

# **Putting the fun into functional:**

**incorporating problem solving into  
our teaching of English and maths**

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# Aim

- To explore a range of approaches we can use to support our learners to develop their problem solving skills

# What makes learning engaging?

- what words describe such learning?

- goal-oriented
- contextualised
- interesting
- challenging
- interactive

# How can we make English and maths interesting?

Think about the four level differentiators – they indicate the nature of the FS problem;

- Complexity
- Familiarity
- Technical Demand
- Independence

# Components to an effectively designed problem-centered learning experience include:

1. Engagement of students in a progression of tasks leading to a logical conclusion
2. Activation of existing cognitive structures of recall and experience, enhanced through **collaboration** and **demonstration**
3. Learner observation of skills and connection to concepts being learned, including peer discussion and demonstration,
4. **Application** of new knowledge followed by “intrinsic or corrective” feedback and
5. Integration of new information with an everyday life skill and demonstration of that new knowledge.

# So what is the problem?

- Discovering, analyzing and solving problems. The ultimate goal of problem-solving is to overcome obstacles and find a solution that best resolves the issue.
- Problems are challenges!

# What is a problem?

- Fix-it problems arise when something is going wrong.

*To 'find the cause of the problem; fix it; get things back to where they should be'.*

- Do-it problems focus on the future.

*To 'achieve a goal, get something done, move things forward, or plan an event or a process' (fix-it problems may arise along the way).*

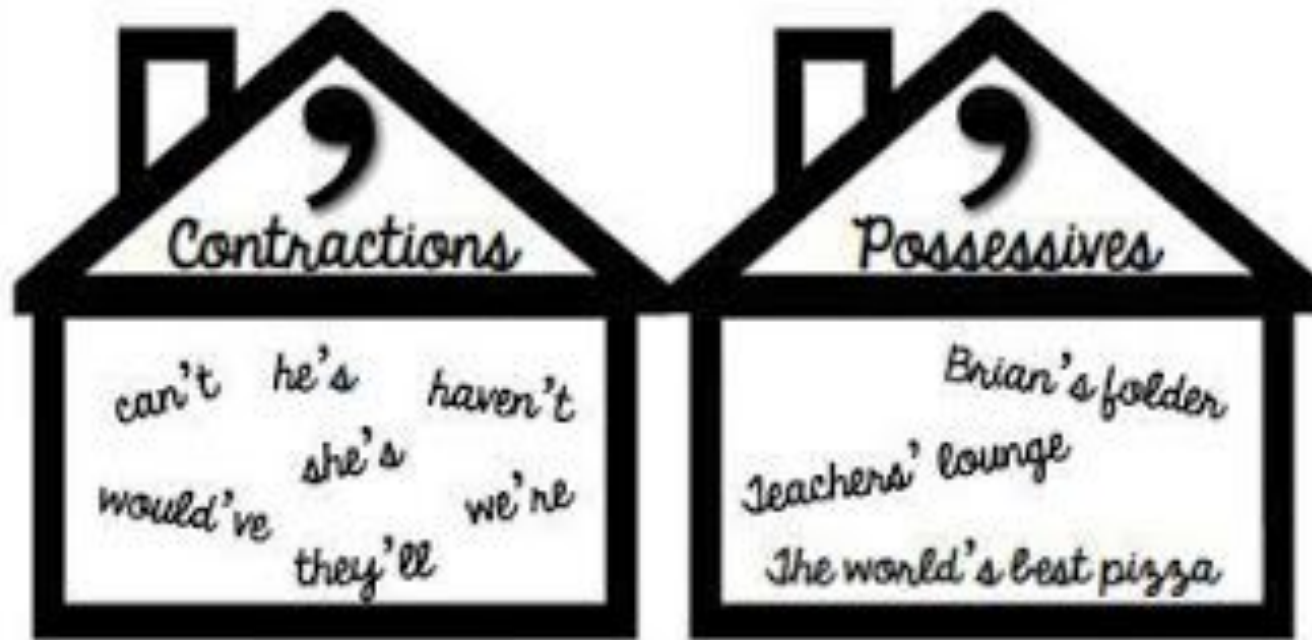


# A problem solving process

1. Identify and understand the problem / task
2. Identify possible solutions
3. Plan how to tackle the problem / task
4. Carry out the plan
5. Monitor and reflect on progress
6. Decide whether the problem has been solved
7. Review the problem solving process

# Let's think of a problem!

Apostrophes have two homes:



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## We Learn...

10% of what we read

20% of what we hear

30% of what we see

50% of what we

see and hear

70% of what we

discuss

80% of what we

experience

95% of what we teach

to others

- William Glasser

# Glasser's Choice Theory

## **Seven Caring Habits**

1. Supporting
2. Encouraging
3. Listening
4. Accepting
5. Trusting
6. Respecting
7. Negotiating differences

## **Seven Deadly Habits**

1. Criticizing
2. Blaming
3. Complaining
4. Nagging
5. Threatening
6. Punishing
7. Bribing, rewarding to control