# 30 Days of Learning Challenge

Teacher Guide

For ages 5-12



Welcome to the 30 Days of Learning challenge! In this guide, you will find 30 fun learning activities specifically designed for students who are learning from home. Encourage your students to join a worldwide community of home learners by sharing photos of their activities on social media with the #30daysoflearning hashtag. Just don't forget to tag us in with @3plearning so that we can do our bit to celebrate their progress!

Some of these activities are well suited to any age group, while others have three suggested levels you can adapt according to the needs of your class. All of these activities are intended to be flexible, so feel free to get creative and change it up!

Happy teaching!







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#### Day 1 Activity: Rhyme Time

Students write a poem based on an assigned theme or one of their choosing. Your students will broaden their vocabulary and written expression whilst also taking the time to think deeply about a subject of importance to them. Provide them with example poems first and discuss what makes them effective.

**Level 1:** Write an acrostic using your name as the foundation.

**Level 2:** Write a haiku based around the theme of 'home learning' or 'home life'.

**Level 3:** Write a poem in a form of your choice that reflects on something important to you at this time.



**Bonus tip:** Transform it into a collaborative activity by partnering students. They can digitally correspond and take turns composing one line at a time, which will give some interesting results!

## Day 2 Activity: Soft Drink Volcano

Students can learn more about gases by creating a soft drink volcano with mint lollies. Simply drop some mints into an open two litre bottle of soft drink and watch it bubble over. It's a sweet way to find out about chemistry, but make sure it takes place outside!

**Level 1:** Perform the experiment with the help of a parent and note down your observations.

**Level 2:** Predict what you think will happen and why, then test it. Discuss the science behind it afterwards as a class.

**Level 3:** Formulate a hypothesis and test different variables (e.g. quantity of drink, type of lollies). Record the different results and discuss the science. Why do you think the results differ between variables?

Note: See the supporting resource on page 15 of this guide.



**Bonus tip:** Instruct students on how to safely and effectively set up an experiment in an appropriate space. They'll take this knowledge with them as they move onto more advanced scientific explorations.

#### Day 3 Activity: Deleted Scenes

Students choose a book or film they enjoy and write a hypothetical deleted scene or alternative ending. It's a great creative writing prompt that also encourages them to think deeply about the characters, conflicts, and ideas in a story they already know and love.

**Level 1:** Write a short, simple narrative excerpt, accompanied by drawings if you wish.

**Level 2:** Write a narrative excerpt with a reflection that explains why you made these choices (why do you think the characters would act in this way? How does this link to the rest of the story?)

**Level 3:** Write it as a script or screenplay, as if it were to be directed like a film, then write a reflection where you discuss your choices.



**Bonus tip:** Use this as an opportunity to discuss basic narrative conventions. What makes a good setting or character?



#### Day 4 Activity: Master Chef

Give students an easy recipe that the whole family can enjoy (think pancakes) and task them with getting involved in the kitchen. It will put their measurement skills to the test with edible results! They'll also develop independence and an awareness of healthy eating habits.

**Level 1:** Help a parent with the cooking. Aside from measurement and quantity, experimenting with different textures and mixtures also makes for hands-on learning.

**Level 2:** Help with the cooking, but also set the table. How many knives, forks, and plates are required?

**Level 3:** Take on the challenge of baking a cake, or muffins for afternoon tea.



**Bonus tip:** There will be mess, but learning can extend to cleaning up too! Ordering items back into shelves and cupboards will develop students' grouping skills and instill a sense of responsibility.

#### Day 5 Activity: Shape Up

Students cut a series of simple shapes out of card or paper (e.g. circle, square, triangle, rectangle), then arrange these to form models of household objects. See how many models they can make! They'll learn about shapes and patterns in a hands-on and creative way.

**Level 1:** Create as many simple and familiar objects as you can.

**Level 2:** Create larger scale, more complex models.

**Level 3:** Cut out new, custom shapes for complex models and experiment with abstract patterns.



**Bonus tip:** Challenge students to find the name for any new shapes they discover.

#### Day 6 Activity: Dear Diary

Encourage your students to start a personal journal. For younger students, this might be recapping the day's events, while older students can create more reflective journals using multimedia. This is a daily source of writing practice appropriate for all ability levels, and sharing extracts keeps students feeling connected to their peers.



**Bonus tip:** Have students share their diaries on a free blogging platform such as Blogger or LiveJournal. It enhances their digital literacy and makes it easier to share.

#### Day 7 Activity: P.S. I'm Learning

Send a letter in the mail to a family member or friend. This is another writing activity suitable for all levels which helps students to stay connected.



**Bonus tip:** Have students decorate their letters and include mystery gifts for added engagement.

#### Day 8 Activity: Save The Page

Create a bookmark inspired by a book using a piece of card. Students can decorate it to represent the characters, settings, and ideas of the story. This gets them thinking conceptually about a written text and encourages an ongoing love of reading.



**Bonus tip:** Students can use tassels, ribbons, and craft tools to make their bookmarks even more vibrant.

#### Day 9 Activity: Scrabble Battle

Students play a game of Scrabble with parents or siblings. The literacy benefits of this classic game can be augmented with rewards that you might assign to students at different levels, such as:

- **Level 1:** Reward for discovering a new piece of vocabulary.
- **Level 2:** Reward for creating the longest word.
- **Level 3:** Reward for the highest-scoring individual word.

# ABCDEF GHIJKL MNOPQR MNVVWX

**Bonus tip:** All board and card games have educational benefits. Your students might not have Scrabble, but they could play a simple game of Go Fish to develop their number sense.

## Day 10 Activity: Storyboard

Take a page from a book and transform it into a storyboard or comic strip with individual images and dialogue. Show students an example of what this looks like beforehand. It's an engaging test of comprehension skills that also encourages students to think creatively.

- **Level 1:** Keep it simple with stick figures that represent basic narrative action.
- **Level 2:** Challenge students to use two different points of view in their images.
- **Level 3:** Experiment with more sophisticated graphic techniques, such as different methods of framing and multiple perspectives.



**Bonus tip:** Students can also do the reverse by writing a narrative based on a favourite film or TV show. Challenge them to translate the images on the screen into an engaging story.



#### Day 11 Activity: Mathematics Bingo

Have students create their own bingo cards using the 'Bingo Template' at the end of this guide. Show students examples of what these cards could look like, e.g. simple numbers or unsolved equations depending on their ability.

**Level 1:** Make this as simple as possible by asking students to fill their bingo cards with numbers 1-30.

**Level 2:** Encourage students to fill in their squares with simple unsolved addition, subtraction, multiplication, and division equations. *Note: The answer to the equation is the number for that square.* 

**Level 3:** For more advanced students, ask them to fill the squares with simple algebra equations e.g. 6x + 2 = 20. *Note: The answer to the equation is the number for that square.* 



**Bonus tip:** Encourage your students to personalise their bingo cards more by decorating them with creative designs and colour.

#### Day 12 Activity: Cardboard City

Have students flatten a large cardboard box, draw on some roads, and then map out a virtual city. This is a powerful imaginative exercise and a golden opportunity to broach diverse social and geographical concepts.

**Level 1:** Provide students with a basic example and then let them imagine their own. Encourage them to think about what people would need in the city and ask them to label each part.

**Level 2:** Introduce the needs of a hypothetical 'community' and challenge them to meet these needs. Ask students to justify their choices.

**Level 3:** As above, but you could also introduce the concept of scale to give the activity an additional mathematical dimension.



**Bonus tip:** The city could even be 3D if students create simple models out of paper, cardboard, skewers, and other home materials.

## Day 13 Activity: Mathematical Scavenger Hunt

Students explore their homes or a text to find real-world evidence of mathematical concepts.

**Level 1:** Structure it as a simple grouping exercise (e.g. find items that are a certain colour, shape, or size).

**Level 2:** Task students with finding items that fit specific measurements.

**Level 3:** Use a newspaper to find a broader range of mathematical items (e.g. decimals, graphs, polygons, data tables).



**Bonus tip:** In the early years this could be a simple counting exercise. Ask them how many taps they can find in the house, or how many stairs there are.



#### Day 14 Activity: Mathematics Hopscotch

Students can practice their mathematical fluency while getting some outdoor exercise with a game of hopscotch. Draw a hopscotch with the numbers 1 – 9 and mathematical symbols (plus, minus, divide) on the pavement with chalk. Player 1 then jumps on an equation, and Player 2 must jump onto the answer before jumping to another equation. More advanced students can play with a larger hopscotch and more sophisticated mathematical procedures.



**Bonus tip:** Players can use one-footed hops when landing on odd numbers and zeros, and two-footed hops for even numbers and symbols. Solo players can see how many different equations they can jump out to produce a given result in sixty seconds.

#### Day 15 Activity: Bath Bombs

Students can create scented bombs for bath time using the stepby-step plan at the end of this guide. They'll see chemistry in action while also having fun in the bath at the end of the day!

**Level 1:** Students assist a parent in creating the bombs and experiment with hands-on, textured learning.

**Level 2:** Follow up the experiment with a discussion of the science involved.

**Level 3:** Task students with researching what makes a drink fizzy, and then applying this knowledge to what is happening in the bath. *Note: See the supporting resource on page 16 of this guide.* 



**Bonus tip:** Students can experiment with adding different items to the bath bomb mixture, such as flower petals and glitter. How do they change the look, feel, and the end result?

### Day 16 Activity: Dance Dance Revolution

Set your students the challenge of choreographing a dance to their choice of song, and then performing it for the family. It's a great way to keep them active while learning.

Level 1: Just dance, share it, and have fun!

**Level 2:** Students can teach their dance to a parent or sibling to practice communication skills.

**Level 3:** Students could collaborate with a sibling or friend (even via Skype) to choreograph a dance they do in tandem. This translates to a high-level collaborative activity that requires careful communication.



**Bonus tip:** Encourage students to hit the lights, turn up the music, and make it a show! This will build invaluable presentation skills and a sense of confidence.



#### Day 17 Activity: Create a Timetable

Timetabling their day or week will improve your students' organisational skills and give mathematical concepts such as division a real-life application. This activity attains even more relevance as students get older and juggle further commitments, but a simple timetable is achievable for any age group.



**Bonus tip:** Set some goals to go with the timetable. For example, students might set a goal for how long they want to invest in certain subjects, co-curricular areas, or social time. It's a good opportunity for them to make positive and proactive changes to their everyday routine.

#### Day 18 Activity: Creating Crystals

Students can follow the step-by-step plan at the end of this guide to create amazing, colourful crystals with simple home ingredients. It brings chemistry to life with an end result that students will love.

**Level 1:** Students assist a parent in creating the crystals and experiment with hands-on, textured learning.

**Level 2:** Follow up the experiment with a discussion of the science involved.

**Level 3:** Ask students to research other forms of crystals and how they develop in nature.

Note: See the supporting resource on page 17 of this guide.



**Bonus tip:** Students can grow crystals using sugar and salt as well. Ask them to monitor their growth and find out which one reaches the largest size.

#### Day 19 Activity: Fact Finder

Ask your students to research a topic or issue of their choosing over the week. This might be something linked to current affairs, a musician or animal, a historical event... the choices are only limited by their natural interests. They can generate an informative resource on what they've researched. Catering to your students' specific interests encourages natural engagement, and it gives you the chance to learn something new too!

**Level 1:** Assign a broad theme for research (e.g. favourite animals) so that students aren't overwhelmed by choice. Encourage them to identify what information they need to find out and provide a scaffold for their resource.

**Level 2:** Students can create more in-depth resources with pictures and diagrams.

**Level 3:** Students can prepare a mini video tutorial on their research topic, which they film and upload for other students to view.



**Bonus tip:** Build students' digital literacy by guiding them with online research. Tell them how and where to find credible information and (for older years) how to acknowledge their sources.



#### Day 20 Activity: Virtual Field Trip

Take advantage of the many museums, aquariums, and zoos that are now streaming their exhibits and providing interactive online activities. This is suitable for any age group and can be closely linked to your curriculum content.



**Bonus tip:** Ask students to take notes and reflect on what they observe during their visit, just as they would if they were there in person.

#### Day 21 Activity: Google Earth Voyage

Google Earth can be used for a whole host of activities that boost students' mathematical, geographical, and social knowledge. It also builds a sense of worldly curiosity and engagement that benefits learning across the board.

**Level 1:** Find local landmarks, e.g. your friends' homes, your school, or a place in your neighborhood you've never seen before. Alternatively, where's a good place to hide? Where could you go to be in touch with nature?

**Level 2:** See where you end up if you travel a certain distance north, south, east, or west.

**Level 3:** Use street view to explore a faraway place and learn something about daily life in that area.



Bonus tip: Team this with a fantasy mapping activity like the one below. After exploring the satellite map, students could channel their inner town-planner and redesign their neighborhood in an ideal form!

#### Day 22 Activity: Dream House

Task students with designing their dream house (or part of it). It's an engaging activity that exercises spatial awareness, imagination, and mathematical concepts such as scale, size, and measurement.

**Level 1:** Create a simple mud map of your ideal bedroom. What would go in it?

Level 2: Map your dream house but think about what would fit!

**Level 3:** Map a fantasy land, world, or reimagine your neighbourhood. Imagination is the limit!



**Bonus tip:** Use Google Earth as inspiration for complex and imaginative maps (see above).



#### Day 23 Activity: The Museum of Me

Students create a museum of personal artefacts that are important to them. They might have a special significance, reflect a part of their personality, their story, or their heritage. This all-ages activity promotes deep reflective thinking. Sharing their artefacts will also develop a stronger sense of connection between students.



**Bonus tip:** Students can put reflective thinking into writing with captions for each artefact. In these they can explain why certain items are important to them and what they signify. Show them examples of effective captions first.

#### Day 24 Activity: Green Thumbs

Plant a seed and tend to it as it grows. This might take place in the garden, or an indoor pot. Students could even use an egg carton to grow multiple seeds. They'll learn about nature's life cycle while also taking on the responsibilities of care and watering.

**Level 1:** Students can plant a fast and easy growing seed such as grass or cress.

**Level 2:** Students can choose what they want to grow and prepare an appropriate watering schedule.

**Level 3:** Students can research different types of plants and find ones that are well suited to the available conditions.

Note: See the supporting resource on page 16 of this guide.



**Bonus tip:** Growing vegetables will also open students' eyes to healthy and sustainable eating!

#### Day 25 Activity: Create a Set of Dominoes

Students create a set of dominoes using card or other simple home materials. Creating the dominoes will strengthen their number sense, and there are plenty of mathematical games they can play with the set such as:

**Level 1:** Create symmetrical patterns and shapes by arranging the dominos

Level 2: Make a domino chain that links consecutive numbers

**Level 3:** Try a problem-solving activity using dominos, such as an addition square.



**Bonus tip:** Students can substitute the dots on the dominoes for illustrations or symbols of their choice.



#### Day 26 Activity: Fun With Folding

Encourage your students to make origami figures by folding pieces of paper. These can be as complex or as simple as they like depending on ability level, and they offer an opportunity to explore shapes with creative and rewarding results.



**Bonus tip:** Students could turn the folding of a paper plane into an opportunity to learn about motion and aerodynamics. What folds and cuts can they make to a regular paper plane for it to fly the furthest possible distance?

#### Day 27 Activity: Sherbet Factory

There's no need for a trip to the lolly aisle when students can make their own sherbet and learn more about chemistry in the process. A few pantry staples are all they need to create this sweet treat from scratch!

**Level 1:** Task students with noting down the tastes, textures, and sensations of the sherbet they create.

**Level 2:** Use the activity as an entry point to discuss the acid-base reaction involved.

**Level 3:** Task students with researching other phenomena and substances where this kind of chemical reaction takes place. *Note: See the supporting resource on page 18 of this guide.* 



**Bonus tip:** Students could create and decorate their own packaging so the sherbet can be stored for later!

## Day 28 Activity: Personal Timelines

Students choose an inspirational person and create a biographical timeline of their life. Looking at the steps on someone else's incredible life journey will motivate them to set goals for the future, while also developing their literacy and research skills. Working with dates and developing a timeline will also channel their inner historian!

**Level 1:** The early years can start by creating their own timeline and plotting out key dates (e.g. their birthday, first day at school) in chronological order.

Level 2: Students research a person that inspires them.

**Level 3:** Team the timeline with a goal setting and reflective activity. Ask students what they can learn from this person and how they might apply it in their own life journey.



**Bonus tip:** The subject doesn't have to be famous. Family members and friends will also have amazing stories to tell!



#### Day 29 Activity: Workout Time

Keep your students' fitness levels up by tasking them with creating an original workout. They could post this online for others to do while they are at home. This all-ages activity can also double as a source of mathematics practice if they count out different movements and provide specific times. Get them moving!



**Bonus tip:** Encourage students to team their workout with an energetic playlist for extra motivation!

### Day 30 Activity: Art Gallery

Students create an artwork or craft piece, perhaps with the added challenge of using readily available home materials. It's a hands-on way of engaging their creativity and imagination and developing some artistic flair to boot!

**Level 1:** Encourage students to get hands-on with different types of materials. They can glue things together, mix colours, and explore tactile elements.

**Level 2:** Issue an accessible theme for the artwork (e.g. pets).

**Level 3:** Students prepare an 'artist's statement' to accompany the work which outlines their decision-making process and the ideas behind the work.



**Bonus tip:** Create a digital art gallery by having students upload their work to the LMS or a shared space.

# 30 Days of Learning Challenge – Activity Sheet



Name:

Circle each activity when you have completed it.

























# 30 Days of Learning Challenge – Activity Sheet



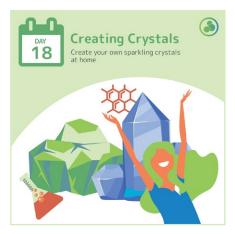
























# 30 Days of Learning Challenge – Activity Sheet

















## **Bingo Template**

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#### **Soft Drink Volcano** – Experiment outline

Note: You'll need an open outdoor space for this activity.

#### You will need

- A roll of Iollies (mint flavoured Iollies work well e.g. Kool Mints or Mentos)
- 2L bottle of soft drink
- A piece of paper or tube
- Outdoor space
- Tarp (optional)



#### What to do

- 1 Open the soft drink bottle and place it on the ground.
- If you don't have a tube, roll the piece of paper into a cylinder, wide enough for the lollies to slide through.
- Put your finger over the bottom of the paper cylinder and have a sibling or parent put the lollies inside.
- Hold the cylinder of lollies above the open bottle and remove your finger to let the lollies drop straight in.

Note: All the Iollies need to fall into the bottle at the same time.

5 Quickly move away and watch what happens.

#### What's happening?

Soft drink is bubbly because carbon dioxide gas has been forced into the bottle under pressure and adding anything to it enables more bubbles to form and escape. The lollies provide lots of surface area very quickly, which means the bubbles of gas form rapidly.

Hundreds of tiny pits called nucleation points form on the surface of the lollies as they dissolve and even more carbon dioxide bubbles can form in them. When all this carbon dioxide gas is released, it thrusts the entire contents of the bottle skyward in a sugary volcano!

Try the same experiment using sand and sugar instead of Iollies and see what happens!



#### Bath Bombs - Experiment outline

Note: You'll need an adult to help with this activity.

#### You will need

- Food colouring
- Flower petals or body glitter
- Sweet almond oil
- Scented oil (e.g. lavender oil)
- 10 tbsp bicarbonate soda
- 3 tbsp citric acid
- 2 large mixing bowls
- A large muffin tray
- A small glass jar
- Rubber gloves
- A spoon



#### What to do

- 1 Grease your muffin tray with a small amount of almond oil.
- 2 Place the bicarbonate soda and citric acid into one large bowl and mix well.
- 3 Scoop out half a cup of the mixture and place it into your other bowl.
- 4 Add the flower petals or body glitter into your half-cup bowl of base mixture.
- In the small glass jar, mix 6 drops of your scented oil, 5 tsp sweet almond oil, and 10 drops of food colouring.
- 6 Slowly pour the oil mixture into the half-cup bowl of base mixture.
- While wearing gloves, mix it all together very quickly.

  Note: The mixture is ready when it stays together without crumbling.
- 8 Spoon the mixture into the muffin tray and let it set for a few days.
- 9 Run a bath and watch them fizz!

#### What's happening?

When the bath bomb dissolves in water, there is a chemical reaction between the citric acid and the sodium bicarbonate. The result is called sodium citrate. During the reaction, carbon dioxide is released. This causes the 'fizzing' that you see, like that in carbonated water.



#### **Creating Crystals** – Experiment outline

#### You will need

- Sugar
- Salt
- Bicarbonate soda
- Warm water
- 3 eyedroppers
- 3 spoons
- 3 plastic containers (or bowls)
- A measuring cup
- 3 small plastic cups
- A marker



#### What to do

- 1 With your marker, label your containers 'sugar', 'salt', and 'bi-carb'.
- 2 Pour half a cup of warm water into the 'sugar' container.
- Add a spoonful of sugar to the water and stir until dissolved. Keep adding sugar until no more will dissolve.
- 4 Repeat steps 2 and 3 with salt and then repeat again with bicarbonate soda.
- 5 With your marker, label the small plastic cups 'sugar', 'salt', and 'bi-carb'.
- 6 Use an eyedropper to put a few drops of your sugar solution into its matching up.
- Repeat step 6 for your salt solution and bi-carb solution, using a new eyedropper each time.
- 8 Place the cups in a warm, sunny spot and leave them until all the liquid has evaporated.
- 9 What do you see?

#### What's happening?

When a solid is dissolved in the water until no more dissolves, the solution is 'saturated'. The amount of substance that dissolves in water increases with temperature. As the solution cools back down to room temperature, there is now more solute in the water than would normally be the case – the solution is 'supersaturated'. As the water evaporates, the solute precipitates out of the solution in the form of crystals. This is an example of crystallisation.



#### **Sherbet Factory** – Experiment outline

#### You will need

- Icing sugar
- Critic acid
- Bicarbonate soda
- Flavoured jelly crystals
- A teaspoon
- A dessert spoon
- A small mixing bowl
- A small snap-lock bag



#### What to do

- 1 Add 1 teaspoon of citric acid crystals into your bowl.
- 2 Add 1 teaspoon of bicarbonate soda into your bowl.
- Add 3 heaped dessert spoons of icing sugar into your bowl.
- Add 2 flat dessert spoons of jelly crystals into your bowl. *Note: Add more jelly crystals to taste.*
- Taste a tiny amount of your mixture to make sure it's to your liking. You may need to vary the ingredients.

#### Tip!

If it's too bitter, add more sugar. If there isn't enough fizz, you may need to add some more bicarbonate soda or citric acid.

Note: Make sure you only add a small amount of extra ingredients.

6 Enjoy!

#### What's happening?

When you combine an acid (in this activity the citric acid) and an alkaline (the bicarbonate soda) with saliva they mix together to create a gas in the form of lots of tiny bubbles, creating an acid-base reaction in your mouth. This reaction is what gives sherbet its fizz. You are feeling the sensation of carbon dioxide bubbles on your tongue.