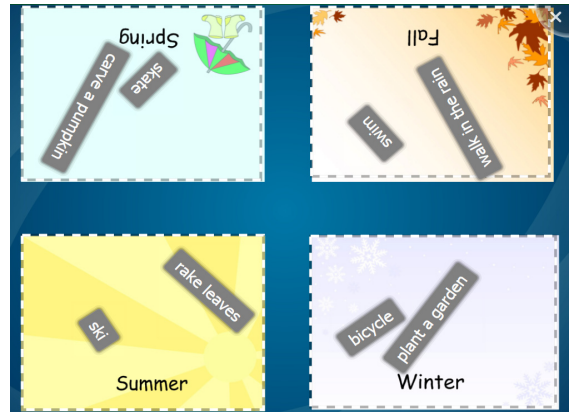
Puzzle

Puzzle presents students with a tangram or jigsaw puzzle. Students press, drag and rotate the pieces to the correct location to solve tangrams. (The pieces change color when in the correct position.) After the students have correctly placed all pieces, Puzzle presents another tangram or jigsaw puzzle to solve.
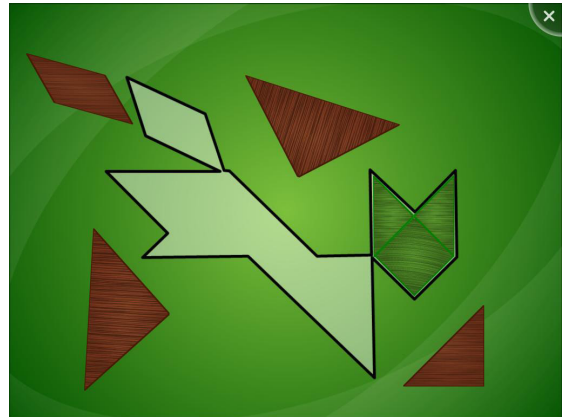
Working with the SMART Table Toolkit

The SMART Table Toolkit allows you to create SMART Table activity packs as well as import SMART Table activity packs and SMART Table applications from the SMART Learning Marketplace. You can use these files to customize SMART Table Activities for your class.

📘 **NOTE**

SMART Table activity packs have the extension .tableContent, and SMART Table applications have the extension .tableApplication.

Uploading the SMART Table Toolkit Installer on a USB Storage Device

The USB storage device bracelet provided with your SMART Table (see page 3) includes the SMART Table Toolkit installer. If you can't locate the bracelet or need additional copies of the SMART Table Toolkit, you can upload the toolkit installer on a USB storage device.

To upload the toolkit installer on a USB storage device

1. Turn on your SMART Table.

    The SMART Table Activities menu appears.

2. Connect a USB storage device to your SMART Table.

    The menu changes from **Student** mode to **Teacher** mode.

3. Press **Make Key**.

    A message appears, stating that the process will take several minutes.

4. Press **Sync**.

    After several minutes, a second message appears, stating that the process is complete.

5. Press **OK**.

SMART Table Toolkit Computer Requirements

Install the SMART Table Toolkit on a Windows or Mac computer that meets the following hardware and software specifications:

Windows Computers

Minimum hardware:
- Intel® Pentium® III 1 GHz or faster processor
- 512 MB RAM
- USB 2.0 receptacle
- Video card and monitor with XGA (1024 × 768) resolution support

Supported operating systems:
- Windows Vista® Home Premium, Business, Enterprise or Ultimate including 64 bit editions
- Windows Vista SP1
- Windows XP SP2 and SP3
- Windows XP Tablet PC Edition SP2 and SP3
- Windows 2000 SP4
- Windows Server® 2003

Other requirements:
- Administrator privileges
- Internet access

Mac Computers

Hardware:
- Intel Core Duo 1.83 GHz or faster processor
- PowerPC® G4 1 GHz or faster processor
- 512 MB RAM
- USB 2.0 receptacle
- Video card and monitor with XGA (1024 × 768) resolution support

Supported operating systems:
- Mac OS X 10.5.4 and 10.5.5

Other requirements:
- Administrator privileges
- Internet access

Installing the SMART Table Toolkit

Before installing the SMART Table Toolkit, ensure that your computer meets the minimum requirements listed on the previous page.

To install the toolkit on a Windows computer

1. Connect the USB storage device bracelet to the computer.

2. Using Windows Explorer, locate and double-click the following file on the USB storage device bracelet:

    SMART Table Toolkit.msi

    The *SMART Table Toolkit* installation wizard appears.

3. Follow the on-screen instructions to install the toolkit.

To install the toolkit on a Mac computer

1. Connect the USB storage device bracelet to the computer.

2. Using the Finder, locate and double-click the following file on the USB storage device bracelet:

    SMART Table Toolkit.dmg

    The *SMART Table Toolkit* installation wizard appears.

3. Follow the on-screen instructions to install the toolkit.

Starting the SMART Table Toolkit

After installing the SMART Table Toolkit, start it by completing the following procedures. You can then create a new .tableContent file or open an existing one.

To start the toolkit on a Windows computer

Double-click the **SMART Table Toolkit** icon on the desktop.

OR

Select **Start > All Programs > SMART Technologies > SMART Table > SMART Table Toolkit**.

The *SMART Table Toolkit* window appears.
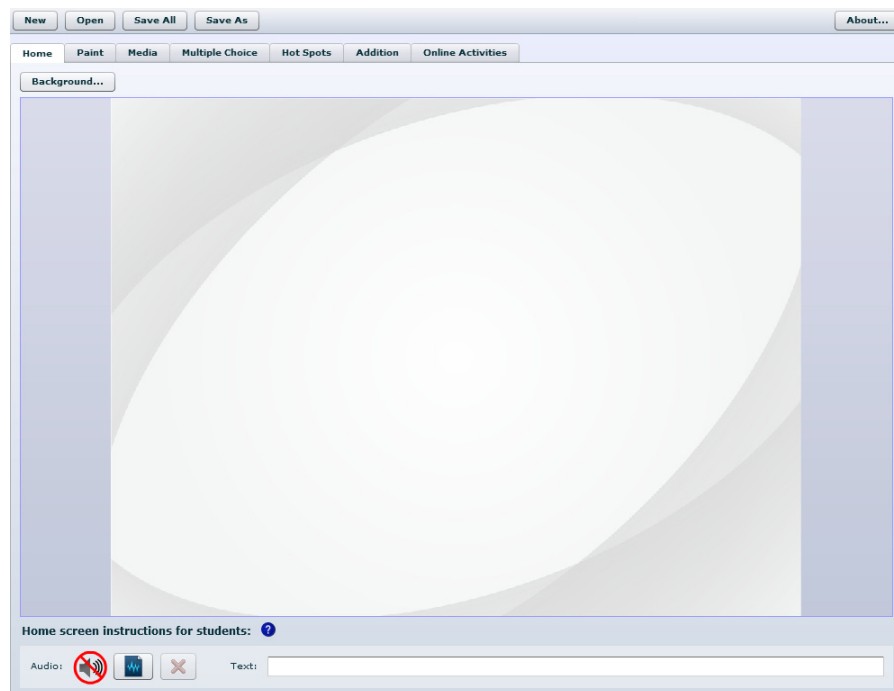
To start the toolkit on a Mac computer

Click the **SMART Table Toolkit** icon in the Dock.

The *SMART Table Toolkit* window appears.

To create or open a .tableContent file

Click **New** to create a new .tableContent file.

OR

Click **Open**, navigate to and select the .tableContent file, and then click **Open** to open an existing .tableContent file.

Customizing the Menu

IMPORTANT

Make sure that the computer's video resolution is set to XGA (1024 × 768) before customizing the menu.

When you first turn on your SMART Table, the SMART Table Activities menu appears. Your students can select an application from the menu.

You can customize the menu's background image and add instructions for students using the toolkit.

To customize the menu

1. Click **Home**.

2. Click **Background**.

   The *Background Image* dialog box appears.

3. Navigate to and click a JPEG, GIF or PNG file that you want to use as the background image, and then click **Open**.

   The *Background Image* dialog box closes, and the selected graphics file appears below the **Background** button.

4. Add instructions for students:

   – To add written instructions, type the written instructions in the **Text** box.

   – To add audio instructions, click **Import sound**, navigate to and click a WAV or MP3 file containing the audio instructions, and then click **Open**.

      TIP

      Click **Clear sound** to clear the sound file.

Customizing Applications

You can customize the following applications using the SMART Table Toolkit:

- Paint
- Media
- Multiple Choice
- Hot Spots

- Addition
- Addition Plus
- Hot Spots

> 👉 **IMPORTANT**
>
> Make sure that the computer's video resolution is set to XGA (1024 × 768) before customizing the applications.
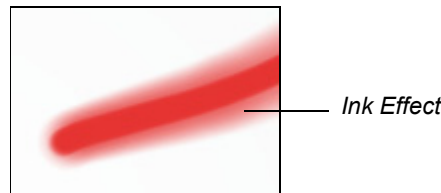
Customizing Paint

You can customize Paint by specifying the following:

- Whether to show an ink effect when students draw on the surface

Ink Effect

- Line thickness

- Background images

- Instructions for students

To customize Paint

1. Click **Paint**.

2. Select the **Use ink effect** check box to show an ink effect when students draw on the screen.

3. Set the **Line thickness** slider to the line thickness you want to use in Paint.

4. Add a background image using any of the following methods:

    – Click **Import** to import a JPEG, GIF or PNG file.

    – Click **Paste** to paste a graphics file that you copied in another application.

    – Drag and drop a graphics file into the toolkit.

5. Repeat step 4 for each background image you want to add to Paint.

> 💡 **TIP**
>
> To remove a file, click it, and then click **Remove**.

6. Add instructions for students:

   – To add written instructions, type the written instructions in the **Text** box.

   – To add audio instructions, click 〰 **Import sound**, navigate to and click a WAV or MP3 file containing the audio instructions, and then click **Open**.

      💡 **TIP**

      Click ✖ **Clear sound** to clear the sound file.

Customizing Media

You can use the toolkit to add your own graphics and video files to Media, as well as change the background image.

Media supports the following graphics and video file formats:

Graphics File Formats	Video File Formats
• JPEG (.jpg, .jpeg)	• Windows Media (.wmv)
• GIF (.gif)	• AVI (.avi)
• PNG (.png)	

To customize Media

1. Click **Media**.

2. Change the background image using either of the following methods:

   – Click 📋 **Import image** to import a JPEG, GIF or PNG file.

   – Click 📋 **Paste image** to paste a graphics file that you copied in another application.

      💡 **TIP**

      Click ✖ **Clear image** to clear the graphics file.

3. Select the **Use presentation scaling** check box to automatically maximize and orient a graphics or video file to the bottom of the table when students resize it to the maximum allowed value.

      ℹ️ **NOTE**

      This feature is useful in situations where you want to show pictures or videos in a slide show–style presentation.

4. Set the **Range of scaling** sliders to the minimum and maximum sizes that
    students can resize graphics and video files.

Range of scaling:

50%   250%   500%

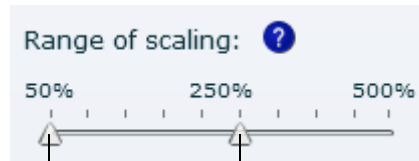*The minimum size that students   The maximum size that students
can scale a file is 50% of its   can scale a file is 300% of its
original size.*   *original size.*

5. Add a graphics or video file using any of the following methods:

    –   Click **Import** to import a JPEG, GIF, PNG, Windows Media or AVI file.

    –   Click **Paste** to paste a graphics or video file that you copied in another
        application.

    –   Drag and drop a graphics or video file into the toolkit.

6. Repeat step 5 for each graphics or video file you want to add to Media.

    TIP

    To remove a file, click it, and then click **Remove**.

7. Add instructions for students:

    –   To add written instructions, type the written instructions in the **Text** box.

    –   To add audio instructions, click **Import sound**, navigate to and click a
        WAV or MP3 file containing the audio instructions, and then click **Open**.

        TIP

        Click **Clear sound** to clear the sound file.

Customizing Multiple Choice

In Multiple Choice, students work as a team to answer questions in different activities.

Multiple Choice comes with a default question set. You can create other question sets that are relevant to your class curriculum.

To create a question set

1. Click **Multiple Choice**.

2. Type a name for the question set in the **Step 1** box, and then click **Create**.

3. Select the **Correct Answer Required** check box to require students to select the correct answer to proceed to the next question.

4. Click one of the following options:

To have:	Click:
A majority of students answer the question before they can proceed to the next question	**Majority Rules**
All students answer the question before they can proceed to the next question	**All Must Agree**
The first student that answers the question win	**First Wins**

5. If you clicked the **First Wins** option:

   – Set the **Next question delay** slider to the number of seconds between questions.

   – Set the **Answer display time** slider to the number of seconds before the correct answer displays.

6. Define the question/answer layout using the **Question/Answer Layout** control.

The question appears in the middle. Move the answer to one of the four sides by clicking the gray boxes.

7. Type the first question in the **Question** box.

8. Type the answer to the first question in the **Answer** box.

   💡 **TIP**

   The answer should be only one or two words.

9. Type feedback for the first question in the **Feedback** box.

   ℹ️ **NOTE**

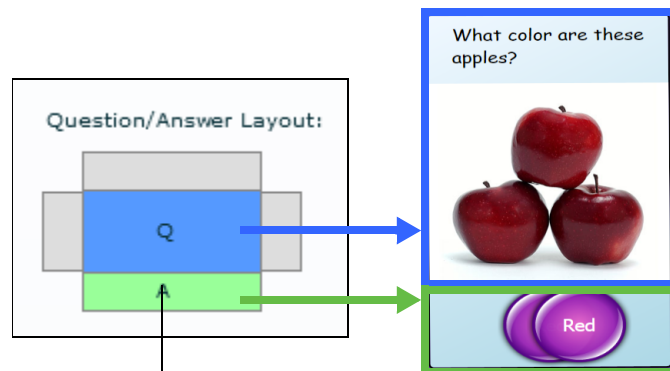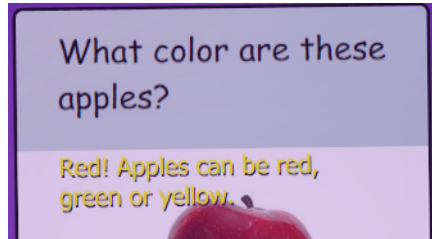   Feedback appears after students answer the question.

10. Add an image for the first question using either of the following methods:

    – Click 📂 **Import image** to import a JPEG, GIF or PNG file.

    – Click 📋 **Paste image** to paste a graphics file that you copied in another application.

11. Click **Add**, and then repeat steps 7 to 10 for each question you want to include in the challenge.

    💡 **TIPS**
    – To edit a question, select it in the **All questions** list, and then repeat steps 7 to 10.

    – To remove a question, select it in the **All questions** list, and then click **Remove**.

To edit a question set

1. Click **Multiple Choice**.

2. Select the question set in the **All Activities** list.

3. Repeat steps 3 to 11 in the previous procedure.

To remove a question set

1. Click **Multiple Choice**.

2. Select the question set in the **All Activities** list, and then click the **Remove** button below the **All Activities** list.

   The *Confirmation* dialog box appears.

3. Click **Yes**.

To add instructions for students

1. Click **Multiple Choice**.

2. Add instructions for students:

   – To add written instructions, type the written instructions in the **Text** box.

   – To add audio instructions, click 〰 **Import sound**, navigate to and click a WAV or MP3 file containing the audio instructions, and then click **Open**.

   > 💡 **TIP**
   >
   > Click ✖ **Clear sound** to clear the sound file.

Customizing Hot Spots

You can create custom diagrams in Hot Spots to complement your class curriculum. For example, if your class is studying the parts of speech, you can create a set of sentence diagrams and have students label the nouns, verbs and adjectives in each sentence.

To create a diagram

1. Click **Hot Spots**.

2. Type a name for the diagram in the **Step 1** box, and then click **Create**.

3. Click **Background**.

   The *Background Image* dialog box appears.

4. Navigate to and click a JPEG, GIF or PNG file that you want to use as the background image, and then click **Open**.

   The *Background Image* dialog box closes, and the graphics file appears below the **Background** button.

To add a text label

1. Click **Add Label**.

2. Click and drag the label to its end position.

3. Double-click the label, type its text, and then click in an area outside of the label.

4. Repeat steps 1 through 3 for each text label you want to add to the diagram.

To add a picture

1. Click **Add Picture**.

   The *Open* dialog box appears.

2. Navigate to and select a JPEG, GIF or PNG file that you want to use, and then click **Open**.

3. Click and drag the picture to its end position.

4. Repeat steps 1 through 3 for each picture you want to add to the diagram.

5. Click **Start positions**.

6. Click and drag the pictures to their starting positions.

To add instructions for students

1. Click **Hot Spots**.

2. Add instructions for students:

   – To add written instructions, type the written instructions in the **Text** box.

   – To add audio instructions, click 📂 **Import sound**, navigate to and select a WAV or MP3 sound file containing the audio instructions, and then click **Open**.

   💡 **TIP**

   Click ❌ **Clear sound** to clear the sound file.

To edit a diagram

1. Click **Hot Spots**.

2. Select the diagram in the **All Activities** list.

3. Repeat the previous procedures.

To remove a diagram

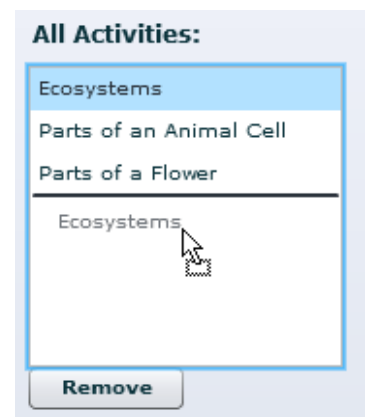1. Click **Hot Spots**.

2. Select the diagram in the **All Activities** list, and then click the **Remove** button below the **Allow Activities** list.

   The *Confirmation* dialog box appears.

3. Click **Yes**.

To reorder activities

1. Click **Hot Spots**.

2. In the **All Activities** list, click and drag an activity to change its order.

3. Repeat step 2 for each activity you want to reorder.

Customizing Addition

You can customize Addition by specifying the following:

- Whether to use coins, blocks or fingers to count

- If applicable, the number of each coin/block type

- Background images

- Instructions for students

To customize Addition

1. Click **Addition**.

2. Change the background image using either of the following methods:

   – Click 📋 **Import image** to import a JPEG, GIF or PNG file.

   – Click 📋 **Paste image** to paste a graphics file that you copied in another application.

   💡 **TIP**

   Click ❌ **Clear image** to clear the graphics file.

3. Click the appropriate button

To have students count in:	Click:
Canadian coins	**CAD**
American coins	**USD**
European coins	**EUR**
British coins	**GBP**
Blocks	**Blocks**
Fingers	**Fingers**

4. If you clicked **CAD**, **USD**, **EUR**, **GBP** or **Blocks** in step 3, select the number of coins or blocks you want to include in Addition for each coin/block type.

   ℹ️ **NOTES**

   – There are six coin/block types:

   - 1
   - 5
   - 10
   - 25
   - 50
   - 100

   – The **50** coin type is disabled for **CAD** and **USD** because 50¢ coins aren't common in Canada and the United States.

– The **25** coin type is disabled for **EUR** and **GBP** because these currencies don't have 0.25 coins.

5. Add instructions for students:

– To add written instructions, type the written instructions in the **Text** box.

– To add audio instructions, click **Import sound**, navigate to and click a WAV or MP3 file containing the audio instructions, and then click **Open**.

> 💡 **TIP**
>
> Click ❌ **Clear** sound to clear the sound file.

Customizing Addition Plus

You can customize Addition Plus by specifying the following:

• The question that the students must answer, and the correct answer

• Whether to use coins or blocks to count, and the number of each coin/block type

• Background images

• Instructions for students

To customize Addition Plus

1. Click **Addition Plus**.

2. Change the background image using either of the following methods:

– Click **Import image** to import a JPEG, GIF or PNG file.

– Click **Paste image** to paste a graphics file that you copied in another application.

> 💡 **TIP**
>
> Click ❌ **Clear image** to clear the graphics file.

3. Click the appropriate button

To have students use:	Click:
Canadian coins	**CAD**
American coins	**USD**
European coins	**EUR**
British coins	**GBP**
Blocks	**Blocks**

4. Select the type of coins or blocks you want to include in Addition Plus for each coin/block type.

   ℹ NOTES
   – There are six coin/block types:

• 1	• 25
• 5	• 50
• 10	• 100

   – The **50** coin type is disabled for **CAD** and **USD** because 50¢ coins aren't common in Canada and the United States.

   – The **25** coin type is disabled for **EUR** and **GBP** because these currencies don't have 0.25 coins.

5. Type your question into the **Question Text** box.

6. Type the correct answer into the **Answer** box.

7. Add instructions for students:

   – To add written instructions, type the written instructions in the **Text** box.

   – To add audio instructions, click 〰 **Import sound**, navigate to and click a WAV or MP3 file containing the audio instructions, and then click **Open**.

   💡 TIP

   Click ✖ **Clear** sound to clear the sound file.

Customizing Hot Spaces

You can create custom diagrams in Hot Spaces to complement your class curriculum. For example, if your class is studying the four seasons, you can create areas on the table that represent each season and have students identify labels or pictures that are associated with each season.

To create a diagram

1. Click the **Hot Spaces** tab.

2. Type a name for the diagram in the **Step 1** box, and then click **Create**.

3. Click **Background**.

   The *Background Image* dialog box appears.

4. Navigate to and click a JPEG, GIF or PNG file that you want to use as the background image, and then click **Open**.

   The *Background Image* dialog box closes, and the graphics file appears below the **Background** button.

To create the Hot Spaces

1. Click the **Hot Spaces** icon above the background image.

2. Click and drag a rectangle around an area of the background image you want to use as a Hot Space.

3. Repeat steps 1 and 2 for each Hot Space.

To add a text label

1. Click **Add Label**.

   A new label appears on the background image.

2. Double-click the label, type its text, and then click in an area outside of the label.

3. Repeat steps 1 and 2 for each text label you want to add to the diagram.

4. Click **End Region** if it isn't already selected.

5. Drag each label to their correct Hot Space.

   The Hot Space outline changes color to indicate that the label is part of the space.

To add a picture

1. Click **Add Picture**.

   The *Open* dialog box appears.

2. Navigate to and select a JPEG, GIF or PNG file that you want to use, and then click **Open**.

3. Click and drag the picture to its end position.

4. Repeat steps 1 through 3 for each picture you want to add to the diagram.

5. Click **End Region** if it isn't already selected.

6. Drag each picture to its correct Hot Space.

   The Hot Space outline changes color to indicate that the picture is part of the space.

To set the Start Positions of the labels and pictures

1. Click **Start positions**.

2. Click and drag the labels and pictures to their starting positions.

To add instructions for students

1. Click **Hot Spaces**.

2. Add instructions for students:

   – To add written instructions, type the written instructions in the **Text** box.

– To add audio instructions, click **Import sound**, navigate to and select a WAV or MP3 sound file containing the audio instructions, and then click **Open**.

> **TIP**
>
> Click **Clear sound** to clear the sound file.

To edit a diagram	1. Click **Hot Spaces**. 2. Select the diagram in the **All Activities** list. 3. Repeat the previous procedures.

To remove a diagram	1. Click **Hot Spaces**. 2. Select the diagram in the **All Activities** list, and then click the **Remove** button below the **Allow Activities** list. The *Confirmation* dialog box appears. 3. Click **Yes**.

To reorder diagrams	1. Click **Hot Spaces**. 2. In the **All Activities** list, click and drag an activity to change its order. 3. Repeat step 2 for each activity you want to reorder.
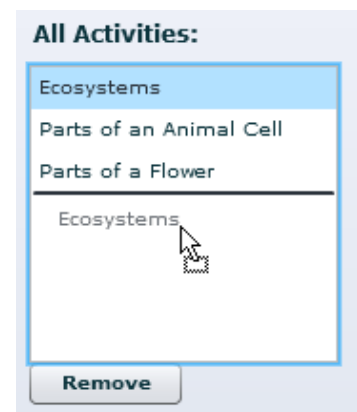
Customizing Other Applications

SMART Technologies may introduce more applications in the future. In addition, you can import applications from third parties (see the following pages).

You can customize these applications following procedures similar to those outlined in this chapter.

Downloading Activity Packs and Applications

Using the **Online Activities** tab of the SMART Table Toolkit, you can download activity packs (.tableContent) and applications (.tableApplication) for the SMART Table.

> ℹ️ **NOTE**
>
> You must use the SMART Table Toolkit to save the activity packs and appplications before you can sync them to the SMART Table.

To download activity packs and applications

1. Click **Online Activities**.

2. Search for and download .tableContent and .tableApplication files to the USB storage device bracelet.

Saving Activity Packs

Before you can apply your customizations to your SMART Table, you must save them in a .tableContent file on the USB storage device bracelet.

The toolkit indicates the status of each tab in the .tableContent file:

•   If the tab's label is preceded by an asterisk (*), the tab contains unsaved changes.

•   If the tab's label is black, the tab isn't included in the file.

•   If the tab's label is green and underlined, the tab is included in the file.

The following image shows four examples:

This tab isn't included in the file and contains unsaved changes.

This tab is included in the file but contains unsaved changes.

This tab isn't included in the file.

This tab is included in the file.
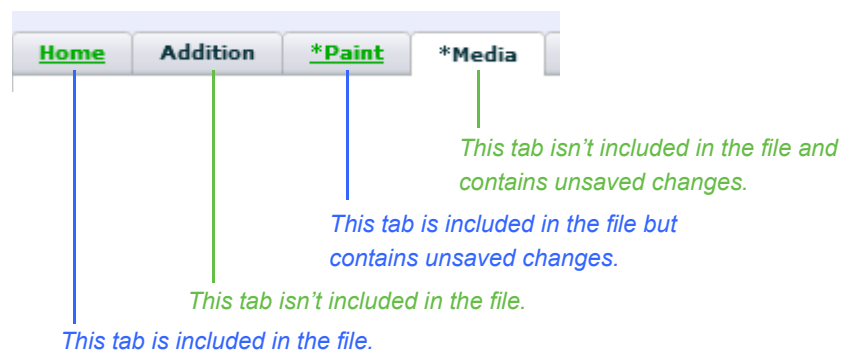
To save the file the first time	1. Click **Save As**. The *Save* dialog box appears. 2. Navigate to an appropriate location on the computer. 3. Type a name for the file in the **File name** box. 4. Click **Save**.
To save the file subsequent times	Click **Save All**.
To remove a tab from the file	1. Click the tab to open it. 2. Click **Remove from Lesson**. The tab's label changes from green and underlined to black.
To remove unsaved changes to a tab	1. Click the tab to open it. 2. Click **Discard Changes**.

Synchronizing Activity Packs

After saving a .tableContent file, you can apply the file to your SMART Table.

Your SMART Table saves all previous activity packs in an archive folder. You can restore any of these activity packs.

NOTE

After you apply a new activity pack, only the applications with tabs saved in the .tableContent file (see page 30) appear in the SMART Table Activities menu.

To apply a new activity pack	1. Turn on your SMART Table. The SMART Table Activities menu appears. 2. Connect the USB storage device bracelet to your SMART Table. The menu changes from **Student** mode to **Teacher** mode. 3. Press **Sync Activities**. A list of all .tableContent files on the USB storage device bracelet appears.

TIP

Press ⟳ to rotate the list 180°.

4. Select the appropriate .tableContent file, and then press **Sync**.

    NOTE

    The name of each .tableContent file must be unique. You're unable to apply a .tableContent file with the same name as one you previously applied.

    Your SMART Table applies the .tableContent file, and a confirmation message appears.

5. Press **OK**.

6. Disconnect the USB storage device bracelet.

    The menu changes from **Teacher** mode to **Student** mode.

To restore a previous activity pack

1. Turn on your SMART Table.

    The SMART Table Activities menu appears.

2. Connect the USB storage device bracelet to your SMART Table.

    The menu changes from **Student** mode to **Teacher** mode.

3. Press **Activity Archives**.

    A list of previous activity packs appears.

    TIP

    Press ⟳ to rotate the list 180°.

4. Select the activity pack you want to restore, and then press **Sync**.

    NOTE

    The previous activity packs are stored on the SMART Table computer rather than the USB storage device bracelet, but you need to connect the USB storage device bracelet to the table to switch to **Teacher** mode.

    Your SMART Table restores the selected activity pack, and a confirmation message appears.

5. Press **OK**.

6. Disconnect the USB storage device bracelet.

    The menu changes from **Teacher** mode to **Student** mode.

Synchronizing Applications

You can download .tableApplication files (see page 30). To apply these files to your SMART Table, place them on the USB storage device bracelet and then complete the following procedure.

👉 **IMPORTANT**

You must place the .application files in the root folder of the USB storage device bracelet.

To apply an application

1. Turn on your SMART Table.

   The SMART Table Activities menu appears.

2. Connect the USB storage device bracelet to your SMART Table.

   The menu changes from **Student** mode to **Teacher** mode.

3. Press **Sync Apps**.

   A list of all .tableApplication files on the USB storage device bracelet appears.

   💡 **TIP**

   Press ⤵ to rotate the list 180°.

4. Select the appropriate .tableApplication file, and then press **Sync**.

   ℹ️ **NOTE**

   The name of each .tableApplication file must be unique. You're unable to apply a .tableApplication file with the same name as one you previously applied.

   Your SMART Table applies the application defined in the .tableApplication file, and a confirmation message appears.

5. Press **OK**.

6. Disconnect the USB storage device bracelet.

   The menu changes from **Teacher** mode to **Student** mode.

Chapter 4

Maintaining Your SMART Table

Your SMART Table requires only minimal maintenance. This chapter describes the four most common maintenance tasks:

- Updating the software

- Orienting the surface

- Cleaning your SMART Table

- Replacing the projector bulb

Updating the Software

The SMART Table Toolkit includes SMART Product Update (SPU). SPU automatically checks the Internet for updates to the SMART Table software. If it finds updates to the SMART Table software, it asks you to connect the USB storage device bracelet to the computer. You can then download the software updates to the USB storage device bracelet. Once the files are on the bracelet, you can install the software updates on your SMART Table by completing the following procedures.

👉 **IMPORTANT**

After updating, use the SMART Table Toolkit included in the update to customize your applications. Don't use the earlier version of the toolkit.

To install updates on your SMART Table

1. Turn on your SMART Table.

   The SMART Table Activities menu appears.

2. Connect the USB storage device bracelet to your SMART Table.

   A message appears, asking whether you want to install the update.

3. Press **OK**.

   Windows Installer appears, and then after a delay, a License Agreement page appears.

4. Press **Agree** four times.

    A message appears indicating that the update is complete.Your SMART Table installs the update, and the SMART Table Activities menu reappears.

5. Disconnect, and then reconnect the USB storage device bracelet.

6. Press **OK**.

    A message appears asking whether you want to copy the SMART Table Toolkit to the USB storage device.

7. If you want to copy SMART Table Toolkit to the USB storage device, press **Make Key**.

8. Disconnect the USB storage device.

To resync the default application

1. Connect the USB storage device bracelet to your SMART Table.

    The menu changes from **Student** mode to **Teacher** mode.

2. Press **Sync Apps**.

    A list of all .tableApplication files on the USB storage device bracelet appears.

     TIP

    Press to rotate the list 180°.

3. Select the **Default** application, and then press **Sync**.

    Your SMART Table applies the application and a confirmation message appears.

4. Press **OK**.

5. Disconnect the USB storage device bracelet.

6. The menu changes from **Teacher** mode to **Student** mode.

Orienting the Surface

Whenever you or a student touch the SMART Table's surface a small ✖ or • should appear. If the ✖ or • doesn't appear where you touched the surface, you may need to orient the surface.

To orient the surface
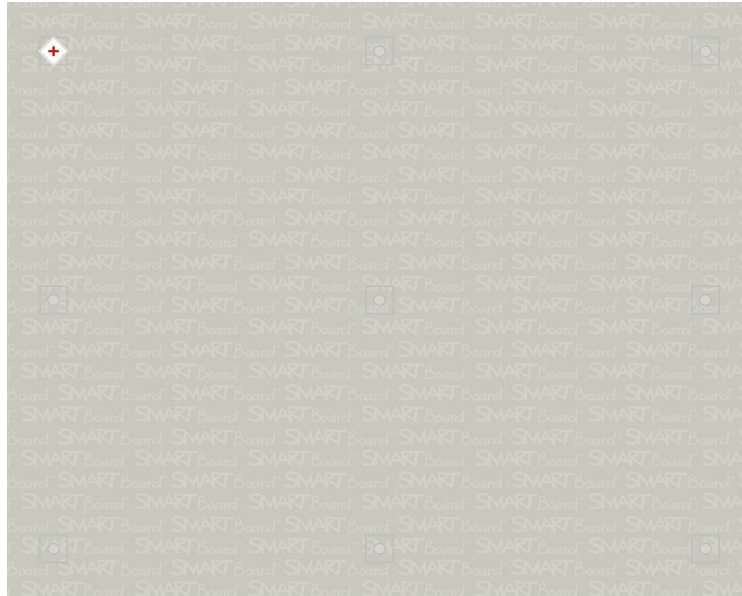
1. Turn on your SMART Table.

   The SMART Table Activities menu appears.

2. Connect the USB storage device bracelet to your SMART Table.

   The menu changes from **Student** mode to **Teacher** mode.

3. Click **Orient**.

   The orientation screen appears.

4. Using your finger, press and hold the center of the first target until the red cross moves to the next target.

5. Repeat step 4 for each target.

   The orientation data saves to your SMART Table's memory, and the SMART Table Activities menu reappears.

6. Disconnect the USB storage device bracelet.

   The menu changes from **Teacher** mode to **Student** mode.

Cleaning Your SMART Table

Use an alcohol-free household glass cleaner, such as Windex® glass cleaner, to clean the surface at regular intervals.

> 👉 **IMPORTANT**
>
> Before you clean your SMART Table, turn it off (see page 6) so that you don't inadvertently start applications when you wipe the surface.

Replacing the Projector Bulb

The average life of a projector lamp is 2000 hours. When the projector lamp has been used for 2000 hours or more, the following message appears on your SMART Table's surface:

```
It is time to replace the lamp. Use the procedure in the
User's Guide to replace the lamp as soon as possible.
```

Contact your reseller (see page 51) for a replacement lamp as soon as possible. After 2100 hours of use, the following message appears on your SMART Table's surface for 10 seconds, and then the projector turns off:

```
The lamp has exceeded its service life! The projector will
not turn on until you replace the lamp.
```

> ℹ️ **NOTE**
>
> In some situations, the projector lamp may start to dim before 2000 hours of use. Replace the projector lamp in these situations as well.

Refer to the document included with the replacement lamp for instructions.

Chapter 5
Troubleshooting

If you set up your SMART Table following the procedures in the *SMART Table 230i Installation Instructions* (document 131863), touch should work without any problems. However, if problems occur, follow the procedures in this chapter to resolve them.

Setting Up Your SMART Table for Troubleshooting

The troubleshooting procedures in the following sections require you to close SMART Table Activities, and then connect a keyboard and mouse.

You can connect any keyboard and mouse that have USB connectors to your SMART Table using the two USB receptacles on the side of the unit.

To set up your SMART Table for Troubleshooting

1. Turn on your SMART Table.

   The SMART Table Activities menu appears.

2. Connect a USB storage device to your SMART Table.

   The menu changes from **Student** mode to **Teacher** mode.

3. Press ✖.

   The SMART Table Activities software closes.

4. Disconnect the USB storage device bracelet.

5. Connect a keyboard and mouse to the USB connectors on the side of your SMART Table.

   👉 **IMPORTANT**

   Do not place the keyboard or mouse on the touch surface. The camera may interpret the mouse and keyboard as touches if they are placed on the touch surface.

Diagnosing Basic Problems with Touch

The following table presents basic touch-related problems and solutions:

Problem	Solution
Touch isn't working, and Windows desktop is visible.	SMART Table software isn't installed, or the software isn't running.
	Follow the instructions in the *ST230i SMART Table Installation Guide* (document [131863](#)) provided with your SMART Table.
Touch isn't working, and a message appears informing you that the camera failed to initialize.	The camera may have disconnected from the computer during shipping.
	Open the SMART Table cabinet and reconnect the cable from the camera to the computer. If the camera doesn't initialize, contact SMART Technical Support (see page 51).
Touch isn't working properly, and one or more white spots appear in the two upper quadrants of the *SMART Touch Service* window.	Infrared radiation may be interfering with the camera's ability to sense touch.
	Turn off or remove any pot lights or other incandescent lighting in the room.
	Close any open blinds or curtains to prevent direct sunlight from shining on your SMART Table.

Problem	Solution
Touch isn't working or doesn't line up with your contact point.	The orientation may be incorrect. When orienting the surface (see page 37), do the following: • Press and hold each target until the red cross moves to the next target. • Touch the surface lightly. Touching the surface hard may register as multiple touches. ☞ **IMPORTANT** Ensure the cabinet doors are closed when orienting or using the table.
You've followed the solutions in this table but touch still isn't working.	Remodel the background (see page 42).

Remodeling the Background

When you turn on your SMART Table, the camera models the touch surface's background. This allows the camera to detect touch. Problems with background modeling can cause the camera to detect extra touches, causing your SMART Table to respond erratically. Remodel the background in these situations to remove the detection of extra touches.

To remodel the background

1. Set up your SMART Table for troubleshooting (see page 39).

2. Click the **SMART Touch Service** task bar button.

   The *SMART Touch Service* window appears.

3. Ensure the keyboard, the mouse and your fingers aren't on the touch surface, and then select **Calibration > Model Background**.

   Your SMART Table's software models the background. When you move your fingers across the touch surface, a set of red markers appears in the bottom-left quadrant of the *SMART Touch Service* window.
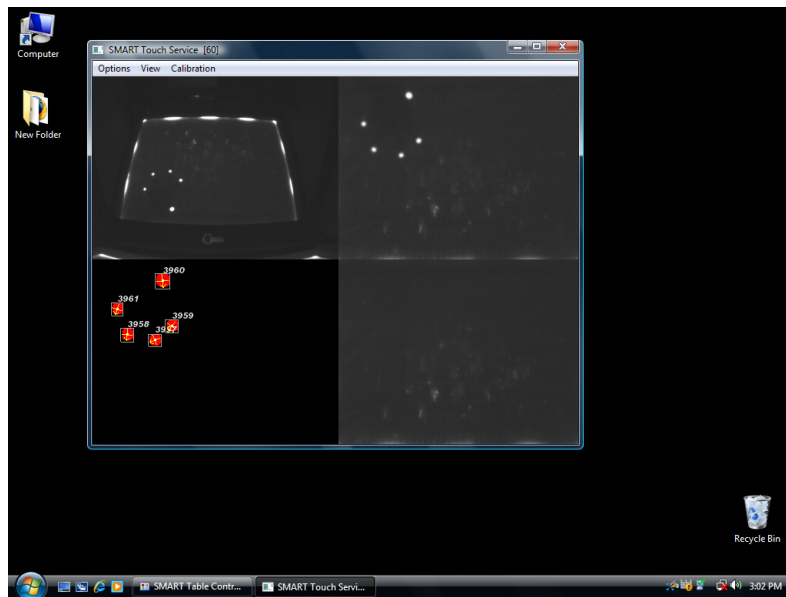
4. If touch is working correctly, restart the SMART Table applications (see page 44).

   OR

   If touch isn't working correctly, adjust the threshold as described on page 43.

Adjusting the Threshold

If your SMART Table continues to behave erratically after you remodel the background, the camera threshold may be set too high. This causes the camera to detect more light than necessary. Adjust the threshold to resolve this problem.

> **NOTE**
>
> You shouldn't need to perform this procedure unless your table is located in an area with high levels of ambient infrared (IR) light, such as near a window or under bright incandescent lights.

To adjust the threshold

1. Set up your SMART Table for troubleshooting (see page 39).

2. Press the **SMART Touch Service** task bar button.

   The *SMART Touch Service* window appears.

3. Ensure the keyboard, the mouse and your fingers aren't on the touch surface, and then select **Options > Settings**.

   The *SMART Touch Options* dialog box appears.

4. Press the **Restore Defaults** button, and then check to see if touch is working correctly.

5. If touch isn't working correctly, move the **Threshold** slider left until the red markers in the lower-left of the *SMART Touch Service* window stop flickering.

   > **CAUTION**
   >
   > Do not move any of the other sliders in the *SMART Touch Options* dialog box without consulting SMART Technical Support (see page 51).
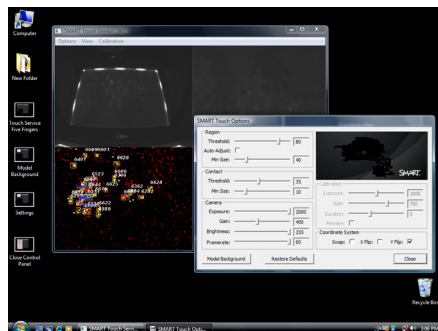
The threshold is set too high.   *The threshold is set correctly.*
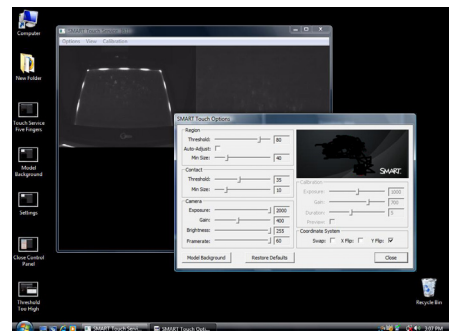
> **NOTE**
>
> If you move the **Threshold** slider too far left, you'll have to press down hard for the software to detect your touch.

6. If touch is working correctly, restart SMART Table Activities (see page 44).

   OR

   If touch isn't working correctly, contact SMART Technical Support (see page 51).

Restarting SMART Table Activities

After resolving problems with touch, restart the SMART Table Activities software and resume using your SMART Table.

To restart SMART Table Activities

1. Minimize, but don't close, the *SMART Touch Service* window.

2. Double-press the **SMART Table Activities** shortcut icon.

   The SMART Table Activities software appears. You can resume using your SMART Table.

Appendix A

Using the Remote Control

Your SMART Table includes a remote control for the projector. SMART Technologies configures the projector for your SMART Table; therefore, you need to use the remote control only in the following situations:

- Setting the projector for high altitude use

- Resetting the projector lamp time after replacing the projector lamp
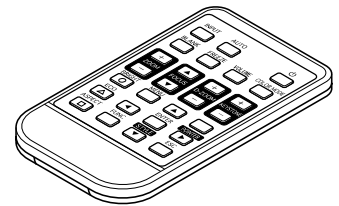
🔺 **CAUTION**
SMART Technologies recommends that you use the remote control to complete only the procedures documented in this appendix. Using the remote control for other purposes may change the projector's settings, which were specifically configured for the SMART Table.

Locating the Remote Control

The remote control is located inside the cabinet on the back of the computer:
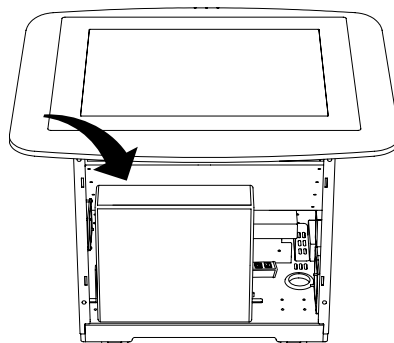
ℹ️ **NOTE**
There are magnets on the remote control that allow you to place it on metallic surfaces, including the back of the computer.

Setting the Projector for High Altitude Use

If your school is 5000' to 10,000' (1500 m to 3000 m) above sea level, set the projector for high altitude use. This increases the cooling efficiency of the projector's fans.

☞ **IMPORTANT**

Do not operate your SMART Table's projector in environments that are higher than 10,000' (3000 m) above sea level.

To set the projector for high altitude use

1. Press **MENU** on the remote control.

   The projector's setup menu appears.

2. Press ▼ until you select **Option Settings 2**, and then press **ENTER**.

3. Press ▼ until you select **High Altitude**, and then press **ENTER**.

4. Press ◀ or ▶ to change the high altitude use setting from **Off** to **On**, and then press **ENTER**.

5. Press **MENU** to close the projector's setup menu.

Resetting the Projector Lamp Use Time

Refer to the document included with the replacement lamp for instructions.

Replacing the Remote Control Battery

Replace the battery in the remote control when it has drained and the remote control no longer works as a result.

The remote control uses a CR2025 battery, which you can purchase from a retail store or supplier.

⚠ **WARNING**

Install only a CR2025 battery in the remote control. Installing any other type of battery can result in an explosion and risk of fire and personal injury.

☞ **IMPORTANT**

Dispose of the old battery following local rules and regulations. more information.

To replace the remote control battery

1. Place your fingernail on the groove of the battery holder on the back of the remote control.

2. While holding down the release on the side (2a), pull out the holder (2b).

3. Remove the old battery from the battery holder.

4. Place the new battery in the battery holder.

   ⚠ **WARNING**

   Ensure the + side of the battery is facing up (so that you can see it). Do not install the battery upside down.

5. Place the battery holder back into the remote control.
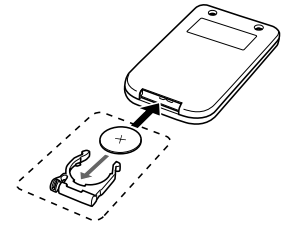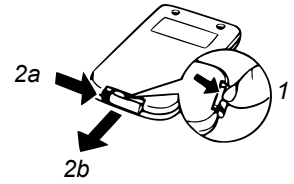
Hardware Environmental Compliance

SMART Technologies supports global efforts to ensure that electronic equipment is manufactured, sold and disposed of in a safe and environmentally friendly manner.

Waste Electrical and Electronic Equipment Regulations (WEEE Directive)

Waste Electrical and Electronic Equipment regulations apply to all electrical and electronic equipment sold within the European Union.

When you dispose of any electrical or electronic equipment, including SMART Technologies products, we strongly encourage you to properly recycle the electronic product when it has reached end of its life. If you require further information, please contact your reseller or SMART Technologies for information on which recycling agency to contact.

Restriction of Certain Hazardous Substances (RoHS Directive)

This product meets the requirements of the European Union's Restriction of Certain Hazardous Substances (RoHS) Directive 2002/95/EC.

Consequently, this product also complies with other regulations that have arisen in various geographical areas, and that reference the European Union's RoHS directive.

Batteries

Batteries are regulated in many countries. Check with your reseller to find out how to recycle used batteries.

Packaging

Many countries have regulations restricting the use of certain heavy metals in product packaging. The packaging used by SMART Technologies to ship products complies with applicable packaging laws.

Covered Electronics Devices

Many U.S. states classify monitors as Covered Electronic Devices and regulate their disposal. Applicable SMART Technologies products meet the requirements of the Covered Electronic Devices regulations.

China's Electronic Information Products Regulations

China regulates products that are classified as EIP (Electronic Information Products). SMART Technologies products fall under this classification and meet the requirements for China's EIP regulations.

U.S. *Consumer Product Safety Improvement Act*

The United States has enacted the *Consumer Product Safety Improvement Act* which limits the lead (Pb) content in products. SMART Technologies is committed to complying with this initiative.

Customer Support

Online Information and Support

Visit www.smarttech.com/support to view and download user's guides, how-to and troubleshooting articles, software and more.

Training

Visit www.smarttech.com/trainingcenter for training materials and information about our training services.

Technical Support

If you experience difficulty with your SMART product, please contact your local reseller before contacting SMART Technical Support. Your local reseller can resolve most issues without delay.

> **i NOTE**
> To locate your local reseller, visit www2.smarttech.com/st/en-US/Where+to+Buy.

All SMART products include online, telephone, fax and e-mail support:

Online	www.smarttech.com/contactsupport
Telephone	+1.403.228.5940 or Toll Free 1.866.518.6791 (U.S./Canada) (Monday to Friday, 5 a.m. – 6 p.m. Mountain Time)
Fax	+1.403.806.1256
E-mail	support@smarttech.com

Shipping and Repair Status

Contact SMART's Return of Merchandise Authorization (RMA) group, Option 5, +1.866.518.6791, for shipping damage, missing part and repair status issues.

General Inquiries

Address	SMART Technologies
	3636 Research Road NW
	Calgary, AB T2L 1Y1
	CANADA
Switchboard	+1.403.245.0333 or
	Toll Free 1.888.42.SMART (U.S./Canada)
Fax	+1.403.228.2500
E-mail	info@smarttech.com

Warranty

Product warranty is governed by the terms and conditions of SMART's "Limited Equipment Warranty" that shipped with the SMART product at the time of purchase.

Registration

To help us serve you, register online at www.smarttech.com/registration.

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Contact SMART Technologies

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