### Objective
Learn about the specific hazards on a working farm and how to recognise the various safety signs used.

### Getting Started
On a blackboard list the following ‘Farm Yard ‘Zones’. The Chemical Shed; The Slurry Pit; The Animal Pen; The Field; The Shed, (eg. hay shed, machinery shed, etc)

Now ask the children to mention some of the dangers they might find in each zone. The prompts below will help with your discussion. Finish off by familiarising the children with the safety signs used in each area.

<table>
<thead>
<tr>
<th>The Farm Yard Zones</th>
<th>Staying Safe</th>
<th>What signs?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. The Chemical Shed</strong></td>
<td></td>
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<tr>
<td>What types of chemicals:</td>
<td>The dangers:</td>
<td>The Signs:</td>
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<tr>
<td>Chemicals play an important role in everyday life on the farm. The following are typical types of chemicals mostly used.</td>
<td>How do you know if something is dangerous to touch or smell? The label may read “caution,” “poison,” or “danger.” Some of these chemicals are toxic or poisonous. Chemicals may cause death or serious injury in different ways –</td>
<td></td>
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<tr>
<td>- Fertilizers – help crops to grow</td>
<td>- Inhalation (breathed in) – asphyxiation.</td>
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<tr>
<td>- Detergents – for washing areas of the farm, such as dairy parlour equipment.</td>
<td>- Ingestion (swallowed) - poisoned</td>
<td></td>
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<tr>
<td>- Oils – for machinery</td>
<td>- Absorption (soak into skin or eyes) – burnt skin</td>
<td></td>
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<tr>
<td>- Disinfectants - keep yard clean and hygienic especially in areas with animals and young animals.</td>
<td>- Fire hazards</td>
<td></td>
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<tr>
<td>- Plant protection products – eg. pesticides to protect against disease and weeds.</td>
<td>Staying safe:</td>
<td></td>
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<tr>
<td>Can you think of any more (eg. Bait box poison for rodents and animal health products).</td>
<td>If working with chemicals, famers must wear the correct clothing and safety accessories:</td>
<td></td>
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<tr>
<td></td>
<td>- Overalls</td>
<td></td>
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<tr>
<td></td>
<td>- Gloves</td>
<td></td>
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<tr>
<td></td>
<td>- Face Masks</td>
<td></td>
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<td></td>
<td>- Boots</td>
<td></td>
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<tr>
<td></td>
<td>Keep all chemicals in a room which must be locked with a warning sign on the door.</td>
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<th>The Farm Yard Zones</th>
<th>Safety</th>
<th>What signs?</th>
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<tbody>
<tr>
<td><strong>2. The Slurry Pit</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is slurry?</td>
<td>The dangers:</td>
<td>The signs:</td>
</tr>
<tr>
<td>a. Slurry is the name given to the mixture of manure and urine produced by farm animals such as cattle and pigs.</td>
<td>- Risk of drowning and</td>
<td></td>
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<tr>
<td>b. It used by farmers to fertilise their grass and is typically stored in a slurry tank or a slurry pit.</td>
<td>Poisoning by toxic gases.</td>
<td></td>
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<tr>
<td>Drowning</td>
<td>Slurry is kept in a tank and is made up of solids and water, this makes it a drowning hazard and it must be fenced off to ensure no people or animals falls in.</td>
<td></td>
</tr>
</tbody>
</table>
c. Slurry is kept on a farm in tank or a pit. Some pits, (slatted pits) are indoor and the poo is gathered underneath the sheds from animals over the winter months. During agitation of these pits all animals must be taken out.

d. Farmers can only spread slurry at certain times of the year. Under a rule called the Nitrates Directive, slurry cannot be spread over the winter so as to protect ground and surface water, including drinking water.

e. The process of mixing slurry is called Agitation. This allows all the nutrients that have settled on the bottom of the tank to be churned up and it breaks the hard crust that can form on the surface. But it can be extremely dangerous as deadly gases can be released.

**Poison gases:**
Hydrogen Sulphide is the name of the toxic gas in slurry! Just one lungful of this gas can be fatal. Slurry gases are produced by the bacteria formed during the decomposition (break down) of the slurry. Other gases produced by slurry are Carbon Dioxide (CO2), methane and ammonia.

These gases are released during the agitation (mixing) process.

The first 30 minutes of agitation are the most dangerous as this is when the highly toxic Hydrogen Sulphide is at its strongest. Farmers should leave the area once agitation starts and not return for at least 30 minutes!

**Staying Safe:**
There are certain rules and tips all farmers should follow when mixing slurry!
- Mix slurry on a windy day so to help the gasses blow away!
- Make sure all animals have been removed from the building
- Keep all doors and windows open
- Start the mixer and stay out of the building for at least 30 minutes as this is when slurry gases are at their highest levels (longer depending on the tank size)
- No children should be present when farmers are mixing their slurry

*Tip: a great way to explain how gas is released during agitation is to shake a fizzy bottle and open it slowly so the children can hear the gas escape!*

### The Farm Yard Zones

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<td><strong>3. The Animal Pen</strong></td>
<td>![Animals &amp; Young Sign]</td>
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**What animals may be in the pen?**
Many farmers will keep animals indoors at different times of the year. In spring time many sheep and cattle are indoors as they prepare to give birth.

Typical animals housed indoors are:
- Cattle
- Horses
- Sheep
- Pigs
- Chickens
- Bulls

**The Dangers:**
*Animals & Young:*

Birthing time is a very stressful time for the animals and farmers have to be extremely careful around those animals who are likely to attack while protecting their young.

Did you know: Freshly calved cows can cause more accidents on farms than a bull!

**Medicines:**
Some animals may require some medicines, never touch any bottle that you may see in a shed. Always tell an
4. Sheds:

**What are the different types of shed?**

Sheds and outbuildings are very important on a farm. They house and protect many aspects and outputs of the farm. We have already covered off chemical storage so here are other types of shed on a farm:

- Grain storage
- Hay and straw bales
- Animal pens
- Machinery storage
- Machinery repairs
- Animal feedstuffs
- Chemicals

**The Dangers:**

- Falling from bales
- Falling through a roof
- Items falling from overhead
- Fire

**Falling:**

Bales, pallets and tyres are often very wobbly and can easily fall.

A falling bale or tractor tyre can weigh as much as several grown adults.

Extra care must also be taken when fixing roofs – they may not be able to support an adult’s weight. Using a hydraulic crane will protect farmers from falling through roofs during repair work.

**Staying Safe:**

So stay away from ladders and bales, pallets, tyres or anything else that you might find piled up on the farm. Never try to play on old swings – the ropes may be rotted and dangerous.

Farmers should make sure that ladders are tidied away and not causing any unnecessary temptation.

Farmers should remove old rope and tyre swings from their farm sheds

Beware of any moving machinery or machinery parts in a shed, such as a PTO which can cause entanglement.

**The signs:**

- DANGER
- Eye protection must be worn

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**The Farm Yard Zones**

<table>
<thead>
<tr>
<th>4. Sheds:</th>
<th>Safety</th>
<th>What signs?</th>
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| **What are the different types of shed?** | **The Dangers:**
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- Falling through a roof
- Items falling from overhead
- Fire | **The signs:**
- DANGER
- Eye protection must be worn |
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| | Farmers should remove old rope and tyre swings from their farm sheds | |
| | Beware of any moving machinery or machinery parts in a shed, such as a PTO which can cause entanglement. | |
5. Fields

What are the fields used for?
On a farm the farmer has many uses for their land!

- Feeding animals
- Growing crops for humans
- Growing animal feeds
- Growing animal bedding
- Orchards for fruit growing

They also add to the scenery and sometimes you can be lucky to be able to enjoy a picnic or a walk – but always make sure you have permission!

Never leave a gate open after going into a field. The rule of gates is that if it was open when you got to it, leave it open. If it was closed when you got to it, close it behind you.

It is never safe to climb over fences, or to go into fenced off areas. They are fenced off for a reason!

The Dangers:

**Animals:**
Never enter fields where there are animals and their young.
Bulls are extremely dangerous and should be avoided at all times.

**Electricity:**
Can you recognise electric fences by their wires, and the subtle clicking sound? Never touch an electric fence!

Electrical cables on telegraph poles can be dangerous. Avoid playing with kites near overhead cables, and avoid using fishing rods near overhead cables. If there is a broken cable on the ground, never approach it and call the electricity company immediately.

**Water:**
Ditches, drains, water troughs, ponds, rivers or streams may be present in the field. Do not approach in case you slip and fall.

Stay Safe:
- Look out for signs that warn you of any dangers.
- Stay out of fields that have a bull or cows with young calves grazing.
- Never enter a field that is not your property, this is trespassing.
- Be careful of the fencing such as barbed wire and electric wire on their fences – you could get cut or get a nasty shock!
- If you open a gate, always close it after you!

Source: esbnetworks.ie
### Signs – Know your colours & Shapes

<table>
<thead>
<tr>
<th>Shape</th>
<th>Meaning</th>
<th>Colour</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circle with a diagonal bar</td>
<td>Prohibition</td>
<td>Red</td>
<td>Children do not cross</td>
</tr>
<tr>
<td></td>
<td>(no, stop, do not go)</td>
<td>(White contrast)</td>
<td></td>
</tr>
<tr>
<td>Blue circle</td>
<td>Mandatory</td>
<td>Blue</td>
<td>Wear eye protection</td>
</tr>
<tr>
<td></td>
<td>(You must, you have to)</td>
<td>(White contrast)</td>
<td></td>
</tr>
<tr>
<td>Triangle</td>
<td>Caution / Warning</td>
<td>YELLOW</td>
<td>Danger - Flammable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Black contrast)</td>
<td></td>
</tr>
<tr>
<td>Square / Rectangle</td>
<td>Safe area or condition</td>
<td>Green</td>
<td>Safe area to assemble</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(White contrast)</td>
<td></td>
</tr>
<tr>
<td>Square / Rectangle</td>
<td>Fire Danger warning</td>
<td>Red</td>
<td>Fire Extinguisher</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(White contrast)</td>
<td></td>
</tr>
</tbody>
</table>

### Follow up activities

Now test what you know with some farm yard safety activities, such as……

- Make your own farmyard scene for your classroom and make safety signs and for the various zones!
- Check out our white board and PC games: *Farm Yard Safety, Off to Work and Follow the Signs*.
- Download and fill in our ‘Spot the Dangers’ worksheet.
- Colour and cut out the *Farm Safety Signs*