SCOTLAND Potato project planner - lesson ideas

Week 1: 19/4/21 Discover potatoes

Health and wellbeing - Food and health (HWB 1-35a / HWB 2-35a)

Study six varieties of packaged potatoes (including at least three UK varieties) to find out about them, e.g. their names, how they are prepared, where they are grown.

You will need six varieties of packaged potatoes for this lesson.

- Divide the pupils into six groups and give each group a type of potato in its packaging to explore by answering the questions below. Rotate the potato varieties around the groups so they can explore all six types.
  - What are these potatoes called?
  - Where are they grown?
  - Does it say who grew the potatoes?
  - What do they look like? Describe them in three words.
  - How is it best to cook them?
- Pupils can draw a table to record the information.
- To explore more closely the best way to cook different potatoes, you could use the **Potato varieties worksheet.**
- Discuss what the pupils find out. Have they tried any of these potatoes? What is their favourite potato dish?

NOTES:

- Keep the potatoes for the other activities suggested this week in different curriculum areas.
- Print copies of the **Potato plant observation sheet** for the class so they can start recording their observations this week.
- In week 6, children will look at the packaging used on potato products to help them design a package for their own potato salad. Start collecting packaging/sleeves from potato products so they are ready for week 6.

Social studies: People, place and environment (SOC 1-13a, b/ SOC 2-13a, SOC 1-14a/ SOC 2-14a)

Locate where the potatoes are grown on a map.

- Provide UK maps/atlases and copies of the **Where do potatoes grow? worksheet**. Task the pupils to locate the counties where the three UK potato varieties are grown and mark these on their worksheet. Can they find out where their two GYOP-kit varieties are grown?
- Create a key for the map using symbols or colours.
- Identify where pupils live on the county map and work out which direction (N, S, E, W or use the eight points of a compass) they would have to travel from where they live to get to where each potato variety is grown.
- Use an online satellite map to take a look at what the areas where the potatoes were grown are like.

Numeracy and mathematics: Number, money and measure (MNU 1-11a/MNU 2-11a, MNU 2-11b)

Estimate, measure and weigh the potato varieties and make comparisons.

- Estimate, measure and record the length of the largest (or smallest) potato in each variety. To measure the potatoes, place them on a sheet of paper, mark the top and bottom and then measure the distance between the two marks. Which variety is the largest?
- Write statements about the potatoes using symbols, >,< and = to compare the length/weight of the different varieties.
- Weigh the largest (or smallest) potato in each variety in grams. Weigh one or two varieties and then use this as a guide to estimate the weight of the other varieties before weighing them.
- Convert the potato measurements from smaller to larger units of measurement and vice versa (e.g. cm, mm, m). If you are converting the weights of potatoes, you could use the **Weighing worksheet** to help.

Sciences: Planet earth (SCN 1-03a/ SCN 2-03a) and Biological systems (SCN 2-14a)

Observe the GYOP plants, take measurements, make predictions, identify their parts and what they need to grow well.

- Start observing and recording the GYOP plants over the next six weeks (while you are completing the activities in this six-week block of work). Pupils can use the **Potato plant observation worksheet** in the GYOP kit.
- Task the pupils to make some predictions about the growth of the plants at various time points.
- Take other measurements (e.g. daily temperature, rainfall) to see if these impact on the growth of the potato plants.
- Find out how potatoes are grown/farmed by looking at the **Growing potatoes PowerPoint**.
- Use the **Potato plant parts worksheet** to label the parts of a potato plant. What is the function (job) of each part of the plant?
- Grow cress and compare the parts of the cress plant (seed, root, stem, leaves), stages and speed of growth with the GYOP plants.
- Fun activity; Try the **Potato Cressheads worksheet**, perfect for younger pupils.
- Explore the requirements of plants for life and growth by setting up an investigation with the cress, e.g. What happens to the growth of the cress if there is no light or air?
- Use illustrations and labels to explain the life cycle of a potato plant.

Week 2: 26/4/21 Investigate potato-based dishes

Health and wellbeing - Food and health (HWB 0-35a/HWB 1-35a / HWB 2-35a)

List, discuss and research potato-based dishes. Learn about the potato varieties that are best for different potato dishes, and why.

- With the pupils, create a list of potato-based dishes.
  - Which have they tried?
  - What do they taste like?
  - Which are their favourite?
- Explain how different varieties of potatoes are good for making different potato dishes, e.g. new potatoes are good for potato salad. Use the **Types of potatoes PowerPoint** to support the discussion. The **Potato factsheet** provides a summary of the best potatoes for different dishes.
- Task pupils to research different potato dishes available online, e.g. from different supermarkets. What potato dishes are available chilled, frozen, canned? What variety of potato does each dish use? Can you tell where the potatoes are grown?
- You could visit a supermarket so pupils can explore potato-based dishes. The pupils could use the **Potato hunt worksheet** to record what they find.

Numeracy and mathematics: Information handling (MNU 1-20b/MNU 2-20b, MTH 1-21a/ MTH 2-21a)

Carry out a survey to discover the most popular potato dishes in the class/school.

- Pupils could use the **Favourite potato survey worksheet**, or design their own survey, to collect information.
- Pupils could present the information as a pictograph, bar chart or pie chart.
- Challenge the pupils to ask and answer questions about the information by comparing, adding and subtracting data, e.g. How many more? How many fewer?

Literacy and English: Writing (LIT 1-24a/ LIT 2-24a, LIT 1-26a/ LIT 2-26a, LIT 1-29a/LIT 2-29a, ENG 1-30a/ ENG 2-30a)

Design a poster to promote a favourite potato dish. Share the posters on the GYOP Twitter or Facebook page!

- Pupils could spend some time considering their favourite potato dish and how it might be presented on the poster by answering the following questions, or using the questions to 'interview' each other to help form their thoughts.
  - What does it taste like? (Collect descriptive vocabulary for the taste and texture.)
  - What potatoes are used to make it?
  - What can it be served with?
  - Why is it so nice to eat?
  - How can you promote this dish to other people/make it appeal?
- Present their work to the class – How tempting do the dishes seem to others? Can the class suggest additions to the posters to increase the appeal of the dishes?

Literacy and English: Reading (ENG 1-17a/ ENG 2-17a, ENG 1-19a/ ENG 2-19a)

Read and discuss *The bucket garden* story about a class growing their own potato plant in a bucket.

- Show the PowerPoint story on an interactive whiteboard and take turns to read parts.
- Pause periodically and ask the pupils to predict what they think will happen next.
- Question pupils about how they think the characters feel at different points and why.
- Challenge the pupils to summarise parts of the story.
- Ask the pupils to compare the potatoes being grown in the story with their potatoes.
- Additional activity sheets based on **The bucket garden** story are available

Week 3: 3/5/21 Develop food skills

Health and wellbeing - Food and health (HWB 1-33a/HWB 2-33a) **Technologies: Food and textile technology** (TCH 1-04a/ TCH 2-04a)

Use food-preparation skills (cutting, snipping and mixing) safely and hygienically to make a simple potato salad.

- Organise for the pupils to prepare the **Potato salad recipe** to experience making their own potato-based dish and develop their food skills.
- Pupils should be taught to safely use the following foods skills:
  - Bridge hold (to half, and quarter, new potatoes)
  - Snipping with kitchen scissors (to prepare spring onions and dill)
  - Using measuring spoons (to measure the mayonnaise)
- Take a look at the **Food skills guide** and the **Chop, cut, grate (food skills videos)** to support.
- Pupils can prepare the recipe in groups of four, taking turns to try the different food skills.
- Before the pupils cook, talk through the **Let's get ready to cook poster** points with them.
- **MAKING!** Remember to check for food allergies/intolerances and/or other dietary requirements. Plan the session carefully so it is safe and hygienic. Look at *Food – a fact of life* **Good food hygiene and safety practices** - primary resources for support, e.g. Setting up a cooking session guide, Risk assessment template, Tasting guide.
- When the potato salads have been prepared, allow the pupils to taste them. Ensure this is done hygienically by providing a paper plate and fork for each pupil and a serving spoon for each group so they can serve the salad to their own plate before tasting it with their own fork.
- Discuss the potato salads. What do they taste like? What could they be served with? What could be added? Do they like them?

Literacy and English: Writing (LIT 1-26a/ LIT 2-26a, LIT 1-28a/ LIT 2-28a)

Watch the *Earthy potatoes – from farm to fork* video and retell the story from the perspective of a potato.

- Show pupils the ***Earthy potatoes – from farm to fork* video**
- Discuss what happens to the potatoes as they go from field to shop. You could note the key stages on the board for reference.
- Task the pupils to imagine they are one of the potatoes in the video and write about what happens to them as they make their journey to the supermarket. Pupils could work in pairs or small groups to do this and discuss their ideas first.
- Older primary pupils could complete the **Earthy potatoes quiz** which asks questions about the video (an answer sheet is available)

Sciences: Planet earth (SCN 1-01a/ SCN 2-01a, SCN 1-02a/ SCN 2-02a, SCN 2-02b)

Observe, identify and find out about the insects and creatures that visit the GYOP plants.

- Task pupils to spend some time observing their potato plants to look for any insects that visit. You could provide some magnifying glasses to help. Before the pupils begin the task, you could show them the **Friend or foe? information sheet** to make pupils aware of some of the insects that might visit the potato plants. What insects visit the potato plants? What are they called? What do they do? Do the insects help or harm the potato plant?
- Task pupils to group the insects that visit their plants, e.g. if they fly, how many legs they have, colour, size.
- Pupils could use insect classification keys to help identify the insects they see.
- Pupils could use the **Bug ID cards worksheet** to create a profile for four insects and undertake some research to find out more about them. Where do they live? What do they eat? What eats them?
- The pupils could build a bug hotel. Instructions can be found on the **Bug hotel instruction sheet.**

Social studies: People, past events and societies (SOC 1-06a/ SOC 2-06a)

Find out about historical events in 'potato history' and compare the dates of these with other historical events.

- Talk about the history of potatoes using **The history of the potato information sheet.**
- Do any of the potato dates fit into other periods of history you have been studying?
- Do you have a class timeline you can add some of these to?
- When was potato salad first created, i.e. created/eaten
- Find out other interesting 'potato' facts and events from over time, e.g. How much did a bag of chips cost where you live 60 years ago? What do they cost now?
- Find out more about some of the people, places and events mentioned on the potato history sheet.

Week 4: 10/5/21 Explore healthy eating

Health and wellbeing - Food and health (HWB 1-30a/HWB 2-30a)

Learn about the Eatwell Guide and its key health messages. Sort foods into the correct food groups.

- Use **The Eatwell Guide presentation** to talk to pupils about healthy eating. For background teacher information, take a look at **The Eatwell Guide (guide)**.
  - Explain that the Eatwell Guide shows us the variety and proportion of different foods we need to stay healthy.
  - Ask pupils to name each group and some of the foods they contains.
  - Talk about foods they have tried from the group and which they would like to try.
  - Highlight the size of the groups and talk about how this indicates the proportion of their food that should come from each group, i.e. lots from the two biggest groups, some from the medium-sized groups and a little from the smallest group.
- List the ingredients they used to make their potato salad in week 3. Ask the pupils to help you sort the ingredients into the food groups. Repeat this with other meals the pupils have had recently (e.g. breakfast, lunch) so they can see how food can be sorted into the food groups to contribute to a healthy diet.
- Explain to the pupils that they will be designing and making their own healthy potato salad to practise a recipe for when they harvest their potatoes as part of GYOP. Their potato salad will include ingredients from the four largest Eatwell Guide food groups. Potatoes will be used from the *Potatoes, bread, rice, pasta and other starchy carbohydrates* group. Talk with the pupils about the foods they could use from the other three groups. Make a list (you may like to include, or direct pupils to, some of the food that is listed for the pupils to try in the next lesson, week 5). This food is also listed on the bottom of the **Potato salad recipe** from week 1.

Health and wellbeing: Food and health (HWB 1-30a/ HWB 2-30a)

Keep a food diary and analyse what has been eaten by sorting the foods into the Eatwell Guide food groups.

- Task the pupils to keep a food diary of what they eat over a day.
- Ask them to sort the food into the Eatwell Guide groups. They could use **The Eatwell Guide worksheet** (a blank Eatwell Guide). What we eat does not have to match the Eatwell Guide at every meal, but we should try to achieve the proportions shown over the period of a day or even a week.
- Talk to the pupils about what else they could eat over the next few days to help them match the balance of the Eatwell Guide. Look at food that is not part of the Guide (food high in fat, salt and sugars). These foods are not needed in the diet, so, if eaten, should only be eaten in small amounts and occasionally.
- Explain to the pupils that there is normally mayonnaise in potato salad and this is usually high in fat. When they make their potato salad, to help it to be healthier, they will be trying out some lower-fat alternatives from the *Dairy and alternatives* food group, e.g. low-fat yogurt, reduced-fat soft cheese.

ELiteracy and English: Listening and talking (LIT 1-06a/ LIT 2-06a, LIT 1-10a/ LIT 2-10a)

Undertake research to find out about potato salad, e.g. the potatoes used, ingredients that can be added, how it is served.

- Set some questions about potato salad and task the pupils to research these, e.g. Where does potato salad come from? What varieties of potato can be used to make potato salad? What ingredients can be added? What is it served with? Is it a dish eaten around the world or do countries have different but similar versions?
- Ask the pupils to prepare and give a presentation, in small groups, about what they have found out. They should consider how they will make their presentation engaging for the listener, e.g. delivery style, format, props, visuals.

Health and wellbeing: Physical education, physical activity and sport (HWB 1-25a/ HWB 2-25a)

Play the Eatwell Guide race – involving running to a blank Eatwell Guide and attaching food images.

- To embed the pupils' learning about the Eatwell Guide, play the Eatwell Guide race as part of a PE lesson.
- The Eatwell Guide race resources:
  - Blank **Eatwell Guide poster** x 2
  - **Food cards** x 56
  - White Tack or similar

Instructions:

1. Split the class into two groups
2. Give each group 28 food cards, representing a variety of food from the food groups
3. Ask each group to stand in a line, with the first pupil in the line standing approx. a half a playground length from a wall
4. On the wall, attach the two **Blank Eatwell Guide posters**, one opposite each line of pupils
5. On your instructions, one at a time, the pupils should run to the **Blank Eatwell Guide posters** and attach their food card in the correct place. They should then return to their line to indicate that the next pupil should go and place their card.
6. The first group to attach all their cards, correctly, to the **Blank Eatwell Guide**, is the WINNER!!
7. The cards can then be shuffled and redistributed and the game repeated.

Week 5: 17/5/21 Plan a potato salad

Health and wellbeing - Food and health (HWB 1-30a/HWB 2-30a, HWB 2-32a, HWB 1-33a/HWB 2-33a)

Taste ingredients and decide which to include in a potato salad.

- Over the next two lessons, pupils will be designing, making and tasting their own healthy potato salads so they have a tried-and-tested recipe for when their GYOP potatoes are ready in a few weeks' time.
- Provide a small selection of the ingredients from the Eatwell Guide, based on those that the pupils suggested might go well in a potato salad during the week 4 lesson.
- Here are some suggested ingredients, grouped according to the Eatwell Guide. Note: These ingredients have been suggested as they can be prepared using the bridge hold and snipping with kitchen scissors – skills the pupils practised in week 3.

Fruit and vegetables	*Beans, pulses, eggs, fish, meat and other proteins*	*Milk and alternatives*	**Flavouring options for the pupils to smell (3–4)**
• Green beans (cooked and cooled) • Orange pepper • Cherry tomatoes or red grapes, halved or quartered (to avoid being a possible choking hazard) • Cress (if grown in week 1 of the Potato project)	• Canned chickpeas • Canned tuna • Hard-boiled eggs • Sliced ham	• Low-fat plain yogurt • Reduced-fat soft cheese • Reduced-fat crème fraise • Reduced-fat Cheddar cheese, grated	For example: • Mint • Coriander • Basil • Chives • Curry powder

- Prepare the ingredients that will be tasted into tasting-sized portions. Organise the ingredients on different tables, according to food group or 'flavouring option'.
- **TASTING!** Remember to check for food allergies/intolerances and/or other dietary requirements. Plan the session carefully so it is safe and hygienic. Look at *Food – a fact of life* **Good food hygiene and safety practices** – primary resources for support, e.g. a tasting guide.
- Explain to the pupils that they will be planning and making a potato salad for a friend. As they taste the ingredients on each table, they need to think about which would be a good choice for the person who will be eating the salad. Does the person have any dietary requirements or food preferences? Remind pupils about tasting in a hygienic way. Plan to let the pupils taste the ingredients on each table and then move to the next table as a group, on your instruction. The pupils should record three or four ingredients (each from a different table) that they plan to add to the potato salad they make. Complete the English recipe writing task (below) to enable pupils to plan their potato salads.

Literacy and English: Writing (LIT 1-28a/ LIT 2-28a, LIT 1-24a / LIT 2-24a)

Write a potato salad recipe.

- Task the pupils to plan their salad for a friend, considering the ingredients that will be available, their friend's preferences and healthy eating.
- Task the pupils to write the recipe for their potato salad using features of instruction text, such as bullet points, numbering and lists. NOTE: They will only need to plan for a small portion to serve the person it is designed for, using only four or five potatoes, as this will be their allocation for the final recipe they make with their GYOP crop in June.
- Pupils could ask others to 'mime' through the steps of their recipe to check it for clarity.

Literacy and English: Writing (LIT 1-26a/ LIT 2-26a, ENG 1-31a/ENG 2-31a)

Write an acrostic poem about potatoes.

- Task the pupils to write an acrostic poem called POTATO SALAD about how they will make their potato salad, what it will include and how they expect it to taste. Talk about their ideas and create a list of useful words with the pupils that they can draw on when writing their poems.

Numeracy and mathematics: Number, money and measure (MNU 1-11a/MNU 2-11a, MNU 2-11b)

Practise measuring liquid to support measuring when making a potato salad.

- Provide a selection of small containers and task pupils to estimate the amount of water each one will hold.
- Provide pupils with access to water, measuring jugs and a selection of measuring spoons (5 ml, 10 ml, 15 ml). Task them to measure the amount of water each container holds in millilitres.
- Pupils could convert the millilitre measurements into litre measurements.

Week 6: 24/5/21 Make a potato salad

Health and wellbeing - Food and health (HWB 1-33a/HWB 2-33a) **Technologies: Food and textile technology** (TCH 1-04a/ TCH 2-04a, TCH 1-04d/ TCH 2-04d)

Prepare a planned potato salad safely and hygienically. Taste the potato salad and suggest modifications.

- Organise the ingredients and equipment for pupils to make their potato salads. They should use the ingredients they chose in week 5.
- **MAKING!** Remember to check for food allergies/intolerances and/or other dietary requirements. Plan the session carefully so it is safe and hygienic. Look at *Food – a fact of life* **Good food hygiene and safety practices –** primary resources for support, e.g. Setting up a cooking session guide, Risk assessment template, Tasting guide.
- Demonstrate how to safely use the bridge hold, snipping and measuring techniques, as a reminder for the pupils (as shown on the **Potatoes salad recipe**). Based on use of the ingredients suggested in the previous lesson, the skills used to prepare each ingredient would be as follows:

  Snipping

  - Orange pepper – provide as sticks so pupils can snip them into smaller pieces.
  - Green beans – cooked and cooled so they can be snipped with kitchen scissors.
  - Herbs – to be snipped with scissors.

  Bridge hold

  - Cherry tomatoes – use a bridge hold to half (and quarter, if required).
  - New potatoes – to be provided cooked and cooled. Pupils to use the bridge hold to halve the potatoes (and quarter, if required).
  - Hard-boiled eggs – to be bought in cold and peeled, and halved/quartered by the pupils using the bridge hold. (Tip: To make the peeling easier, roll the eggs on a surface to crack the shell.)

  Measuring

  - Yogurt, crème fraiche, soft cheese and curry powder to be measured with measuring spoons.
- Task the pupils to make their potato salads.
- Once everyone has finished, allow the pupils to taste their potato salad and discuss what it is like. Does it taste how you expected? Would the person you have made this for enjoy it? Would you change anything about your potato salad?
- The pupils should make notes about what they will change when they make their final potato salad with their GYOP crop. They could make amends to their recipe sheets they completed task in week 5

Literacy and English: Reading (LIT 1-14a/ LIT 2-14a, LIT 1-15a/ LIT 2-15a)

Study the packages of potato-based dishes and list the information they contain.

- Provide packages/sleeves from potato-based dishes (these will need to be collected in advance) for the pupils to explore.
- Task pupils to create a list of the information each package contains, e.g. name, weight, ingredients list, recycling symbol, where it is made, date mark.

Expressive arts: Art and design (EXA 1-03a/ EXA 2-03a, EXA 1-05a / EXA 2-05a)

Design a container or sleeve for a potato salad.

- Set pupils the task of designing a container or sleeve for their potato salad that includes the features they have identified on food packaging previously. Pupils should consider how their packaging design will be both functional and attractive. You may like to organise some small (recyclable, biodegradable) containers for the pupils to use when they make their final potato salad using their GYOP crop (something similar to the size of a small shop-bought potato salad container). You could have these in advance so the pupils can design their labels to fit the containers.

Numeracy and mathematics: Information handling (MTH 1-21a/ MTH 2-21a)

Use the potato plant growth data collected to create a chart.

- Using the potato plant growth measurements the pupils have been collecting each week, or their records of the number of leaves counted, task them to create a chart tracking their potato plant's development.