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Smudge's Little Job

Teacher Notes

First edition

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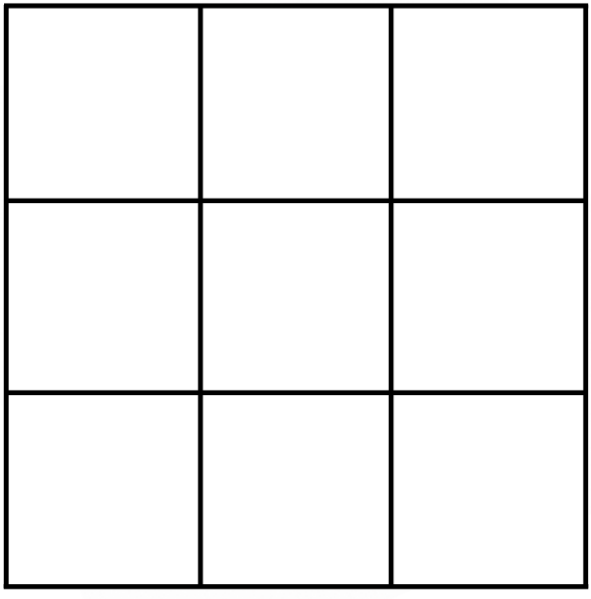
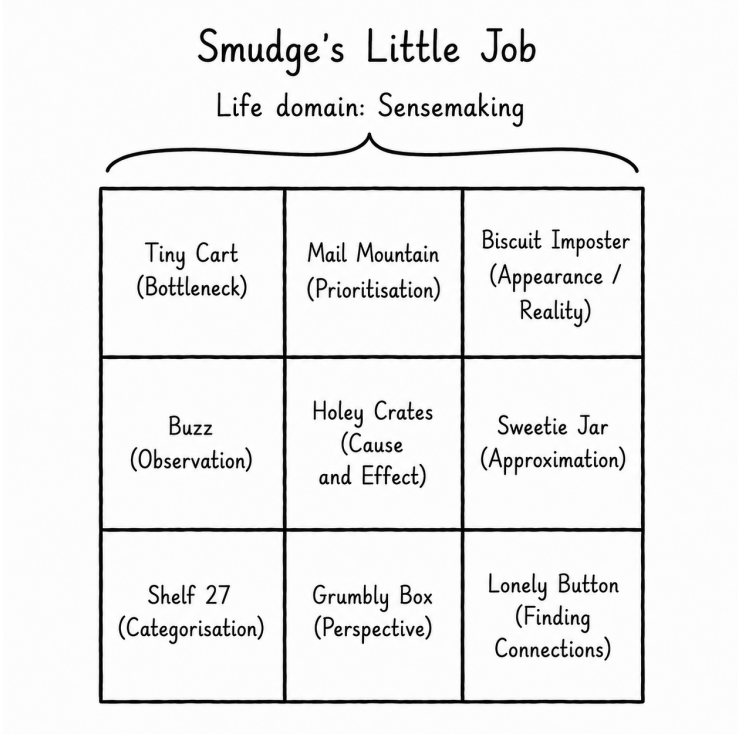
My Grid



1

Story Grid System

Story Grids are an experience-first approach to learning. Each Grid explores one broad area of life, such as making sense of problems, managing emotions, building relationships, making decisions or adapting to change.



This approach inverts the usual educational sequence: encounter first, response second, concept articulation last.

That's what makes the Grid System so different.

They aren't skills looking for a use; they're everyday encounters through which competence develops. Language attaches only after something is seen and used.

The Child-Facing Experience

At the child-facing level, Story Grids are extraordinarily simple:

- Pick a story square, complete the story and activities, and collect its fragment.
- Complete all nine stories to reveal the Grid symbol.
- Use the symbol to tie the stories back together.
- Complete the final activities to connect the Grid to your own life.

That is all the learner encounters, with minimal cognitive load at any one step in the process.

Beneath this simple framework, however, the Grid carries considerably more educational purpose, operating across connected layers at once.

> **Story Grids** operate simultaneously as a map of parts and a compression of the whole.

Let's take a look at how they work.

Story Layer

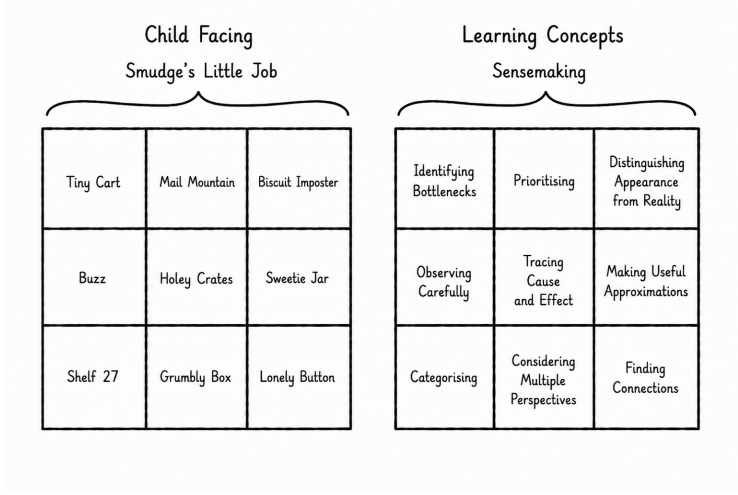
> **Expansion:** One life domain → nine encounters → nine domain competencies

Essentially, each Story Grid explores one broad life domain:

- making decisions;
- adapting to change;
- dealing with uncertainty;
- and so on.

The Grid presents nine encounters within that life domain, each explored through one story. The learner encounters the domain piece by piece, in concrete situations rather than as an abstract definition.

The life domain of **Smudge's Little Job** is **sensemaking.**



Each square (story) is one recognisable encounter within the life domain. The encounter indirectly nurtures awareness and competency through a three-step process:

- **Awareness:** What is happening?

- **Application:** What can we learn?
- **Transfer:** Where else does it apply?

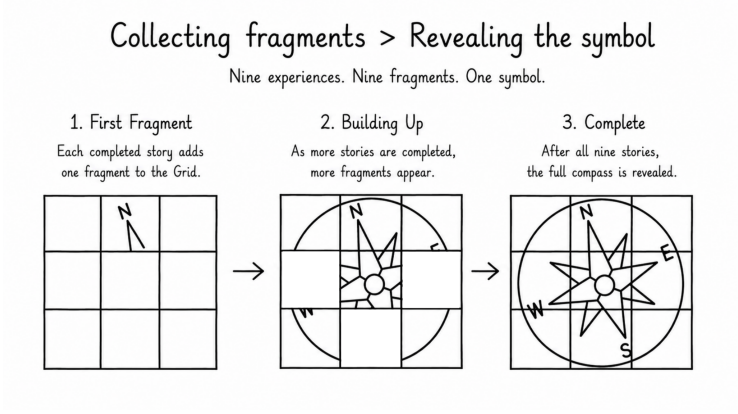
The educational concepts remain unnamed throughout discovery and are named only after experience. Language attaches to the seen and experienced, not the theoretical and abstract.

Symbol Layer

> **Compression:** Nine fragments → one symbol → meaning of the domain

The second layer is the **symbolic layer**. Completion of each story contributes one fragment to the final domain symbol. When the nine fragments are assembled, the symbol compresses the shared meaning of all nine encounters into one memorable form.

Symbols are memorable because they compress many related experiences into a single mental image. Rather than remembering nine separate lessons, the learner remembers one symbol that can later reactivate the interconnected competencies it represents.



In this Grid, the final symbol is a compass—a symbol of finding your way through a problem: making sense of what is happening, finding your bearings, and deciding how to move forward.

When the symbol is understood, it gives the nine experiences a shared meaning. Each encounter can then be revisited and understood through the lens of that meaning.

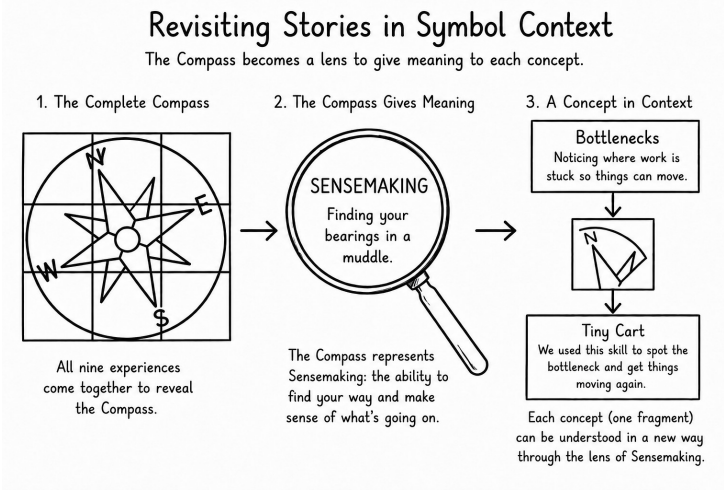
Interpretation Layer

> **Interpretation:** One symbol → meaning of the domain → nine interconnected domain competencies

The final layer completes the learning cycle. Once the symbol has been revealed, it becomes a lens through which the learner can reinterpret every encounter.

Rather than remembering nine separate stories, the learner now sees how each one contributes to a broader understand-

ing of the life domain. The individual competencies become connected parts of a coherent whole.



The final activities then extend this integrated understanding beyond the stories. Learners use the completed Grid to identify how the same sensemaking competencies have appeared—or might appear—in their own past, present and future experiences.

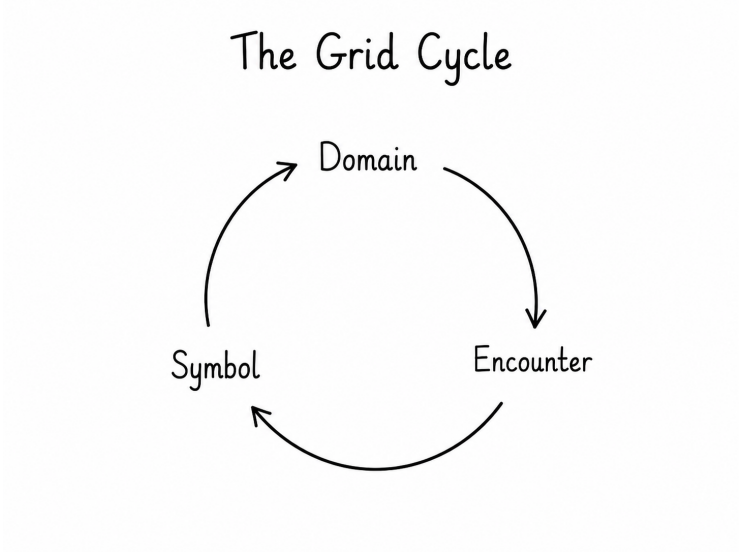
The Learning Cycle

The complete process forms a cycle:

> **Domain → Encounters → Symbol → Domain**

The learner is situated within a broad life domain, experiences

it through nine encounters, assembles those encounters into a single symbol, and then returns to the encounters with a more integrated understanding of how they connect.



The experience of a Story Grid can therefore be summarised as:

- The **life domain** shapes the encounters.
- The **encounters** reveal the symbol.
- The **symbol** deepens the learner's understanding of the life domain.

The Role of the Teacher

The teacher's role is to support discovery without getting ahead of it.

The stories are designed to carry the first part of the learning. Learners should be given time to notice what is happening, form their own ideas and test their understanding before the underlying competency is named.

The teacher can support this process by:

- asking open questions rather than supplying the answer;
- drawing attention back to clues within the story;
- inviting learners to explain how they reached a conclusion;
- allowing different interpretations where the evidence supports them;
- helping learners connect the encounter to situations beyond the Grid.

The aim is not to make every learner arrive at the same wording. It is to help them recognise the competency in action and understand when it may be useful.

In an individual setting, this may involve a short conversation after the story or simply allowing the learner to work through the activities independently. In a group setting, the teacher can encourage learners to compare their reasoning, notice different approaches and build on one another's observations.

Most importantly, the educational language should follow the experience rather than precede it. The teacher does not need to explain the lesson before the story begins. The Grid is designed to let the learner encounter it first.

Summary

- A Story Grid focuses on one life domain.
- The Grid presents nine encounters within that domain.
- Each encounter reveals a different aspect of it.
- Completing all nine reveals the symbol of the life domain.
- The learner then revisits the encounters with an integrated understanding of how they connect.
- The final activities help the learner connect this understanding to their own life.

2

Quick Start

The Compass Grid can be used by an individual learner, a small group or a whole class. The stories may be completed in any order.

What the Compass Grid Explores

The Compass Grid explores **sensemaking**: how we begin to understand a situation before deciding what to do.

Across nine warehouse stories, learners encounter different kinds of muddle. They practise noticing what is happening, identifying what matters and using different ways of thinking to make sense of the situation.

Each story develops one competency:

- **Tiny Cart:** Identifying Bottlenecks
- **Mail Mountain:** Prioritising
- **Biscuit Imposter:** Distinguishing Appearance from Reality
- **Buzz:** Observing Carefully
- **Holey Crates:** Tracing Cause and Effect

- **Sweetie Jar:** Making Useful Approximations
- **Shelf 27:** Categorising
- **Grumbly Box:** Considering Multiple Perspectives
- **Lonely Button:** Finding Connections

Completing all nine stories reveals the final symbol, which brings the separate encounters together as different ways of making sense of a situation before acting.

What You Need

Each learner will need:

- access to the stories and activities;
- a copy of the Completion Grid;
- a pencil or pen;
- drawing or colouring materials where required.

Learners add one fragment to the Completion Grid after each story. The fragments should not be assembled or interpreted in advance.

How to Begin

Start with the opening chapter. This introduces Smudge, the warehouse and the characters' inventory task.

After the opening chapter, the learner chooses any of the nine story squares. There is no required route through the Grid.

For each encounter:

1. Read the story.

2. Complete the activities.
3. Add the fragment to the Completion Grid.
4. Choose another story when ready.

After all nine stories have been completed, continue to **The Symbol** chapter and then **The Inventory of Everything**.

The Symbol reveals the completed image. **The Inventory of Everything** then connects the nine encounters and includes final activities that help learners apply the Grid to their own past, present and possible future experiences.

A Typical Session

A session usually centres on one story and its activities.

Read the story without introducing the competency beforehand. Allow the learner to experience the problem as it unfolds and form their own view of what is happening.

After the story, use the activities to:

- look back at how the problem was understood;
- name the competency;
- check understanding;
- apply or transfer it in a new situation;
- add the fragment to the Grid.

A story and its activities may be completed together or divided across two sessions. The pace should follow the learner rather than a fixed timetable.

The final chapters may be treated as a separate session, allowing time to reveal and interpret the symbol before completing the whole-Grid reflection and transfer activities.

Individual, Paired and Group Use

Individual Use

The learner may read independently or share the reading with an adult. Discussion can remain brief. The activities provide the main structure for reflection and application.

Avoid turning every question into a test. A short prompt such as "What made you think that?" is often enough to reveal the learner's reasoning.

Paired Use

Pairs can discuss the story before completing their own activities. Encourage both learners to explain their ideas rather than quickly agreeing on one answer.

Where drawing or open responses are involved, learners should usually create their own solutions.

Group or Class Use

The story may be read aloud, followed by a short shared discussion. Give learners time to think before inviting responses, and allow more than one interpretation when the evidence supports it.

The group can compare approaches, but each learner should still complete their own activities and Completion Grid wherever possible.

What to Explain

Before beginning, learners need to know only that:

- the warehouse contains nine jobs;
- they may choose the jobs in any order;
- each completed job provides a fragment;
- all nine fragments will reveal a final symbol.

Explain the instructions for each activity as needed.

What to Leave for Discovery

Do not reveal:

- the competency before the learner has experienced the story;
- the appearance or meaning of the final symbol;
- how an unfinished fragment contributes to the completed image;
- the intended solution before the learner has had time to examine the situation.

The Grid is built around discovery. Guidance should help learners look more closely, not remove the need for them to look.

3

The Grid at a Glance

The Grid explores the life domain of **sensemaking**: understanding what is happening before deciding what to do.

Smudge has fallen badly behind with the warehouse inventory. Across nine warehouse encounters, the learner follows Smudge, Lyra, Orin and Zia as they make sense of the different muddles they discover.

Each story presents a different kind of muddle. The learner first experiences the situation through the story, then completes activities that name and extend the competency involved.

The stories may be completed in any order.

The Nine Encounters

Tiny Cart

Competency: Identifying Bottlenecks

Work is being held up at one point in the system.

Mail Mountain

Competency: Prioritising

Several things matter, but they need to be placed in the right order.

Biscuit Imposter

Competency: Distinguishing Appearance from Reality

Something appears convincing until the evidence is examined more carefully.

Buzz

Competency: Observing Carefully

The clues do not fit the explanation being given.

Holey Crates

Competency: Tracing Cause and Effect

A repeated problem cannot be solved until its underlying cause is found.

Sweetie Jar

Competency: Making Useful Approximations

An exact answer would be difficult, but a useful estimate is possible.

Shelf 27

Competency: Categorising

A muddle becomes manageable when its contents are organised into meaningful groups.

Grumbly Box

Competency: Considering Multiple Perspectives

No single viewpoint reveals enough to identify what is inside.

Lonely Button

Competency: Finding Connections

Apparently isolated objects make sense only when their relationships are discovered.

The Learner Journey

Each encounter follows the same broad sequence:

1. The learner chooses a story.
2. The story presents a recognisable problem.
3. The learner notices what is happening and begins to make sense of it.
4. The activities name the competency.
5. The learner applies the competency in a new situation.
6. The learner adds one fragment to the Completion Grid.

Once all nine stories are complete, the fragments reveal the final symbol. The learner then uses that symbol to revisit the

encounters and understand how the competencies connect.

The final activities then help the learner connect those competencies to situations from their own past, present and possible future.

The Central Idea

The nine stories do not teach one fixed method for solving every problem. They show that different situations require different ways of making sense of what is happening.

Sometimes the learner needs to identify where work is being held up. Sometimes they need to decide what matters most, examine appearances against the evidence, trace a cause or consider another perspective.

More than one competency may be useful in the same situation. The purpose of the Grid is not to teach learners to match every problem to one correct method, but to develop a wider repertoire for understanding the situations they encounter.

Together, the nine encounters develop a broader habit:

First make sense of what is happening. Then decide how to move forward.

4

Story Notes

These notes are intended as a quick guide rather than a teaching script. The stories and activities already carry the main learning sequence.

Use the prompts only where they help. Learners do not need to discuss every point or arrive at identical wording. The aim is to help them notice what happened, understand the competency and recognise where it may be useful elsewhere.

Tiny Cart

Competency: Identifying Bottlenecks

A bottleneck is the point where work slows down because too much depends on one limited part of a system. The competency is recognising where that point is and distinguishing it from the places where the delay merely becomes visible.

What Happens

The warehouse is busy, but much of the work is waiting. Smudge's tiny cart must repeatedly travel to a supply trailer positioned far away, creating a delay that holds everything else up.

The solution is not to make every worker move faster. It is to move the supply trailer closer to the centre of the work.

What to Notice

The important distinction is between where the delay becomes visible and where the work is actually being held up.

The tiny cart is not stuck. It is moving and doing its job. The bottleneck is created because too many tasks depend on its repeated journey to a badly positioned supply point.

Learners may initially focus on Smudge, the cart or the waiting workers. Encourage them to look at how the whole system is arranged.

Questions to Ask

- Where is the work slowing down?
- What are the workers waiting for?
- Why does the tiny cart have to make so many journeys?
- Would asking Smudge to drive faster solve the real problem?
- What changed when the supply trailer was moved?

What Not to Give Away

Do not name the bottleneck before the story or immediately point to the supply trailer.

Allow learners to notice the waiting, repeated journeys and uneven flow of work before asking where the delay begins.

Everyday Connections

Bottlenecks can appear wherever many things depend on one limited point. Examples might include:

- a whole class waiting to use one pencil sharpener;
- people queuing at a single doorway;
- several tasks waiting for one person's approval;
- traffic narrowing into one lane;
- a group sharing one device or tool.

The important question is not simply, "Why is everything slow?" but:

Where is the work being held up?

Individual and Group Use

With an individual learner, ask them to trace the journey of one warehouse task from beginning to end. This can help make the delay visible.

With a group, invite learners to suggest different possible fixes and compare them. Ask which suggestions merely make people work harder and which ones change the part of the system causing the delay.

Mail Mountain

Competency: Prioritising

Prioritising means deciding what matters most, what should happen next and what can wait.

The competency is recognising that several things may all be important while still requiring attention in a particular order.

What Happens

The warehouse mailbox has become a mail mountain containing letters, notices, catalogues, magazines and other messages.

The team first separates the mail into a **now pile** and a **later pile**. They then discover that the now pile still needs organising. Using the Official Priority List, they place the important messages in order, beginning with those involving safety or an immediate problem.

What to Notice

The encounter has two stages:

- deciding what needs attention now and what can wait;
- deciding the order in which the now items should be handled.

Importance and urgency are not always the same. An item may be important without needing to be dealt with first. Priorities depend on purpose, timing and what may happen if something is delayed.

The fun pile is not worthless. It simply does not matter most for the current task.

Questions to Ask

- Which messages need attention now?
- Which messages can wait until later?
- Which item should be handled first?
- What might happen if this item is delayed?
- Can something be important without having the highest priority?
- What makes one task more urgent than another?

What Not to Give Away

Do not sort the messages or provide the priority order before learners have considered the consequences of each choice.

Avoid reducing the activity to finding the "good" and "bad" messages. Several messages may be worthwhile, but they cannot all come first.

Everyday Connections

Prioritising can help when:

- several pieces of work are due;
- different people need help at the same time;
- a list contains both urgent and non-urgent tasks;
- plans need to change because a problem has appeared;
- there is more to do than can be completed immediately;
- an enjoyable activity competes with something that must

be done first.

A useful question is:

What matters most now, what comes next and what can wait?

Individual and Group Use

With an individual learner, ask them to explain the reason for the order they have chosen. Focus on why one item comes before another rather than simply checking whether the order matches the story.

With a group, compare different priority orders. Ask learners to justify their choices by considering urgency, consequences and the team's immediate purpose.

Biscuit Imposter

Competency: Distinguishing Appearance from Reality

Appearance is how something looks from the outside. Reality is what the available evidence shows it actually is.

The competency is looking beyond first impressions and checking whether appearance is supported by stronger evidence.

What Happens

The team encounters a dog that looks remarkably like Biscuit. It has golden fur, floppy ears, Biscuit's collar and even a tag bearing his name.

Its appearance initially seems convincing, but its behaviour does not match what the team knows about Biscuit. The real

Biscuit eventually arrives, providing clear evidence that the well-behaved dog is Scarecat Biscuit rather than Biscuit himself.

What to Notice

Appearance can provide useful clues, but it may not be enough to establish reality.

The important shift is from asking, "Does this look right?" to asking, "What evidence would show whether it really is right?"

Smudge begins with a strong suspicion, but he still needs evidence. The investigation becomes reliable only when the team checks behaviour, responses and other observable clues.

Questions to Ask

- What makes the dog look like Biscuit?
- Which details do not fit what the team knows about Biscuit?
- Is looking the same enough to prove that it is Biscuit?
- What evidence could the team check?
- Which clues concern appearance?
- Which clues show what is really true?

What Not to Give Away

Do not immediately identify Scarecat Biscuit or point out every contradiction.

Allow the appearance to seem plausible before encouraging learners to test it against the evidence.

Everyday Connections

This competency can be useful when:

- two objects look alike;
- a label makes a claim;
- a picture gives a misleading impression;
- an assumption is based on one visible feature;
- something resembles a familiar pattern but behaves differently;
- information appears convincing but has not yet been checked.

The useful distinction is:

What is its appearance, and what does the evidence show is really true?

Individual and Group Use

With an individual learner, invite them to separate the clues into **appearance clues** and **evidence clues**.

With a group, ask learners to compare which clues are strongest and explain why some evidence is more reliable than appearance alone.

Buzz

Competency: Observing Carefully

Observation means paying close attention to what can actually be seen, heard or otherwise noticed before deciding what it means.

The competency is gathering accurate clues, recognising contradictions and separating observation from explanation.

What Happens

A crate belonging to Smudge is labelled **DEFINITELY NOT BEES**, but it is also buzzing. Other clues include air holes, sticky golden material, tiny footprints and a delivery form stating that buzzing is normal.

The clues appear to clash until the crate is opened and a swarm of mechanical bees emerges. The note and the bee-like evidence were both accurate, but neither provided the complete explanation alone.

What to Notice

The central task is not to guess quickly. It is to notice fully.

Learners should distinguish between an observation such as "the crate is buzzing" and an interpretation such as "there must be ordinary bees inside."

The clashing clues are particularly important. When two apparently reliable pieces of evidence do not fit together, the conflict may reveal that the current explanation is incomplete.

Questions to Ask

- What can you actually observe?
- Which details are observations, and which are interpretations?
- Which clues fit together?
- Which clues appear to clash?
- Could all the clues be true?
- What explanation might account for everything observed?

What Not to Give Away

Do not reveal the mechanical bees or encourage learners to settle immediately on ordinary bees.

Avoid interpreting each clue for them. The purpose is to help them consider all the evidence and recognise that an apparent contradiction may point towards a better explanation.

Everyday Connections

Careful observation is useful when:

- something is not working as expected;
- carrying out an experiment;
- examining an unfamiliar object;
- checking what has changed;
- investigating a strange sound or event;
- comparing what someone says with what can be observed;
- two reliable-looking clues do not seem to agree.

A helpful prompt is:

What do we know because we observed it, and what are we only interpreting or guessing?

Individual and Group Use

With an individual learner, ask them to list the observations before suggesting an explanation.

With a group, invite each learner to contribute one new observation. Delay theories until the group has gathered and compared as many clues as possible.

Holey Crates

Competency: Tracing Cause and Effect

Cause and effect describes the relationship between what makes something happen and what happens as a result.

The competency is tracing that relationship far enough to identify the underlying cause rather than repeatedly treating its visible effects.

What Happens

Crates in Row Z keep developing holes. The team repeatedly patches the damaged crates, but the problem returns because its cause remains in place.

Once they stop patching and begin investigating, they discover that the damaged crates all contain cheese, sit beside the same wall and show tiny tooth marks. A mouse is making the holes to reach the cheese.

The team moves the cheese into mouse-proof boxes and

provides the mouse with a safer source of food.

What to Notice

The holes are the visible problem, but repairing them does not prevent new holes from appearing.

The learner needs to distinguish between the **effect** being noticed and the **cause** producing it.

The story also shows the limits of repeatedly treating symptoms. Patching the holes is not useless, but it cannot provide a lasting solution while the cause remains unchanged.

Questions to Ask

- What keeps happening?
- What happens before the holes appear?
- Which part is the effect?
- What might be causing it?
- Why does repairing the crates not solve the whole problem?
- Which clues point towards the cause?
- What needs to change to prevent the holes from returning?

What Not to Give Away

Do not reveal the mouse-and-cheese connection too early.

Encourage learners to follow the sequence of events and examine the pattern rather than accepting the first possible explanation simply because it sounds plausible.

Everyday Connections

Cause and effect can be explored through situations such as:

- a floor that keeps becoming wet because of a leak;
- a device repeatedly losing power;
- a plant wilting because it is not being watered;
- lateness caused by an earlier delay;
- the same mistake returning because the routine behind it has not changed.

A useful question is:

What is causing this to keep happening?

Individual and Group Use

With an individual learner, ask them to describe the events in order using "because" and "therefore."

With a group, build a shared cause-and-effect chain. Check whether each connection is supported by something in the story.

Sweetie Jar

Competency: Making Useful Approximations

Approximation means making a careful estimate when an exact answer is hard to find, unlikely to remain exact or unnecessary for the purpose.

The competency is using available evidence and reasonable assumptions to produce an answer that is accurate enough for the task.

What Happens

The team needs to record how many sweeties are inside a giant jar. They count several times but receive different answers because the sweeties are difficult to see and Smudge keeps removing them.

Most of their results are close to 375, so they record approximately 375 sweeties.

Because the number continues to change, the team also makes an assumption about how many sweeties Smudge removes each day. They use this assumption to estimate how many might remain next week, next month and next year.

What to Notice

An approximation is not the same as a random guess. It should be based on evidence, comparison, grouping, measurement or another reasonable method.

The story introduces two connected ideas:

- using several nearby results to produce a useful current estimate;
- using a stated assumption to estimate what may happen in the future.

Approximations depend on the information and assumptions used. If the situation changes, the estimate may need to be checked and updated.

Accuracy should also match purpose. An exact answer is essential in some situations, but in others a careful estimate is more useful than an answer that takes too long to obtain or

quickly becomes outdated.

Questions to Ask

- Why is counting every sweetie accurately difficult?
- What information supports the estimate of approximately 375?
- What makes an approximation useful rather than random?
- What assumption does the team make about Smudge?
- Why will the number change over time?
- When might the estimate need to be updated?
- In what situations would an exact answer be necessary?

What Not to Give Away

Do not supply the estimate or suggest that any number is acceptable.

Avoid presenting approximation as a shortcut that replaces careful thought. The estimate still needs evidence or a clear method behind it.

Everyday Connections

Approximation can be useful when estimating:

- how long something will take;
- how many people are in a crowd;
- whether there is enough material for a task;
- the distance to a place;
- the number of objects in a large group;
- the likely cost of several items;

- how a quantity may change over time.

The central question is:

How accurate does the answer need to be for this purpose?

Individual and Group Use

With an individual learner, focus on the method and assumptions behind the estimate rather than the final number alone.

With a group, compare different estimates and methods. Discuss which are well supported, whether more than one estimate could be useful and what information might help improve them.

Shelf 27

Competency: Categorising

Categorising means sorting things into groups that make sense for a particular purpose.

The competency is recognising useful similarities and differences, forming meaningful groups and explaining the system being used.

What Happens

Shelf 27 contains a muddle of mixed objects. The team cannot reliably count or understand what is there while objects are moving, hiding and being repeatedly picked up by Smudge.

They first sort the objects into categories based on type, including kitchen things, tools, food, machine parts, toys and

mystery items.

They then count the objects in each group and organise the objects within each category by size, placing larger items behind smaller ones.

What to Notice

There is not always one correct way to categorise a collection. Different groupings may be valid depending on what the organiser is trying to achieve.

A useful category should have a clear basis. Learners should be able to explain why the items belong together and where uncertain items might go.

Categorisation can also happen in layers. A collection may first be divided into broad groups and then organised again within those groups.

The team uses different organising principles for different purposes:

- object type helps them understand what belongs together;
- counting shows how many objects each category contains;
- size helps make the objects easier to see and find.

Questions to Ask

- Which objects seem to belong together?
- What do they have in common?
- What name could you give that group?
- Could any object fit into more than one category?
- Would a different system work for a different purpose?
- What should happen to an item that does not fit yet?

- Could the objects within each category be organised again?
- What purpose does each part of the sorting system serve?

What Not to Give Away

Do not provide the categories before learners have examined the muddle.

Allow them to create and explain their own grouping system, even when it differs from the one used in the story, provided it is coherent and serves a clear purpose.

Everyday Connections

Categorisation helps organise:

- books and school materials;
- files and photographs;
- shopping lists;
- information gathered during research;
- toys, clothes or tools;
- ideas during planning.

The helpful question is:

What grouping would make this easier to understand or use?

Individual and Group Use

With an individual learner, ask them to explain the rule behind each category and whether they would organise anything further within it.

With a group, compare different systems. Emphasise that the

strongest system is not necessarily the one chosen by the most learners, but the one that best serves its stated purpose.

Grumbly Box

Competency: Considering Multiple Perspectives

A perspective is the position from which something is seen or understood. One perspective may reveal useful information while still leaving part of the situation hidden.

The competency is gathering and combining different viewpoints before reaching a conclusion.

What Happens

A mysterious box makes a grumbling sound and can only be opened by labelling its contents correctly. The team has only five possible guesses before it locks forever.

Different gaps in the box reveal separate clues: something smooth, shiny, springy, bristly and button-operated.

No single clue is enough to identify the object. When the different perspectives are brought together, Smudge remembers that the box contains his Button-Activated Self-Brushing Hair-Tidying Helmet.

What to Notice

Each viewpoint provides only part of the evidence. The solution becomes possible when clues from several perspectives are combined.

The encounter does not suggest that every guess is equally

accurate. Each possibility still needs to fit all the available evidence.

Early guesses may fit one or two clues while failing to explain the others. A stronger conclusion accounts for the combined evidence.

Questions to Ask

- What can be noticed from this position?
- What remains hidden?
- What does another viewpoint add?
- Which guesses fit some clues but not others?
- What conclusion fits all the evidence best?
- How does the meaning of one clue change when it is combined with the others?

What Not to Give Away

Do not identify the object inside the box before the different clues have been collected and combined.

Avoid dismissing early guesses too quickly. They help show what can happen when a conclusion is based on only one part of the available information.

Everyday Connections

Multiple perspectives can help when:

- two people have seen different parts of an event;
- examining a three-dimensional object;
- understanding a disagreement;

- solving a problem reported differently by several people;
- comparing maps, diagrams or accounts;
- trying to understand how a decision affects others.

A useful prompt is:

What can this viewpoint show us, and what might it be missing?

Individual and Group Use

With an individual learner, ask what each new clue adds to the clues already collected.

With a group, invite learners to compare different interpretations and identify which parts of the evidence each interpretation explains.

Lonely Button

Competency: Finding Connections

Connected thinking means looking at separate pieces and asking how they might belong to something bigger.

The competency is finding relationships that reveal a shared function, structure, sequence or system.

What Happens

The team removes a collection of apparently separate objects from a crate. Matching red marks and the way the parts fit together reveal that they belong to one larger invention: the Invention Assembler Pro.

As each connection is discovered, one piece helps the team understand where another may belong.

A blue-dot button appears to be separate from the red-marked parts. When Smudge presses it, the team discovers that it connects to another crate elsewhere in the warehouse and activates a Button Protection Unit made up of small robots.

What to Notice

Connections are not limited to things that look alike or sit close together.

Objects may connect because:

- they share a mark;
- they physically fit;
- they perform related functions;
- one activates or controls another;
- they belong to the same larger system.

The red-marked pieces form one connected system. The blue-dot button belongs to a different one.

This distinction matters. Finding connections does not mean assuming that everything nearby belongs together. The relationship still needs to be supported by evidence.

The encounter moves from examining isolated parts to asking what larger thing becomes visible when the relationships between them are understood.

Questions to Ask

- What suggests that the red-marked objects belong together?
- How does one fitted piece help the team understand the next?
- Do the pieces fit, match or work together?
- Does the blue-dot button belong to the same system?
- What does the button connect to?
- Can two objects be connected even when they are far apart?
- What larger thing becomes visible once the connections are understood?

What Not to Give Away

Do not reveal the Invention Assembler Pro or the Button Protection Unit before their connections become clear.

Allow learners to notice shared marks, test physical relationships and revise their ideas rather than directing them immediately towards either completed system.

Everyday Connections

Finding connections is useful when:

- assembling parts;
- linking clues in a story;
- understanding how events influence one another;
- connecting ideas across different subjects;
- recognising patterns;
- seeing how people or roles contribute to a shared task;
- identifying how one object controls or affects something

elsewhere.

The guiding question is:

What does this connect to, and what becomes clearer when the connection is made?

Individual and Group Use

With an individual learner, ask them to draw or describe possible links between the objects before deciding which relationships are strongest.

With a group, collect several possible connection maps. Compare which relationships are supported by the evidence, which rely only on surface similarity and whether the objects form one system or several.

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Completing the Grid

Once all nine stories and activities are complete, the learner is ready to reveal the final symbol and bring the separate encounters back together.

This final stage is not simply a reward for finishing the Grid. It helps the learner recognise what the nine stories have in common, understand how the competencies connect and apply that understanding beyond the warehouse.

Revealing the Symbol

The nine collected fragments combine to form a Compass.

Allow the learner time to recognise the symbol before explaining its meaning. They may notice it immediately, need to rotate or examine the completed Grid, or first describe the shapes they can see.

Useful prompts include:

- What do you think the fragments have made?
- What helped you recognise it?

- What does this symbol usually help someone do?
- Why might a Compass connect these nine stories?

The word search in *The Symbol* chapter confirms the name of the image. Finding its name, however, is only the beginning. The learner then continues to *The Inventory of Everything* to discover what the symbol means within the Grid.

Understanding the Compass

The Compass represents finding your way through a problem.

A compass does not tell a traveller everything about the journey or choose the destination for them. It helps them understand their position, find their bearings and choose a useful direction.

The same idea applies to sensemaking. Before deciding what to do, it can help to pause and understand what is happening.

Useful prompts include:

- What kind of finding your way happened in the warehouse?
- How can someone be lost in a problem?
- What does it mean to find your bearings before acting?
- Why might clarity help someone decide what to do next?

The Compass is the symbol through which the learner interprets the life domain of sensemaking. **Sensemaking** remains the domain; **finding your bearings** is the meaning carried by the symbol.

Connecting the Encounters

The learner has met nine different kinds of muddle. The Compass helps reveal what they have in common.

Each competency offers a different way of making sense of what is happening:

- identifying where progress is being held up;
- deciding what matters most, what comes next and what can wait;
- distinguishing appearance from reality;
- observing carefully;
- tracing cause and effect;
- making a useful approximation;
- organising a muddle into meaningful categories;
- bringing together different perspectives;
- finding connections between separate parts.

The learner does not need to memorise this list. The aim is to recognise that different situations call for different ways of understanding what is happening.

Useful prompts include:

- Which story helped the team find where progress was being held up?
- When did they need to decide what mattered most?
- Which story showed that appearance could be misleading?
- When did clashing clues reveal that something was still misunderstood?
- Which story required the team to look for a cause?
- When was an approximate answer more useful than an exact

one?
- Which muddle became clearer after it was organised?
- When did different viewpoints need to be combined?
- Which story revealed that separate things belonged to something bigger?
- Which competencies might be useful together?

More than one competency may be useful in the same situation. A repeated problem, for example, may require careful observation before its cause can be traced. A complicated decision may require prioritising, perspective and connected thinking.

The aim is not to match every problem to one correct competency. It is to help learners develop a wider repertoire for making sense of the situations they encounter.

Finding Your Bearings

Before rushing into action, encourage learners to pause and ask:

- What is happening?
- What matters here?
- What do I know?
- What am I assuming?
- What might I be missing?
- Which competency could help me understand the situation?
- What should I do next?

These questions are not a fixed procedure that must always be followed in order. They are possible starting points.

The central habit developed by the Grid is:

Before you solve a problem, find your bearings. Then begin.

The Inventory of Everything

The Inventory of Everything completes the learning journey.

The story returns to the nine encounters and makes their shared meaning explicit. Smudge and his friends recognise that every warehouse job began with confusion and required them to pause, look again and make sense of what was happening.

The chapter then contains the same broad learning sequence used after the individual stories:

- **Looking Back** connects the nine encounters through the life domain of sensemaking.
- **Smudge's Takeaway** expresses the central lesson of the Compass.
- **Try It** transfers the learning into the learner's own life.
- **Where Next?** positions the Problem Compass as something the learner can continue using.

This chapter should therefore be treated as an active part of the Grid rather than simply an ending to be read after the work is finished.

Using the Problem Compass

The Problem Compass gathers the nine competencies into a practical sensemaking tool.

It is not intended to provide one automatic answer to every problem. Instead, it reminds learners that when a situation is unclear, they have several different ways to examine it.

A learner might ask:

- Is something holding everything else up?
- What matters most right now?
- Does the evidence match the appearance?
- What have I actually observed?
- What is causing the problem?
- Would an estimate be useful?
- Would organising the muddle help?
- What other perspective might I need?
- What connections have I not yet noticed?

The learner does not need to use every part of the Compass for every problem. One competency may be enough, or several may need to work together.

Past, Present and Future Transfer

The final Try It activity asks learners to identify three examples from their own lives:

- one muddle from the past;
- one muddle they are working through in the present;
- one muddle they might encounter in the future.

The examples can be large or small. The purpose is not to produce dramatic problems, but to help the learner recognise that the competencies already belong to ordinary life.

Support learners by asking:

- What was happening?
- What made the situation confusing?
- Which sensemaking competency did you use?

- Which competency could help now?
- What might you notice or do next?
- Which competency might be useful if that future muddle occurs?

Past examples allow the learner to reinterpret something they have already experienced. Present examples encourage deliberate application. Future examples help make the competencies available before they are needed.

Do not require learners to disclose personal situations they would prefer to keep private. They may use a simple everyday example, an imagined situation or a problem drawn from school, hobbies, games or stories.

Individual and Shared Reflection

With an individual learner, the final conversation can be brief. Ask them to choose one or two encounters that changed how they looked at a problem and explain why.

The learner may complete the past, present and future activity independently, discuss their ideas aloud or combine drawing and writing.

With a pair or group, invite learners to compare the competencies they selected without requiring them to share private details. Different learners may connect most strongly with different encounters.

Useful group questions include:

- Which competency do you think you will use most often?
- Did two people choose different competencies for similar situations?

- Could both approaches be useful?
- Which competencies seem to work particularly well together?
- Has another learner noticed a connection you had not considered?

Avoid turning the final stage into a test of whether the learner remembers all nine competency names.

The purpose is connection, interpretation and transfer: seeing the Grid as a coherent whole and recognising that its ways of sensemaking can be used beyond Smudge's warehouse.

6

Reflection and Assessment

Assessment within the Compass Grid should remain light, practical and closely connected to the stories and activities.

The aim is not to test whether learners can repeat definitions or remember all nine competency names. It is to notice whether they are becoming better able to make sense of unfamiliar or muddled situations.

Using the Concept Checks

The Concept Checks provide a simple way to revisit the central idea after each story.

They can be completed independently, discussed with an adult or used as a short group review. Their purpose is to help the learner recognise the competency and distinguish it from less useful responses, not merely remember what happened in the warehouse.

Where a learner chooses an incorrect answer, return to the reasoning rather than simply correcting the choice.

Useful prompts include:

- What made you choose that answer?
- Which clue seems most important?
- What might happen if we tried that?
- Which part of the story might help here?
- Is there another answer you would now consider?

The learner's explanation often reveals more than the selected answer.

Listening for Understanding

Understanding may appear through conversation, drawing, sorting, explanation or action.

Look for signs that the learner can:

- identify where progress is being held up;
- decide what matters most, what comes next and what can wait;
- distinguish appearance from what the evidence shows is true;
- describe what has actually been observed;
- connect an effect with its possible cause;
- explain how an approximation was reached;
- organise information into groups that serve a clear purpose;
- recognise when another perspective is needed;
- identify connections between apparently separate parts;
- suggest a competency that might help with a new problem.

Learners do not need to use the exact terminology every time. A learner who can accurately describe the process may understand the competency even if they do not yet remember its formal

name.

Understanding may also be shown through a change of mind. Revising an explanation when new evidence appears is a sign of developing sensemaking, not a failure to get the answer right first time.

Looking for Transfer

Transfer occurs when a learner recognises that a competency from one story may be useful somewhere else.

This may happen during another Grid story, in schoolwork, during play or in an everyday problem.

A learner might notice:

- that a queue has a bottleneck;
- that several tasks need to be prioritised;
- that something may not be what it first appears to be;
- that more careful observation is needed;
- that a repeating problem may have an underlying cause;
- that an estimate would be more useful than an exact answer;
- that a muddle needs organising into categories;
- that another person has seen something from a different perspective;
- that separate clues or ideas may be connected.

Useful prompts include:

- Does this remind you of one of the warehouse stories?
- What kind of muddle is this?
- Which competency might help us make sense of it?
- Is there another competency that could help as well?

- What would you look at first?
- What might you need to reconsider if new information appeared?

Transfer should not be forced into every situation. The aim is to make the competencies increasingly available when they are genuinely useful.

Learner Reflection

The self-reflection statements at the end of each Concept Check allow learners to judge their own understanding:

- I understand it well.
- I mostly understand it.
- I want to read the story again.

Treat these choices as information rather than scores. A learner who chooses to revisit a story is showing useful awareness of their own understanding.

At the end of the Grid, learners might also reflect on questions such as:

- Which story helped you think differently?
- Which competency feels most useful to you?
- Which encounter was hardest to make sense of?
- Which two competencies might work well together?
- Where might you use one of them outside the warehouse?
- Has the Grid changed what you do when something is confusing?

The aim is not to produce one correct reflection. Different learners may connect most strongly with different encounters.

The Final Transfer Activity

The past, present and future activity in *The Inventory of Everything* provides an opportunity to see whether learners can connect the Grid to their own experience.

Look for whether the learner can:

- recognise a genuine muddle or unclear situation;
- identify a competency they used or could use;
- explain how that competency might help;
- distinguish between describing the problem and making sense of it;
- consider what they might notice or do next.

The quality of the reasoning matters more than the size or seriousness of the example. A small everyday muddle can demonstrate strong transfer.

Past examples show whether the learner can reinterpret an earlier experience through the language of the Grid.

Present examples show whether the learner can deliberately select and apply a competency.

Future examples show whether the learner can anticipate when a competency might become useful.

Do not assess learners according to how personal their examples are. They may use an imagined situation or an example drawn from school, hobbies, games or stories.

Individual and Group Assessment

With an individual learner, assessment may consist mainly of listening to their explanations and reviewing their completed activities.

A short follow-up question may reveal more than additional written work:

- Why did you choose that?
- What clue helped you?
- What would make you change your mind?
- How could this help somewhere else?

With a group, avoid judging understanding only by who answers first or speaks most often. Give learners time to think independently before discussion, and invite different learners to explain how they reached their conclusions.

Shared discussion can reveal valuable differences in reasoning, but individual activities and Concept Checks provide a clearer view of each learner's understanding.

When learners disagree, ask them to compare the evidence or purpose behind their answers. Different approaches may both be reasonable when they are supported and suited to the situation.

What Progress Looks Like

Progress across the Grid may include:

- pausing before guessing;
- noticing more details;

- asking better questions;
- giving reasons for an answer;
- identifying what matters most;
- separating observation from interpretation;
- changing an explanation when new evidence appears;
- looking beyond a visible effect for its cause;
- choosing an appropriate level of accuracy;
- organising information before acting;
- seeking another perspective;
- noticing relationships between separate parts;
- selecting a useful competency for a new situation;
- combining more than one competency when needed.

The strongest sign of progress is not perfect recall of all nine competency names. It is a growing ability to pause, examine what is happening and choose a useful way to make sense of it.

7

Quick Reference

This section provides a concise overview for use during planning or delivery.

The Nine Competencies

Tiny Cart

Identifying Bottlenecks

Recognising where work is being held up and distinguishing the source of a delay from the places where its effects become visible.

Useful prompt: Where is the work actually being held up?

Mail Mountain

Prioritising

Deciding what matters most, what should happen next and what can wait.

Several tasks or pieces of information may all be important

without requiring attention at the same time.

Useful prompt: What matters most now, what comes next and what can wait?

Biscuit Imposter

Distinguishing Appearance from Reality

Looking beyond first impressions and checking whether stronger evidence supports what something appears to be.

Useful prompt: What is its appearance, and what does the evidence show is really true?

Buzz

Observing Carefully

Gathering accurate clues before interpreting them and noticing when the evidence does not fit the explanation.

Useful prompt: What do we know because we observed it?

Holey Crates

Tracing Cause and Effect

Following what happened far enough to identify the cause of a problem rather than repeatedly dealing only with its effects.

Useful prompt: What is causing this to keep happening?

Sweetie Jar

Making Useful Approximations

Creating a reasoned estimate when an exact answer is difficult to obtain, likely to change or unnecessary for the purpose.

Useful prompt: How accurate does the answer need to be?

Shelf 27

Categorising

Organising things into meaningful groups that make them easier to understand, count, use or manage.

Categories may also contain their own internal organisation.

Useful prompt: What grouping would make this easier to understand or use?

Grumbly Box

Considering Multiple Perspectives

Combining information from different viewpoints to build a fuller understanding of a situation.

Useful prompt: What can this viewpoint show us, and what might it be missing?

Lonely Button

Finding Connections

Recognising relationships between apparently separate parts and using those relationships to reveal a larger pattern, function or system.

Not everything nearby necessarily belongs to the same system. Connections should be supported by evidence.

Useful prompt: What does this connect to?

Useful Teacher Prompts

The following prompts can be used across the Grid:

- What is happening here?
- What have you noticed?
- Which clue matters most?
- How do you know?
- What might we be missing?
- Does all the evidence fit?
- What changed?
- What is most important now?
- What could we try next?
- Does this remind you of another story?
- Which competency might help us make sense of this?
- Could more than one competency be useful?

Use only the prompts that help the learner continue thinking. Too many questions can interrupt discovery rather than support it.

When a Learner Is Stuck

Begin by returning attention to the story:

- Ask the learner to describe what has happened.
- Revisit an important clue, event or image.
- Ask what changed between the beginning and end.
- Separate what is known from what is being assumed or guessed.
- Ask what matters most in the current situation.

- Invite the learner to explain one possible idea without requiring certainty.
- Ask whether another viewpoint or competency might help.

Where possible, provide a smaller prompt rather than the solution.

Individual Use

For individual use:

- allow the learner to read independently or share the reading;
- keep discussion brief unless the learner wants to explore further;
- use the activities as the main structure for reflection and transfer;
- ask for reasons rather than additional written answers;
- let the learner choose the next story;
- allow drawing or spoken explanation where these show understanding more clearly than writing.

Paired Use

For paired use:

- give both learners time to think before discussing;
- ask each learner to explain their own reasoning;
- allow different answers where the evidence supports them;
- encourage comparison rather than immediate agreement;
- ask learners to explain why their choices differ;
- keep drawing and open activities individual where possible.

Group or Class Use

For group use:

- read the story aloud or provide shared reading time;
- pause only where discussion adds value;
- give quiet thinking time before taking answers;
- invite several interpretations;
- ask learners to support ideas with evidence from the story;
- compare approaches rather than voting immediately for one answer;
- allow each learner to complete their own activities and Completion Grid wherever possible.

Completing the Grid

After all nine stories and activities are complete:

- continue to *The Symbol*;
- allow learners time to recognise the completed Compass;
- use *The Inventory of Everything* to connect the nine encounters;
- introduce finding your bearings as the meaning carried by the Compass;
- complete the final past, present and future transfer activity;
- encourage learners to use the Problem Compass beyond the book.

The final Compass represents finding your way through a problem by first making sense of what is happening.

The central takeaway is:

Before you solve a problem, find your bearings. Then begin.

What Not to Reveal Early

Before the appropriate point in the learning sequence, avoid revealing:

- the competency developed through the story;
- the intended solution;
- the appearance of the final symbol;
- the meaning of unfinished fragments;
- how a particular story connects to the completed Compass;
- the final meaning of the Compass before the learner has experienced the nine encounters.

The learner should meet the situation before receiving the language used to describe it.

Signs of Developing Sensemaking

A learner may be developing stronger sensemaking when they begin to:

- pause before guessing;
- notice more details;
- distinguish evidence from interpretation;
- look beyond appearance;
- identify what matters most and what can wait;
- ask what may be causing a repeated problem;
- choose an appropriate level of accuracy;
- consider more than one viewpoint;

- organise a muddle before acting;
- notice connections between separate parts;
- revise an idea when new evidence appears;
- connect a competency to a new situation;
- recognise a competency in their own past or present experience;
- anticipate where a competency might help in the future;
- combine several competencies when one is not enough.

The purpose of the Compass Grid is not to provide one method for every problem. It is to help learners develop a wider repertoire for making sense of what they encounter.