









## Kids' Club Growing Guide















### Get ready for the Full of Beans mission!

#### Materials:

These are the materials needed for groups of 10 children and young people. You can adjust the materials listed below based on how many are in your group.

#### For Activity 1 – Growing Peas:

- 10 growing pots (we recommend biodegradable pots measuring 8cm)
- Garden trowel
- Multi-purpose peat-free compost (about 1 litre per pot)
- Sugar snap pea seeds
- Water
- Pen to write name on the pot

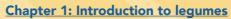
#### For Activity 2 – Growing Pea Shoots:

- Trays (at least 4cm deep with holes in the bottom to allow water to drain out)
- Garden trowel
- Multi-purpose peat-free compost
- Sugar snap pea seeds
- Water

#### For Activity 3 - Sprouting Pulses:

- Dry whole pulses like mung beans, adzuki beans, lentils, alfalfa, chickpeas or dried peas (split varieties won't grow).
   For food safety reasons, choose packets that say they are "suitable for sprouting" or buy from a health food shop.
- 10 jars or bowls
- A cheesecloth or sieve
- Water
- Pen to write names on the jars or bowls





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We're on a mission to help everyone discover how amazing beans and pulses are. They may be small, but they are MIGHTY! They are super for our bodies, great for the planet, affordable, convenient, and delicious too!

We have created many Full of Beans activities and resources to help people discover, explore and celebrate beans and pulses through growing, tasting and cooking.

The Kids' Club Growing Guide includes activities you can do with children and young people in after school clubs, holiday clubs and youth groups. It gives children and young people the chance to grow and explore beans, as well as learning fun facts about why they are good for our bodies and the planet.









## Chapter 1 Geft Seft

#### **INTRODUCTION TO LEGUMES**



#### How to introduce the Full of Beans mission

"We're on a mission to superpower our city and make us all Full of Beans! First, we're on a discovery mission. Who knows what legumes are?

(give children the opportunity to answer)

I don't know many adults that know what legumes are! Legumes are plants that grow pods. Inside those pods are seeds. Does anyone know what types of seeds grow in the pods?

(give children the opportunity to answer)

There are four main types: beans, chickpeas, lentils and peas. Now, for a tricky question. Does anyone know what a pulse is? Not the heartbeat pulse ...there's another type of pulse.

(give children the opportunity to answer)

They come from pods that have been left on the plant to dry, and the seed dries. This dried seed is called a pulse. I bet there's a type of pulse that you all know.

(give children the opportunity to answer)

Do you need a hint? Can anyone think of a type of pulse that's often served at school?

(give children the opportunity to answer)





Baked beans! Sometimes the sauce can have too much salt or sugar, but the bean itself is brilliant. Does anyone know the names of any pulses?

(give children the opportunity to answer)

There are so many! As well as chickpeas, there are green peas, yellow peas, black-eyed peas, kidney beans, black beans, haricot beans, pinto beans, cannellini beans, butter beans, green lentils, brown lentils, red lentils, and many more! They come in all sorts of different colours and shapes. The legumes fact sheet shows what these different pulses look like.

Does anyone have some beans and pulses at home? Dried, in cans or cartons?

(give children the opportunity to answer)

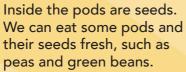
You can buy them dry and cook them at home. Dry pulses can be stored for years! Or you can buy them ready cooked in cans, cartons or jars. There are so many types of beans and pulses and they are awesome. During the Full of Beans mission we're going to discover more about them. We'll be doing lots of fun activities including growing them ourselves!"





# what are Legumes?

Legumes are plants that grow pods.



You can leave the pods to dry on the plant, and then harvest them.

Inside the pods are dried seeds. These dry seeds are called pulses.





#### -loke

My friend Jack claims that he can communicate with legumes

Jack and the beans talk!

# There are different types of pulses including...









chickpeas

peas

How many legumes have you tried?

# Super Beans, Mighty Pulses

Fuel your body with the power of beans!

Beans and pulses have lots of protein, fibre, complex carbohydrates, vitamins and minerals and are low in fat, salt and sugar.

This means they help us:

Build Strong Muscles



Grow long half













# Benefits of pulses for the planet



#### Bean-tastic Soil

When legumes grow they help make soil healthy and full of nutrients. Eating beans and pulses makes our soil better!





#### Climate Heroes

Legumes releases fewer gases that make the planet too warm. Eating beans and pulses helps stop climate change!



#### **Water Savers**

Legumes need much less water to grow than meat and dairy products. Eating beans and pulses saves water!



#### Joke

Why did the leaf go to the doctor?

It was feeling green!



#### **Farming Friends**

Legumes are important for gentle farming methods that use multiple crops. Eating beans and pulses supports better farming methods and nature!



#### **Habitat Protectors**

Less land is needed to grow legumes than to raise animals which means there is more land for nature. Eating beans and pulses protects natural habitats!





### Chapter 2

# How do they grow?

What's a gardeners favourite book? War and Peas

Joke

Plants need sunlight, warmth, air and water to grow...



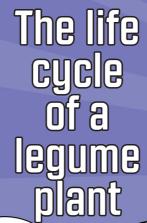
Pods contain seeds



Grow roots



Flowers become pods





**Grow flowers** 



Grow leaves





Grow leaf buds



Grow taller

# Growing different types of beans and pulses

Beans and pulses are perfect for growing with children. Engaging in a hands-on growing activity is a great way to learn about beans and pulses, and most importantly, have fun!

#### **Peas**

Peas are a great choice as you don't need much space to grow them. You can sow sugar snap peas from March to April inside, or April to June outside. They take between 60 and 70 days to grow pods. As they grow bigger you can use sticks or bamboo canes to support them. When the seedlings are about 12-15cm tall you can move them to a larger pot or plant them in the garden.

#### Runner beans

Runner beans will happily grow in a container or in the ground. They like to climb up towards the sky, so you'll need some long sticks or canes for them to grow up. They are thirsty plants that need watering every day. You can sow the seeds in April inside or from May to July if planting outside. The beans will be ready to harvest approximately 60 to 75 days after planting.

#### **Borlotti beans**

Borlotti beans are warm-season crops, so can be sowed from late April to early June. They thrive in full sunlight and prefer well-drained soil. They climb just like runner beans do and the beans are ready to harvest approximately 12 weeks after planting when the pods are plump and firm. The beans inside have a speckled pattern.

# Chapter 3 Growing Activities

60 mins

#### ACTIVITY 1 – GROWING PEAS (1 HOUR PLUS WATERING AS REQUIRED)

#### **Materials**

- Small growing pot per child (we recommend biodegradable pots measuring 8cm)
- Garden trowel

- Multi-purpose peat-free compost (about 1 litre per pot)
- Sugar snap pea seeds
- Water
- Pen to write name on the pot

#### Instructions

Set up your growing materials in an activity area. Encourage discussions about the growing cycle of legume plants during the activity. You can do the activity in small groups or as a large group activity.

- 1. Ask the children and young people to write their names on their growing pots so that they know which one is theirs.
- 2. Use a trowel to add enough compost to fill a growing pot.
- 3. Place 1 to 2 seeds on top of the compost and push them in so they are 3cm deep.
- 4. Next, pat down the compost on top using the trowel and add water using a watering can or jug until the compost is moist.
- 5. Place the pot in a slightly sunny and warm spot.
- 6. Wash your hands.
- 7. Water the growing pots every 3 days (or whenever the compost looks dry).
- 8. You can sow sugar snap peas from March to April inside, or April to June outside. They take between 60 and 70 days to grow pods. As they grow bigger you can use sticks or bamboo canes to support them. When the seedlings are about 12-15cm tall you can move them to a larger pot or plant them in the garden.



#### How to introduce the task

"In this activity we'll be growing! We're going to plant some pea seeds today, then over the next few sessions we'll look after them and watch them grow. Who knows what seeds need to grow? (Give children the opportunity to answer). They need sunlight, warmth, air and water. We will make sure they have enough sunlight and just the right amount water. Plants don't like too much water, or too little. You are each responsible for your own pots so make sure you write your name on them."

#### Top tips

- **Plan ahead.** Make sure to plan which growing activity you are going to do before getting started. Refer to the materials list and set up your activity area beforehand.
- **Start with the basics.** Explain the importance of soil, sunlight and water for plants to grow. Encourage children to ask questions and share their previous experiences of growing if they have any.
- Provide clear instructions. Give clear and simple instructions, breaking down each step into manageable tasks.
   Demonstrations of how to do each step can help, too.
- Promote responsibility. Teach about the importance of watering the plant regularly and caring for them. This can instil a sense of ownership and responsibility.
- Celebrate milestones and achievements. This could include the sprouts emerging from the compost, or the first leaves growing.



#### **ACTIVITY 2 – GROWING PEA SHOOTS**

Did you know, you can eat pea shoots?

You can grow You can grow pea shoots indoors all year round. indoors all year round.

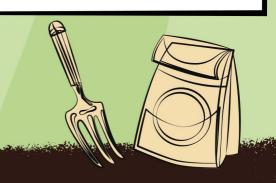
#### **Materials**

- Tray (at least 4cm deep with holes in the bottom to allow water to drain out)
- Garden trowel
- Multi-purpose peat-free compost
- Sugar snap pea seeds
- Water



#### Instructions

- 1. Soak the dry pea seeds for 24 hours in water to wake them up.
- 2. Fill a tray with compost.
- 3. Place lots of pea seeds on top of the compost about 1cm apart and push them in so they are 1 to 2cm deep.
- 4. Lightly pat down the compost to cover the seeds.
- 5. Keep the compost moist by watering it.
- 6. When the shoots are about 10 to 15cm tall they are ready to harvest (this takes about 2 to 3 weeks). If you cut the shoots back to just above the first pair of leaves, they'll grow again.
- 7. Eat them raw like a salad leaf!





#### **ACTIVITY 3 – SPROUTING PULSES (20 MINUTES PER DAY)**

Did you know that you can eat pulses that have sprouted! They're great in salads and stir fries. The most common ones are bean sprouts. You can do this activity inside throughout the year. Some pulses you can buy aren't clean or have chemicals on them and are supposed to be cooked before eating. For this activity make sure you get packets that say they are suitable for sprouting or buy them from a health food shop.

#### **Materials**

- Dry whole pulses like mung beans, adzuki beans, lentils, alfalfa, chickpeas or dried peas (split varieties won't grow)
- Jar or bowl per child

- A cheesecloth or sieve
- Water
- Pen to write names on the jars or bowls

#### Instructions

- Soak the dry pulses in water in a jar or bowl for 4-14 hours depending on the variety. This is because they're dormant (asleep) and the water wakes them up! Alfalfa need to be soaked for 4 hours, and mung beans for 8-12 hours.
- 2. After they have been soaked, drain them using a cheese cloth or sieve.
- 3. Put the soaked pulses into jars or bowls that the children have labelled with their names.
- 4. Keep in a warm, dark place, and rinse and drain them daily.
- 5. They sprout in 2 to 5 days.
- 6. Once they are ready, you can eat them raw or cook them for a minute or two.
- 7. Store them in the fridge for up to a week (you can rinse them daily to keep them fresh).
  - Search "How to grow bean sprouts" online for more tips.



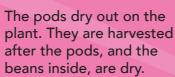
Beans

Beans grow in long pods



Why can't you trust a legume with a secret?

They always spill the beans!





Inside the pods are beans.

Beans come in lots of different colours, shapes and sizes.

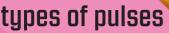
Beans can be bought ready cooked in cans, cartons and jars. They can be eaten cold or heated up.

They can also be bought dried. Larger beans need to be soaked in water for at least 4 hours to rehydrate. Then they need to be boiled for 10 minutes, then simmered for around 1 to 2 hours.





Beans can be added to sauces, stews, soups, curries and salads. They can also be blitzed into a dip.



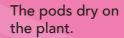
# Chickpeas

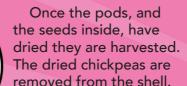
Chickpeas grow in small pods



What did one chickpea say to the other?

Hummus a tune!





Chickpeas can be bought ready cooked in cans, cartons, sachets and jars. They can be eaten cold or heated up.

They can also be bought dried. They need to be soaked in water for at least 8 hours to rehydrate. Then they need to be boiled for 5 minutes, then simmered for around 1.5 to 3 hours.



Chickpeas can be added to sauces, stews, soups, curries and salads. They can also be roasted whole and blitzed into a dip.

types of pulses

# 

Peas grow in medium sized



I lost one pea from my plate at dinner the other day

It was an escape-pea!

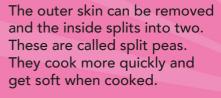


They can be harvested fresh and eaten. They can be frozen to make them last longer.

The pods can be left to dry on the plant.



Once they are dry they are harvested, and the dry peas removed from the shell. The dry peas are a type of pulse.

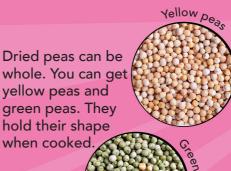




They can also be bought dried. They need to be cooked for around 30-45 minutes.



Peas can be added to sauces, stews, soups, curries and salads.



types of pulses

Lentils

Lentils grow in small pods.



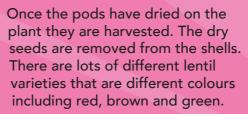


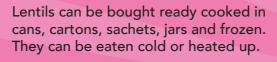


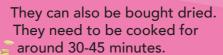


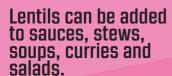
How do you address an audience full of pulses?

Ladies and lentil-men...











Lentils can be whole or the skin removed and the inside split in two. Whole lentils hold their shape when cooked whereas split lentils cook more quickly.





### **Activity - discussion ideas**

## Kidney-beans

#### Look at the beans fact sheet

"Kidney beans are named after their kidney shape and come in various colours, such as red, white and speckled. These beans are packed with lots of good stuff that our bodies need to grow and stay healthy. You can do all sorts of fun things with kidney beans, like turning them into tasty soups, stews or salads. Has anyone here tried kidney beans before? How do you normally eat them and in what dishes?"



#### Kidney bean quiz:

### 1. What colours can kidney beans come in?

- a. Green and purple
- b. Yellow and blue
- c. Pink and orange
- d. Red, white and speckled Answer: d. red, white and speckled

## 3. Kidney beans are often used in which types of dishes?

- a. Pizzas
- b. Cakes and cookies
- c. Soups and stews
- d. Ice cream and puddings Answer: c. soups and stews

## 2. Kidney beans are a great source of fibre. What does fibre help with?

- a. Keeping our tummies happy.
- b. Helps us see in the dark.
- c. Helps us grow taller.
- d. Helps us run faster.

Answer: a. keeping our tummies happy.

## 4. What do you have to do before eating dry kidney beans?

- a. Peel off the skin
- b. Soak and then cook them
- c. Cut them up
- d. Blend them

Answer: b. soaking and cooking



## Butter-beans

#### Look at the beans fact sheet

"These beans got their name because of their smooth and creamy texture, which reminds people of soft butter. Inside these beans are lots of nutrients which help us to grow strong and stay healthy. They are also know as Lima beans, and they are native to South America. They can be bought dried, tinned or in jars. Has anyone here tried butter beans before? How do you normally eat them and in what dishes?"



#### **Butter bean quiz:**

- 1. What colour are the most commonly found butter beans?
- a. White or cream
- b. Brown
- c. Red
- d. Purple

Answer: a. white or cream

- 3. True or false: butter beans have a sweet and tangy flavour
- a. True
- b. False

Answer: a. True

- 2. What is another name for butter beans?
- a. Green beans
- b. Runner beans
- c. Lima beans
- d. Kidney beans

Answer: c. Lima beans

- 4. Butter beans are a good source of which nutrient?
- a. Fat
- b. Protein
- c. Calcium
- d Vitamin D

Answer: b. Protein



## Chickpeas

#### Look at the chickpeas fact sheet

"Chickpeas are small round beans that have a nutty flavour. They can be enjoyed in many different ways. For example, they can be roasted which turns them into crunchy snacks or mashed into a dip called hummus. They can also be added to sauces, soups, stews, curries and salads. Has anyone here tried chickpeas before? How do you normally eat them and in what dishes?"



#### Chickpea quiz:

### 1. What are chickpeas also known as?

- a. Jelly beans
- b. Baked beans
- c. Garbanzo beans
- d. Green beans

Answer: b. Garbanzo beans

## 2. What is the colour of a chickpea?

- a. Beige/cream
- b. Green
- c. Blue
- d. Black

Answer: a. Beige/cream

## 3. Which of the following flavours do chickpeas have?

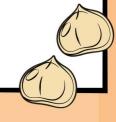
- a. Sour
- b. Sweet
- c. Spicy
- d. Nutty

Answer: d. Nutty

## 4. Which country produces the most chickpeas each year?

- a. India
- b. Mexico
- c. Australia
- d. Turkey

Answer: a. India



## Lentils

#### Look at the lentils fact sheet

"Lentils are small, round seeds that come in various different colours and green is one of the most common types. They may be small, but they are powerhouses full of plant-based protein and other nutrients. They are a versatile ingredient and can be added to lots of dishes, such as soups and curries. Has anyone here tried lentils before? How do you normally eat them and in what dishes?"



#### Lentils quiz:

- 1. What's the most common way to prepare lentils for eating?
- a. Boiling
- b. Baking
- c. Frying
- d. Grilling

Answer: a. Boiling

- 3. Which part of the legume plant do you find lentils growing?
- a. Roots
- b. Stem
- c. Leaves
- d. Pods

Answer: d. Pods

- 2. True or False: lentils can be used as a meat-substitute in vegetarian meals.
- a. True
- b. False

Answer: a. True

- 4. What is the texture of cooked lentils?
- a. Crispy
- b. Soft and tender
- c. Crunchy
- d. Chewy

Answer: b. Soft and tender









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A Birmingham Food Revolution Initiative Find out more at <a href="mailto:birmingham.gov.uk/FoodRevolution">birmingham.gov.uk/FoodRevolution</a>













