# 18-Week Computer Literacy Curriculum for Young Learners

This curriculum provides a detailed, step -by-step guide for integrating guided learning with independent creative practice to build computer literacy skills for a young beginner (target age ~7), tailored to the child's individual interests (e.g., dinosaurs , space, animals, fantasy, vehicles, art, music). It begins with a strong foundation in online safety and digital citizenship, incorporating the Be Internet Awesome curriculum and optional 3D printing concepts. This version includes notes on adaptability, enhanced creative storytelling, earlier connection to the final project, and reflective moments.

#### **Curriculum Overview:**

- **Target Audience:** Young beginner computer users (around age 7), assumes basic reading ability. Adult guidance is essential.
- **Sessions:** Two 30-minute guided sessions + one 20-minute independent session per week.
- Typing Practice: Integrate 5 10 minutes of touch typing ( TypingClub / BBC Dance Mat Typing) into one or both *guided* sessions most weeks, starting Week 4.
- **Final Project:** A culminating "Digital Creation Story" project combining multiple skills learned (Weeks 17-18), themed around the child's interests. Introduced conceptually around Week 4/5 and referenced periodically.
- **Be Internet Awesome Theme:** "When in Doubt, Talk It Out" This crucial message will be introduced in Week 1 and reinforced throughout discussions involving online interactions.
- Flexibility & Adaptability: This plan is a guide, not a rigid script. Observe the child's engagement, interest, and pace. If they grasp concepts quickly, feel free to introduce optional challenges or move slightly faster. If they need more time on a topic, allow for it, perhaps simplifying the next activity or spending an extra session. The goal is confident understanding an d enjoyment, not just completing the checklist. Adapt activity themes (drawings, stories, searches) to match the child's current passions.

(Note: Software like Paint 3D, Notepad, WordPad, File Explorer, and often Microsoft Clipchamp are typically built into Windows 11 and don't require separate installation.

Alternatives like Google Docs/Slides/Sheets, Canva, Scratch, Tinkercad are web - based and free but may require account creation.)

#### Week 1: Internet Ready - Safety First!

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 1 LOs and Activities.
  - Prepare analogies for explaining the internet (library, city, network of roads).
  - Review the 5 BIA concepts and how to explain them simply.
  - Bookmark Google Interland: Reality River.
  - o Prepare materials for "Private vs. Public Info" activity (paper/whiteboard,

- markers).
- Ensure Paint 3D (or alternative simple drawing tool) is accessible.
- Prepare/print the visual instruction card and optional "Help Card" for the independent session (referencing general setup tips below).
- Set up the visual timer.
- Flexibility Note: Gauge the child's existing awareness of online concepts. If completely new, keep explanations very simple. If they show some understanding, use slightly more specific examples.

#### Guided Session 1: Our Digital World & Being Awesome Online

- LO: Define the internet simply; understand global connection; introduce "digital citizen"; introduce 5 BIA concepts; emphasize "Talk It Out!".
- Activity:
  - 1. **Discuss the Internet:** Use analogies (web, city, library). Explain connection, learning, communication, games.
  - 2. **Introduce Digital Citizenship:** Explain online responsibility, like being a good citizen offline (respectful, safe).
  - 3. Introduce BIA Concepts: Explain Smart (Share w/ Care), Alert (No Fakes), Strong (Secrets), Kind (Be Kind), Brave (Talk It Out) simply.
  - 4. **Emphasize "Talk It Out":** Stress telling a trusted adult about *anything* confusing or uncomfortable online. This is being brave!
- Reflection (1 -2 min): Ask: "What's one thing the internet lets us do?" "What's the
  most important rule if something feels weird online?"

# • Guided Session 2: Staying Alert & Protecting Our Secrets

- LO: Understand online risks (tricks/fakes); identify tricky content examples; distinguish public vs. private info; practice identifying tricks via gameplay.
- Activity:
  - 1. **Discuss "Tricky" Things:** Use examples (fake prizes, quizzes asking private info). Use "tricks" instead of phishing/scam initially.
  - 2. **Play Interland Reality River**: Play Level 1 of <u>Google Interland</u>: <u>Reality River</u>, discussing choices made and why things might be fake.
  - 3. **Private vs. Public Info:** Brainstorm list (Okay: favorite color, drawing, first name in supervised context; Secret: full name, birthday, address, phone, school, passwords). Explain *why* secrets are kept safe.
  - 4. **Reinforce "Talk It Out":** Remind the child to tell you about tricky messages or requests for secrets.
- Reflection (1 -2 min): Ask: "What makes some information 'secret' online?" "What
  did the game teach you about spotting fakes?"

#### Independent Session (20 min): "Safety Explorer"

 Instruction: "Practice our safety rules! Either: 1) Open Paint 3D & draw a picture showing a safety rule (like 'Be Kind' or 'Talk to a Grown - Up'). OR 2) Play Reality River on Interland again & try to beat your score!"

- Skills Reinforced: Recalling safety concepts, digital art OR game practice, mouse control.
- o Setup: Visual timer, Paint 3D access, link to Interland, visual instruction card.

#### Week 2: Window Wonders & Folder Forts

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 2 LOs and Activities.
  - Ensure Calculator, Paint 3D, File Explorer, Notepad (or simple text editor) are easily accessible.
  - o Prepare file/folder analogy (toy bins, drawers, book shelves).
  - Prepare/print the visual instruction card.
  - Set up the visual timer.
  - Flexibility Note: If window management is intuitive, spend more time on file/folder concepts. If file organization is confusing, use physical folders/papers first as an analogy before moving to the computer.

# Guided Session 1: Exploring the Desktop

 LO: Identify Desktop, Taskbar, Start Menu; open apps; use window controls (min/max/close); arrange windows.

# Activity:

- 1. **Tour:** Point out Desktop, Taskbar, Start Menu; explain functions simply (workspace, quick access, find programs).
- 2. **Launch Apps:** Open Calculator & Paint 3D via Start Menu. Show app icons on Taskbar. Pin Paint 3D (Right click icon -> Pin).
- 3. **Window Controls:** Practice minimize, maximize/restore, close buttons. Observe effects.
- 4. **Arrange Windows:** Move windows by dragging top bar. Try arranging side by-side (Windows snap feature).
- Reflection (1 -2 min): Ask: "What does the 'X' button do on a window?" "How can you find a program if it's not on the taskbar?"

# Guided Session 2: Building File Homes

 LO: Define file/folder (analogy); open File Explorer; navigate; create/name new folder; create sub -folders; use 'Save As'; save Notepad file to specific folder.

- 1. **Analogy:** Explain files (drawings, stories) & folders (containers). Use toy bin/drawer analogy.
- 2. **Open File Explorer:** Use taskbar icon or Start Menu search.
- 3. Navigate: Show common locations (Desktop, Documents). Click around.
- Create Main Folder: In Documents, Right-click -> New -> Folder. Name "My Projects".
- Create Sub -folders: Open "My Projects". Create sub -folders based on child's interests (e.g., "Drawings," "Stories," "Dinosaur\_Pics," "Car Designs"). Explain organization.

- 6. **Open Notepad & Type:** Open Notepad. Type name or simple sentence.
- 7. Save As: File -> Save As... Explain choosing location/name.
- 8. **Navigate & Save:** In 'Save As' window, navigate: Documents -> My Projects -> Stories (or other relevant folder). Name file "First Story". Click Save.
- 9. **Verify:** Close Notepad. Use File Explorer to find and open the saved file.
- Reflection (1 -2 min): Ask: "Why is it helpful to put files into folders?" "What does 'Save As' let us do that 'Save' doesn't always do?" (Choose location/name first time).

#### Independent Session (20 min): "Folder Fun"

- Instruction: "Practice organizing! In 'My Projects', create two new folders for things you like (maybe 'Favorite Games', 'Cool Creatures'). Then, open Paint 3D, draw a picture for one new folder, & use 'Save As' to save it inside that folder."
- o Skills Reinforced: Creating folders, saving files using 'Save As', basic Paint 3D.
- Setup: Simple visual instruction card, File Explorer, Paint 3D.

# Week 3: Digital Scribes & Canvas Creations

#### • Teacher Preparation (Before the Week's Sessions):

- Review Week 3 LOs and Activities.
- Ensure Notepad/WordPad (or other simple text editor) and Paint 3D (or similar drawing tool) are accessible. Check formatting options if using WordPad/Word/Google Docs.
- o Prepare/print visual instruction card & optional Paint 3D reference sheet.
- Set up visual timer.
- Flexibility Note: If typing is challenging, focus on accuracy over quantity, or use on-screen keyboard temporarily. If Paint 3D is highly engaging, allow more exploration or suggest the 2 -3 panel mini-story for the independent session.

#### Guided Session 1: Word Wizardry

- LO: Use simple text editor; practice typing sentences (letters, space, enter, backspace); select text; apply basic formatting (optional: bold, size, color).
- Activity:
  - 1. Open Editor: Open Notepad/WordPad. Explain as digital paper.
  - 2. **Typing Practice:** Type 2-3 sentences about a favorite topic (animal, game, place). Guide key usage (Shift, space, enter, backspace). Focus on accuracy.
  - 3. **Selecting Text:** Demonstrate click & drag to select text. Practice selecting words/sentences. Explain selection tells computer what to change.
  - Basic Formatting (WordPad/Word/Docs Only Optional): Show Bold (B), Size dropdown, Color options. Practice on selected text (e.g., make title bold).
  - 5. **Save:** File -> Save As... Navigate to "Stories" folder (or relevant one). Save as "My Story".
- Reflection (1 -2 min): Ask: "How do you fix a typing mistake?" "What does

selecting text let you do?"

#### Guided Session 2: Paint 3D Palette

- LO: Use Paint 3D tools (Brushes, 2D Shapes, Colors, Fill); understand digital canvas; save artwork to folder.
- Activity:
  - 1. Open Paint 3D: Explain canvas.
  - 2. Explore Brushes: Try marker/pencil. Change colors via palette.
  - 3. **Explore 2D Shapes:** Draw shapes (circle, square). Finalize (checkmark). Change fill/line color via options.
  - 4. **Fill Tool:** Draw closed shape. Use Fill tool (paint bucket) inside. Explain limitation (works best on closed shapes).
  - 5. **Create Scene:** Combine tools to draw scene based on interests (favorite place, fantasy creature, vehicle). *Storytelling Prompt:* "Could you draw a character, and then another picture showing where they live or what they are doing?"
  - 6. **Save:** Menu -> Save As-> Image. Navigate to "Drawings". Name "My Drawing". Save.
- Reflection (1 -2 min): Ask: "What was your favorite tool in Paint 3D today?" "What happens if you try to fill a shape that isn't closed?"
- Independent Session (20 min): "Story Picture Sequence"
  - Instruction: "Let's tell a tiny story with pictures! Open Paint 3D. Think of a very simple 2-step story based on your interests (e.g., 1. Dinosaur sleeping. 2. Dinosaur waking up! OR 1. Car driving. 2. Car stops!). Draw the *first* picture, save it ('Story\_Pic1'). Then, do File-> New, draw the *second* picture, and save it ('Story\_Pic2') in your 'Drawings' folder."
  - Skills Reinforced: Paint 3D tools, saving multiple files, simple visual sequencing/storytelling.
  - Setup: Visual timer, Paint 3D quick reference sheet (optional), access to "Drawings" folder.

#### Week 4: Internet Island & Search Skills

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 4 LOs and Activities.
  - Ensure browser works, safe search enabled if possible.
  - Bookmark <u>Kiddle</u>, <u>NASA Kids' Club</u>, <u>Nat Geo Kids</u> (or other relevant kid safe sites based on interest).
  - Prepare discussion points on website trustworthiness (known source, looks professional/kid -friendly vs cluttered/ad -heavy).
  - Set up typing practice site (TypingClub / BBC Dance Mat).
  - Prepare/print visual instruction card.
  - o Set up visual timer.
  - o Flexibility Note: If searching is easy, try slightly more complex search terms (e.g.,

- "what did stegosaurus eat"). If comparing sites is hard, focus just on identifying known sources vs. unknown ones.
- Final Project Link: "We're learning how to find information online. Later, when we
  do our big 'Digital Creation Story' project, you might need to look up facts about
  your chosen topic, so this skill will be super helpful!"

# Guided Session 1: Web Browser Voyage & Safe Sites

 LO: Use browser (address bar, back/forward, refresh); navigate safe sites; use kid-friendly search engine (<u>Kiddle</u>); perform simple keyword searches; begin typing practice.

# Activity:

- 1. **Browser Tour:** Open browser. Point out address bar, back/forward, refresh. Explain functions.
- Visit Safe Sites: Visit pre-selected safe sites relevant to interests (e.g., <u>NASA Kids' Club</u>, <u>Nat Geo Kids</u>, museum kids' pages). Discuss why they are safe/good (trusted names, educational).
- 3. Introduce Kiddle: Go to Kiddle. Explain it's a safer search engine for kids.
- 4. **Practice Searching:** Help pick keywords for interests (e.g., "T -Rex facts," "how rockets work," "pictures of puppies"). Type into Kiddle. Look at image/web results.
- 5. **Typing Practice (5 10 min):** Start first lesson on <u>TypingClub</u> or <u>BBC Dance</u> Mat. Focus on posture, home row.
- Reflection (1 -2 min): Ask: "What does the address bar show?" "Why might we
  use Kiddle instead of a regular search engine sometimes?"

#### Guided Session 2: Thinking About Search Results

 LO: Understand search results link to different sites; identify simple trustworthiness clues (known source, appearance); compare info from two sources; reinforce asking adult if unsure.

- 1. **Review Search:** Perform search on <u>Kiddle</u> (e.g., "how fast can cheetah run?"). Explain each link = different website.
- 2. **Evaluate Links (Simple):** Look at top results. Ask: "Know this website name?" (e.g., Nat Geo Kids vs. random name). "Description helpful?" Click 1-2 links. Ask: "Easy to read? For kids or grown-ups? Lots of ads?"
- 3. **Compare Information:** Find simple fact (e.g., cheetah speed, number of legs on insect) on two different kid -friendly sites via Kiddle. Ask: "Do they match?" Discuss reliability.
- 4. **Reinforce "Talk It Out":** Remind: "If website looks strange, confusing, asks for info, what do you do?" (Tell a grown -up!).
- Reflection (1 -2 min): Ask: "How can you guess if a website might be good before clicking?" "Why look at more than one website?"
- Independent Session (20 min): "Fact Collector"

- Instruction: "Be an info detective! Use <u>Kiddle</u> to find one interesting fact about a topic you like (e.g., dinosaurs, planets, a favorite animal). Write the fact (or draw a picture about it) in Notepad/Paint 3D or just be ready to tell me."
- Skills Reinforced: Using kid-safe search engine, formulating queries, extracting information.
- Setup: Visual instruction card with Kiddle link, Notepad/Paint 3D (optional), visual timer.

#### Week 5: Code Sparks - Hello Scratch!

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 5 LOs and Activities.
  - Ensure Scratch parent/teacher and student accounts are created and login works (Scratch).
  - Refresh understanding of Scratch interface & basic Motion/Looks/Events/Control blocks.
  - Have the typing practice site ready.
  - Prepare/print visual instruction card.
  - Set up visual timer.
  - Flexibility Note: If block coding is intuitive, challenge them to combine more blocks or explore Sounds early. If confusing, stick to simple 1 -2 block scripts and repeat clicking them.
  - Final Project Link: "We're starting to learn Scratch! This is a tool we could use to make parts of your final 'Digital Creation Story' move, like making characters walk or objects fly."

# Guided Session 1: Cracking the Code

 LO: Define coding (instructions); navigate Scratch interface (Sprite, Stage, Blocks); understand block categories by color; drag/drop blocks; use basic Motion blocks (move, turn).

- 1. **Intro to Coding:** Explain coding = recipe/instructions for computer; blocks = ingredients/steps. Show simple recipe vs. Scratch script.
- 2. **Scratch Interface Tour:** Log in to <u>Scratch</u>, click 'Create'. Point out Stage (action area), Sprite (character), Block Palette (block menu), Scripting Area (building space).
- 3. **Explore Blocks:** Click different categories (Motion -Blue, Looks-Purple, Sound-Pink, Events-Yellow, Control-Orange) to show variety. Explain colors group similar actions.
- 4. **First Script:** Drag move 10 steps (Motion) to scripting area. Click block -> Sprite moves. Drag turn 15 degrees. Click block -> Sprite turns.
- 5. **Experiment:** Let the child drag out & click a few different Motion blocks (e.g., go to random position, glide) to see effects.
- 6. **Typing Practice (5 10 min):** Continue typing lessons. Focus on home row.

 Reflection (1 -2 min): Ask: "What does the 'Motion' block category help the sprite do?" "What happens when you click a block in the scripting area?"

# • Guided Session 2: Making Sprites Move & Talk

- LO: Understand Event blocks (when green flag clicked); connect blocks into scripts; use Looks blocks (say, think, next costume); use Control blocks (wait).
- Activity:
  - 1. **Starting Scripts:** Introduce 'Events' (yellow). Drag out when green flag clicked. Explain this is the "Go!" button for the script attached below it.
  - 2. **Connect Blocks:** Snap move 10 steps under the event block. Click green flag icon above stage -> Sprite moves. Snap turn 15 degrees below move block. Click flag again. Show how blocks run in order.
  - 3. Looks Blocks: Go to 'Looks' (purple). Add say Hello! for 2 secs. Click flag. Click inside "Hello!" and change text (e.g., "Let's explore!"). Try think Hmmm... for 2 secs. Add next costume block (if sprite has multiple costumes) click flag repeatedly to see it change appearance.
  - 4. **Wait Block:** Go to 'Control' (orange). Add a wait 1 secs block between actions (e.g., move, wait, say, wait, next costume). Click flag, observe the pauses making actions distinct.
  - 5. **Save Project:** Click 'File' -> 'Save now'. Guide the child to click the title box (default "Untitled") above the stage and type a name like "My First Animation". Explain Scratch saves online when logged in.
- Reflection (1 -2 min): Ask: "What does the green flag block do?" "How does the 'wait' block change how the script runs?" "What kind of things can 'Looks' blocks do?"

#### Independent Session (20 min): "Sprite Explorer"

- Instruction: "Open your Scratch project (or start a new one). Can you make your sprite do something new when the green flag is clicked? Try adding a block from the 'Sound' category (like 'start sound Meow'), or maybe use a 'Looks' block you haven't tried yet (like 'ch ange color effect'). Experiment and see what happens! Remember to save your changes."
- **Skills Reinforced:** Scratch interface navigation, experimenting with different block categories (Sound, Looks), building simple scripts, saving work.
- Setup: Access to Scratch (logged in), visual timer.

#### Week 6: Scratch Stories & Loopy Logic

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 6 LOs and Activities.
  - Ensure login access to Scratch.
  - Familiarize yourself with adding backdrops, adding sprites from library, the forever and repeat loops, adding/playing sounds, and the difference between touching condition and broadcast/receive events in Scratch.
  - Have the typing practice site ready.

- Prepare/print the visual instruction card for the independent session.
- Set up the visual timer.
- Flexibility Note: If loops are confusing, focus on repeat first with small numbers. If interaction is tricky, stick to one method (e.g., just touching) rather than introducing both.
- Storytelling Prompt: Encourage naming sprites meaningfully and choosing backdrops/sounds that fit a simple story idea (e.g., "Let's make the dinosaur roar when the explorer gets close!").

# • Guided Session 1: Setting the Scene

 LO: Choose and add a backdrop from the Scratch library; add a new sprite from the library; position sprites on the stage; implement simple interaction between two sprites using either if touching or broadcast/receive.

# • Activity:

- 1. **Add Backdrop:** Open Scratch project. Click 'Choose a Backdrop' (bottom right). Browse library (e.g., 'Fantasy', 'Outdoors') and select one.
- 2. **Add Sprite:** Click 'Choose a Sprite' (cat icon). Browse library (e.g., 'Animals', 'People') and select a second sprite.
- 3. **Position Sprites:** Click and drag sprites on stage. Show selecting which sprite to code by clicking its icon below stage.

# 4. Interaction Option 1 (Touching):

- Select Sprite 1. Build script: when green flag clicked -> forever (Control) -> if <touching [Sprite 2 v]?> then (Sensing inside Control if).
- Inside if, drag say Ouch! for 1 secs (Looks).
- Select Sprite 2. Add movement: when green flag clicked -> move 10 steps.
- Run (green flag). Drag Sprite 2 to touch Sprite 1; observe reaction. Stop script.

# 5. Interaction Option 2 (Broadcast - Alternative):

- Select Sprite 1. Script: when green flag clicked -> move 50 steps -> wait 1 secs -> broadcast [message1 v] (Events). Click 'New message', name it "greeting", click OK.
- Select Sprite 2. Script: when I receive [greeting v] (Events) -> say
   Hello back! for 2 secs (Looks).
- Run (green flag). Observe sequence. Explain broadcast = secret signal.
- 6. Typing Practice (5 10 min): Continue typing lessons.
- Reflection (1 -2 min): Ask: "How did we make the sprites interact?" "What does broadcast/receive do?" or "What does the 'touching' block check for?"

#### Guided Session 2: Repeat That! Loops & Sounds

o LO: Understand and use forever loop for continuous action; use repeat [] loop

for fixed repetitions; add sounds from Scratch library; use sound blocks (play sound until done, start sound); use when this sprite clicked event.

#### Activity:

- Forever Loop: Select sprite. Script: when green flag clicked -> forever ->
   (Inside) move 10 steps -> if on edge, bounce (Motion). Click flag ->
   continuous movement. Click red stop sign. Explain forever = keep doing
   until stopped.
- Repeat Loop: Script: when green flag clicked -> repeat [4] (Control) -> (Inside) turn right 90 degrees (Motion) -> wait 0.5 secs (Control). Click flag -> turns square. Change '4' to '10', '90' to '36'. Click flag -> slow spin. Explain repeat = fixed number of times.
- 3. **Add Sounds:** Select sprite. Click 'Sounds' tab. Click 'Choose a Sound'. Browse library (e.g., 'Effects', 'Loops'), pick sound. Sound added to list.
- 4. **Play Sounds in Script:** Back to 'Code' tab. Drag play sound [sound v] until done (Sound) into script. Try start sound [sound v] discuss difference (waits vs. continues).
- 5. **Click Event:** Try script: when this sprite clicked (Events) -> start sound [sound v] (Sound). Click sprite on stage -> plays sound.
- 6. Save Project: File -> Save now. Name "Loops and Sounds".
- Reflection (1 -2 min): Ask: "What's the difference between 'forever' and 'repeat'?" "How do you add a sound to your sprite?"
- Independent Session (20 min): "Scratch Story Scene"
  - Instruction: "Build a mini-scene with action! Start new Scratch project. Choose backdrop & at least one sprite. Make sprite move or spin using a loop when green flag clicked. Bonus: Add sound effect when sprite moves or when you click it! Save project."
  - Skills Reinforced: Scratch basics (sprites, backdrops, motion, looks, sound, events, loops).
  - Setup: Scratch access, visual timer.

#### Week 7: Keyboard Quests & Digital Post

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 7 LOs and Activities.
  - Have typing practice site ready (<u>TypingClub</u> / <u>BBC Dance Mat</u>) and know child's current level/lesson.
  - Prepare for supervised email practice: Decide on WordPad drafting or supervised child-safe email account (have login, be comfortable supervising).
  - Prepare discussion points/scenarios for email safety, linking back to Week 1/BIA.
  - Prepare/print visual instruction card.
  - Set up visual timer.
  - Flexibility Note: If typing is progressing well, introduce punctuation keys. If email concepts are tricky, spend more time drafting offline or discussing safety

scenarios.

### Guided Session 1: Typing Tune - Up

- LO: Continue practicing touch typing (accuracy/rhythm); identify keys without looking; complete lesson/level in typing program.
- Activity:
  - 1. **Posture Check:** Review good typing posture (sit tall, feet flat, wrists straight).
  - 2. **Typing Practice (15 -20 min):** Log in to <u>TypingClub</u> or <u>BBC Dance Mat Typing</u>. Work through next lesson/level. Offer encouragement.
  - 3. **Keyboard Game (Optional):** Quick "find the key" game without looking (e.g., "Find P," "Find Shift").
- Reflection (1 -2 min): Ask: "Which keys are easiest/hardest for you right now?"
   "Did you notice your accuracy improving?"

#### Guided Session 2: Email Essentials

- LO: Identify email interface parts (To, Subject, Body, Send); understand purpose; compose simple, polite email (greeting/closing); understand basic email safety (known people, no strange links/attachments, tell adult if weird).
- Activity:
  - 1. **Email Purpose:** Discuss email use (messages, pictures fast). Compare to letters.
  - Interface Tour (Simulated/Supervised): Use WordPad draft or supervised email account. Point out 'To' (address), 'Subject' (title), 'Body' (message). Show 'Send' button (emphasize not clicking without permission).
  - 3. **Compose Practice Email:** Draft simple email to family/pretend:
    - To: Type/select address (supervised).
    - **Subject:** Write short title ("Hello!", "My Scratch Project"). Explain good subjects help receiver.
    - Body: Start with greeting ("Hi Grandma,"). Write 1 -2 simple sentences ("I learned email today. I practiced typing."). Add closing ("From,", "Love,"), then name. Review politeness.
  - 4. **Email Safety Discussion:** Ask: "Who should we email?" (Known/trusted people). "What if you get email from unknown person?" (Don't open, tell adult). "What if email asks for password/address?" (Never tell, tell adult). Explain not clicking links/opening attachments unless sure. Rei nforce:

#### "When in Doubt, Talk It Out!"

- Reflection (1 -2 min): Ask: "What are the three main parts of writing an email?"
   "What's one important safety rule for email?"
- Independent Session (20 min): "Typing & Telling"
  - Instruction: "First, practice typing for 10 minutes using our typing game (TypingClub or BBC Dance Mat). Try to beat your last score or finish a new

lesson! After typing, open Notepad (built -in) and write one sentence telling me something you learned or practiced in the typing game today (like 'I practiced the E key' or 'I got 3 stars')."

- Skills Reinforced: Typing practice, recalling information, writing a simple sentence using Notepad.
- o Setup: Access to typing game, Notepad, visual timer.

#### Week 8: Entering the 3D Zone - Tinkercad Time!

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 8 LOs and Activities.
  - Ensure Tinkercad account is set up and login works.
  - Refresh understanding of Tinkercad interface, adding/moving shapes, view controls (orbit/pan/zoom).
  - o Refresh understanding of resizing, lifting, aligning, grouping, and Hole tool.
  - Have typing practice site ready.
  - o Prepare/print visual instruction card & optional Tinkercad shapes reference.
  - Set up visual timer.
  - Flexibility Note: If 3D navigation is tricky, spend more time just practicing orbit/pan/zoom. If shape manipulation is easy, try building a slightly more complex object combining multiple groups or holes.
  - Final Project Link: "We're learning Tinkercad now! This tool lets us build 3D shapes. You could use this to design a cool spaceship, a base on another planet, or maybe even a character for your final 'Digital Creation Story' project!"

#### Guided Session 1: Thinking in 3D

- LO: Distinguish 2D vs. 3D; understand Workplane concept; navigate Tinkercad interface (add shapes, move shapes, use view controls).
- Activity:
  - 1. **2D vs. 3D:** Show Paint 3D drawing vs. <u>Tinkercad</u> interface. Explain Tinkercad = building solid -looking things from all sides.
  - 2. **Tinkercad Interface:** Log in. Point out Workplane (blue grid = building table), Basic Shapes menu (right = building blocks).
  - 3. Add Shapes: Drag Box, Cylinder, Sphere onto Workplane.
  - 4. **Move Shapes:** Click shape to select. Click & drag selected shape (not handles) to move on Workplane. Practice placing shapes.
  - 5. View Controls Practice: Spend time practicing:
    - Orbit: Right-click & drag mouse to rotate view. Look from all sides.
    - Zoom: Mouse scroll wheel (or +/- buttons).
    - Pan: Press/hold scroll wheel (or Shift + Right-click) & drag to slide
       view
    - View Cube: Click faces (Top, Front) & Home icon.
  - 6. Typing Practice (5 10 min): Continue typing lessons.
- o Reflection (1 -2 min): Ask: "How is Tinkercad different from Paint 3D?" "Which

view control helps you see the top of your object?"

#### Guided Session 2: Shaping Up in Tinkercad

 LO: Resize shapes (handles); lift/lower shapes (cone handle); select multiple shapes; align shapes (Align tool); group shapes (Group tool); use Hole tool; combine shapes/holes.

#### Activity:

- 1. **Resize Shapes:** Select Box. Drag white corner handles (proportional), black side handles (stretch/squash). Note dimension numbers.
- 2. **Lift/Lower:** Select shape. Drag black cone handle above shape up/down.
- 3. Select Multiple: Show drag-box selection and Shift+Click selection.
- 4. **Align Tool:** Select 2 shapes. Click 'Align' button. Hover over dots to preview, click dot to align (e.g., center).
- 5. **Group Tool:** Overlap 2 shapes. Select both. Click 'Group'. Observe they become one object/color. Show 'Ungroup'. Practice.
- 6. **Hole Tool:** Drag new shape (e.g., Cylinder). Select it. Click 'Hole' option in Inspector window (becomes translucent grey).
- 7. **Combine Shapes & Holes:** Overlap Hole Cylinder with solid Box. Select both. Click 'Group'. Observe subtraction. Ungroup to show originals.
- 8. **Build Simple Object:** Try building basic house (cube + roof, maybe hole window) or simple car (cubes + cylinder wheels), or a simple character.
- Reflection (1 -2 min): Ask: "What does the 'Group' tool do?" "How do you make a hole in an object?"

# • Independent Session (20 min): "Shape Builder"

- Instruction: "Time to build in 3D! Go into <u>Tinkercad</u>. Try building something cool using at least three *different* kinds of shapes from the menu (like a Box, a Sphere, and maybe a Cone or a Roof). It could be a weird alien, a spaceship part, a fantasy castle, or anything you imagine! See if you can group some shapes together to make a single object."
- Skills Reinforced: Tinkercad navigation, adding shapes, moving/resizing/lifting shapes, grouping (optional).
- Setup: Tinkercad access (requires free account), visual timer, visual reference of basic shapes (optional).

#### Week 9: Designing Dimensions - CAD Creations

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 9 LOs and Activities.
  - Ensure Tinkercad login is ready.
  - Familiarize yourself with the Text shape, Ruler tool, and Snap Grid settings in Tinkercad.
  - Prepare discussion points linking design to purpose.
  - Have the typing practice site ready.
  - Prepare/print the visual instruction card for the independent session.

- Set up the visual timer.
- Flexibility Note: If text tool is fun, let the child experiment more with fonts/sizes. If precision tools (ruler/snap) are difficult, focus on visual alignment first and introduce precision gradually.

# Guided Session 1: Designing with Purpose

 LO: Brainstorm simple object with purpose; use Text shape tool; modify text content/font; combine Text with other shapes (align/group); rename Tinkercad designs.

#### Activity:

- Design Thinking: Ask: "What small thing could we design that's useful/fun?" (tag, stand, keychain, simple custom block). Choose idea. Discuss why it might be useful.
- 2. Sketch (Optional): Quick paper sketch.
- 3. Add Text Shape: Find 'Text' shape (right menu), drag to Workplane.
- 4. **Modify Text:** Select Text shape. Use Inspector window (top right) to change 'Text' field (name/initial/word). Explore 'Font' options. Adjust height/bevel.
- 5. Combine with Base: Drag base shape (flat box for tag). Position Text on/near base. Resize text/base. Use Align tool (select both, click Align) to center text.
- 6. Group: Select both text and base. Click 'Group'.
- 7. **Rename Design:** Click default name (top left). Type descriptive name ("Name Tag"). Press Enter. Explain helps find project later.
- 8. Typing Practice (5 10 min): Continue typing lessons.
- Reflection (1 -2 min): Ask: "How did we add letters in Tinkercad?" "Why did we group the text and the base together?"

#### Guided Session 2: Refining & Coloring

 LO: Use Ruler tool for precise dimensions; adjust Snap Grid for precision; change shape/group color; inspect designs from multiple angles (View Cube).

- Ruler Tool: Drag 'Ruler' (right menu) near object. Select object. Dimension lines appear. Click number to type exact size (e.g., make tag 50mm long). Drag ruler away to dismiss. Practice making a cube exactly 20mm x 20mm x 20mm.
- 2. **Snap Grid:** Point out 'Snap Grid' (bottom right). Change 1.0mm -> 0.1mm-> drag shape slowly (finer movement). Change back to 1.0mm. Explain use cases (big steps vs tiny adjustments).
- 3. **Change Color:** Select object/shape. Click solid color circle (Inspector window). Choose new color. Explain visualization purpose. Show 'Multicolor' option for groups if applicable.
- 4. Inspect Views: Use View Cube (top left) systematically. Click 'Top', 'Front',

- 'Left'. Ask: "Is it aligned? Right height?" Use orbit (right -drag) for corners. Click 'Home' icon. Emphasize checking all angles for building accurately.
- 5. **Refine Design:** Use tools (Ruler, Snap Grid, Colors, Views) to refine previous object or start new simple design needing precision (e.g., box with lid, ensuring lid dimensions roughly match box opening).
- Reflection (1 -2 min): Ask: "How does the Ruler tool help make things exact?"
  "Why is it important to look at your design from different sides when building?"

# Independent Session (20 min): "My Own Creation"

- o **Instruction:** "Keep creating in 3D! Go into <u>Tinkercad</u>. Either improve the design from our lesson (maybe use the Ruler to make it an exact size, add more detail, change color), OR start something new! Try designing a character from your favorite game, a cool pattern using shapes, or a futuristic vehicle. Reme mber to use the view controls!"
- Skills Reinforced: Tinkercad skills (grouping, holes, color, text, ruler, snap grid, view controls), creative design, precision adjustments.
- Setup: Tinkercad access, visual timer.

#### Week 10: From Digital to Reality - 3D Print Prep

- Teacher Preparation (Before the Week's Sessions):
  - o Review Week 10 LOs and Activities.
  - Ensure browser access to Printables.com and/or Thingiverse.
  - Have your specific slicer software (<u>Cura</u>, <u>PrusaSlicer</u>, etc.) installed and configured for your 3D printer. Refresh understanding of loading STL, basic manipulation, slicing, previewing.
  - Ensure the 3D printer is operational (filament loaded, bed clear, level). Choose a quick-printing, simple STL beforehand as a backup.
  - Have the typing practice site ready.
  - o Prepare/print the visual instruction card for the independent session.
  - Set up the visual timer.
  - Flexibility Note: Spend more time browsing models if the child enjoys it. If slicer software seems too complex, focus on the concepts (slicing like bread) and just demonstrate the preview, handling most operations yourself initially. The goal is understanding the process, not mastering the slicer yet.
  - Safety Note: Emphasize that 3D printers have hot parts and moving components and must only be operated with close adult supervision.

#### Guided Session 1: Finding Fantastic Prints

- LO: Navigate model websites (<u>Printables.com</u>, <u>Thingiverse</u>); search for models; understand STL files; assess basic printability; download simple STL file.
- Activity:
  - 1. **Explore Model Sites:** Open <u>Printables.com</u>. Explain as online library for 3D models shared by people for printing. Browse main page.
  - 2. Search for Models: Use search bar for interests (e.g., "dinosaur," "car,"

- "castle," "animal"). Browse results together.
- 3. **Analyze Models:** Click interesting models. Look at pictures. Read description briefly. Ask: "Look easy/hard to print?" Point out overhangs/thin parts. Aim for simple/solid first print.
- Download STL: Select simple model. Find download button/Files tab.
   Download ".stl" file. Note save location ('Downloads'). Explain STL = shape recipe.
- 5. **Typing Practice (5 10 min):** Continue typing lessons.
- Reflection (1 -2 min): Ask: "What kind of file do we download for 3D printing?"
   "What makes a model look 'easy' to print?"

#### Guided Session 2: Slicing & Printing Magic!

 LO: Understand slicer purpose (STL -> G-code layers); Open STL in slicer; Use basic move/scale/rotate; Initiate 'Slice' with defaults; Use preview function; (Supervised) Start small 3D print.

#### Activity:

- Introduce Slicer: Open your slicer (Cura/PrusaSlicer). Explain: "This
  software takes the STL shape, slices it into thin layers (like bread), figures
  out the nozzle path for each layer, and saves instructions (G -code) our
  printer understands."
- 2. **Load STL:** Use 'Open File'/'Import' to load downloaded STL. Model appears on virtual bed.
- 3. **Basic Manipulation:** Show tools: Move (center model), Scale (resize if needed), Rotate (place flattest side down).
- 4. **Slice & Preview:** Select basic settings (PLA material, 0.2mm layer). Click 'Slice'. Wait. Find 'Preview'/Layer View'. Use slider to move through layers, showing build process. Point out nozzle path lines.

#### 5. Start Print (Supervised):

- Save G-code: Click 'Save/Export G-code'. Save to printer's SD card/send via network.
- Prepare Printer: Adult supervision crucial. Ensure bed clean, filament loaded. Explain printer parts briefly (bed, nozzle, filament). Emphasize hot parts and moving pieces do not touch while running.
- Load & Print: Insert SD card/select file on printer. Start print *together*.
- Watch First Layers: Watch first layers adhere. Explain slow process, needs supervision. Reiterate safety.
- Reflection (1 -2 min): Ask: "What does the slicer software do to the 3D model?"
   "What did the layer preview show us?" "What's an important safety rule around the 3D printer?"
- Independent Session (20 min): "Printable Wishlist"
  - o Instruction: "Dream about future prints! Go back to Printables.com or

<u>Thingiverse</u>. Search for things you like (dinosaurs, cars, characters, useful things). Find three cool models you might like to print someday. Open Notepad (built-in). Try to copy the web address (link) for each model and paste it into Notepad, or just write down their names."

- Skills Reinforced: Website navigation, searching, identifying desired items, copy/paste (optional practice), saving info in text file.
- o Setup: Access to model websites, Notepad, visual timer.

#### Week 11: Al Adventures & Smart Sparks

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 11 LOs and Activities.
  - Ensure working login for <u>ChatGPT</u> (or other chatbot) and prepare for close supervision.
  - Prepare fun, age-appropriate prompts for Session 1. Prepare brainstorming and fact-checking prompts for Session 2.
  - Bookmark reliable source for fact -checking (<u>NASA Space Place</u> <u>Nat Geo Kids</u>, museum site).
  - Have Paint 3D ready for independent session.
  - Have typing practice site ready.
  - Prepare/print visual instruction card.
  - Set up visual timer.
  - Flexibility Note: If AI concepts are confusing, stick to fun, creative prompts. If highly engaged, explore slightly more complex prompts or creative writing assistance. Emphasize safety rules repeatedly.
  - Final Project Link: "Al like ChatGPT can sometimes help us brainstorm ideas for stories, like our final project. But remember, we always need to check facts it gives us!"

#### Guided Session 1: Meeting the Al Helper

 LO: Define Al simply (pattern -learning program); interact safely with chatbot (<u>ChatGPT</u>) under supervision; understand Al is tool, not person; reiterate no sharing private info.

- 1. **Introduce AI:** Explain AI = smart computer program learned from reading lots online. Good at language patterns. Can answer/write like human, but doesn't 'think' or 'feel'.
- 2. **Supervised ChatGPT Interaction:** Log in to <u>ChatGPT</u>. Explain you type prompts first. Use fun prompts based on child's interests:
  - "Tell short funny story: dinosaur learns to fly."
  - "3 interesting facts about [Favorite Animal]?"
  - "Write haiku about [Favorite Vehicle/Place]."
- 3. **Discuss Responses:** Read answers together. Ask: "Make sense? Interesting? Sound human? Where info from?" (Learned from text).

- Safety Reminder: State clearly: "ChatGPT is computer program. Never tell it secrets (full name, address, passwords, private feelings)." Reinforce: "When in Doubt, Talk It Out!"
- 5. **Typing Practice (5 10 min):** Continue typing lessons.
- Reflection (1 -2 min): Ask: "Is ChatGPT a person or a computer program?" "What kind of information should we never share with it?"

#### Guided Session 2: Creative & Critical Al Use

- LO: Use AI for creative brainstorming; understand AI can be wrong ("hallucinate"); practice verifying AI facts with trusted source; know to ask adult if AI response is weird/wrong.
- Activity:
  - 1. Al for Ideas: Use ChatGPT for brainstorming (supervised typing):
    - "5 story ideas: magical creature goes to school."
    - "Cool names for a superhero whose power is super speed."
    - "Describe what imaginary underwater city might look like."
       Discuss ideas. Explain Al helps spark creativity.
  - 2. Check the Facts: Ask ChatGPT fact question (e.g., "What is the biggest dinosaur?"). Then verify answer on trusted site (e.g., museum website, Nat Geo Kids). Compare. Explain AI often right, but double -checking important facts is crucial.
  - 3. **Discuss "Hallucinations":** Explain simply: "Sometimes AI guesses or makes things up if unsure. Scientists call this 'hallucination'. That's why we check facts."
  - 4. **Reinforce "Talk It Out":** Ask: "What if AI says something weird, wrong, or uncomfortable?" (Stop, tell grown up!).
- Reflection (1 -2 min): Ask: "How can Al help us be creative?" "Why is it important to check facts the Al gives us?"
- Independent Session (20 min): "Al Idea Spark"
  - Instruction: "Let's use AI for drawing ideas! Think of a question about your interests (like 'What does a friendly robot dog look like?' or 'Describe a castle made of clouds'). With my help typing into <a href="ChatGPT">ChatGPT</a>, we'll ask. After reading answer, open Paint 3D & draw picture based on AI's idea!" (Requires parent initiation/supervision of AI).
  - Skills Reinforced: Question formulation, creative interpretation, digital art (Paint 3D).
  - Setup: Parent help for Al access, Paint 3D access, visual timer.

#### Week 12: Awesome Internet Citizens & Cyber Smarts

- Teacher Preparation (Before the Week's Sessions):
  - o Review Week 12 LOs and Activities, focusing on BIA pillars (Kind, Care, Strong).
  - Bookmark/have ready: <u>Kind Kingdom, Mindful Mountain</u>, <u>Tower of Treasure</u>.
  - Prepare simple role-playing scenarios for kindness/unkindness.

- Prepare strong password brainstorming examples (phrase -based, mixes NOT real ones).
- Have Paint 3D or Canva ready for independent session.
- Have typing practice site ready.
- Prepare/print visual instruction card.
- Set up visual timer.
- Flexibility Note: Spend more time on the Interland game the child enjoys most or the concept they need more reinforcement on (Kindness, Sharing, Passwords).
   Keep role-playing simple and focused on positive actions.

#### Guided Session 1: Be Internet Awesome - Kind & Careful!

 LO: Define/discuss online kindness ("It's Cool to Be Kind"); positive vs. negative behavior; appropriate actions for unkindness (Tell adult, block); think before sharing ("Share with Care"); review private/public info; simple digital footprint concept.

#### Activity:

- 1. **Discuss Kindness:** Ask: "How be kind online?" (Nice words, help). Discuss why unkindness hurts. Use BIA slogan: "It's Cool to Be Kind."
- 2. **Play Kind Kingdom:** Play Google Interland: Kind Kingdom scenarios (spread kindness, block negativity).
- 3. Role-Play: Scenario: "Mean comment on your drawing?" Discuss options: Don't reply meanly, tell adult, block (explain simply). Emphasize telling adult.
- 4. **Share with Care Review:** Review private vs. public info (Week 1). Ask: "Why keep address secret?" Use BIA slogan "Share with Care." Explain: "Think who you share with."
- 5. **Digital Footprint Intro:** Explain simply: "Online actions leave 'footprints'. They can last long time. Leave kind & careful footprints!"
- Play Mindful Mountain: Play Google Interland: Mindful Mountain.
   Discuss sharing info only with right people.
- 7. **Typing Practice (5 10 min):** Continue typing lessons.
- Reflection (1 -2 min): Ask: "What's one way to be kind online?" "What does
   'Share with Care' mean?"

#### Guided Session 2: Be Internet Awesome - Strong & Secure!

 LO: Explain password importance ("Secure Your Secrets"); identify stronger password traits (length, mix); brainstorm memorable strong password *ideas*; recognize online tricks (phishing).

- Why Passwords?: Ask: "What needs password?" (Email, games). Explain passwords = secret keys. Use BIA slogan: "Secure Your Secrets."
- 2. **Strong Password Ideas:** Review why easy passwords bad. Brainstorm stronger ideas:

- Phrase: "My green dino loves leaves!" -> MgdL0v3sL3@ves!
- Combine: "Robot+Castle+8" -> R0b0tC@stle8!
- Length: Longer = better.
   CRITICAL: Stress ideas only. Never use examples or real passwords.
   Create real ones privately, never share.
- 3. **Play Tower of Treasure:** Play <u>Google Interland: Tower of Treasure</u>. Discuss *why* game suggests changes (length, numbers, symbols).
- 4. **Spotting Tricks (Phishing Review):** Show simple fake examples (Notepad): "Account locked! Click here enter password." or "You won! Enter name/address." Ask: "Look real? Why/why not? What do?"
- 5. **Reinforce "Talk It Out":** Ask: "What if site asks password unexpectedly, or friend asks?" (Never share, tell grown up!).
- Reflection (1 -2 min): Ask: "What makes a password stronger?" "What should you
  do if a message asks for your password?"
- Independent Session (20 min): "Safety Poster"
  - Instruction: "Make reminder poster! Open Paint 3D or <u>Canva</u>. Create poster showing one 'Be Internet Awesome' rule (Be Kind, Be Careful, Be Strong)."
  - Skills Reinforced: Digital art (Paint 3D/Canva), recalling/representing BIA safety concepts.
  - Setup: Paint 3D/Canva access (Canva requires free account), visual instruction card, visual timer.

# Week 13: Multimedia Magic - Slideshow Stories

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 13 LOs and Activities.
  - Choose presentation software (<u>Canva</u>, PowerPoint, <u>Google Slides</u>) and ensure access/login. Familiarize with new slide, text, image insert, basic transitions/animations, presentation mode.
  - Have typing practice site ready.
  - Prepare/print visual instruction card.
  - Set up visual timer.
  - Flexibility Note: If presentation software is intuitive, explore more formatting options (fonts, colors, shapes). If challenging, stick to basic text/image insertion on simple layouts.
  - Final Project Link: "Learning to make slideshows is great practice! You could use
    this tool to tell your final 'Digital Creation Story' with pictures and words,
    arranging the slides like pages in a book."
  - Storytelling Prompt: Encourage thinking about the order of slides to tell a simple story or present facts logically about a topic of interest.

#### Guided Session 1: Presentation Power

LO: Identify presentation software purpose (slideshows); navigate chosen tool;
 create new slides; add/type text; insert images (upload/search); resize/reposition

elements; save/name presentation.

### Activity:

- 1. **Introduce Presentations:** Explain slideshows = digital show-and-tell for stories/facts with pictures.
- 2. **Tool Tour:** Open chosen tool (e.g., <u>Google Slides</u>). Show slide area, thumbnails, toolbar (New Slide, Text Box, Insert Image).
- 3. **Create Title Slide:** Use first slide. Click text boxes, add title (e.g., "All About Dinosaurs", "My Fantasy World") and "By [Child's Name]".
- 4. Add New Slide: Click 'New Slide' (+). Choose layout ('Title and Content').
- 5. Add Text & Image: New slide: title (e.g., "T-Rex"). Type fact ("T-Rex was a large carnivore."). Insert Image (upload saved pic or supervised web search). Resize/position image & text box.
- 6. **Save:** Show Save command (PowerPoint) or name file & explain auto save (Google Slides/Canva). Name "My First Slideshow".
- 7. **Typing Practice (5 10 min):** Continue typing lessons.
- Reflection (1 -2 min): Ask: "What are slideshows good for?" "How do you add a
  picture to a slide?"

#### • Guided Session 2: Making Slides Shine

 LO: Add slides with different layouts; apply simple slide transitions; apply simple entrance animations (optional); enter/navigate presentation mode.

- Add More Content & Layouts: Add 1-2 more slides about different aspects of their interest (e.g., another dinosaur, a different character). Explore different layout options ('Two Content', 'Title Only'). Practice adding text/images.
- 2. **Transitions**: Find 'Transitions' menu. Select slide thumbnail. Choose simple effect ('Fade', 'Slide'). Apply to few slides or 'Apply to all'. Explain transitions = how *slides* change.
- 3. **Animations (Optional):** Select item *on* slide (text box/image). Find 'Animations' menu. Apply simple entrance ('Appear', 'Fade In'). Apply to 1 -2 items only. Explain animations = how *items on slide* appear. Caution against overuse.
- 4. **Presentation Mode:** Find 'Present'/'Slideshow' button. Click for full screen. Show how to advance (click, spacebar, right arrow). Practice presenting the few slides. Press 'Esc' to exit.
- Save/Check Auto Save: Ensure work saved.
- Reflection (1 -2 min): Ask: "What's the difference between a transition and an animation?" "How do you see your slideshow full screen?"
- Independent Session (20 min): "My Mini Show"
  - Instruction: "Add to our slideshow! Open 'My First Slideshow'. Add one new slide about your *most* favorite topic related to our theme (dinosaur, character, planet,

- etc.). Choose a layout, find a good picture (use Kiddle first to find one, save it, then insert it), and write one interesting sentence. Try adding a transition to this new slide!"
- Skills Reinforced: Presentation software basics (adding slides, layouts, text, images, transitions), finding/saving/inserting images.
- Setup: Access to presentation file, Kiddle access (optional), visual timer.

#### Week 14: Movie Maker Moments - Video Ventures

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 14 LOs and Activities.
  - Ensure <u>Microsoft Clipchamp</u> accessible (built -in app or web; may need free Microsoft account). Familiarize with import, timeline, text tool, stock audio, export.
  - Ensure images available for importing (Paint 3D drawings, saved pictures).
  - Have typing practice site ready.
  - Prepare/print visual instruction card.
  - Set up visual timer.
  - Flexibility Note: If Clipchamp seems complex, focus just on sequencing images and adding music. If the child is enjoying it, explore simple video effects or transitions between clips.
  - Final Project Link: "Making videos like this is another great way you could choose to tell your final 'Digital Creation Story'!"
  - Storytelling Prompt: Encourage arranging the imported images in an order that makes logical or narrative sense, like steps in a process or scenes in a story.

#### Guided Session 1: Lights, Camera, Clipchamp!

 LO: Understand video editing concept (sequencing); navigate Clipchamp interface (Media, Preview, Timeline); import images; understand timeline; place/arrange/adjust duration/reorder clips; preview sequence.

- 1. **Introduce Video Editing:** Explain: "Putting pictures/clips together in order, adding text/music to make a movie."
- 2. **Clipchamp Tour:** Open Clipchamp. New project. Show Media library, Preview window, Timeline (bottom bar, reads left -right). Show playhead.
- 3. **Import Media:** Click 'Import media'. Navigate to saved drawings/pictures folder. Select 3-4 images related to interests. Click 'Open'. Images appear in Media library.
- 4. **Add to Timeline:** Drag images one by one from library down onto timeline track in desired order.
- 5. **Preview & Adjust Duration:** Click 'Play' below preview. Note default duration. Hover over clip end on timeline -> cursor changes -> click & drag to change duration (aim 3 5 sec).
- 6. Reorder Clips: Click & drag whole clip on timeline to change position.

- 7. **Save Project:** Show how to name project (top of screen). Explain auto save (web).
- 8. **Typing Practice (5 10 min):** Continue typing lessons.
- Reflection (1 -2 min): Ask: "What does the timeline show us?" "How do you change how long a picture stays on screen?"

#### Guided Session 2: Sound & Style

 LO: Add simple text overlays; adjust basic text appearance; adjust text duration; add background music from library; adjust audio volume; export finished video file (MP4).

### Activity:

- 1. Add Text: Find 'Text' (sidebar). Choose simple style. Drag to timeline *above* image track. Click text element, edit content (options panel or preview window). Add title at start. Add caption to another image.
- 2. **Adjust Text:** Select text element. Explore options panel (font, size, color keep simple). Drag ends of text clip on timeline to control duration.
- 3. **Add Music:** Find 'Music & SFX' / 'Content library -> Audio' (sidebar). Browse categories. Preview tracks. Drag liked track to timeline *below* images.
- 4. **Adjust Music:** Drag end of music clip to match video length. Select music track, find 'Audio' panel, lower volume slider (e.g., 10 20%).
- 5. Preview: Play whole video with text & music.
- 6. **Export Video:** Click 'Export' (top right). Choose quality (720p fine). Click Export. Wait.
- 7. **View Exported File:** Save exported MP4 file (to 'My Projects' or 'Downloads'). Play file using computer's media player. Show final result.
- Reflection (1 -2 min): Ask: "How did we add words to the video?" "Why did we turn the music volume down a bit?" "What does 'Export' do?"

#### Independent Session (20 min): "Picture Movie"

- o **Instruction:** "Make tiny movie! Start new video in <u>Clipchamp</u>. Find 3-4 saved pictures (drawings/photos). Import them. Drag to timeline in order telling tiny story (e.g., character wakes up, eats breakfast, goes outside). Try making each picture show for 3 -4 seconds."
- Skills Reinforced: Basic video editing (importing, sequencing, adjusting duration).
- Setup: Clipchamp access, folder with saved images, visual timer.

#### Week 15: Spreadsheet Secrets & Chart Champions

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 15 LOs and Activities.
  - Choose spreadsheet software (Excel or <u>Google Sheets</u>) ensure access/login.
     Familiarize with data entry, cell formatting (fill), selecting adjacent & non adjacent data, inserting simple bar/pie charts.
  - o Prepare simple dataset relevant to child's interests (e.g., Favorite Animals &

- Speeds, Game Characters & Powers, Types of Dinosaurs & Diets).
- Have typing practice site ready.
- Have Kiddle access ready for independent session fact lookup (optional).
- Prepare/print visual instruction card.
- Set up visual timer.
- Flexibility Note: If spreadsheets seem dry, keep data entry minimal and focus on the visual chart creation. If the child enjoys organizing data, create a slightly larger table or explore simple sorting.
- Final Project Link: "Sometimes projects need organized information! While maybe not for this story project, knowing how to use spreadsheets and make charts is a useful skill for school projects or tracking collections later."

#### Guided Session 1: Data Detectives

- LO: Define spreadsheet (organizing grid); identify rows/columns/cells; enter text/numbers; select cells/ranges; use Fill Color; save/name spreadsheet.
- Activity:
  - 1. **Introduce Spreadsheets:** Open Excel/<u>Google Sheets</u>. Explain = superorganized table of cells, good for lists/numbers. Point out Columns (A,B,C), Rows (1,2,3), Cells (A1, B3). Click cells, name addresses.
  - 2. **Create Headers:** Based on chosen theme (e.g., A1: "Animal", B1: "Habitat", C1: "Can it Fly?"). Explain headers.
  - 3. **Enter Data:** Guide entering data for 3 -4 items relevant to headers (e.g., Eagle/Mountains/Yes, Penguin/Antarctica/No, Lion/Savanna/No). Practice clicking correct cell first.
  - 4. **Format Cells:** Select header row (A1:C1 or click Row '1'). Use 'Fill Color' (paint bucket) tool, choose color. (Optional) Select data area, apply different fill.
  - 5. **Save:** File -> Save As (Excel) or name file (Google Sheets). Save in "My Projects" as "Animal Data".
  - 6. **Typing Practice (5 10 min):** Continue typing lessons.
- Reflection (1 -2 min): Ask: "What is a 'cell' in a spreadsheet?" "How did we make the headers look different?"

#### Guided Session 2: Charting the Stars

- LO: Understand charts visualize data; select adjacent or non -adjacent data columns; use 'Insert Chart'; choose simple chart type (Bar/Pie); identify chart elements (title, axes/legend, bars/slices); interpret chart simply.
- Activity:
  - 1. Why Charts?: Look at table. Ask: "How many animals in our list can fly?" (Requires reading). Explain charts = visual picture, easier comparisons.
  - 2. Select Data: Need Animal Names & 'Can it Fly?' data.
    - Click & drag to select Animal names (e.g., A2:A5).
    - Hold Ctrl key (Cmd on Mac), while holding, click & drag to select 'Can

it Fly?' data (e.g., C2:C5). Both selected. Let go. (Or select adjacent columns if dataset allows, e.g., Animal & Speed).

- 3. Insert Chart: Go to 'Insert' menu -> 'Chart'.
- 4. Choose Chart Type: Choose 'Bar Chart' (Column) or 'Pie Chart'. (A Pie chart might work here to show Yes/No proportions).
- 5. **Explore Chart:** Point out: Title, Axes/Legend (explains colors/sections), Bars/Slices.
- 6. **Interpret Chart:** Ask: "Looking at the chart, is it easy to see how many animals can/cannot fly?" (Or "Which animal is fastest?" if using speed data). Emphasize visual comparison.
- 7. Save: Save spreadsheet with chart.
- Reflection (1 -2 min): Ask: "What does a chart help us do with information?"
   "What did the different parts of the chart show us?"
- Independent Session (20 min): "Data Explorer"
  - Instruction: "Add more data! Open the spreadsheet we made ('Animal Data' or similar). Add one more row with information about another animal/dinosaur/character based on our headers (you can use <u>Kiddle</u> to look up info if needed). Type the info into the next empty row. Now, look at the chart. Did the new information appear automatically? If not, click the chart, look for options like 'Edit data range' (ask me if you need help!), & see if you can add the new row." (Focus on data entry & observation).
  - Skills Reinforced: Spreadsheet data entry, interacting with charts, observation, potentially updating chart data (problem -solving/asking for help).
  - Setup: Access to spreadsheet file, Kiddle access (optional), visual timer.

#### Week 16: Cosmic Creation - Project Planning

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 16 LOs and Activities.
  - Prepare for brainstorming have materials related to child's interests ready for inspiration.
  - Have Notepad ready for outlining.
  - Be ready to discuss pros/cons of tools (Scratch, Paint 3D, Clipchamp, Tinkercad, Slides) for chosen story.
  - Ensure access to chosen creation tools.
  - Ensure "Space Story Project" (or similarly named) folder exists in "My Projects".
  - Have typing practice site ready.
  - Prepare/print visual instruction card.
  - Set up visual timer.
  - Flexibility Note: Allow ample time for brainstorming; don't rush idea selection.
     Keep the outline very simple (3-5 points). If one tool is clearly preferred, lean into that for asset creation, don't force using too many different tools if it causes frustration.

#### Guided Session 1: Blast Off! Project Planning

 LO: Define final project goal ("Digital Creation Story"); brainstorm/discuss story ideas based on interests; select one idea; create simple 3 - part story outline (Notepad); identify appropriate software tools for components.

#### Activity:

- 1. **Project Goal:** Announce final project! "Next two weeks: use skills learned to create your own Digital Creation Story about [Child's Interest]!" (Animation, video, slideshow, interactive story).
- 2. **Brainstorm:** Get excited! Ask open questions related to interests: "What kind of dinosaur adventure? Magical creature quest? Building a super race car?" Use inspiration (pics/books). Write down ideas.
- 3. **Select Idea:** Review list. Discuss which is most fun *and* achievable with learned tools. Choose one concept.
- 4. **Outline:** Open Notepad. Map story together:
  - Type "Beginning:", ask "How start? Character? Setting? Goal?" Type 1-2 sentence summary.
  - Type "Middle:", ask "What next? Journey? Challenges? Discoveries?" Type 2-3 sentence summary.
  - Type "End:", ask "How finish? Goal achieved? What happens?" Type 1-2 sentence summary.
     Read outline together.
- 5. Choose Tools: Look at outline. Discuss: "Tool for drawing characters?" (Paint 3D/Canva). "Tool for animation?" (Scratch). "Tool for showing story with pics/text?" (Slides/Clipchamp). "Tool for designing object?" (Tinkercad). Decide on 1-3 main tools & final format (e.g., "Paint 3D drawings into Clipchamp video with text").
- 6. **Save Outline:** Save Notepad file in project folder (e.g., "My Story Project") as "Story Outline".
- Reflection (1 -2 min): Ask: "What's the story we decided to tell?" "What tools are we planning to use?"

#### • Guided Session 2: Building the Universe - Asset Creation

LO: Create dedicated project folder; begin creating initial digital assets (images, code, models) based on plan/tools; practice using tools purposefully; save assets into project folder with descriptive names.

- 1. **Set Up Project Folder:** If needed, create project folder (e.g., "My Story Project") in "My Projects". Explain organization.
- 2. Start Creating Assets: Based on plan, start first pieces:
  - (Paint 3D -> Clipchamp plan): Open Paint 3D. Draw main character.
     Save as "Main Character.png" in project folder. Draw setting. Save as "Setting Scene.png".

- (Scratch plan): Open Scratch. New project. Choose/draw sprites & backdrop. Code initial action. Save Scratch project online as "My Story Animation".
- (Tinkercad -> Slides plan): Open Tinkercad. Start designing key object/character. Save Tinkercad project online. (Screenshots later).
- 3. **Focus & Save:** Work on 1-2 key assets. Emphasize saving regularly in project folder with clear names ("Dragon.png", "Castle Design.png").
- 4. Typing Practice (5 10 min): Continue typing lessons.
- Reflection (1 -2 min): Ask: "What did we create for our story today?" "Why is saving in the project folder important?"

# Independent Session (20 min): "Project Work Time"

- Instruction: "Keep working on our big story project! Open the tool you used last time (Paint 3D, Scratch, Tinkercad) & continue working on a part from our outline. You could: Draw another picture needed; Add more code; Design another part; OR open Notepad & start typi ng the story words. Save work in the project folder!"
- Skills Reinforced: Using chosen software tools purposefully, contributing to project, saving work, following plan.
- Setup: Access to project files/tools, Story Outline file (optional reference), visual timer.

# Week 17: Final Frontier - Project Development

- Teacher Preparation (Before the Week's Sessions):
  - o Review Week 17 LOs and Activities.
  - Ensure access to main assembly tool (Clipchamp, Slides, Scratch) & project folder with assets.
  - Be ready to help troubleshoot basic integration issues (importing, arranging, simple code debug). Know how to take screenshots if using Tinkercad assets.
  - Have typing practice site ready.
  - Prepare/print visual instruction card.
  - Set up visual timer.
  - Flexibility Note: Assembly can be tricky. Focus on getting the main sequence together first, then refine. If one part is too difficult, simplify the story or find an alternative way using known skills. Encourage problem -solving but be ready to assist.

#### Guided Session 1: Assembling the Adventure

- LO: Open main project file; import/load created assets; begin arranging assets in sequence per outline; add initial text elements; identify/attempt basic problem solving with guidance.
- Activity:
  - 1. **Open Main Tool & Project:** Launch assembly software (Clipchamp, Slides, Scratch). Open project file or start new.
  - 2. Import Assets: Use 'Import'/'Insert Image'/'Upload sprite' to bring in assets

from project folder. (For Tinkercad: Use Windows Snipping Tool/Snip & Sketch to capture images of design, save as PNG/JPG in project folder, then import).

- 3. Arrange Sequence: Put pieces together per outline:
  - *Clipchamp:* Drag images/clips onto timeline in order.
  - *Slides:* Create slides for story parts, insert images/text.
  - *Scratch:* Build scenes (backdrops/sprites), code transitions/actions.
- 4. Add Text: Add text overlays/captions (Clipchamp), story text (Slides), say blocks (Scratch).
- 5. **Troubleshooting:** Work through issues together. "Image too small? Resize." "Code not working? Check blocks." "How put pic next to text?" Encourage thinking before giving solution. Explain fixing problems = normal part of creating.
- 6. Save Progress: Save main project file often.
- 7. **Typing Practice (5 10 min):** Continue typing lessons.
- Reflection (1 -2 min): Ask: "What was the trickiest part about putting the pieces together?" "How did we solve [specific problem]?"
- Guided Session 2: Refining the Journey
  - LO: Review assembled draft critically; identify areas for improvement (pacing, clarity, visuals, missing parts); implement refinements (timing, transitions, content); check overall story flow.
  - Activity:
    - 1. Review Together: Play/click through current project state.
    - Identify Improvements: Discuss: "Story make sense? Easy to follow?"
      "Pics on screen long enough?" (Clipchamp/Slides). "Animations smooth?"
      (Scratch). "Anything missing from outline?" "Title slide exciting?" Make short list of 1-3 things to adjust.
    - 3. **Work on Refinements:** Focus on implementing those 1-3 items:
      - Pacing: Adjust clip duration (Clipchamp), slide timing/wait blocks (Slides/Scratch).
      - *Transitions:* Add simple 'Fade'/'Slide' (Slides) or code scene changes (Scratch).
      - *Clarity:* Add text caption, re -word story text.
      - Visuals: Change background color, adjust image size, add simple decoration.
    - 4. Check Pacing/Flow: Play adjusted section again. Ask: "Look/feel better?"
    - 5. Save: Save updated project.
  - Reflection (1 -2 min): Ask: "What change did we make that improved the story the most?" "Why is it important to review our work?"
- Independent Session (20 min): "Adding Polish"
  - o Instruction: "Make project even better! Open main story project file. Choose one

- small thing from our improvement list, or your own idea. Maybe: Add background color (Scratch)? Change title font (Slides)? Find one more pic (Kiddle first!) for video (Clipchamp)? Make transition smoother?"
- Skills Reinforced: Project refinement, attention to detail, independent problem solving (minor), using tools for specific adjustments.
- Setup: Access to main project file, list of potential improvements (optional), visual timer.

#### Week 18: Mission Complete - Project Showcase

- Teacher Preparation (Before the Week's Sessions):
  - Review Week 18 LOs and Activities.
  - Ensure final project file accessible & working. Check for missing final elements (titles, credits, music).
  - Prepare simple prompts for presentation practice.
  - Arrange time/place for family showcase!
  - Have preferred creative tools ready for independent session.
  - Set up visual timer.
  - Flexibility Note: Keep the showcase low-pressure and celebratory. Focus on effort and learning, not perfection. The "Free Create" session should be purely fun and exploratory.

#### Guided Session 1: Final Touches & Rehearsal

- LO: Add final elements (title, end screen/credits, music); conduct final review for consistency/completeness/errors; practice presenting/demonstrating smoothly; practice explaining story/creation process.
- Activity:
  - 1. Add Final Elements:
    - *Title Screen:* Ensure clear title & "By [Child's Name]".
    - End Screen/Credits: Add final slide/scene saying "The End". Optional: add simple credits ("Story/Art by [Name]", "Tools used: Paint 3D, Clipchamp").
    - Music (if applicable): Add suitable background track if using video/slideshow & not done yet; adjust volume.
  - 2. **Final Review:** Play through entire project one last time. Check typos, glitches, timing, sound. Make final small corrections.
  - 3. **Presentation Practice:** Have the child run through presenting:
    - Start project.
    - Explain story as it plays.
    - Pause & practice explaining *how* a part was made ("How did character move?" "Which tool drew this?").
    - Practice clicking/advancing smoothly.
    - Practice saying "Thank you for watching!" at end.
- Reflection (1 -2 min): Ask: "Are you proud of your project?" "What are you most

excited to show?"

# Guided Session 2: Project Showcase!

- LO: Confidently present completed project to audience; articulate story/creation process; celebrate accomplishment; reflect on skills learned.
- Activity:
  - 1. Set the Stage: Gather family/audience. Dim lights if helpful.
  - 2. **Introduction:** Let the child introduce project ("This is my Digital Creation Story about...").
  - 3. **Presentation:** They play/click through project, explaining as practiced. Offer quiet support only if needed.
  - 4. **Q&A / Applause:** Lead applause! Encourage positive audience questions ("Favorite part to make?" "How did you get the idea?").
  - 5. **Celebration:** Congratulate enthusiastically! Talk about favorite parts of the whole 18-week learning journey. Which skills did they enjoy most?
- Reflection (Post -Showcase): Ask: "How did it feel to share your project?" "What was the best part about making it?" "What computer skill do you want to practice more?"
- Independent Session (20 min): "Free Create!"
  - Instruction: "Congratulations on finishing your amazing story project! You've learned so much. For our very last session, you get 20 minutes of 'Free Create' time. You can use any of the computer tools we learned about this whole time (Paint 3D, Scratch, Tinkercad, Clipchamp, Notepad, Slides, etc.) to make absolutely anything you want! Draw, code, design, write just have fun creating!"
  - **Skills Reinforced:** Creative exploration, independent use of learned software tools, reinforcing enjoyment of digital creation.
  - **Setup:** Access to preferred software tools, visual timer.

# **Independent Session Setup Tips**

- 1. **Create visual instruction cards:** Simple step-by-step guidance with pictures for each week's independent task.
- 2. **Set up a visual timer:** Helps the child manage the 20 minutes independently.
- 3. **Prepare a "Help Card":** Include 2-3 common troubleshooting tips relevant to the week's tools (e.g., "How to Save," "Undo Button," "Check Wi -Fi," "Ask for Help if Stuck for 5 mins"). Update this card as new tools are introduced.
- 4. Create a simple achievement tracker: A chart (themed to child's interests) where they can place stickers after completing independent work adds motivation and visual progress.
- 5. **Establish a "show and tell" routine:** After each independent session, spend 1 2 minutes letting the child briefly share what they created, discovered, or found challenging.

# Materials for Independent Sessions

- Printed instruction cards with visuals (specific to each week's task).
- Simple troubleshooting guide ("Help Card") with pictures.
- Achievement chart and stickers.
- Pre-loaded templates or starter files when appropriate (e.g., document templates, Scratch starters, presentation files to add to).
- Quick-reference sheets for commonly used tools (e.g., Paint 3D toolbar, Scratch block categories, Tinkercad view controls).

This fully detailed and generalized 18-week curriculum should now be suitable for sharing and adaptable for various children's interests.